U.S. ENVIRONMENTAL PROTECTION AGENCY

AND

U.S. DEPARTMENT OF TRANSPORTATION

TRANSPORTATION-AIR QUALITY PLANNING GUIDELINES

June 1978

FOREWORD

The U.S. Environmental Protection Agency and the U.S. Department of Transportation are jointly issuing these transportation-air quality planning guidelines in response to Section 108(e) of the Clean Air Act, as amended August 1977. Section 108(e) requires EPA to consult with DOT in preparing guidelines for the development of transportation system components of State Implementation Plans for areas that are designated air quality nonattainment areas with respect to photochemical oxidants and/or carbon monoxide. EPA and DOT view these guidelines as a significant step forward in our mutual efforts to integrate our related planning processes and better meet the objectives of both agencies.

Douglas M. Costle
Administrator

Brock Adams
Secretary

PREFACE

Section 108(e) of the Clean Air Act as amended, August 1977, directs the U.S. Environmental Protection Agency in consultation with the U.S. Department of Transportation and other agencies to supplement these guidelines "from time to time." This guidance issued jointly by EPA and DOT may well be supplemented in the future as experience is gained through actual applications. These guidelines in their current form do, however, describe an acceptable process for accomplishing the continuing tasks of transportation-air quality planning and programming required by the Clean Air Act.

The Transportation-Air Quality Planning Guidelines must be adapted to the specific circumstances of each nonattainment area. Lead planning agencies along with other participating agencies and groups are encouraged to meet quickly with EPA and DOT Regional Offices to discuss detailed questions on guideline interpretation and implementation. For example, two areas that particularly require further discussion and guidance are the: (1) exact form of transportation provisions in the 1979 SIP submittal and (2) the precise scope of the alternatives analyses.

Additional guidance that will supplement these guidelines is currently being prepared to implement Section 110(a)(3)(D) of the Act. This section requires nonattainment areas demonstrating the need for a standard attainment deadline extension to 1987 to submit a public transportation improvement program. This SIP revision must establish, expand or improve public transportation to meet basic transportation needs as expeditiously as practicable. A commitment to prepare and carry out such a program must be included in the January 1, 1979 SIP submission. The additional procedural and substantive guidance will explain the analysis of transportation needs and the development of a public transportation improvement program as part of the alternatives analyses discussed in Section III. E. of these guidelines.

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ORGANIZATION OF THE GUIDELINES

Following the PREFACE which contains five subsections and the EXECUTIVE SUMMARY begining on page vii, the Guidelines are organized into five major chapters and a separate accompanying document with 11 Appendices (A-K). The APPENDICES contain extensive supporting and reference material that while relevant is not an integral part of the guidelines.

The INTRODUCTION covers the following aspects of the guidelines: (1) Purpose, including the basic policy goal; (2) Applicability, including the primary roles of the lead agency as well as DOT and EPA Regional Offices; (3) Funding -- authorized (but not yet appropriated) and available funds; and (4) Background, including the relationship of the guidelines to the original transportation control planning process and the existing process administered by DOT.

Chapter II, SIP POLICY, summarizes and elaborates upon the transportation portions of a major EPA policy memorandum, "Criteria for Approval of 1979 SIP Revisions." This memorandum signed by the EPA Administrator on February 24, 1978 is wholly contained in Appendix B. Chapter II also provides an abbreviated checklist of the major transportation-related requirements of an acceptable 1979 SIP.

Chapter III, PROCESS, presents the procedural part of the guidelines by describing the elements of the integrated transportation-air quality planning process designed to accomplish the policy goal and SIP requirements of Chapters I and II. Chapter III defines procedures for: (1) Interagency Coordination, (2) Elected Official Involvement, (3) Public Information and Consultation, and (4) Evaluation of Alternative Strategies.

Chapter IV describes: (1) modifications to ongoing transportation planning activities required by the Clean Air Act and (2) documentation of those modifications. Chapter IV discusses the Planning Work Programs, Transportation Plan, Transportation Improvement Program, Alternatives Analysis, Consistency Determination and the SIP.

Chapter V concludes the Guidelines with a discussion of the purpose, frequency and content of progress reports.

DEVELOPMENT SCHEDULE

EPA TRANSPORTATION-AIR QUALITY PLANNING PROCESS GUIDELINES

November 28, 1977	° First Draft Circulated
November 28-29, 1977	° Review by MPO Steering Group (NARC Grant)
February 1, 1978	° End of Comment Period on First Draft
February 9, 1978	° Review by Panel of Transportation Experts
February 27, 1978	° Second Draft Circulated
March 13, 1978	° Briefing for EPA Regional Offices on Second Draft
March 14-15, 1978	° Major EPA-DOT Workshop on Second Draft (NARC Grant)
June 1978	° EPA and DOT Jointly Issue Planning Process Guidelines
Post June 1978	° Joint EPA-DOT Regional Meetings
	° Modifications of FHWA-UMTA Regulations to Reflect Guidelines

MAJOR DATES OF SIP REVISION PROCESS

February 7, 1978	° Jointly Determined Division of Responsibilities
	° Lead Planning Organization Designated by Local Officials
April 1, 1978	° Governor Certifies or Designates Lead Planning Organization*
January 1, 1979	° State Submits Revised Plan
July 30, 1980	° Suggested Date for Completion of Comprehensive Alternatives Analysis
July 1, 1982	° Second State Submittal of Revised Plan if Extension Granted
December 31, 1982	° Standards Attainment Deadline Where No Extension Granted
	° Initiation of Extensive Transportation Measures
1983 - December 31, 1987	° Standards Attainment Deadline Where Extension Granted

*If for example the MPO prepares the transportation portion of the SIP, then one key decision at the local level would be the interim date by which the MPO submits the transportation portion to the state so that adequate time remains to integrate this portion with the stationary source part of the SIP and meet the statutory submittal deadline of January 1, 1979.

EXECUTIVE SUMMARY

Selected Requirements of the Clean Air Act

The Clean Air Act as amended, August 1977, establishes various federal, state and local requirements aimed at the expeditious attainment of the air quality health standards. The Act requires achievement of these standards by December 31, 1982. However, for carbon monoxide (CO) and photochemical oxidants (Ox) a five-year extension to 1987 can be granted. This extension is contingent on a state demonstrating in its 1979 State Implementation Plan (SIP) that attainment is not possible by 1982 despite the implementation of all reasonable stationary and transportation control measures.

Most major urban areas with CO and Ox problems will be unable to meet the air quality health standards by 1982 through reliance on stationary source controls and federal new car standards alone. These areas therefore will be required to develop and implement such transportation strategies as mass transit improvements, preferential bus and carpool treatment, areawide carpool programs, parking management, pricing, auto-restricted zones, etc. -- which are all designed to reduce auto emissions. Revised SIPs that include programs to reduce both stationary and transportation system emissions must be submitted to EPA by January 1, 1979. (Table 1 on page 8 provides an abbreviated checklist of the major transportation-related requirements of an acceptable 1979 SIP.)

The Act emphasizes -- especially for the transportation portion of SIPs -- locally developed plans that result from: (1) extensive consultation among federal, state, regional and local agencies; (2) public education and participation; (3) elected official involvement; and (4) the documented analysis of a wide range of alternative strategies. The Act specifies that the transportation-air quality planning process be coordinated with the continuing, cooperative, and comprehensive ("3C") transportation planning process administered by the Department of Transportation.

Local governments and organizations of local elected officials are explicitly encouraged to assume greater responsibilities in the development and implementation of SIPs. The Clean Air Act indicates a preference for the certification by Governors of metropolitan planning organizations (i.e., the DOT "3C" agencies) as the lead agencies for preparing control plans in urban areas that are nonattainment with respect to CO and Ox. The Amendments of 1977 authorize new planning funds ($75 million) to organizations of local elected officials for a two-year period and also provide for new funding sanctions for failure to develop and implement

adequate plans. It appears that approximately $25 million may be appropriated in fiscal year 1979 to support the first year of the planning process.

The Act calls for EPA to cooperate with DOT in preparing information documents on the costs, effects and analytical techniques for selecting transportation measures and developing strategies. (Information is being prepared on an extensive array of transportation improvements, covering: public transit, traffic operations, parking management, pricing, and auto-restricted zones among others.) EPA must also consult with DOT and other officials in the development of guidelines on the basic elements of the planning process for nonattainment areas. These jointly issued transportation-air quality planning guidelines are the result of that consultation.

SIP Policy

EPA has established reasonable and achievable SIP requirements and will take a firm posture on the imposition of sanctions where the requirements are not achieved. An extension of the deadline to 1987 for standard attainment is not automatic; a demonstration of need must be made and the state must fulfill the other statutory requirements in the Act. The transportation requirements of the 1979 SIP place primary emphasis on a commitment to a continuing process.

Since reliance on stationary controls and federal new car standards alone will not enable most areas with Ox and CO problems to meet standards by 1982, additional specific measures must be included in the 1979 SIP to reduce transportation system emissions. The 1979 SIP requirements include a commitment to: (1) accelerated implementation of specific strategies (e.g., transportation improvements contained in the current or recent annual element (AE)); (2) the incremental phase-in of additional strategies (e.g., other measures contained in the transportation improvement program (TIP) that appear reasonable and effective on the basis of preliminary analysis); and (3) a schedule of activities leading to implementation of an inspection/maintenance (I/M) program by 1981 (decentralized system) or 1982 (centralized system).

However, in addition to this commitment to specific measures, the 1979 SIP submittal places, as noted above, primary emphasis on a commitment to a continuing process for the transportation planning and programming requirements. This commitment to a process should lead to the expeditious development, evaluation, selection and implementation of comprehensive transportation control strategies. The process should extensively involve the public as well as state and local elected officials. An acceptable 1979 SIP should contain these process elements: (1) identifi-

cation of tasks and responsibilities of all participating agencies; (2) a schedule for developing and analyzing ambitious, alternative packages of transportation measures; (3) verification that such an analysis is underway; (4) a schedule for adoption of package(s) of measures determined to be reasonably available; and (5) a commitment to justify any decision not to adopt difficult measures.

Transportation-Air Quality Planning Guidelines

These guidelines address the transportation-related sections of the Clean Air Act and describe an integrated transportation-air quality planning process for developing the transportation system component of SIPs for areas that are nonattainment with respect to Ox and/or CO. The basic policy goal of this process is to reduce transportation system emissions and adverse air quality impacts while maintaining compatibility with other community goals. The guidelines build upon the existing planning process by providing specific procedures designed to result in a program of transportation strategies that provide for incremental reductions in transportation system emissions as expeditiously as practicable.

These guidelines describe an acceptable planning process intended to satisfy Clean Air Act requirements for the transportation portions of an approvable SIP. That process as outlined in these guidelines must result in the expeditious development and implementation of all reasonably available measures. Reasonably available measures are determined through an analytical, participatory and negotiatory process. Early and frequent involvement of EPA and DOT in the process will best insure the development of a SIP that meets the requirements of the Act.

These guidelines apply to all public agencies with responsibilities in planning or implementing the transportation portions of SIPs in nonattainment areas. The lead planning agency has the primary responsibility for implementing these guidelines. EPA and DOT Regional Offices are primarily responsible for monitoring the guideline implementation process. The Intermodal Planning Group (IPG) should be the federal coordinating mechanism. Modifications to these procedures by a state, regional or local agency should be closely coordinated with the Regional Offices.

The procedures outlined below are a realistic starting point and undoubtedly will be improved upon by experience gained through actual applications. The guidelines should be implemented through ongoing planning processes and flexibly applied. However, modification of guideline elements will require substitution by a comparably effective approach.

Chapter III of the Guidelines describes in detail the elements of the planning process needed to accomplish SIP requirements. The scope and intensity of planning activities undertaken should be commensurate with the size of the metropolitan area and the complexity of its transportation and air quality problems. These elements include:

- Interagency Coordination: The lead agency in cooperation with other participating agencies should establish a program for developing the joint responsibilities and working relationships (e.g., through interagency agreements) of all agencies and organizations involved in the process. The objective is to determine who should do what when.

- Involvement of Elected Officials: The lead agency should coordinate the joint development of procedures to increase the involvement of elected officials. The objective is to increase the probability of obtaining the commitment of officials to support and fund needed transportation improvements.

- Public Information and Consultation: The lead agency should also make a parallel effort to insure adequate public information and consultation. The public and interest groups should specifically participate in the development and analysis of alternative transportation strategies. The minimum basic elements of a public information and consultation process should include: (1) an inventory and assessment of agency programs and interest groups; (2) the joint development by agencies and groups of a program for information and participation based on the assessment.

- Evaluation of Alternatives: The analysis of alternatives develops information essential to local decisionmaking and federal review on the costs and effects of various actions. Alternatives should be developed and analyzed in most cases under the auspices of the metropolitan planning organizations in cooperation with federal, state and local planning, transportation, and environmental agencies, interest groups, elected officials, the public and others. For the purpose of alternatives analysis each of the transportation measures listed in the Act for which EPA will publish information documents is considered reasonably available. In evaluating the costs and effectiveness of alternatives,

> the full range of potential impacts should be taken into account including not only air quality but also the locality's transportation and urban development needs, economic, social and other environmental impacts as well as feasibility of implementation.

Chapter IV deals with both modifications to ongoing planning activities required by the Clean Air Act and documentation of those modifications. Those activities include: planning work programs, the transportation plan including the transportation systems management and long range elements, TIP/AE, alternatives analysis, consistency determinations, and SIP. Chapter V discusses the content and frequency of progress reports stressing that such reports should be brief and should not substitute for the more effective mechanism of direct staff contact for demonstrating and determining progress.

TRANSPORTATION-AIR QUALITY PLANNING GUIDELINES

I. INTRODUCTION

A. Purpose

These guidelines implement Section 108(e) of the Clean Air Act as amended, August 1977.[1*] Section 108(e) directs EPA to provide guidelines on the basic elements of the planning process for nonattainment areas.[2] This procedural guidance addresses the transportation-related sections of the Clean Air Act. These guidelines describe an integrated transportation-air quality planning process (hereafter called the integrated planning process) for developing the transportation system component of State Implementation Plans (SIPs) for areas that are designated nonattainment with respect to photochemical oxidants (Ox) and/or carbon monoxide (CO).[3,4] EPA will subsequently provide more technical information on costs, effects and analytical techniques for selecting measures and developing strategies as required by Section 108(f).

The basic policy goal of the integrated planning process described herein is to reduce transportation system emissions and resulting adverse air quality impacts while maintaining compatibility with other community goals. The guidelines build upon the existing planning process by providing specific procedures designed to result in a program of transportation strategies that provide for incremental reductions in transportation system emissions as expeditiously as practicable.[5] The guidelines stress continuing development and expeditious implementation of all reasonably available measures, but particularly those that can be planned and implemented by 1982 or during the following five years to 1987 as provided for in the Clean Air Act. Major long-term transportation improvements necessary for maintenance of the air quality health standards beyond 1987 also should be considered within the integrated planning process.

B. Applicability

These guidelines apply to all public agencies with responsibilities in planning or implementing the transportation portions of SIPs in nonattainment areas.[6] (Section 174 of the Act requires: (1) designation of a lead planning organization and, (2) state and local elected officials to determine jointly the coordinated and combined responsibilities of the state, local governments and regional agencies in the SIP revision process.)[7]

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*Footnotes are at the end of the guidelines beginning on page 25.

The guidelines describe an acceptable approach for accomplishing the continuing tasks of transportation-air quality planning and programming required by the Clean Air Act. These procedures are a realistic starting point. They should be improved upon by experience gained through actual applications. The guidelines build upon and should be implemented through the ongoing comprehensive planning processes. They recognize that institutional arrangements and planning procedures vary by area and, therefore, can be flexibly applied. But, while individual guideline elements need not be viewed as mandatory, the objective of each element is a necessary part of an effective process -- a process required by the Act. Therefore, modification of guideline elements will require substitution of a comparably effective approach.

The lead planning agency has the primary responsibility for implementing these guidelines. EPA and DOT Regional Offices are primarily responsible for monitoring the guideline implementation process. The Intermodal Planning Group (IPG) should be the federal coordinating mechanism. Modifications to these procedures by a state, regional or local agency should be closely coordinated with the appropriate EPA and DOT Regional Offices.

C. Funding

This section describes both authorized (but not yet appropriated) and currently available funds for conducting the transportation-air quality planning activities required by the Act. Appendix F describes funding for plan implementation and related planning.

1. Authorized Funds

Section 325 of the Act authorizes the appropriation of $75,000,000 (available until expended) to carry out Section 175 beginning in fiscal year (FY) 1978. Section 175 directs EPA to make grants to meet the reasonable costs of plan development to any organization of local elected officials with transportation or air quality maintenance planning responsibilities recognized by the state under Section 174(a). Grants would cover 100 percent of any additional costs of developing a SIP revision for a nonattainment area for the first two fiscal years following grant receipt. Grants would supplement any other federal funds available to such organization for transportation or air quality maintenance planning. Grants could not be used for construction.

2. Available Funds

a. Section 175: Prior to the announcement of the President's urban policy, no Section 175 grant funds were included in the FY 1979 federal budget submitted to Congress. Funds to implement an EPA-DOT joint transportation-air quality planning process were, however, included as a contingency item in that budget. These funds were to be

made available when a DOT-EPA memorandum of understanding was signed. Release of these funds would require Congressional approval. However, the urban policy announced on March 27, 1978 included $25 million in grant funds to be requested from Congress for FY 1979 for planning in nonattainment areas. As of late April the following summarizes the status of the $25 million:

The funds will be requested for inclusion in EPA's budget under Section 175. No decision has been reached on distribution procedures -- i.e., whether EPA or DOT grant procedures will be used. The Office of Management and Budget (OMB) has not announced whether the $25 million replaces or adds to the contingency fund for FY 1979. Congress may, of course, appropriate an amount different from that requested by the Administration. Allocation formulas and procedures are being developed.

b. Section 105: EPA has earmarked $2 million, available under Section 105 (Control Agency Grants), for FY 1978 to assist Section 174 agencies in completing the requirements for an approvable 1979 SIP submittal. Small amounts of funds under current Section 105 grants might also be available for FY 1979.

c. DOT Funds: At the direction of the President, OMB requested integration of EPA's transportation-related air quality planning requirements into the transportation planning process administered by DOT. This integration should produce: (1) joint planning regulations to meet DOT and EPA objectives, (2) joint DOT-EPA administration of the air quality aspects of the planning process, and (3) a common, jointly administered federal funding mechanism for transportation and air quality planning.

As a follow-up to the OMB request, the Federal Highway Administration (FHWA) and Urban Mass Transportation Administration (UMTA) Administrators sent the following memorandum to their Regional Administrators (Appendix H contains the entire memorandum):

> "Because of the imminence of the January 1, 1979, deadline, we are directing that the following actions be initiated promptly by the regional staffs of UMTA and FHWA:
>
> 1. The EPA should be invited to participate in the Intermodal Planning Group (IPG) so as to insure coordination of all activities pertaining to the urban transportation planning process;
>
> 2. The EPA should be consulted to determine which areas are likely to require [transportation control plans] TCPs and what the estimated magnitude of TCP effort will be in those areas;

3. For areas requiring TCPs, funds within already approved Unified Planning Work Programs (UPWPs) may be reprogramed as appropriate to support the identification and analysis of transportation control measures in coordination with the SIP revision process;

4. Air quality planning tasks in support of the SIP revision process should be given a high priority in UPWPs now being developed. Air quality planning is a national priority and must be given appropriate emphasis in the conduct of the transportation planning process;

5. The transportation improvement program (TIP)/annual element (AE) review process should be conducted with a renewed emphasis on the inclusion of projects benefiting air quality in the TIP/AE; and

6. The certification review process should be conducted with a renewed emphasis on the coordination of air quality planning and transportation planning as required by the joint regulations."

D. Background

Appendix E traces the history of EPA's transportation control program previous to the Clean Air Act Amendments of 1977. The amended Act addresses problems of the original transportation control planning process by requiring locally developed plans based on these major elements: extensive agency interaction among all governmental levels; significant involvement of local elected officials; effective public education and participation; and integration with ongoing planning processes, particularly emphasizing the DOT continuing, cooperative and comprehensive (3C) process (23 CFR 450). The amended Act also provides sanctions to insure both an effective planning process and the implementation of an approved or promulgated SIP (Sections 176 and 316). These guidelines describe the elements of an acceptable planning process intended to correct many of the earlier problems and to result in approvable SIPs for nonattainment areas.

The following sections provide additional background on the objectives and implementation of these guidelines:

1. Integration With Ongoing Planning Processes. Planning conducted under these guidelines should be integrated to the fullest extent possible with existing comprehensive transportation and air quality planning processes (including AQMP where applicable), and should include the use of common data bases, modeling applications, and coordinated planning activities among staffs of the participating agencies. This guidance builds upon and selectively expands the DOT joint planning regulations (23 CFR 450), a knowledge of which is essential to users of the guidelines (Appendix K).

Integrated DOT and EPA planning should result in a more efficient process and in products that better meet the objectives of both agencies. Related activities required by both agencies should be merged and duplication eliminated. Establishing separate and costly planning processes should be avoided.

2. A Continuing Process. Preparing the transportation portion of the SIP is not merely the one time development of short range tactics to improve air quality, but rather the entire process of regularly taking air quality needs into account in all transportation decisions. Urban areas with actual or potential violations of the national air quality standards for transportation-related pollutants should re-evaluate their transportation plans and programs on a continuing basis. If necessary, these areas should revise the transportation plan, including the transportation systems management (TSM) element, and the Transportation Improvement Program (TIP) to achieve continual incremental air quality improvements and prevent future air quality problems. Areas which violate the health standards should demonstrate continuing, expeditious progress in planning, programming and implementing measures that improve air quality. These areas may have to forego or postpone projects that would cause adverse air quality impacts and reprioritize other projects to achieve expeditious improvements in air quality.

3. Designation and Role of the Lead Agency or MPO. Where feasible the lead organization designated to conduct and/or coordinate the planning and implementation process in nonattainment areas (and thus primarily responsible for applying these guidelines) should be either the metropolitan planning organization (MPO) designated to conduct transportation planning under Section 134 of title 23, USC, or the organization responsible for the air quality maintenance planning process. Where such agencies are not so designated, their relationship with the designated lead agency and their role in such planning should be clearly identified. Also, the relationships among the lead organization, comprehensive planning agency and the A-95 clearinghouse should be identified where those agencies are not the same.

Both EPA and DOT view the role of the MPO as providing a forum for cooperative decisionmaking by principal elected officials of general purpose local government. The designation of the MPO as lead agency or the process established by these guidelines should not preclude other state, regional or local agencies from acting through this forum. In fact, Section 174 of the Clean Air Act envisions a SIP revision process involving a combination of state, regional and local agencies. Management of an efficient, effective process may require the MPO or lead agency to allocate responsibilities to other agencies with better expertise for specific tasks. The lead agency should regard the integration of the mobile and stationary components of the SIP as a joint task of great significance demanding the close cooperation of all participating agencies. Clearly, development of an approvable 1979 SIP requires a commitment on the part of all appropriate agencies with planning and/or implementation authority.

II. SIP POLICY

These transportation-air quality planning guidelines are designed to describe an acceptable planning process intended to satisfy Clean Air Act requirements for the transportation portions of an approvable SIP. Specifically, in regard to the transportation-related requirements of the 1979 SIP revision, primary emphasis is placed on a commitment to a continuing process. That process as outlined in these guidelines must result in the continuing development and expeditious implementation of all reasonably available measures necessary, together with stationary source controls, to attain the standards. Reasonably available measures are determined through an analytical, participatory and negotiatory process. Early and frequent involvement of EPA and DOT in the process will best insure the development of a SIP that meets the requirements of the Act.

Appendix B contains for reference purposes a major policy memorandum, signed by the EPA Administrator and dated February 24, 1978, "Criteria for Approval of 1979 SIP revisions." Chapter II draws upon key sections of this policy memorandum applicable to the transportation portion of SIPs.

A. Overall Summary of SIP Policy

The Clean Air Act requires the demonstration of attainment of the primary air quality standards as expeditiously as practicable, but not later than December 31, 1982. However, for CO and Ox, the Act allows up to a five-year extension if a state can demonstrate that attainment is not possible by 1982 despite the implementation of all reasonable stationary source and transportation control measures. In such cases the plan revisions must still demonstrate attainment as expeditiously as practicable but not later than December 31, 1987. An extension is not automatic; a demonstration of need must be made and the states must fulfill the other statutory requirements. EPA has established reasonable and achievable SIP requirements and will take a firm posture on the imposition of sanctions where these requirements are not achieved.

Since reliance on stationary controls and federal new car standards alone will not enable most areas with Ox and CO problems to meet standards by 1982, additional specific measures must be included in the 1979 SIP to reduce transportation system emissions. The 1979 SIP requirements include a commitment to: (1) accelerate implementation of specific strategies (e.g., transportation improvements contained in the current or recent annual element (AE)); (2) the incremental phase-in of additional strategies (e.g., other measures contained in the transportation improvement program (TIP) that appear reasonable and effective on the basis of preliminary analysis); and (3) a schedule of activities leading to implementation of an inspection/maintenance (I/M) program by 1981 (decentralized system) or 1982 (centralized system).

However, as noted above primary emphasis is placed on a commitment to a continuing process for the transportation planning and programming requirements in the 1979 SIP submittal. This commitment to a process should lead to the expeditious development, evaluation, selection and implementation of comprehensive transportation control strategies. The process should extensively involve the public as well as state and local elected officials. In addition to the commitment to specific measures previously outlined, an acceptable 1979 SIP must contain these process elements: (1) identification of tasks and responsibilities of all participating agencies; (2) a schedule for developing and analyzing ambitious, alternative packages of transportation measures; (3) verification that such an analysis is underway; (4) a schedule for adoption of package(s) of measures determined to be reasonably available; and (5) a commitment to justify any decision not to adopt difficult measures.

DOT, Housing and Urban Development (HUD) and EPA are seeking to integrate the transportation-air quality planning and implementation required by the Clean Air Act into existing planning and programming procedures. Air quality-related transportation planning activities should be included in the UPWP required by DOT. Adopted air quality-related transportation measures should be included in the TIP/AE required by DOT. The HUD-EPA Agreement on coordinating air quality planning and HUD's Comprehensive Planning Assistance (701) Program (Appendix I) is also important. Integration of air, transportation, and comprehensive planning which incorporates growth management concerns should improve the effectiveness of air quality planning and reduce the need for future enforcement measures.

B. Specific Selected SIP Requirements

The following selected requirements draw upon the "Criteria for Approval of the 1979 SIP Revision" memorandum, apply primarily to the transportation portion of the SIP and expand summary information presented in Section A. (Again, Appendix B contains the entire memorandum.) Table 1 provides an abbreviated checklist of the major transportation-related requirements of an acceptable 1979 SIP.

1. Transportation-Related Requirements of all 1979 SIP Revisions

a. Adoption in legally enforceable form[8] of all measures necessary to attain standards by the prescribed date. Where adoption of all such measures by 1979 is not possible (e.g., certain transportation control measures) a staged schedule for the expeditious development, adoption, submittal, and implementation of these measures should be included. Each schedule should provide for implementation of all reasonably available control measures as expeditiously as practicable. Prior to attainment, these measures must be implemented on a schedule that demonstrates annual incremental emission reductions. (See below in subsection 1c on reasonable further progress.) As part of the SIP each

Table 1

Checklist of Transportation-Related Provisions[1] of the 1979 SIP

A. Problem Definition

1. Definition of nonattainment area and geographic area covered by transportation control measures;

2. Accurate, comprehensive and current emissions inventory;

3. Estimation of emission reductions needed to demonstrate standard attainment by 1982 and 1987 (including emission growth projections); and

4. Determination of whether federal new car standards and proposed transportation and stationary source controls demonstrate attainment by 1982. Demonstration of need for attainment deadline extension to 1987;

B. Process

1. Designation and certification of a lead agency for nonattainment areas;

2. Identification of agency tasks and responsibilities;

3. Schedule for comprehensive alternatives analysis and demonstration that analysis is underway;

4. Schedule for adoption of reasonably available measures;

5. Commitment to justify decision not to adopt difficult, but reasonably available measures (see page 7 in the guidelines for additional information on B. 2-5);

6. Process for public, interest group, and elected official consultation and involvement in: defining transportation-air quality issues, establishing the planning process, development and analysis of alternatives (see pages 14-15);

7. Identification of estimated financial and manpower resources necessary to carry out the process described by these guidelines. A commitment to the first year of this process should be demonstrated in the UPWP;

8. Evidence that the SIP was adopted by the state after reasonable notice and public hearing;

9. Provisions for progress reporting throughout the planning and implementation period (pages 22-23);

Additional Transportation-Related Provisions for Areas Unable to Attain by 1982

10. Schedule of activities leading to implementation of I/M (see pages 6, 10); and

11. A commitment to use (insofar as is necessary) available grants and funds to establish, expand or improve public transportation measures to meet basic transportation needs as expeditiously as practicable (page 10). (As indicated in the Preface, further guidance will be provided.)

C. Strategy Development/Implementation

1. UPWP air quality-related transportation planning tasks being performed by each agency during FY 79[2] (pages 19-20);

2. Emission reduction estimates for adopted measures and/or packages of measures. Rough estimates of annual emission reductions through 1987 for packages of measures currently being developed and analyzed;

3. Preliminary identification of analytical methodologies for determining air quality, travel, economic, energy, social etc. effects of plan provisions. Summary of any public comment on such methodologies (pages 18-19); and

4. Commitment to: (1) accelerate implementation of transportation improvements in current or recent AE, (2) incremental phase-in of additional reasonable measures (page 6).

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1 The required provisions can be loosely placed in three categories: Problem Definition, Process, Strategy Development/Implementation.

2 The SIP should summarize planning activities by major categories (e.g., long term public transit improvements, TSM elements). However, as noted in the Preface, the exact form of SIP provisions should be worked out by the lead agency and DOT and EPA Regional Offices.

schedule will represent a commitment by the state to provide for attainment by the prescribed date. The schedule of key milestones should be viewed as a series of sequential, step by step commitments. For example, the initial commitment to be made in the January 1979 SIP is to the thorough analysis of alternatives. Subsequent commitments should advance measures found to be reasonable and effective through programming and implementation steps. Adequate substitutions must be made for measures determined to be ineffective or impracticable.

b. Emission reduction estimates for adopted or scheduled measures or for packages of measures where estimates for individual measures are impractical.

c. Provision for reasonable further progress toward attainment of the primary and secondary standards prior to the prescribed attainment date. "Reasonable further progress" means annual incremental reductions in total emissions (from new as well as existing sources) to provide for attainment by the prescribed date. The SIP should be designed to provide for substantial reductions in the early years with regular reduction thereafter, although the most substantial reductions from transportation sources may occur in later years due to longer planning and implementation lead times.

Demonstration of reasonable further progress requires in most areas designated nonattainment for Ox or CO, a continuing phased implementation of transportation control measures. Reliance only on the Federal Motor Vehicle Control Program as a demonstration of reasonable further progress is not acceptable in areas unable to attain the standards by 1982.

d. Identification and quantification of: (1) growth rates for stationary and mobile sources and (2) a procedure to monitor emission growth from stationary and transportation sources to assure compliance with the amounts specified in the SIP. The growth rate identified in the SIP must be consistent with the growth rates used (or implied by) the other planning activities in the area (e.g., FWPCA Section 208 [201], HUD Section 701, FHWA Section 134).

e. Provision for annual reporting on: (1) progress toward meeting the schedules noted in (a), and (2) growth in emissions from mobile sources, minor new stationary sources, major new or modified stationary sources, and reduction in emissions from existing sources to provide for reasonable further progress as noted in (c) above. This should include an updated emission inventory.

f. Identification of estimated financial and manpower resources necessary to carry out the process described by these guidelines. A commitment to the first year of this process should be demonstrated in the UPWP.

g. Evidence of public, local government and state legislative involvement and consultation. The SIP should also identify and analyze the air quality, health, welfare, economic, energy, and social effects of the plan revisions considered and provide a summary of public comment on such analyses. The 1979 SIP may contain a preliminary evaluation with a commitment and schedule for further, more intensive and comprehensive analysis.

h. Evidence that the SIP was adopted by the state after reasonable notice and public hearing.

2. Additional Transportation-Related Requirements for CO and Ox Revisions Which Provide for Attainment of the Primary Standards Later Than 1982

For those SIP revisions which demonstrate that attainment of the primary standards for CO and/or Ox is not possible prior to December 31, 1982 despite the implementation of all reasonable emission control measures, the following must be included in the January 1, 1979 submission in addition to the general requirements listed above in subsection 1:

a. An inspection/maintenance program or a schedule endorsed and committed to by the Governor for the expeditious development, adoption, and implementation of such a program.

b. A commitment by responsible government officials to: (1) establish, expand, or improve public transportation measures to meet basic transportation needs as expeditiously as practicable and (2) use (insofar as necessary) available grants and funds, consistent with the terms of the legislation providing such grants and funds, to establish, expand, or improve public transportation measures to meet basic transportation needs. (As noted in the Preface, additional substantive and procedural guidance on this requirement will soon be issued.)

3. Pollutant Specific Requirements (CO and Ox)

The 1979 Ox SIP submissions must represent a comprehensive strategy for each nonattainment area providing for sufficient control of volatile organic compounds from stationary and mobile sources necessary to attain the oxidant standard. SIP submissions that address only selected portions of nonattainment areas are not adequate. For oxidant plan development, major urban areas are those with an urbanized population of 200,000 or greater (U.S. Bureau of Census, 1970). Although specific boundaries may be defined somewhat flexibly, the boundaries must be large enough to cover the entire urbanized[9] area and adjacent fringe areas of development.

SIP revisions must provide for expeditious implementation of reasonably available control measures. At a minimum the following transportation measures for which EPA will publish information documents are considered, for the purpose of analysis, to be reasonably available:

1. To be published by February 1978

   a. inspection/maintenance
   b. vapor recovery
   c. improved public transit
   d. exclusive bus and carpool lanes
   e. area wide carpool programs

2. To be published by August 1978

   a. private car restrictions
   b. long range transit improvements
   c. on street parking controls
   d. park and ride and fringe parking lots
   e. pedestrian malls
   f. employer programs to encourage car and vanpooling, mass transit, bicycling and walking
   g. bicycle lanes and storage facilities
   h. staggered work hours (flexi-time)
   i. road pricing to discourage single occupancy auto trips
   j. controls on extended vehicle idling
   k. traffic flow improvements
   l. alternative fuels or engines and other fleet vehicle controls
   m. other than light duty vehicle retrofit
   n. extreme cold start emission reduction programs

The above measures (either individually or in packages) should be analyzed promptly and thoroughly. This alternatives analysis for each urban area will produce the essential information needed to determine precisely what comprehensive strategies are reasonably available. The selected strategies should then be scheduled for: (1) more detailed analysis, if necessary, (2) submittal to, and adoption by, policy boards, and (3) implementation. Because all analyses of every measure or package cannot be completed by January 1979 for inclusion in the SIP, where necessary a submitted schedule may provide for subsequent completion. (Where subsequent analyses demonstrate that certain measures may be unnecessary, ineffective or infeasible, a decision not to implement them may be justifiable. Such decisions will, however, be reviewed carefully by EPA and DOT Regional Offices.)

As described previously, annual incremental reductions in total emissions must occur to demonstrate reasonable further progress prior to attainment of the standards. Therefore, implementation activities should not be delayed until completion of the comprehensive analyses of alternative

transportation improvement packages. For example, feasibility studies and demonstration projects are often essential steps in the planning and implementation of specific measures (e.g., auto-restricted zones, specialized transit service). Where demonstration projects are appropriate, they should be scheduled for implementation prior to the end of 1980.

Planning and implementation of certain air quality-related transportation measures and strategies may be a complicated and lengthy process extending beyond 1982 in areas with severe CO or Ox problems. Implementation of even very extensive transportation measures, however, must be initiated before December 31, 1982.

Where revised SIPs justify an extension of the attainment date, the adopted transportation portion must provide:

1. Specific procedures and criteria developed by the agencies designated according to Section 174 for determining whether the transportation planning process conforms to the SIP.

2. A schedule for the expeditious implementation of already planned, reasonably available transportation measures including transportation provisions in existing SIPs and other transportation measures with demonstrable air quality benefits developed as part of the transportation process administered by DOT.

3. A program for evaluating alternative packages of transportation options covering at least those measures for which EPA will develop information documents. The analyses must identify a package of measures which will attain the emission reduction target ascribed to transportation sources in the SIP. The comprehensive analysis of alternative must be completed by July 1980 unless the lead agency can demonstrate a need for additional time.

4. A program for evaluating long range (post-1982) transportation and growth policies. Alternative growth policies and/or development patterns must be examined to determine the potential for modifying total travel demand.

5. A schedule for adoption of needed transportation control measures as expeditiously as practicable. Adopted measures must be expeditiously implemented on a continuous schedule demonstrating incremental emission reductions from 1979 to the attainment date. The reasonableness of a schedule will be determined by the nature of the existing or planned transportation system and the complexity of implementing an individual measure or package of measures.

III. PROCESS

A. Introduction

The integrated planning process described in Chapter III should accomplish the policy goals identified in the Introduction and satisfy the SIP requirements outlined in Chapter II. Again, the DOT joint planning regulations should be used in conjunction with these guidelines as the basis for all transportation-air quality activities carried out under the Clean Air Act. The scope and intensity of planning activities discussed in this chapter should be commensurate with the size of the metropolitan area and the complexity of its transportation and air quality problems. Special emphasis should be placed on the following elements of the existing planning process: public participation, involvement of elected officials, alternatives development and evaluation, and plan implementation. Numerous provisions from DOT and EPA legislation further define requirements of the transportation-air quality planning process that must be met.[10]

B. Interagency Coordination

The designated lead agency should first establish a program, in cooperation with other agencies identified under Section 174, for developing the joint responsibilities and working relationships of all agencies and organizations involved in the transportation-air quality planning and implementation process. The program should include:

1. Documenting roles and responsibilities of all agencies having transportation and/or air quality planning and implementation functions for the area.

2. Jointly defining necessary formal and informal working relationships among programs and agencies to achieve an integrated comprehensive planning process.

3. Jointly developing mechanisms to maintain or establish (where necessary) these working relationships, including: assessing the adequacy of informal coordination among staffs, setting up interagency advisory groups, and developing more formal interagency agreements or memoranda of understanding as needed. These mechanisms should address the following tasks as well as others the agencies find necessary:

   (a) Modifying existing institutional and technical transportation and air quality planning processes to achieve integration at and between local and regional levels.

(b) Applying criteria and procedures for evaluation and revision of projects, plans and programs to ensure their conformity with the SIP. (Criteria and procedures are being developed and will be provided subsequently.)

(c) Incorporating into the SIP major air quaility-related elements of the UPWP and specific transportation control measures from the transportation plan, TSME, TIP and AE.

(d) Implementing, operating, and enforcing transportation-related elements of the SIP.

(e) Monitoring air quality and transportation trend indicators.

C. Involvement of Elected Officials

The lead agency should insure joint development of procedures, where necessary, to increase involvement of appropriate elected officials in transportation-air quality decisionmaking including:

1. Providing preliminary information to such officials regarding both the range of individual measures and packages of measures being considered that could require an implementation commitment by such officials.

2. Providing increasingly more detailed information to officials as specific transportation strategies are developed, evaluated and subjected to interagency and public consultation.

3. Obtaining the commitment from officials to support and fund the adoption and implementation of reasonably available transportation projects and programs within their areas of jurisdiction.

4. Advising officials of proposed modifications to air quality-related transportation projects and programs within their jurisdictional areas.

D. Public Information and Consultation[11]

A parallel procedure should be developed for adequate public information and consultation on transportation, air quality and public health issues as well as the integrated planning process. Interest groups should participate in the development and analysis of alternative transportation strategies. Existing procedures for public participation should be used whenever such procedures achieve the objectives of this section. As with other SIP revision tasks the exact details of a public information

and consultation program must be worked out under the auspices of the lead agency by participating state, regional and local agencies in consultation with appropriate citizen groups. The basic elements of any program should be conducted by the agencies or interest groups best equipped to carry out the tasks effectively.

An effective public information and consultation process should include the following elements:

1. Inventory: An inventory of agency public information programs and interest groups is essential for a well managed, effective and efficient public consultation process. This inventory should cover: (1) agency information and consultation programs aimed at the public and/or elected officials, identifying duplicative tasks and those receiving inadequate attention and (2) special interest groups (e.g., environmental advocacy groups, Chambers of Commerce) and major local citizen's associations.

2. Assessment of Existing Programs: Periodically the programs and the working relationships of the agencies and groups inventoried should be jointly assessed -- for example by the lead agency and an ad hoc committee of public interest groups such as a citizen advisory committee or public counsel mechanism. Public information and consultation programs should be evaluated for: (1) reaching other agencies and interest groups; (2) informing and educating the public and elected officials about air quality, transportation, public health, and the integrated planning process; (3) responding to and acting on issues raised by the public; and (4) effectively involving the public in the transportation-air quality planning process.

3. Program Development: The public consultation program should correct deficiencies found in the assessment and cover two areas: information and participation.

Information on air quality, transportation and public health should be scaled and targeted toward appropriate agencies and interest groups. It should cover the magnitude of the air quality problem, inventory and assessment of programs and groups, integrated planning process concepts, procedural steps of that process, the alternative transportation improvements being developed and evaluated including their incidence of the costs and benefits, and so forth.

Second, mechanisms should be developed and implemented, where necessary, to allow the public and elected officials to participate in all phases of the integrated planning process. For example, where such mechanisms do not exist or are determined ineffective, the process could be revised to include: (1) a Citizen Advisory Committee reflecting a representative

cross section of interest groups, (2) a Technical Advisory Committee that includes representatives of the Citizen Advisory Committee and staff from state and local environmental and transportation agencies, and (3) procedures to allow timely and effective exchanges between these two committees, agency policy committees, and elected officials.

E. Evaluation of Alternative Strategies

Alternatives analysis systematically develops and evaluates a wide range of transportation actions, individually and in combination. Alternatives analysis develops information on costs and effects of various actions for local decisionmaking and federal review. The periodic reassessment of transportation plans and programs provides both the occasion and opportunity for alternatives analysis. Appendix G summarizes pertinent DOT and EPA legislation requiring alternatives analysis, along with selected information supplementing the following subsections.

1. Assignment of Responsibility

MPOs should in most cases take lead responsibility for overseeing the implementation of these guidelines on evaluating alternatives because of their central role in the urban transportation planning process administered by DOT. These alternatives analysis guidelines should of course be applied by the MPO in cooperation with federal, state, and local planning, transportation, and environmental agencies, public interest groups, elected officials, and others. Detailed institutional arrangements and assignments of responsibility should be tailored to the particular situation in each metropolitan nonattainment area.

2. Agency, Elected Official and Public Consultation

Other agencies, local elected officials and the public should participate in developing transportation-air quality strategies. Information should be made available on the alternatives being considered and their likely effects, both beneficial and adverse. Interested and affected participants should be given the opportunity to express their views early enough in -- and throughout -- the study process to influence both the course of studies and implementation decisions.

3. Generation of Alternatives

Areas that will not attain the standards by 1982 and that currently have an EPA-approved or promulgated transportation control plan (TCP) as part of their SIP should first evaluate measures in the TCP. Implemented TCP measures should be noted, while those not yet implemented

should be reviewed and their current status indicated (e.g., study underway, project programmed for implementation, stalled for lack of funds, not considered, studied and rejected). Measures determined ineffective or infeasible or whose impacts are highly deleterious may be dropped from the TCP if the action is supported by properly documented analysis. Any suspension or elimination of an existing SIP provision must be included in the January 1979 submittal.

In areas where new transportation control measures are needed, transportation agencies should identify those that appear potentially capable of contributing to air quality improvements consistent with other community goals. The measures should span a broad range of inter-related air quality and community effects so that further analysis can reveal trade-offs and possibilities for packaging the measures into strategies. Measures or groups of measures identified at this stage should be ones that appear to be worthy of further analysis and should not exclude ambitious measures that could be controversial. (EPA will subsequently be providing guidance on packaging transportation measures as part of the information documents required by Section 108(f).) To insure that ambitious packages of measures are analyzed and considered for implementation, one of the alternative packages should include a mix of transportation measures that would either:

a. Achieve the emission reduction target assigned to transportation sources (according to Section 174 procedures and after consultation with EPA) needed to attain ambient air quality standards for CO and Ox by 1987. This target should reflect expected pollutant decreases from the federal motor vehicle control program, non-transportation source controls, and vehicle inspection/maintenance program. Or,

b. Reduce transportation CO and HC emissions by a percentage jointly determined (according to Section 174 procedures and after consultation with EPA) to represent the most expeditious progress toward attainment that can ambitiously be accomplished by 1987 (e.g., one such target could be a 15-20 percent reduction).[12] This emission reduction is in addition to reductions achieved through the federal motor vehicle control program and an inspection/maintenance program.

4. Analysis of Alternatives

a. Analysis Considerations: Consistent with DOT's joint planning regulations, the detail and resources used to develop and evaluate transportation alternatives should be commensurate with the magnitude and geographic extent of the air quality problems facing each nonattainment area. Areas with severe and persistent air quality problems should make a major effort toward finding solutions, while areas with less extensive or shorter term problems may find a lower level of effort sufficient. Regionwide air quality problems (e.g., high Ox levels) will

require investigation of regionwide strategies; more localized air quality problems (e.g., high CO concentrations) may also require regionwide solutions but in some cases may only require sub-area studies and corrective strategies.

The level of detail of analysis also should reflect the planning horizon of the actions under consideration. Approximate, or "sketch planning," analysis is appropriate for the long range plan because long range projections are sufficiently uncertain that additional detail may provide only marginally better information. More detailed analysis should be carried out on the projects and packages of projects contained in the TIP. The planning analyses should primarily focus on the Congressionally mandated deadlines of 1982 and 1987.

Simplified analysis techniques should be used initially to assess the impacts of alternative measures and strategies, followed by more detailed analysis on those strategies that survive this initial screening. The information produced -- including the incidence of social, economic and environmental impacts -- should clarify the critical issues of choice available to involved communities and should point out the trade-offs among alternatives.

Key assumptions made in the analysis (e.g., choice and sensitivity of demand models, trip assignment techniques, network speeds, meteorology, emission factors) should be fully documented. In some cases, real-life variations from such assumptions may alter significantly the course of implementation or may invalidate projections upon which plans are based. Under changed conditions, the desirability and feasibility of certain measures may change significantly. For this reason, alternatives analysis should explore the sensitivity of key impact predictions and project choices to key assumptions and parameters. For example, where alternative population and land use projections result in significantly different estimates of travel demand, it is important to examine how alternative demand estimates affect the proposed system performance and point to alternative mixes of transportation measures. Where sensitivity analyses identify significant differences in air quality under varying assumed conditions, procedures for monitoring those conditions and updating plans and programs in accordance with observed conditions should be developed.

b. Criteria for Evaluation of Alternatives: In evaluating the costs and effectiveness of alternatives, all potential impacts should be taken into account. This includes not only air quality but also implementation feasibility as well as transportation and urban development needs, economic, social and other environmental impacts. Measures that create serious hardships obviously should not be selected simply because they appear to improve air quality. For each alternative package of

measures or strategy the following factors should be considered at least qualitatively, but also quantitatively where data and methodologies are available.

(1) Air quality: regional and local impacts by pollutant; other environmental impacts;

(2) Energy consumption: fuel consumed by each alternative;

(3) Effects on the community: employment and employment patterns; retail sales and other business activity indicators; effects on the tax base; changes in land use patterns; impacts on regional development; urban development plans; property acquisition requirements; neighborhood disruption and displacement; and compatibility with community goals;

(4) Financial analysis: funding sources and uses (e.g., matching requirements, opportunities foregone);

(5) Economic analysis: present and future capital and operating costs;

(6) Economic impacts: present and future indirect costs and benefits, including incidence of costs and benefits by:

- public and private sector
- income group
- geographic area
- social group;

(7) Travel impacts: changes in auto usage, vehicle-miles of travel, modal split, travel time, level of service and accessibility, convenience, volume of travellers by: mode, origin-destination, time-of-day, and trip purpose;

(8) Political feasibility: required public and elected official support, new legislation, promotional efforts, successful applications elsewhere, potential controversy;

(9) Institutional feasibility: assessment of need for new agency authority, special interagency agreements, extensive cooperation among agencies, dependence on other actions for successful implementation; and

(10) Other factors considered important by the local community.

IV. MODIFICATION AND DOCUMENTATION OF EXISTING PLANNING ACTIVITIES

A. Introduction

This chapter describes: (1) modifications to ongoing transportation planning activities required by the Clean Air Act and (2) documentation of those modifications. The modifications and documentation require minimal alteration of existing procedures and reporting requirements.

B. Planning Work Programs

1. General

Proposed transportation planning work required under the Clean Air Act should be included as part of the UPWP currently prepared by MPOs in response to DOT requirements (23 CFR § 450, Subpart A). This should be accomplished by all nonattainment areas that establish planning procedures in accordance with Section 174 of the Act, regardless of whether the MPO is the certified lead agency or whether any Section 175 funding is provided.

2. Prospectus

The UPWP prospectus should be modified to: (a) summarize the integrated planning process including discussion of the important air quality-related transportation issues facing the area; and (b) describe the interrelationships of the functional responsibilities of participating planning and operating agencies, including air quality agencies.

3. Unified Planning Work Program

The UPWP should describe all air quality-related transportation planning activities anticipated within the area regardless of funding source. Work funded under Section 175 of the Clean Air Act should be described in the UPWP format prescribed by the Intermodal Planning Group (IPG) or in a modified version agreed upon by EPA and the IPG.

C. Transportation Plan

1. Development of the short-range or transportation system management element (TSME) of the transportation plan should consider measures which will quickly reduce transportation system emissions including traffic engineering, public transportation, regulatory, pricing, management, operational and other TSM improvements.

2. Development of the long-range element of the transportation plan should consider new transportation policies and facilities and/or major changes in existing facilities with long-range potential for reducing transportation-related emissions and contributing to attainment and maintenance of the ambient health standards.

3. All short-range (TSM) and long-range measures in Section 108(f) of the Act are, for the purpose of analysis, reasonably available. They should be specifically considered in the analysis and development of alternative TSMEs and long-range elements.

D. Transportation Improvement Program (TIP)

The TIP, including the annual element, should identify from the TSM and long-range elements of the transportation plan improvements that produce incremental emission reductions and air quality improvements. These improvements should expeditiously advance toward implementation during the program period consistent with SIP planning and programming schedules. Priorities assigned to transportation improvements should be consistent with the requirements of Section 176(d) of the Clean Air Act (i.e., federal agencies conducting or supporting programs with air quality-related transportation consequences shall give priority, consistent with other statutory requirements, to the implementation of measures in approved or promulgated plans under Section 110 of the Clean Air Act).

E. Documentation of Alternatives Analysis

The MPO or lead planning agency should coordinate the development of a working reference document describing the methods and results of alternatives analysis. This work document should use and supplement, as necessary, technical reports required by the DOT joint regulations. While the entire alternatives analysis document will not normally be submitted with EPA's periodic progress reports (Chapter V), it should be kept updated and available for review at all times by other agencies and the public. This document plays a key role in the integrated planning process as the basic resource for the joint determination by participants that all reasonable measures are being implemented as expeditiously as practicable.

The document should: (1) describe the alternative measures and packages of measures selected for preliminary analysis; (2) provide reasons for rejection or selection of alternatives for more detailed analysis. (The initial list of alternative measures shall include all those listed in Section 108(f) of the Clean Air Act.); (3) describe the effects considered in both the preliminary and more detailed alternatives analysis (e.g.,

air quality, travel, economic effects -- see Section III E.4.b) and the methodology used in estimating these effects; (4) summarize results of the alternatives analysis to date; and (5) explain why alternatives were finally rejected or selected for implementation.

F. Consistency Determination Documentation

Procedures established to satisfy FHWA requirements for determining consistency of areawide transportation plans with SIPs (required under 23 USC 109(j)) should be used to respond to the transportation-related requirements of the Clean Air Act. Documentation of annual consistency determinations should continue to be provided to EPA according to existing procedures. This documentation can be used to: (1) demonstrate that all reasonable measures are being implemented as expeditiously as practicable (in accordance with Section 172(b)(2)), (2) demonstrate reasonable further progress (§ 172(b)(3)), and (3) assure conformity (§ 176(c)). EPA will consider the consistency determination along with the nonattainment plan provisions submitted in response to Section 172(b) in assessing SIP progress.

G. SIP

The required 1979, 1982 and subsequent SIP revisions should include major air quality-related work elements of the UPWP and specific transportation control measures from the transportation plan, TSME, TIP and AE. Chapter II above outlines the transportation-related contents of an approvable 1979 SIP. Appendix B contains the complete, more detailed description of the elements of an approvable 1979 SIP.

V. PROGRESS REPORTS

A. Introduction

EPA will require periodic reports to: (1) monitor and assess progress in developing and implementing the transportation-related provisions of the Clean Air Act; (2) develop uniform review criteria for assessing SIP progress; and (3) develop information for decisions on: (a) planning funds allocation, (b) conformity and consistency determinations, and (c) imposition of Section 176 sanctions. The reporting requirements described below are designed to minimize time spent on documenting and reviewing routine activities, allowing staffs to concentrate on identifying and resolving significant problems. These reports should not substitute for the more effective mechanism of direct staff contact for demonstrating and determining progress.

Although progress reports will normally be expected every six months, alternative arrangements are possible by agreement between the lead agency and the EPA Regional Office. Existing reports and reporting procedures should be used to comply with Clean Air Act requirements; i.e., wherever a progress report of similar format and content is currently prepared for another agency and/or program, such a report may be modified as necessary to satisfy EPA requirements.

B. Content

The progress report should briefly summarize the status of the air quality-related elements of the: (1) UPWP, (2) transportation plan (including TSME), (3) TIP, and (4) annual elements of the TIP for both the current and preceeding year.[13] Specific elements of the progress reports for each nonattainment area should be worked out individually with the EPA Regional Office. An acceptable report should include, but need not be limited to, the following:

1. UPWP

The status of major air quality-related work elements (including but not limited to alternatives analysis, procedures for interagency coordination, involvement of elected officials, public information and consultation), covering: (a) brief summary (two or three sentences) and percentage of work accomplished to date; (b) description of outstanding issues and problems, if any, that may alter scope or completion times; and (c) program contact person responsible for each work element.

2. Transportation Plan

The status of each major air quality-related portion of the transportation plan.

3. TIP

The status of each major air quality-related transportation improvement listed in the annual elements of both the current TIP and that of the previous year, including but not necessarily limited to EIS status, funding commitment, and implementation status.

C. Annual Report

The Annual Report required by the "Criteria for Approval of 1979 SIP Revisions" (p. 14, Appendix B) shall describe: (1) progress toward meeting SIP schedules for development and implementation of transportation control measures, (2) contribution of transportation source controls to the incremental emission reductions required for standard attainment, (3) growth of mobile sources, and (4) an updated mobile source emission inventory. The Annual Report should be based upon and may incorporate appropriate parts of the progress reports described above.

Footnotes

1 42 USC 7401 et seq. hereafter referred to as "The Act" or "The Clean Air Act."

2 Section 108(e) requires publication of guidelines for the planning process assisted under Section 175 of Part D, Plan Requirements for Nonattainment Areas. The Guidelines must include information on:

1. methods to identify and evaluate alternative planning and control activities (this information is principally contained in Chapter III (Process) of the guidelines);

2. methods of reviewing plans on a regular basis as conditions change or new information is presented (Chapters III (Process), IV (Documentation), V (Progress Reports));

3. identification of funds and other resources necessary to implement the plan, including interagency agreements on providing such funds and resources (Chapter I and Appendix F, Identification of Funds to Implement the Plan);

4. methods to assure participation by the public in all phases of the planning process (Chapter III (Process)); and

5. such other methods as the Administrator determines necessary to carry out a continuous planning process.

3 Appendix A is a summary of the transportation-related sections of the Clean Air Act.

4 Appendix C illustrates how the transportation-air quality planning process could fit into the entire SIP revision process.

5 Sections 171(1), 172(B)(2)(3).

6 EPA identified nonattainment areas in a press release on February 23, 1978 and also in the March 3, 1978 Federal Register.

7 EPA and DOT jointly issued Section 174 guidelines in December 1977. This guidance concerns designation of lead planning organizations for nonattainment areas and determination of agency responsibilities. By April 1, 1978, the Governors of all states with nonattainment areas must transmit to EPA a certification of the lead planning organization and a joint determination of agency responsibilities for those areas.

8 Written evidence that the state, the general purpose local government or governments, or a regional agency designated by general purpose local governments for such purpose, have adopted by statute, regulation, ordinance or other legally enforceable document the necessary requirements and schedules and timetables for compliance and are committed to implement and enforce the appropriate elements of the SIP. The relevant organizations shall provide evidence that the legally enforceable attainment measures and the "criteria, standards and implementing procedures necessary for effectively guiding and controlling major decisions as to where growth shall and shall not take place," prepared by state and local governments in compliance with Section 701 of the Housing Act of 1954, as amended, are fully coordinated in the attainment and maintenance of the NAAQS.

9 As defined by the U.S. Bureau of Census, urbanized areas generally include core cities plus any closely settled suburban areas.

10 The transportation-air quality planning process should:

(1) Consider social, economic, energy, transportation, air quality, and other environmental effects, in support of the requirements of 23 USC 109(h), Sections 5(h)(2) and 15 of the UMT Act (49 USC 1604(h)(2) and 1610) and Sections 108(f)(2)(C) and 172(b)(9) of the Clean Air Act (42 USC 7408(f)(2)(C) and 7502(b)(9)).

(2) Be coordinated with transportation planning pursuant to 23 USC 134, 49 USC 1607(a) and 23 USC 450.120, 109(F) and 307(c) in support of the requirements of Section 174(b) of the Clean Air Act (42 USC 7504(b)).

(3) Ensure public, local government and state legislatures involvement in support of the requirements of Sections 172(b)(9), 121, and 127 of the Clean Air Act (42 USC 7502(b)(9), 7421, and 7427).

11 Section 172(b)(9) of the Clean Air Act specifies that 1979 SIP revisions shall:

> evidence public ... involvement and consultation in accordance with Section 174 (relating to planning procedures) and include ... a summary of public comment on [the] analysis [of the effects of plan provisions]

Section 127, Public Notification, requires SIPs to contain effective measures for public notification of air quality standard violations:

> to advise the public of the health hazards associated with such pollution, and to enhance public awareness of the measures which can be taken to prevent such standards from being exceeded and the ways in which the public can participate in regulatory and other efforts to improve air quality.

Most specifically, Section 108(e)(4) directs that the transportation planning guidelines shall include information on:

> methods to assure participation by the public in all phases of the planning process.

Finally, the DOT joint planning regulations (CFR 450.120) specify that the urban transportation planning process shall "include provisions to ensure involvement of the public."

12 The selection of an ambitious emission reduction target such as 15-20% is necessary to insure that a sufficient range of measures is adequately evaluated. Certain ambitious and possibly controversial classes of measures (e.g., parking management, pricing, auto limitation) should be included when evaluating alternatives to meet ambitious targets. A priori rejection of these measures is not acceptable. All agencies engaged in the SIP revision process in each urban area should jointly decide for that urban area a specific, ambitious emission reduction target for the purpose of developing and analyzing alternative transportation strategies. The 15-20% figure is not meant to be an arbitrary selection of an achievable emission reduction for all urban areas, but rather is one example of such a target.

13 Progress reports are expected to be brief, but complete (e.g., not exceeding 6 to 12 pages). Longer reports may be necessary in non-attainment areas requiring extensive air quality-related transportation activities.