

APPENDIX B

EAC Guidance and Protocol Documents

EPA Guidance Documents for Preparing EAC Control Measures
(Revised December 16, 2003)

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures¹
1. Guidance on Incorporating Voluntary Mobile Source Emission Reduction Programs in State Implementation Plans (SIPs). http://www.epa.gov/oms/transp/transcont/vmep-gud.pdf	This document provides guidance on Voluntary Mobile Source Emission Reduction Programs	Other ²	Apply to Voluntary Programs
2. Guidance on Incorporating Voluntary Stationary Source Emission Reduction Programs Into State Implementation Plans http://www.epa.gov/ttn/ceas/innosra.html	EPA's final policy on the granting of State Implementation Plan credits for voluntary stationary source emission reduction programs.	Other	TBD
3. Voluntary Mobile Source Programs: Crediting Innovation and Experimentation Brochure. (EPA420-K-97-004) http://www.epa.gov/otaq/transp/vmweb/brochure.pdf	Examples of Potential Voluntary Mobile Source Emission Reduction Programs	Other	Apply to Voluntary Programs
4. EPA Economic Incentive Program Guidance (EPA-452/R-01-001, January 2001) http://www.epa.gov/ttn/oaqpg/t1/memoranda/eipfm.pdf	This guidance provides the information you need to know to develop a discretionary EIP, submit it to the EPA, and receive approval from the EPA. This guidance pertains to discretionary EIPs that are or will be measures in SIPs.	Other	All EAC measures

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures
5. Improving Air Quality Through Land Use Activities, EPA Guidance (EPA420-R-01-001, January 2001) http://www.epa.gov/otaq/transp/transcont/r01001.pdf	The goal of this guidance is to assist air quality and transportation planners in accounting for the air quality impacts of land use policies and projects which state and local governments <i>voluntarily</i> adopt.	Other	8.4
6. BACKGROUND INFORMATION FOR LAND USE SIP POLICY (EPA420-R-98-012) http://www.epa.gov/otaq/transp/transcont/siprptv3.pdf	This report summarizes work efforts by states to take SIP credit for land-use strategies and what EPA efforts are needed to support land-use SIP policies.	Other	8.4
7. Granting Air Quality Credit Land Use Measures: Policy Options, September, 1999 (EPA 420-P-99-028) http://www.epa.gov/otaq/transp/transcont/lupol.pdf	This document supports EPA efforts to reduce mobile source air pollution by providing tools to recognize and, where appropriate, credit these types of sustainable land use and transportation practices.	Other	8.4
8. The Effects of Urban Form on Travel and Emissions: A Review and Synthesis of the Literature, August 1997, (EPA 420-R-97-007) *copies are available from regional offices	This is a summary of research on the effect of land use on travel behavior. It includes before/after empirical studies that compare land use scenarios and simulation studies that have used computer models to examine the impact of hypothetical land use patterns on travel behavior and resulting emissions.	Other	8.4
9. Evaluation of Modeling Tools for Assessing Land Use Policies and Strategies, Oct 1997 (EPA420-R-97-007) http://www.epa.gov/otaq/transp/transcont/lum-rpt.pdf	This EPA-sponsored report includes: a brief discussion of land use strategies and their relationship to vehicle miles traveled (VMT) reduction; and an assessment of current travel demand and land use modeling tools.	Quantification	

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures ¹
<p>10. Comparing Methodologies to Assess Transportation and Air Quality Impacts of Brownfields and Infill Development, October 2001. (EPA-231-R-01-001, August 2001) http://www.epa.gov/otaq/transp/conform/compari.pdf</p>	<p>This document describes four methods for characterizing the air quality benefits resulting from infill development, compares these methodologies, and examines their advantages and disadvantages. This report is a companion piece to EPA's policy guidance entitled, "Improving Air Quality Through Land Use Activities" (EPA 420-R-01-001, January 2001).</p>	<p>Quantification & Other</p>	<p>8.4</p>
<p>11. COMMUTER Model http://www.epa.gov/otaq/transp/traqmodl.htm http://www.epa.gov/otaq/transp/comchoic/r00016.pdf</p>	<p>This model calculates the transportation and emissions benefits of Commuter Choice (Best Workplace) and other voluntary strategies to reduce solo commuting for urban areas.</p>	<p>Quantification</p>	<p>9.1, 9.2, 9.3</p>
<p>12. SIP Development Guidance: Using Emission Reduction from Commuter Choice Programs to meet CAA Requirement (EPA420-R-98-007) Dec. 1998 http://www.epa.gov/otaq/transp/comchoic/sipguide.pdf</p>	<p>This guidance is to help states or agencies to calculate the emission benefits of Commuter Choice programs (Best Working Place for Commuters) and take credit for them in SIPs</p>	<p>Quantification & other</p>	<p>9.1, 9.2, 9.3</p>
<p>13. Assessing the Emissions and Fuel Consumption Impacts of Intelligent Transportation Systems (ITS) (EPA 231-R-98-007, December 1998). http://www.epa.gov/otaq/transp/fuelimpt.pdf</p>	<p>This study describes the types of modeling approaches needed to capture the short- and long-term transportation, emissions, and fuel consumption impacts of ITS deployment. It describes needed progressions in modeling approaches, including developments in travel demand, traffic simulation, and modal emissions modeling.</p>	<p>Quantification</p>	<p>8.4</p>

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures ¹
<p>14. Methodologies for Estimating Emission and Travel Activity Effects of TCMs - (EPA 420-R-97-004, July 1997) http://www.epa.gov/oms/transp/transcont/entcm.pdf</p>	<p>This report provides a quantitative approach to estimate the travel and emissions changes from implementing a number of transportation control measures. The report includes equations for calculating changes in the number of trips, vehicle miles traveled, and speed, as well as methods for estimating emission effects of these travel activity changes.</p>	Quantification	9.2, 9.3, 9.1
<p>15. Transportation Control Measures Database http://www.epa.gov/otaq/transp/traqtcms.htm</p>	<p>Transportation Measures Program Information Directory—an on-line searchable database with records on operating TCM programs and overview documents about different types of TCMs.</p>	Other	9.2, 9.3, 9.1
<p>16. Index of Transportation Measure Quantification Efforts (A listing by transportation measure.) http://www.epa.gov/otaq/transp/vnweb/matrix.pdf</p>	<p>Index of reports and other documents which have attempted to quantify TCM emission reductions.</p>	Quantification	9.2, 9.3, 9.1
<p>17. Benefit Estimates for Selected TCM Programs (EPA 420-R-98-002) March 1999 http://www.epa.gov/oms/transp/t98002.pdf</p>	<p>TCMs that have been implemented are quantified with methodologies for estimating emission and travel activity effects of TCMs</p>	Quantification	9.1, 9.2, 9.3
<p>18. Transportation Control Measure Information Documents (EPA 420-R-92-006, March 1992) *copies are available from regional offices</p>	<p>This report contains information documents on the 16 broad categories of TCMs as required and described under Section 108(f) of the Clean Air Act. Each TCM category is described in terms of its objectives, variations in implementation, examples, expected transportation and emission impacts, and other important considerations.</p>	Other	9.2, 9.3, 9.1

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures ¹
<p>19. Transportation Control Measure: State Implementation Guidance. 1990 (EPA 450/2-89-020)</p> <p>*copies are available from regional offices</p>	<p>This document lists SIP-approval criteria specific to TCMs. It also directs States to follow general SIP approvability criteria and any additional guidance written on TCMs</p>	<p>Other</p>	<p>9.1, 9.2, 9.3</p>
<p>20. Technical Methods for Analyzing Pricing Measures to Reduce Transportation Emissions. (EPA 231-R-98-006)</p> <p>http://www.epa.gov/otaq/transp/ampricing.pdf</p>	<p>This report, jointly funded by the EPA and the DOT, provides technical assistance on best practice approaches for analyzing various transportation pricing policies.</p>	<p>Quantification</p>	<p>9.2, 9.3, 9.1</p>
<p>21. Opportunities to Improve Air Quality through Transportation Pricing Programs. September 1997 (EPA 420-R-97-004)</p> <p>http://www.epa.gov/otaq/market/pricing.pdf</p>	<p>This document is intended to give state and local air quality and transportation planners, and other interested parties background information needed to consider using pricing programs. Specifically, this document explains why pricing can make sense, the institutional relationships necessary for pricing measures to work, and some pitfalls to avoid in implementing a program.</p>	<p>Other</p>	<p>9.1, 9.2, 9.3</p>
<p>22. Guidance for the Implementation of Accelerated Retirement of Vehicles Programs (EPA420-R-93-018, February 1993)</p> <p>http://www.epa.gov/otaq/transp/rancont/scrapcrd.pdf</p>	<p>This guidance is to illustrate a methodology for calculating benefits and an administrative framework targeting on vehicles which have already been identified as high emitters.</p>	<p>Quantification and other</p>	<p>8.2</p>
<p>23. EPA Vehicle Inspection and Maintenance Website</p> <p>http://www.epa.gov/otaq/im.htm</p>	<p>This website includes EPA IM program regulation, policy guidance, and program evaluation.</p>	<p>Quantification and other</p>	<p>8.3</p>

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures
<p>24. EPA Draft Technical Report, Impacts of Lubrizol's PuritNOx Water/Diesel Emission on Exhaust Emissions from Heavy-Duty Engines (EPA420-P-02-007, December 2002) http://www.epa.gov/otaq/models/p02007.pdf</p>	<p>A technical analysis of the effect of Lubrizol's PuritNOx diesel/water emission on exhaust emissions from diesel-powered vehicles. This Technical Report represent the current understanding of this specific technical issue, and are subject to re-evaluation at any time.</p>	<p>Quantification</p>	<p>4.4</p>
<p>25. Guidance on Use of Opt-in to RFG and Low RVP Requirements in Ozone SIPs, April 1, 1999. http://www.epa.gov/otaq/regs/fuels/rvpguide.pdf</p>	<p>The purpose of this guidance is to help the regional offices respond to state SIP submissions containing fuel control measures. This guidance should also help states to understand the different statutory requirements concerning state actions on fuel controls and to decide whether and how to use fuel measures for ozone control.</p>	<p>Quantification & Other</p>	<p>4.2</p>
<p>26. EPA Guide to Federal and State RVP Standards for Conventional Gasoline. (EPA420-B-03-002, March 2003) http://www.epa.gov/otaq/regs/fuels/b03002.pdf</p>	<p>This guide is intended for quick reference purposes only. Federal volatility regulations (40 CFR 80.27) apply to designated volatility nonattainment areas and to designated volatility attainment area as defined in 40 CFR 80.2(cc) and 80.2(dd), respectively. In this document, we have listed RVP limits by county, which may not coincide precisely with the borders of a nonattainment or attainment area.</p>	<p>Other</p>	<p>4.2</p>
<p>27. EPA Reformulated Gasoline (RFG) program http://www.epa.gov/otaq/rfg.htm</p>	<p>This website includes EPA published document on approved methodology, guidance, and question & answer to RFG program.</p>	<p>Quantification & other</p>	<p>4.1</p>
<p>28. Low-Sulfur Fuels http://www.epa.gov/otaq/r2home.htm#guidance</p>	<p>This website includes EPA published document on guidance and question & answer to EPA Low-Sulfur Fuel program</p>	<p>Quantification & Other</p>	<p>4.3</p>

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures
<p>29. Technical Support for Development of Airport Ground Support-Equipment Emissions Reductions and the Airport Ground Support Emissions (GSE) Model (EPA420-R-99-007) http://www.epa.gov/otaq/transp/vinweb/vinairgnd.htm</p>	<p>This study discusses program design and the potential for achieving emission reductions from airport ground support equipment. The Ground Support Emissions(GSE) model also was developed as a prototype user- friendly emission reduction estimation tool.</p>	<p>Quantification & Other</p>	<p>TBD</p>
<p>30. 2002 Base Year Emission Inventory SIP Planning: 8-hour Ozone, PM_{2.5}, and Regional Haze Programs, 11/18/02 http://www.epa.gov/ttnchie1/eidocs/2002baseinven_102502new.pdf</p>	<p>Directs states to use 2002 as the base year inventory for SIP planning purposes under the new standards. Of note in this memorandum is the point made that EPA cannot provide "double credit" for an emission reduction for purposes of RFP or ROP. Post-2002 emission reductions that benefit ozone, PM_{2.5}, and regional haze can be credited toward RFP requirements.</p>	<p>Quantification & Other</p>	<p>TBD</p>
<p>31. Near-Term Discretionary Emission Reductions for Ozone NAAQS, 10/12/00</p>	<p>Provides guidance on how EPA will allow credit for implementation of near-term, discretionary reductions that reduce 1-hour ozone as well as 8-hour ozone levels—well in advance of a nonattainment designation.</p>	<p>Quantification</p>	<p>TBD</p>
<p>32. Near-Term Discretionary Emission Reductions for Ozone NAAQS-Clarification, 1/29/01</p>	<p>Clarifies to EPA Regional Administrator Gregg Cooke OAQPS' policy of allowing States to take credit for emission reductions that occur after the 2002 base year inventory, including reductions that occur before the deadlines for submission of SIPs under the new ozone and PM_{2.5} standards.</p>	<p>Quantification & Other</p>	<p>TBD</p>

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures
<p>33. "Beyond VOC RACT CTG Requirements" EPA-453/R-95-010, April 1995, http://www.epa.gov/ttn/catc1/dir1/byndract.pdf</p>	<p>Identifies and compares, by CTG source category, examples of State and local agency rules that exceed or may exceed the RACT requirements that are specified in the Federal CTGs.</p>	Other	TBD
<p>34. Guidance for Mobile Emission Credit Generation by Urban Buses. January, 1993. http://ntl.bts.gov/DOCS/BUS.html http://www.epa.gov/otaq/hd-hwy.htm#trtb</p>	<p>This is a program guidance which ensures particulate matter emissions are reduced for 1993 and earlier model year urban buses. It authorized the development of requirements reflecting the best retrofit technology and maintenance practices reasonably achievable.</p>	Quantification & Other	8.5, 8.6
<p>35. Frequently Asked Questions on 8-Hour Ozone Early Action Compacts, Vol. 1 May 15, 2003 http://www.epa.gov/ttn/naags/ozone/eac/20030515_eac_faq_vol-1.pdf</p>	<p>EPA's response to questions received from State and local agencies requesting clarification on previously issued EPA guidance and its application to EACs.</p>	Other	
<p>36. Frequently Asked Questions on Implementing the DRAFT 8-Hour Ozone Modeling Guidance to Support Attainment Demonstrations for Early Action Compact (EAC) No date</p>	<p>EPA's clarification on how the modeling guidance is applied in EAC SIPs due in 2004.</p>	Other	
<p>37. <u>EPA Truck Idling guidance</u> http://www.epa.gov/otaq/smartway/documents/420604001.pdf</p>	<p>This guidance is for quantifying and using long duration truck idling emission reductions in State Implementation Plans and Transportation Conformity.</p>	Quantification and other	

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures ¹
<p>38. <u>EPA Locomotive Idling guidance</u> http://www.epa.gov/otaq/smartway/documents/420b04002.pdf</p>	<p>This guidance is for quantifying and using long duration switch yard locomotive idling emission reductions in State Implementation Plans and Transportation Conformity.</p>	<p>Quantification and other</p>	
<i>Additional Guidance under Development</i>			
<p>39. EPA Idling website http://www.epa.gov/otaq/retrofit/idling.htm</p>	<p>This website includes EPA published document on verified idling technology, approved methodology to quantify emission benefit, and SIP credits</p>	<p>Quantification and other</p>	<p>8.5</p>
<p>40. <u>EPA Energy Efficiency guidance</u></p>	<p>This guidance is for crediting emission reductions from electric sector energy efficiency and renewable energy projects.</p>	<p>Quantification and other</p>	<p>TBD</p>
<p>41. EPA Draft Technical Report: "The Effect of Cetane Number Increase Due to Additives on NOx Emissions from Heavy-Duty Highway Engines" (EPA 420-S-02-012 June 2002) http://www.epa.gov/otaq/models/analysis/s02012.pdf</p>	<p>Quantification report to estimate the NOx emission factors for the Texas diesel fuel program based on EPA's method. This Technical Report represent the current understanding of this specific technical issue, and are subject to re-evaluation at any time.</p>	<p>Quantification</p>	<p>4.4</p>
<p>42. EPA Cetane guidance anticipating completion date: 2/29/2004</p>	<p>The Technical Report quantifies the benefits of diesel cetane improver additives in terms of a percent change in NOx emissions from heavy-duty diesel engines. The Guidance Document will describe the various factors that should be taken into account to translate the Technical Report's percent change in NOx values into a reduction in NOx tons for a specific area.</p>	<p>Quantification</p>	<p>4.4</p>

Title of the Document	Description of the Document	Type of the Document	Potential Use in EAC Measures ¹
43. EPA Voluntary Diesel Retrofit Program website http://www.epa.gov/otaq/retrofit/index.htm	This website include EPA published document on verified retrofit technology, approved methodology to quantify emission benefit, and SIP credits.	Quantification & Other	8.5, 8.6
44. <u>EPA Diesel Retrofit guidance</u> . anticipated completion date: Spring 2004	Guidance for quantifying and using heavy-duty truck retrofit emission reductions in State Implementation Plans and Transportation Conformity.	Quantification & Other	

NOTE:

1. The numbers listed refer to the EAC control measure category ID shown in the first column of the attached table. See the spreadsheet http://www.epa.gov/ttn/naags/ozone/eac/20030616_eac_measures_full_list2.pdf for details on each Mobile Source EAC measure.
2. The category of "other" includes documents that address general requirements for SIP credits, for example, EIP, VMEP, etc.

1	Reduce Emissions from the Storage, Distribution and Dispensing of Fuels and Solvents
1.1	●●● Implement Stage I Vapor Recovery Program
1.2	●●● Implement Stage II Vapor Recovery Program
1.3	●●● Use New Low-Emission Fuel Containers
1.4	●●● Implement Gas Cap Replacement Program
2	Modifications in Equipment Design, Operating Procedures and Practices
2.1	●●● Implement Leak Detection and Repair Programs
2.2	●●● Institute Service Contracts That Emphasize / Require Environmentally Friendly Equipment and Methods
3	Seasonal, Ozone Action Day and Time-of-Day Scheduling Strategies
3.1	●●● Ban or Restrict Open Burning and Other High-Emission Activities on Ozone Action Days
3.2	●●● Reduce or Time-Shift Vehicle Travel and Use of Off-Road Vehicles on Ozone Action Days
3.3	●●● Reduce and/or Strictly Enforce Speed Limits on Ozone Action Days
3.4	●●● Shift Construction Work and Lawn Mowing to Afternoon Periods
4	Increase the Use of Modified Fossil Fuels
4.1	●●● Use Reformulated Gasoline and/or Bio-Fuels
4.2	●●● Use of Low Reid Vapor Pressure Fuels
4.3	●●● Use of Low-Sulfur Fuels
4.4	●●● Use Cetane and Other Additives or Catalysts in Diesel Fuels
5	Expand the Use of Alternative Fuels and Energy Sources
5.1	●●● Implement Truck Stop Electrification Program
5.2	●●● Convert Off-Road Vehicles and Other Equipment Engines to Electric or Propane
5.3	●●● Increase the Use of LEV and SULEV Vehicles
6	Reduce Energy Demand through Conservation and Energy Efficiency
6.1	●●● Implement Programs to Increase Conservation and Improve the Energy Efficiency of Buildings
6.2	●●● Implement Programs to Increase the Use of Energy Star "Green" Products
6.3	●●● Implement Energy Efficiency in the Operation and Design of Facilities and in the Purchase and Use of Equipment
6.4	●●●
7	Reduce Air Quality Impacts through Better Land Use Management
7.1	●●● Plant Trees and Use Landscaping and Other Techniques to Reduce the "Heat Island Effect"
7.2	●●● Implement a Smart Growth Program
8	Reduce the Emissions from Vehicles
8.1	●●● Implement Programs to Increase Fleet Turnover to Newer Vehicles
8.2	●●● Establish Programs to Identify and Repair or Replace High-Emitter Vehicles
8.3	●●● Implement and/or Expand Vehicle Inspection and Maintenance Programs
8.4	●●● Utilize Transportation System Design and Traffic Flow Control Methods to Reduce Vehicle Emissions
8.5	●●● Restrict the Idling Time of Vehicles
8.6	●●● Implement Retrofit Programs for Diesel Engines
9	Reduce the Vehicle Miles Traveled
9.1	●●● Implement Programs to Increase Walking and Bicycling Modes of Travel
9.2	●●● Implement Programs to Increase Carpooling, Ridesharing and the Use of Public Transportation

9.3	●●● Develop Workplace Programs as Telecommuting and Flexible Scheduling to Reduce Travel Demands
10	Provide Educational Programs for Stakeholders and the Public on Environmental Issues and Awareness
10.1	●●● Implement and Publicize an Ozone Action Day Program
10.2	●●● Establish a Point-of-Contact and Support Resources for Stakeholders and the Public to Obtain Air Quality and Other Environmental Information
10.3	●●● Develop and Implement Educational Programs to Promote Environmental Awareness and Action
11	Support and/or Expand Existing Federal and State Air Quality Programs
11.1	●●● Support Clean Skies Program
11.2	●●● Expand Controls on Facilities Beyond Existing State Requirements
11.3	●●● Participate in the Clean Cities Program
11.4	●●● Early Implement of VOC and NOx RACT
12	Organize Committees and Associations of Stakeholders to Coordinate Air Quality Improvement Efforts
13	Restrict or Eliminate Specific Activities Impacting Air Quality
13.1	●●● Restrict or Ban Outdoor Burning
14	Reduce VOC and/or NOx Emissions from Stationary Sources and Other Source Categories
15	Reduce the Emissions from Non-road Vehicles and Related Equipment
16	Adopt New Technologies

The table below summarizes the benefits and cautions to be aware of with *Early Action Compacts*.

Benefits	Cautions
<p><i>Early Action Compacts</i> give certain local areas the flexibility to develop their own approach to meeting the 8-hour ozone standard, provided the communities control emissions from local sources earlier than the Clean Air Act would otherwise require.</p>	<p>Success depends on active and sustained participation by all stakeholders.</p> <p>Like most voluntary programs, <i>Early Action Compacts</i> are vulnerable to legal challenge.</p>
<p>For <i>Early Action Compact</i> areas, if all terms of the agreement are met, EPA would defer the effective date of the nonattainment designation. On that date, state or local environmental agencies must start developing and carrying out a plan to clean the air.</p>	<p><i>Early Action Compact</i> areas (as well as non-compact areas) that EPA classifies as maintenance areas for the ozone 1-hour standard would still be subject to transportation conformity requirements while the maintenance plan for the area is still in force under the Clean Air Act. EPA is considering options for the period of time in which the maintenance plan would be in force</p> <p>Early Action Compact areas in the Ozone Transport Region are still subject to nonattainment new source review in accordance the Clean Air Act.</p>
<p>People living in areas that realize reductions sooner will enjoy the health benefits of cleaner air sooner than what might otherwise be possible.</p>	<p>Because they are not considered nonattainment until the effective date of the nonattainment designation, <i>Early Action Compact</i> areas are not eligible for CMAQ funds.</p>
<p>Reductions in emissions from pollution control measures that are implemented as part of an <i>Early Action Compact</i> are creditable toward air quality planning goals.</p>	<p><i>Early Action Compact</i> areas have an aggressive, accelerated program of milestones to meet. An area that misses a milestone will lose its deferral of the effective nonattainment date and as such, be subject to all of the requirements for nonattainment areas, such as new source review and transportation conformity.</p>

**PROTOCOL FOR EARLY ACTION COMPACTS
DESIGNED TO ACHIEVE AND MAINTAIN THE 8-HOUR OZONE STANDARD**

Purpose of Compact

Early voluntary 8-hour air quality plans can be developed through a Compact between Local, State and the Environmental Protection Agency (EPA) officials for areas that are in attainment (including no monitored violations) of the 1-hour ozone standard but approach or monitor exceedances of the 8-hour standard. These early action plans will include all necessary elements of a comprehensive air quality plan, but will be tailored to local needs and driven by local decisions. The Early Action Compact is designed to develop and implement control strategies, account for growth, and achieve and maintain the 8-hour ozone standard. This approach will offer a more expeditious time line for achieving emission reductions than the EPA's expected 8-hour implementation rulemaking, while providing "fail-safe" provisions for the area to revert to the traditional State Implementation Plan (SIP) process if specific milestones are not met. Early Action Compacts should complement any existing Ozone Flex Agreements.

The principles of the tri-party Early Action Compact to be executed by Local, State and the EPA officials are:

- Early planning, implementation, and emission reductions leading to expeditious attainment and maintenance of the 8-hour ozone standard;
- Local control of the measures to be employed, with broad based public input;
- State support to ensure technical integrity of the early action plan;
- Formal incorporation of the early action plan into the SIP;
- Deferral of the effective date of nonattainment designation and related requirements so long as all Compact terms and milestones are met; and
- Safeguards to return areas to traditional SIP requirements should Compact terms and/or milestones be unfulfilled, with appropriate credit given for emission reduction measures implemented.

Compact Requirements

The Compact will address the following components:

A. Milestones and Reporting

- In order to facilitate self-evaluation and communication with the EPA, TNRCC and stakeholders, the Early Action Compact must include clearly measurable milestones for the development and implementation of the plan. Local areas will assess and report their progress against milestones in a regular, public process, at least every six months. Milestones will include, at a minimum:
 - Completion of emissions inventories and modeling;
 - Adoption of control strategies that demonstrate attainment;
 - Completion and adoption of the early action SIP revision;
 - Attainment not later than December 31, 2007;
 - Post-attainment demonstration and plan updates as outlined in Section E;

- In the absence of achieving milestones, including attaining the 8-hour ozone standard on or before December 31, 2007, the area will be deemed in violation of the Compact and will be subject to the full planning requirements under applicable Clean Air Act (CAA) standard SIP processes including requirements defined as part of the EPA's 8-hour implementation rulemaking. Such an area will be subject to the same requirements and deadlines which would have been effective under the CAA and the EPA's 8-hour designation rulemaking had it not participated in this program, with no preferential delays or exemptions from the EPA. However, the area will receive appropriate credit in the standard SIP process for all emission reductions from measures implemented in this program.
- If the area has had the effective date of its nonattainment designation deferred and the area does not reach attainment of the standard by December 31, 2007, then the nonattainment designation will be effective immediately. If the EPA's implementation schedule also requires SIP's from areas on or before December 31, 2007, then a SIP revision demonstrating attainment by the new attainment date will be due for the nonattainment area no later than December 31, 2008. The EPA will offer areas no extensions or delays of the applicable attainment date.

B. Emissions Inventory

- Modeling emissions inventories using the most current tools available will be completed for at least one recent episode in order to support the early action plan. Emission inventories must include:
 - 1999 or later episode reflective of a typical ozone season exceedance that meets the EPA episode selection guidance to ensure that representative meteorological regimes are considered;
 - MOBILE6 data with link based Travel Demand Model (TDM) mobile data in urban areas;
 - NONROAD model data adjusted for local equipment populations and usage rates;
 - Area source databased when possible on local survey data.
- Further episode inventories will also be developed over time to fully represent the variety of situations that typically contribute to ozone production in the area and to include the most recent developments.
- Emission inventories will be compared and analyzed for trends in emission sources over time. This will improve an area's understanding of the trends in emissions in their community and will aid in verification of the accuracy of the inventories.

C. Modeling

- Emission inventories will be used to develop SIP quality modeling episodes that perform within the EPA's accepted margin of accuracy, including a base case and future case on or before December 31, 2007. Therefore, inventories must sufficiently account for projected future growth in ozone precursor emissions, particularly from stationary, non-road, and on-road mobile sources.
- Local area must carefully document modeling approach, and work will be supported and reviewed by the State and concurrently reviewed by the EPA.

- Quantifiable emission reduction measures will be integrated into the future case to produce one or more control cases. These control cases will be used to indicate the relative effectiveness of different measures and aid in selecting appropriate measures.
- Prior to plan implementation the control strategies should be determined based on model results from a control case episode that shows achievement of the 8-hour ozone standard on or before December 31, 2007 through implementation of the control strategies.
- Communities will continue to develop other episodes as necessary to fully represent the variety of situations that typically contribute to ozone production in the area and to support the plan with the most current information and tools. Other episodes may also indicate necessary revisions to ensure that sufficient emission reduction measures are selected and implemented to continue to achieve target ozone concentration levels.

D. Control Strategies

- After all adopted Federal and State or Tribal controls that have been or will be implemented by the attainment date of December 31, 2007 are accounted for in the modeling, the local area will adopt additional local controls, as necessary, to demonstrate attainment of the 8-hour standard by December 31, 2007. As an initial matter, by June 16, 2003, the local area will identify and describe the local control measures that will be considered during the local planning process. The June 16, 2003 deadline for describing the control measures under consideration must be met to maintain eligibility in the program. While failure to list a measure at this stage would not preclude its adoption later, it is important to develop a reasonably complete initial list of measures. This will provide the public with clear information on the measures under consideration, will help ensure that interested parties are fully aware of the level of effort and local commitment that is necessary, and will demonstrate that the local area is making progress toward meeting the critical March 31, 2004 deadline for adoption of local measures. The resulting local plan must be completed and submitted to the State or Tribal leader by March 31, 2004 for inclusion in the State implementation plan. The local plan shall include measures that are specific, quantified, and permanent, and that if approved by EPA, will be Federally enforceable SIP revisions. The March 31, 2004 submission also will include specific implementation dates for the adopted local controls, as well as detailed documentation and reporting processes.
- Controls will be implemented as soon as practicable, but not later than December 31, 2005.
- Controls will be designed and implemented by the community with full stakeholder participation.
- All control measures will be incorporated by the state into the State Implementation Plan and submitted to the EPA for review and approval. In the event that areas wish to add or substitute measures after SIP submittal, plan modifications will be treated as SIP revisions and facilitated by the state.

E. Maintenance for Growth

- The plan must include a component to address emissions growth at least 5 years beyond December 31, 2007, ensuring that the area will remain in attainment of

the 8-hour standard during that period. This future attainment maintenance analysis may employ one or more of the following or any other appropriate techniques necessary to make such a demonstration:

- Modeling analysis showing ozone levels below the 8-hour standard in 2012;
 - An annual review of growth (especially mobile and stationary source) to ensure control measures and growth assumptions are adequate;
 - Identification and quantification of federal, state, and/or local measures indicating sufficient reductions to offset growth estimates.
- The plan must also detail a continuing planning process that includes modeling updates and modeling assumption verification (particularly growth assumptions). Modeling updates and planning processes must consider and evaluate:
 - all relevant actual new point sources;
 - impacts from potential new source growth; and
 - future transportation patterns and their impact on air quality in a manner that is consistent with the most current adopted Long Term Transportation Plan and most current trend and projections of local motor vehicle emissions.
 - If the review of growth demonstrates that adopted control measures are inadequate to address growth in emissions, additional measures will be added to the plan. Local planning processes should prepare for this possibility.

F. Public Involvement

- Public involvement will be conducted in all stages of the planning and implementation process.
- Public education programs will be used to raise awareness regarding issues, opportunities for involvement in the planning process, implementation of control strategies, and any other issues important to the area.
- Interested stakeholders will be involved in the planning process as early as possible. Planning meetings will be open to the public, with posted meeting times and locations. Plan drafts will be publicly available, and the drafting process will have sufficient opportunities for comment from all interested stakeholders.
- Public comment on the proposed final plan will follow the normal SIP revision process as implemented by the State.
- Semi-annual reports detailing, at a minimum, progress toward milestones, will be publicly presented and publicly available.

Local, State and the EPA Commitments

Local Areas

Local areas hold primary responsibility for the development and implementation of the plan, as well as for maintaining communication with all parties, including:

- Drawing up the Compact, which embodies the requirements described in Sections A-F, including a time line for milestones.
- Completing and signing by all parties of the Early Action Compact no later than December 31, 2002.

- By June 16, 2003, the local area will identify and describe the local control measures that will be considered during the local planning process.
- By March 31, 2004, the local area will submit their early action plan to the State/EPA to permit adequate time for adoption as part of the SIP no later than December 31, 2004.
- Notifying parties as soon as possible of issues and developments, which may impact performance and progress toward milestones.
- Notifying parties as soon as possible if Compact milestones will be missed or have been missed.
- Notifying parties as soon as possible if Compact modification/termination is to be requested.

State

The state will assist in the drafting of the Early Action Compact and will provide support to areas throughout the planning and implementation process, including:

- Technical assistance in the development of emission inventories, modeling process, trend analysis and quantification and comparison of control measures;
- Necessary information on all Federal and State adopted emission reduction measures which affect the area;
- Critical third party review of emissions inventory, modeling, and self-evaluation work;
- Technical and strategic assistance, as appropriate, in the selection and implementation of control strategies;
- Technical and planning assistance in developing and implementing processes to address the impact of emissions growth beyond the attainment date;
- Maintenance of monitors and reporting and analysis of monitoring data;
- Support for public education efforts;
- Coordinate communication between local areas and the EPA to facilitate continuing the EPA review of local work;
- Expedient review of the locally developed plan, and if deemed adequate, propose modification of the SIP to adopt the early action plan;
- Adoption of control measures into the SIP as expeditiously as possible. The final complete SIP revision must be completed, adopted, and submitted by the state to the EPA by 2004.

EPA

The EPA will recognize the local area's and State's commitment to voluntarily adopt an early, substantive, enforceable and scientifically-based attainment plan with early implementation of control measures by becoming a party to the Early Action Compact developed in conformance with this protocol.

- The EPA will provide technical assistance to the state and local area in the development of the early action plan.
- The EPA will move quickly to review and approve completed plans by no later than nine months after submission of the SIP revision by the state.
- When the EPA's 8-hour implementation guidelines call for designations, the EPA will defer the effective date of nonattainment designation and related requirements for participating areas that fail to meet the 8-hour ozone standard as long as all terms and milestones of the compact are being met, including submission of the early action SIP revision by 2004.
- Provided that the monitors in the area reflect attainment by December 31, 2007, the EPA will move expeditiously to designate the area as attainment and impose no additional requirements.

- If at any time the area does not meet all the terms of this Compact, including meeting agreed-upon milestones, then it will forfeit its participation and its designation (or re-designation if necessary) will become effective according to the EPA's 8-hour ozone implementation guidelines. The EPA will offer such an area no delays, exemptions or other favorable treatment because of its previous participation in this program.
- If the area violates the standard as of December 31, 2007, and the area has had the effective date of its nonattainment designation deferred, the area's nonattainment designation will become effective. The state will then submit a revised attainment demonstration SIP revision according to the CAA and the EPA's 8-hour implementation rule, unless the 8-hour implementation schedule requires SIP's from 8-hour nonattainment areas before December 31, 2008. In that event, a revised attainment demonstration SIP revision for the participating area will be due as soon as possible but no later than December 31, 2008. In no event will the EPA extend the attainment date for the area beyond that required by the CAA and/or the EPA's 8-hour implementation rule.
- No area will be allowed to renew their Early Action Compact after December 31, 2007, or initiate a new compact if it has previously forfeited its participation.