

US EPA ARCHIVE DOCUMENT

IMPLEMENTATION GUIDANCE--SECOND SET

PURPOSE:

- ! Provide remaining guidance on implementing revised NAAQS**
- ! Fill out “placeholders” from 8/14/98 draft IG**
- ! Draft 10/98; Final 12/31/98**



IMPLEMENTATION GUIDANCE--SECOND SET

! Covers 8-hr O₃ NAAQS (other than transitional) & PM_{2.5} NAAQS:

- # Nonattainment area boundaries**
- # Emission Inventories**
- # Modeling/attainment demonstration**
- # Regional planning**
- # PM areas impacted by transport**
- # Reasonable further progress**
- # Actions at attainment date (including consequences of failure to attain)**



IMPLEMENTATION GUIDANCE--SECOND SET

! Covers (cont'd)--

- # PM2.5 & Regional haze program:
--interprogram coordination
-- update on regional modeling**
- # Emergency Episodes (rule--later date)**
- # Pollutant Standard Index (PSI) (rule--later date)**
- # New source review (rule; guidance if
necessary)**
- # Ozone Transport Region**
- # Economic incentive program**

**! Also, other technical and general guidance (see
web site)**

INTEGRATED APPROACH, REGIONAL PLANNING, NONATTAINMENT BOUNDARIES

- ! Integrated approach--coordinated activities and timing on development of PM_{2.5} SIP & RH SIP**
- ! Nonattainment boundary approach accounts for regional transport & strategies**
- ! Regional Planning encouraged where controls needed beyond nonattainment area and State boundaries**



NONATTAINMENT AREA BOUNDARIES

--Initial concepts--

O₃--"Strong presumption of C/MSA, but allow exceptions"

- ! Strong presumption of C/MSA
- ! Area can be expanded to include additional counties with contributing sources
- ! Rural counties can be less than C/MSA
- ! Areas smaller than C/MSA can be selected where problem is due to transport and problem is expected to be solved without further control (e.g., NOx SIP call)--minimum is counties with measured violation
- ! Where 1-hr NAAQS applies--larger of C/MSA or 1-hr nonattainment area
- ! International transport areas -- Status quo from the designated nonattainment areas for the 1-hour standard



NONATTAINMENT AREA BOUNDARIES

--Initial concepts (cont'd)--

PM_{2.5}--"Too early for firm guidance, but may be similar to O₃"

! Generally too premature for firm guidance

! Factors for consideration:

--Localized Contributions

--Near field/short range transport considerations

--Long range transport areas

! Initial thoughts for discussion--if PM_{2.5} behaves like O₃, would start with same structure as for ozone (transitional, traditional, international transport)



EMISSION INVENTORIES

“Providing the basic data for attainment demonstrations”

- ! Consolidated Emission Reporting rule to be proposed--**
 - EI every three years (1996, 1999, etc.)**
 - To cover O₃, RH (& ultimately PM_{2.5}) precursors**
 - Statewide coverage**
 - Developed with State stakeholders**
- ! Guidance supplements and builds on Emission Inventory Improvement Program (EIIP), also developed with State stakeholders**
- ! For O₃, 1996 or 1999 may be base year due to timing of SIP**
- ! Will address projections, temporal & spatial allocation for modeling**



MODELING/ATTAINMENT DEMONSTRATION

“Reducing level of uncertainty through weight of evidence test and reliance on measured air quality data”

- ! Modeled attainment test would rely on ambient data.**
- ! Use of model in “relative” rather than “absolute” fashion, combined with optional weight of evidence test would reduce uncertainty in model predictions**
- ! Review subsequent to the SIP submittal is not required, but guidance would identify data gathering activities/analyses which could help States that choose to follow-up**
- ! EPA would not identify “guideline” (i.e., “preferred”) models but would encourage use of CMAQ/MODELS3, but subject to same criteria as other “alternative” models**
- ! Would allow modeling different (e.g., primary vs. secondary components of PM using different models**



REGIONAL PLANNING

“Applying the level of planning appropriate to the level of the problem”

- ! Substantial evidence regarding transport of pollutants leading to regional haze, PM-2.5, and ozone problems**
 - Common precursors, atmospheric processes, spatial patterns**

- ! EPA recognizes need for future regional planning efforts for regional haze and the NAAQS**
 - Specifically for regional haze, all States will need to participate initially in regional coordination due to nature of visibility impacts and long-range transport**



REGIONAL PLANNING

(cont'd)

For SIP attainment or RH reasonable progress demonstrations, State can take credit for emission reductions occurring in--

1) Another state if --

- Both States participate in regional planning process; and
- Participants agreed there is adequate technical showing the regional strategies will improve air quality in nonattainment area or class I area

2) The same State (supported by an adequate technical demonstration)

3) The nonattainment area (supported by an adequate technical demonstration)

4) A neighboring State part of a multi-state nonattainment area (supported by an adequate technical demonstration)



REASONABLE FURTHER PROGRESS

“Using flexibility of subpart 1 to require phasing in of controls and assessment of progress”

- ! 1998 guidance to focus more heavily on ozone; details on PM_{2.5} to be issued later after ambient data are available**
- ! RFP requirement for new NAAQS is based on subpart 1 of the Clean Air Act's; thus guidance not as prescriptive as requirements of subpart 2 for ozone**



REASONABLE FURTHER PROGRESS

- !** Basic issues:
 - Rate of emission reductions**
 - Timing of demonstration of when RFP targets are met**
 - Measures of RFP (emissions, air quality, administrative)**
 - Corrective mechanism for failure to meet RFP (flow diagram based on FACA idea)**
 - Base year**
 - Contingency measures**



ACTIONS AT ATTAINMENT DATE

Attainment Date Extensions

- ! CAA gives EPA discretion to extend attainment dates up to 10 years from the date of designation (172(a)(2)(A))**

- ! CAA gives EPA discretion to grant 2 one-year extensions beyond the attainment (172(a)(2)(C)) date if:**
 - State has complied with the requirements and commitments in the SIP**

 - There are only a minimal number of exceedances of the NAAQS in the year preceding the extension**



ACTIONS AT ATTAINMENT DATE

Failure to Attain

- ! CAA requires EPA to make a determination as to whether areas attain, no later than 6 months after their attainment date (179(c))**
- ! CAA requires States to submit a revision to their SIP one year after the determination of failure to attain (179(d)(1))**
- ! EPA may prescribe additional measures, including measures that can be feasibly implemented in light of technological achievability, costs, etc. (179(d)(2))**
- ! CAA provides authority to give areas up to 10 years to attain from the date of the failure to attain determination (179(c)(2))**



ACTIONS AT ATTAINMENT DATE

Issues for Discussion

- ! How should EPA consider the severity of nonattainment and availability/feasibility of control measures when granting attainment date extension up to the 10 years from date of designation?**
- ! Should consequences for failure to attain focus more on correcting the problem or penalizing the area (for areas that did not fail to submit and implement their SIPs)?**
- ! Which extension provision should EPA use and when?**
- ! Should EPA develop a list of presumptive measures that States be required to implement, under section 179 of the CAA?**
- ! Should EPA require areas to manage their air quality by a budget, similar to what's required in the NOx SIP call?**
- ! Should EPA prescribe mandatory percent reductions in vehicle miles traveled?**



PM2.5 & Regional haze program

- Interprogram coordination--
- Update on regional modeling--

Guidance to be developed after final regional haze rule published



EMERGENCY EPISODES (RULE)

“Updating older program to reduce burden & reflect new health data”

Problem:

- Current program developed in 70's based on NAAQS at that time**
- Current system doesn't reflect current NAAQS/health info**
- Ambient levels have decreased--areas unlikely to need episode plans are still required to develop them**
- Episode plan reevaluation probably not being performed**



EMERGENCY EPISODES (RULE) (cont'd)

Solution:

- ! Update criteria for Priority I, II, III areas--relieve “cleaner” areas from requirement**
- ! Modify program for preplanned contingency plans - only require for largest sources & possible catastrophes**
- ! Update guidance to reflect new health information & make more comprehensive, less prescriptive**
- ! Recommend episode plan reevaluation every 3 years**



POLLUTANT STANDARDS INDEX (PSI)
“Updating Index to account for new NAAQS & health information”

General Structural Changes--

Add category above standard level to caution sensitive groups

Add advisory statement within Moderate to caution extremely sensitive individuals, where appropriate

Develop pollutant-specific health effects and cautionary statements

Rounding convention same as standard



POLLUTANT STANDARDS INDEX (PSI)

Specific Changes to Ozone Sub-Index--

Above standard level

Add Unhealthy for Sensitive Groups - PSI 100

Unhealthy -0.10 ppm, PSI 150

Very Unhealthy -0.12 ppm, PSI 200

Below standard level

Add advisory statement to caution people who are unusually sensitive to ozone

Add health-based criterion for upper bound of Good - 0.06 ppm, PSI 50

