

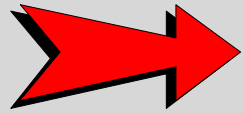
US EPA ARCHIVE DOCUMENT

**Clean Air Act, Section 110
Federal Implementation Plan for
Interstate Ozone Transport Rulemaking**

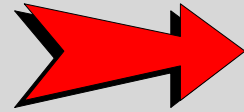
**Small Business
Regulatory Enforcement Fairness Act
Outreach Meeting
April 14, 1998**

**United States Environmental Protection Agency
Office of Management and Budget
Small Business Administration**

CLEAN AIR ACT OF 1990



**TITLE I...ATTAINMENT/MAINTENANCE OF NATIONAL
AMBIENT AIR QUALITY STANDARDS**



TITLE II...MOBILE SOURCES

TITLE III...AIR TOXICS

TITLE IV...ACID DEPOSITION CONTROL

TITLE V...PERMITS

TITLE VI...STRATOSPHERIC OZONE/GLOBAL CLIMATE PROT.

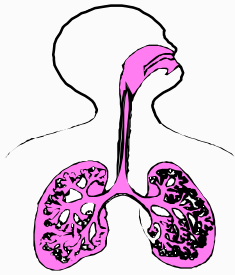
TITLE VII...ENFORCEMENT

TITLE VIII...MISCELLANEOUS PROVISIONS

TITLE IX...CLEAN AIR RESEARCH

TITLE X...DISADVANTAGED BUSINESS CONCERNS

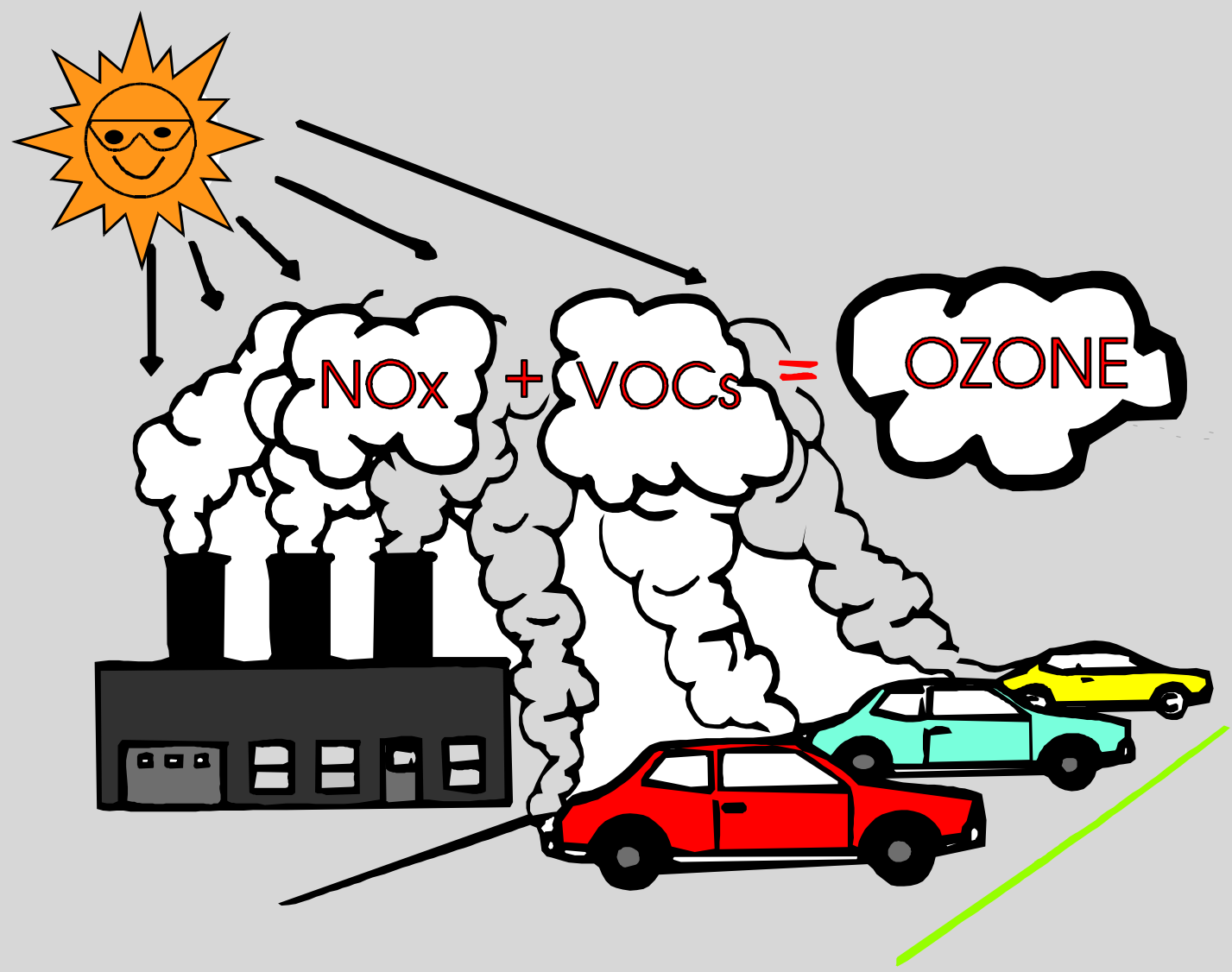
TITLE XI...EMPLOYMENT TRANSITION ASSISTANCE



Ozone-Related Health Effects of Concern

- **Difficulty in breathing, shortness of breath**
- **Aggravated/prolonged coughing and chest pain**
- **Increased aggravation of asthma, susceptibility to respiratory infection resulting in increased hospital admissions and emergency room visits**
- **Repeated exposures could result in chronic inflammation and irreversible structural changes in the lungs, that can lead to premature aging of the lungs and illness such as bronchitis and emphysema**
- **Growing evidence suggests association with premature death**

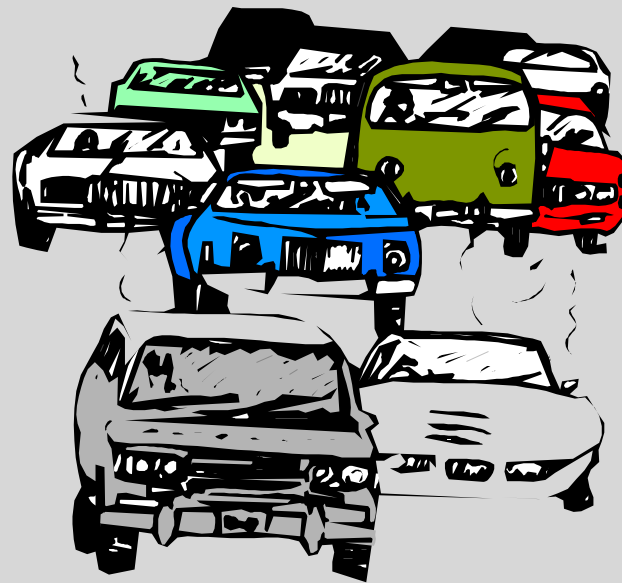
THE OZONE FORMATION CYCLE



NO_x EMISSIONS...EXAMPLES

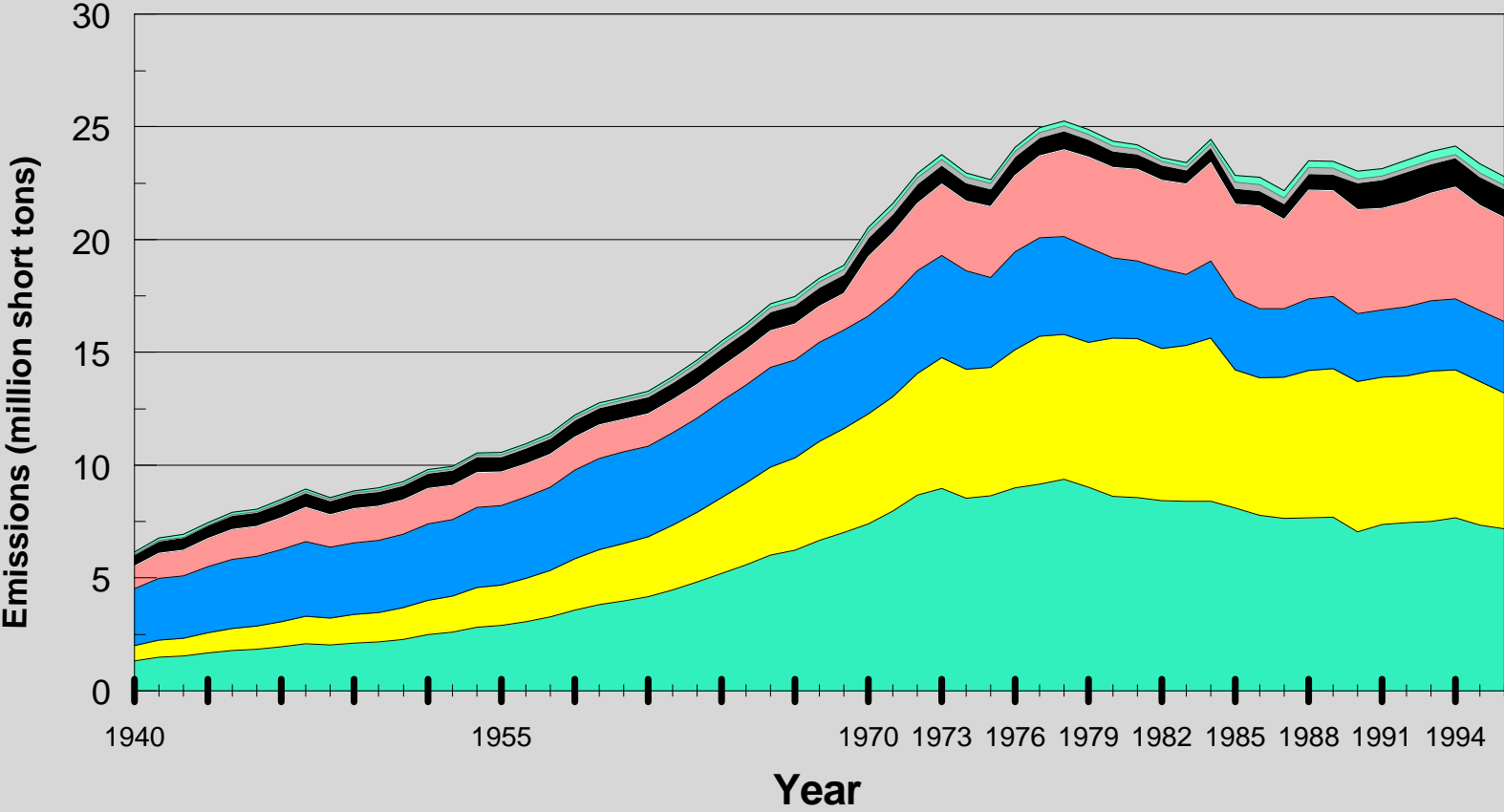


**FUEL
COMBUSTION**

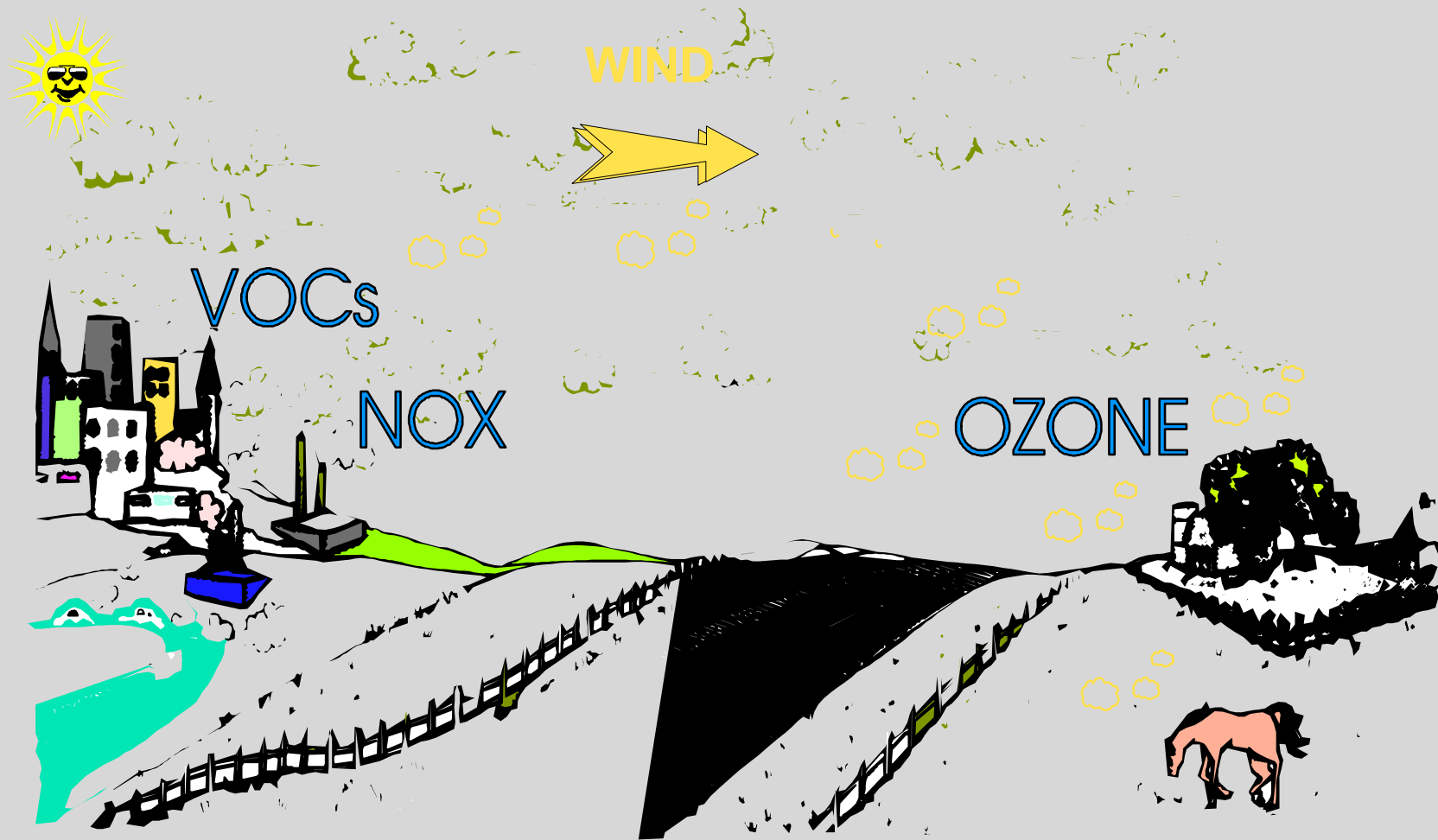


**MOTOR
VEHICLES**

Trend in NITROGEN OXIDE Emissions by 7 Principal Source Categories

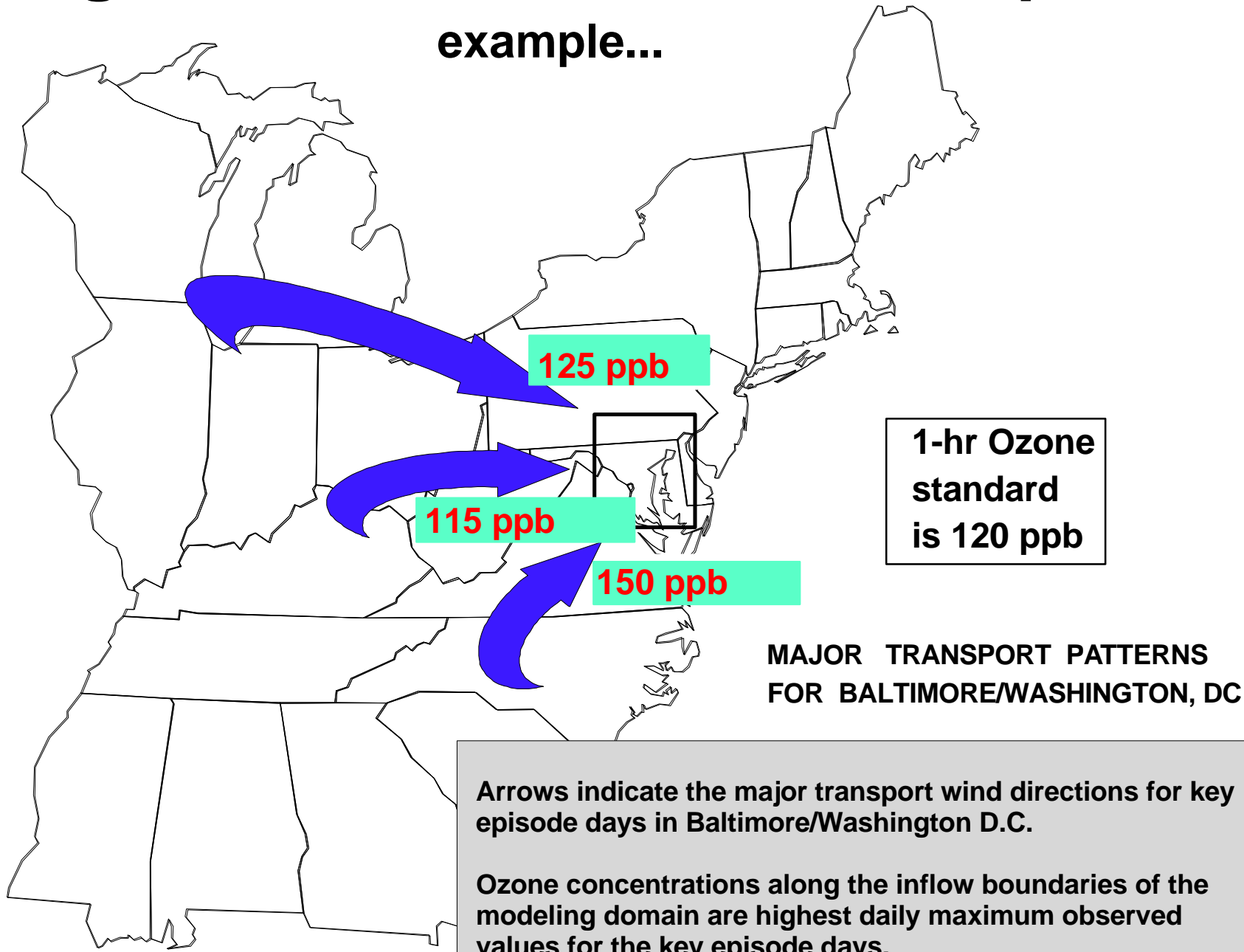


OZONE CAN BE TRANSPORTED....



Regional Ozone Issue ... Transport

example...



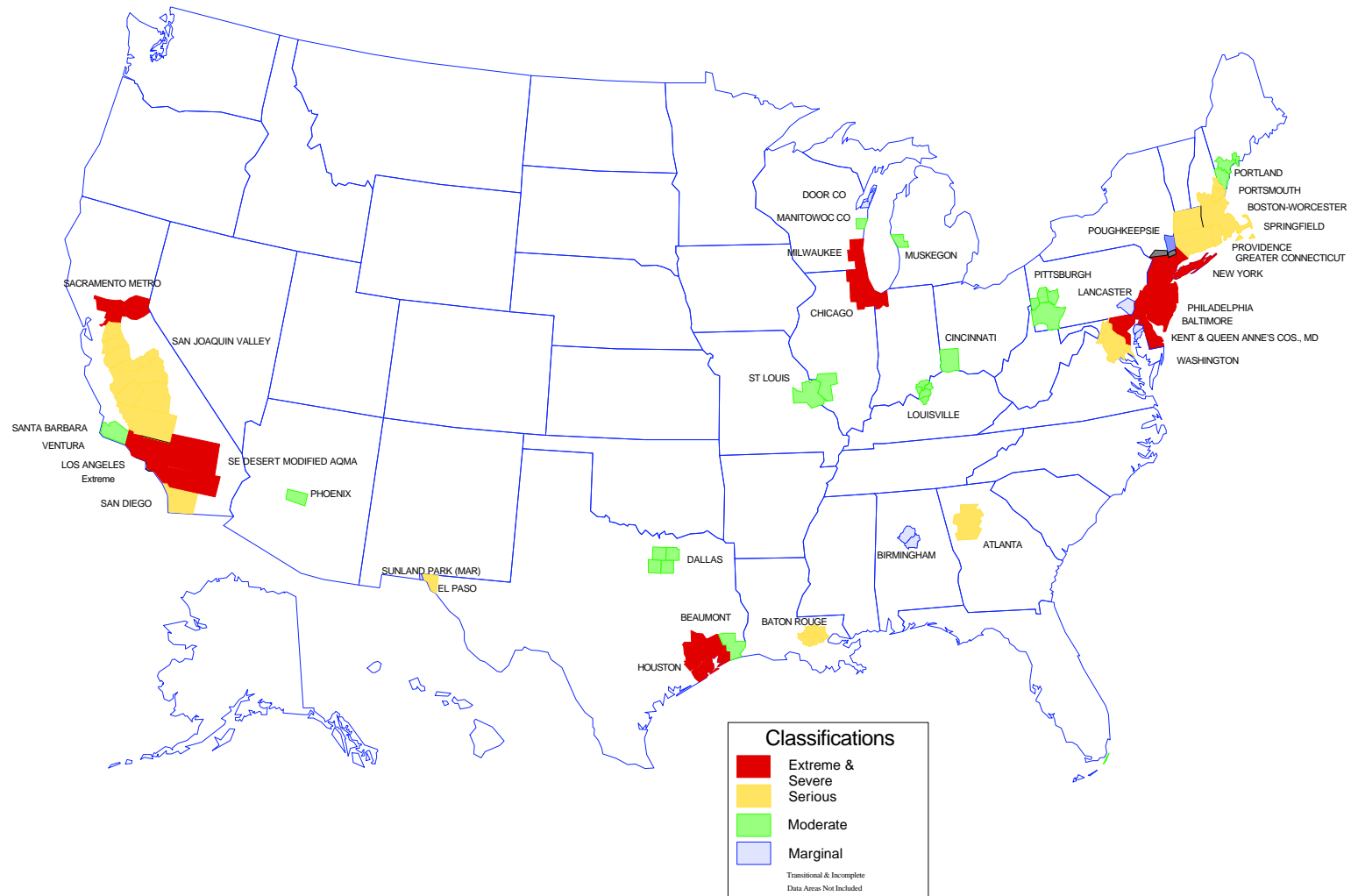
1-hr Ozone standard is 120 ppb

MAJOR TRANSPORT PATTERNS FOR BALTIMORE/WASHINGTON, DC

Arrows indicate the major transport wind directions for key episode days in Baltimore/Washington D.C.

Ozone concentrations along the inflow boundaries of the modeling domain are highest daily maximum observed values for the key episode days.

1-Hour Ozone Problem Areas





Ozone Transport Region (OTR) & Commission

- ▶ **Established by US Congress to provide a forum for addressing regional ozone nonattainment issues in NE.**
- ▶ **Consists of 12 northeastern states plus DC. USEPA is a non-voting member.**
- ▶ **Purpose is to:**
 - **to assess interstate transport of ozone/precursors in OTR, and**
 - **recommend strategies for controlling the interstate transport of pollution**

OTC NO_x Memorandum of Understanding

- Agreed to by eleven NE States and DC
 - ▶ Emission decreases at boilers above 250 mmBtu/hr
 - ▶ Emissions cap at electric utility generating facilities 15 megawatts (MW) or greater

- Control levels (boilers above 250 mmBtu) in 2003:
 - ▶ For most States, either 0.15 lbs/mmBtu or a 75% reduction from 1990 NO_x levels
 - ▶ In certain areas, either 0.20 lbs/mmBtu rate or a 55% reduction

Ozone Transport Assessment Group (OTAG)

37 States
and DC



OTAG Goal

To identify and recommend reductions in transported ozone and its precursors which, in combination with other measures, will enable attainment and maintenance of the national ambient ozone standard.

Major OTAG Conclusions

- Regional NO_x reductions are effective ... the more NO_x reduced, the greater the ozone benefit.
- Ozone benefits are greatest where emission reductions are made ... benefits decrease with distance.
- Elevated and low-level NO_x reductions are both effective.
- VOC controls are effective in reducing ozone locally and are most advantageous to urban nonattainment areas.

OTAG control recommendations

- **Utility controls: up to 0.15 lb/mmBtu or 85% reduction on large sources**
- **Non-utilities: up to 70% reduction on large**
- **National Measures....AIM coatings, consumer & commercial products, autobody refinishing, reformulated gasoline, small engine standards, heavy duty highway 2g standard, heavy duty nonroad diesel standard, and locomotive standard with rebuild.**
- **National Low Emission Vehicle**
- **Vehicle Emission Inspection and Maintenance Controls**

November 7, 1997 ... EPA Proposal

- Makes finding of significant contribution to nonattainment in downwind States.
- Assigns NOx emissions budgets for each State.
- Suggests additional controls for large point sources.
- Permits States to choose what NOx measures to adopt to meet the State-wide emission budget.
- Requires 22 States & D.C. to revise their State air plans to mitigate transport in eastern half of US ...

How is EPA developing NOx budgets?

- Apply reasonable, cost-effective controls
- Continue to develop new federal programs to reduce emissions from cars and other mobile sources
- Budgets include projected growth through 2007
- EPA used the upper range of the Ozone Transport Assessment Group's recommendation for point sources:
 - ▶ For large utilities, 0.15 lb. NOx/mmBtu (about 85% decrease from 1990 levels)
 - ▶ For other large point sources, about 70% decrease

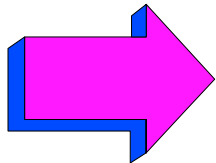
What is the timing?

- Propose NO_x SIP call November 7, 1997
- Publish a supplemental proposal in Spring of 1998
- Receive public comments
- Finalize SIP call September 1998
- State SIPs due to EPA September 1999
- Compliance with stationary source emission limits September 2002

Moving to Federal Implementation Plans



In What Instances Would a FIP Be Required?



The Administrator is required to promulgate a FIP within 2 years of:

- (1) finding that a State has failed to make a required submittal,**
- (2) finding that a submittal is not complete, or**
- (3) disapproving a SIP submittal.**

SIP & FIP Schedules

- **SIP call proposal: November 7, 1997**
- **SIP call final rulemaking: September 30, 1998**
- **FIP proposal: September 30, 1998**
- **SIP revisions due to EPA: September 30, 1999**
- **Final FIP rulemaking: immediately after the due date of September 30, 1999 for States that fail to respond to the SIP call.**

What's included in the FIP?

- **The FIP would set an emissions budget for each affected State at the same level as the final SIP call.**
- **EPA's expects to focus controls more on the larger stationary sources due to administrative feasibility.**
- **EPA plans to establish in any FIP an interstate emissions trading program.**

Options That Might Reduce Impacts of a FIP

- Assuming that, in general, SBREFA "small entities" are also small emitters of NO_x emissions.
 - ▶ Should EPA set an emissions cutoff in the FIP, exempting small emitters?
 - ▶ What levels should EPA consider?

Options That Might Reduce Impacts of a FIP (continued)

- **EPA intends to include in a FIP an emissions trading program for all large boilers and gas turbines .**
 - ▶ **Is a trading program the right approach for this group of sources?**
 - ▶ **How should EPA develop a trading program so that it would best ensure reducing costs?**
 - ▶ **Alternatively, is setting requirements on a source-by-source basis better?**

Options That Might Reduce Impacts of a FIP (continued)

- **How should point sources outside the trading program be handled (e.g., process heaters or cement plants)?**
 - ▶ **Should EPA exempt sources where the cost-effectiveness of control exceeds a certain level? On a per source category basis or averaged over several source categories?**
 - ▶ **What level of cost-effectiveness could EPA consider; levels similar to the trading program or similar to other controls adopted by regulatory agencies?**

Options That Might Reduce Impacts of a FIP (continued)

- **Similarly for point sources outside the trading program, should EPA propose to control only sources that can achieve a moderate to high level of emissions reduction?**
- ▶ **What minimum level of reductions is appropriate?**
- ▶ **Should reduction levels be similar to those achieved under the trading program?**
- ▶ **Should EPA consider the overall level of reductions applied to a variety of source categories or on a per source category basis?**