STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Air Pollution Control Division
9th Floor, L & C Annex, 401 Church Street, Nashville, TN 37243

June 12, 2003

Kay T. Prince, Chief of Air Planning Branch
US EPA, Region IV
Atlanta Federal Center, 12th Floor
61 Forsyth Street, SW
Atlanta, GA 30303

RE: Submittal of "Likely" Control Measures for Early Action Compact Areas

Dear Ms. Prince:

In accordance with the Early Action Compact (EAC) agreement, you will find enclosed the "likely" list of control measures for each of the EAC areas in Tennessee. This is being submitted on behalf of each EAC area to comply with the June 16, 2003 milestone. Each compact area has selected control measures for their county, which are being considered as a means to achieve the 8-hour ozone standard by 2007.

The following information is enclosed:

- Executive Summary
- EPA - Checklist of June 16, 2003, Control Measures List
- Table 1 - Summary of likely EAC Control Measures by county with chosen control measures
- Table 2 - List of Control Measures with ID assigned to interpret Table 1
- Table 3 - List of likely Statewide Control Measures being considered
- Tennessee Map - Showing 8 hour ozone design values by MSA for 2000-2002
- Copy of the April 14, 2003, Memorandum from Lydia N. Wegman
- Likely Control Measures List and the signatory pages for the Chattanooga area, Haywood County, Knoxville area, Memphis area, Nashville area, Putnam County and the Tri-Cities area. Lawrence County submitted a request to opt out of the EAC.

I believe this submittal satisfies all requirements of the June 16th EAC milestone, but if more information is needed do not hesitate to contact me.

Sincerely,

Barry R. Stephens, P.E.
Director
Division of Air Pollution Control

cc: Karen Borel & Dick Schutt, EPA, Region IV
Local Air Programs
Tennessee Air Pollution Control Board
EAC Signatories

EXECUTIVE SUMMARY

Enclosed please find the necessary documentation to the meet the Ozone Early Action Compact (EAC) deadline for submittal of Likely Control Measures for Tennessee due June 16, 2003. This documentation meets the guidance provided in the letter signed by Lydia N. Wegman sent to appropriate Regional Administrators and Air Directors dated April 4, 2003 (enclosed for reference). The following describes the remaining contents of this submittal.

1. First find the June 16, 2003, EPA Control Measures Checklist.

2. Table 1 is a summary of the Likely Control Measures (LCM) chosen from a prepared list and submitted by each EAC. The table is arranged first by EAC, then by county within each EAC. The fourth column lists the chosen control measures for each county by a numeric ID. This ID identifies each of the control measures listed in Table 2 described next.

3. Table 2 is a slight modification of a list of LCM originally prepared by Dr. Wayne Davis, University of Tennessee, Knoxville, and the Nashville / Davidson County Air Program. This list was sent to all EACs to serve as a starting point for discussions and deliberations, and was specially targeted toward the rural counties. This table provides a brief description of each control measure along with other important information to assist the deliberative process. Each control measure is assigned a unique ID, and it is this ID that is listed in column four of Table 1. Please note that in some cases a reference is made in column four of Table 1 to an attachment. This was necessary when the submitting entity significantly modified or customized the original LCM list, or added additional control measures. Each EAC was encouraged to submit additional control measures tailored to their specific needs. The attached lists are found along with other documentation for each EAC in the tabbed sections of this binder described below.

4. Table 3 summarizes the Control Measures being considered for statewide implementation in Tennessee. Please note that regulatory development is currently underway.

5. Next comes a map of Tennessee detailing the 8-hour 2000-2002 ozone design values and Metropolitan Statistical Areas (MSA and CMSA). Also included is the Lydia Wegman letter dated April 4, 2003 referenced above.

6. Finally, find a tabbed section for each EAC. These sections contain transmittal letters, signature pages, and the LCM lists, some of which may be referenced in column four of Table 1 as discussed above.

Review Checklist for June 16, 2003, Control Measures List

1. **Did the Early Action Compact area submit an identification and description of control measures being considered by the local area? YES**

2. **Was this list of controls submitted (postmarked or emailed) no later than June 16, 2003? YES**

3. **What date was the list of controls submitted?**
   Submitted to EPA June 12, 2003

4. **Who submitted the list of controls?**
   Barry R. Stephens, P.E.
   Director, Division of Air Pollution Control

5. **Does it appear that the control measures contained in the June 16 list of controls can be implemented in this specific EAC area? YES**

6. **Does it appear reasonable that the list of controls can be implemented within the time frame of the EAC, i.e., no later than 2005? YES**

Table 1
Tennessee Likely EAC Control Measure Summary Table

	EAC	TN County	Chosen Control Measures By ID
1.	Chattanooga	Hamilton	3, 4, 5, 7, 8, 9, 10, 15, 16, 17, 21, 22, 23, & items 2, 3, 8 from custom list
2.		Marion	3, 4, 5, 7, 8, 9, 10, 15, 16, 17, 21, 22, 23, & items 2, 3, 8 from custom list
3.		Meigs	3, 4, 6, 8, 9, 10, 11, 14, 16, 18, 19, 20, 21, 22, 23
4.	Haywood	Haywood	3, 14, 15, 16, 20, 23, 25, 26, & item 9 in attached list
5.	Knoxville	Anderson	Control Measures 1-27
6.		Blount	Control Measures 1-27
7.		Jefferson	3, 7, 8, 12, 14, 15, 19, 22, 23, 25, 26
8.		Knox	Control Measures 1-27
9.		Loudon	Control Measures 1-27
10.		Sevier	Control Measures 1-27
11.		Union	Control Measures 1-27
12.	Lawrence	Lawrence	Opting out
13.	Memphis	Fayette	2, 4, 8, 9, 12, 15, 16, 17, 19, 21, 26, 27, & item 8 on attached list
14.		Shelby	See attached list of custom measures and descriptions for county
15.		Tipton	2, 4, 8, 9, 12, 15, 16, 17, 19, 21, 26, 27, & item 8 on attached list
16.	Nashville	Cheatham	12, 16, 19, 25
17.		Davidson	See attached list of custom measures and descriptions for county
18.		Dickson	Control Measures 1-27
19.		Robertson	5, 8, 10, 14, 16, 17, 19, 25. See also items 5, 6 on attached list.
20.		Rutherford	See attached list of custom measures and descriptions for county
21.		Sumner	1, 2, 4, 5, 6, 9, 11, 14, 15, 16, 17, 19, 20, 22, 23, & see items 15, 16, 20 from county custom list. See also custom lists for Hendersonville, Millersville, White House
22.		Williamson	Control Measures 1-27
23.		Wilson	1, 2, 3, 5, 6, 7, 12, 13, 15, 16, 18, 20, 22, 26, & item 15 from attached list
24.	Putnam	Putnam	1, 5, 6, 10, 12, 14, 15, 16, 17, 25, 26, 27, & item 2 on attached list
25.	Tri-Cities	Carter	See attached custom list for entire EAC
26.		Hawkins	
27.		Johnson	
28.		Sullivan	
29.		Unicoi	
30.		Washington	

TABLE 2
LIST OF LIKELY TENNESSEE EAC CONTROL MEASURES

ID	Source Category	Control Measure Description	Pollutant Reduced	S=Stationary M=Mobile C=Combination	R=Regulatory V=Voluntary	L=Local S=State wide
1	Mobile LDGV, HDGV	Support evaluation of an IM program EAC-wide or Statewide	NOx,VOC, CO	M	R	L and/or S
2	Mobile LDV	Free gas cap replacement program (in conjunction with IM)	VOC	M	R	L and/or S
3	Mobile	Local governments investigate installation of fuel infrastructure and conversion of local government fleets to alternative fueled vehicles	NOx, VOC, CO	M	R, V	L
4	Gasoline refueling stations	Implement or expand Stage I and or Stage II in all MSA counties	VOC	S	R	L and/or S
5	Stationary NOx sources	Support statewide NOx RACT Low NOx combustion controls	NOx	S	R	L and/or S
6	On-road HDDV and Buses	Encourage accelerated replacement with newer lower emitting vehicles	NOx, VOC,CO	M	V	L and/or S
7	On and Off Road Diesel Vehicles	Retrofitting local government vehicles (diesel fleets including school buses)	NOx, VOC, CO	M	R, V	
8	On and Off Road Diesel Vehicles	Encourage accelerated replacement with newer lower emitting vehicles	NOx, VOC,CO	M	V	L and/or S
9	On and Off Road Diesel Vehicles	Encourage use of catalysts and low sulfur diesel	NOx	M	V	L and/or S

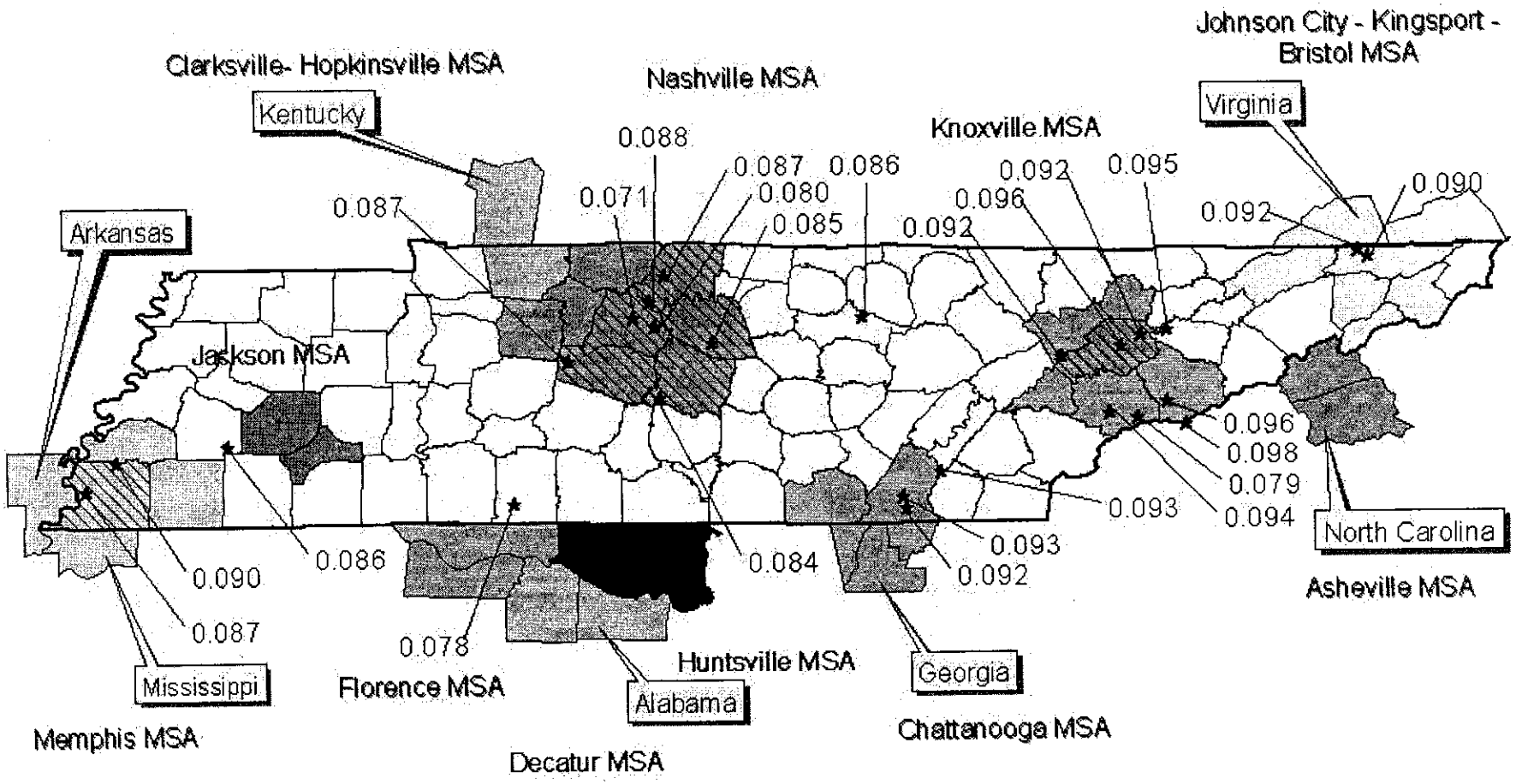
ID	Source Category	Control Measure Description	Pollutant Reduced	S=Stationary M=Mobile C=Combination	R=Regulatory V=Voluntary	L=Local S=State wide
10	On and Off Road Diesel Vehicles	Support the use of Cetane diesel fuel additive	NOx	M	R	L and/or S
11	Fleet Vehicles	Propose accelerated replacement with newer lower emitting vehicles or with vehicles using cleaner fuels	NOx, VOC,CO	M	V	L and/or S
12	On-road vehicles	Traffic signalization/synchronization	NOx, VOC,CO	M	V	L
13	On-road vehicles	Roadside assistance/Incident management program	NOx, VOC,CO	M	V	L
14	HDDV and buses	Truck stop electrification/Anti-idling regulation	NOx, VOC,CO	M	V/R	L
15	All categories	Air Quality Action Day (AQAD)	NOx, VOC,CO	C	V	L and/or S
16	Open burning	Open burning ban--perhaps on ozone action days	NOx, VOC,CO	S	R	L
17	On-road HDDV trucks	Support reducing speed limit on ozone action days (or for the ozone season)	NOx	M	V	L and/or S
18	On-road vehicles	Transportation management plan for large employers	NOx, VOC,CO	M	V	L
19	On-road vehicles	Area wide rideshare incentives	NOx, VOC,CO	M	V	L

ID	Source Category	Control Measure Description	Pollutant Reduced	S=Stationary M=Mobile C=Combination	R=Regulatory V=Voluntary	L=Local S=State wide
20	On-road vehicles	Support the enforcement of the smoking vehicle reg. similar to Davidson County to remove gross emitters from road	NOx, VOC,CO	M	R	L and/or S
21	All gasoline engines	Support lower gasoline RVP	VOC	M	R	S
22	All diesel engines	Participate in a regional initiative to seek early introduction of ultra-low sulfur diesel fuel	NOX, VOC, CO	M	R, V	L or S
23	TDOT	Support giving preference to bidders on state jobs with repowered, rebuilt or refueled diesel equipment	NOx, VOC,CO	M	R	S
24	Trip Reductions	Employer-based trip reduction plans	NOx, VOC, CO	M	V	L and/or S
25	All	Student outreach through education systems; educate future drivers on the impact of motor vehicles on the environment	NOx, VOC, CO	M	V	L
26	All	Public education at community events	NOx, VOC, CO	C	V	L
27	All	Air quality web page/public information	NOx, VOC, CO	C	V	L
	OTHERS---					

TABLE 3
LIST OF LIKELY TENNESSEE EAC CONTROL MEASURES BEING CONSIDERED FOR STATEWIDE IMPLEMENTATION (REGULATORY DEVELOPMENT UNDERWAY)

ID	Source Category	Control Measure Description	Pollutant Reduced	S=Stationary M=Mobile C=Combination	R=Regulatory V=Voluntary	L=Local S=State wide
1	Mobile	Expanding scope of IM program to include heavier weight vehicles (up to 10,000 GVWR) in Middle Tennessee only	NOx, VOC, CO	M	R	S and/or L
5	Stationary & Mobile NOx sources	Drafting statewide NOx RACT Rule -The rule is for NOx generating sources and facilities. The target is 50 TPY. It will require a RACT determination or verification of non-applicability.	NOx	S & M	R	S and/or L
10	On and Off Road Diesel Vehicles	Support the use of Cetane diesel fuel additive	NOx	M	R	S and/or L
14	HDDV and buses	Drafting statewide Anti-idling rule	NOx, VOC, CO	M	R	S and/or L
20	On-road vehicles	Drafting smoking vehicle reg. similar to Davidson County to remove gross emitters from road	NOx, VOC, CO	M	R	S and/or L
	Other					
	On-road vehicles	Drafting statewide vehicle Anti-tampering rule	NOx, VOC, CO	M	R	S and/or L

Tennessee 8 Hour Ozone
Design Values By MSA 2000 - 2002



Notes:
Design values in parts per million.
Old 1-hr nonattainment areas in hatched areas.
A county with a design value greater than or equal to 0.085 ppm is violating the standard.

★ **Monitoring Sites With an 8 Hr Ozone DV**

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

APR 04 2003

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Early Action Compacts (EACs): The June 16, 2003 Submission and Other Clarifications

FROM: Lydia N. Wegman, Director
Air Quality Strategies and Standards Division

TO: Air Directors, Regions III, IV, VI, and VIII

This memorandum responds to questions from States and local EAC areas about what needs to be included in the milestone submittals and semiannual reports due June and December 2003. As we have stated before, completion of each of the critical milestones and schedules as described in the "Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-hour Ozone Standard" ("Protocol"), revised November 2002, and the November 14, 2002 memorandum from Jeffrey Holmstead to EPA Regional Administrators is essential if areas are to remain eligible for participation in the EAC program. To ensure that the 2003 submissions and subsequent milestones will be met, we are issuing this memorandum (1) to provide State and local air pollution control agencies some general guidelines to assist them in completing the June 16, 2003 submission; (2) to clarify what should be included in the semiannual reports due in June and December 2003; and (3) to clarify several technical requirements of the program to ensure that the attainment demonstrations being developed in conjunction with the local air quality plans are representative of current information and conditions.

1. June 16, 2003 Submission

The Protocol and the November 14, 2002 Holmstead memorandum require EAC areas to identify and describe the local control measures that will be considered during the local planning process. This June 16, 2003 milestone must be met to maintain eligibility in the EAC program. This submission can be referenced in the June 2003 progress report, as described in the Section 2 of this memorandum.

We recommend that EAC areas, based on stakeholder consultation, submit by June 16, 2003 a list of candidate local control measures that is sufficient to ensure a control strategy can be developed to achieve attainment of the 8-hour ozone standard by 2007. As provided in the Protocol, areas should describe each of the local control measures under consideration.

As EAC areas prepare and subsequently analyze the June 2003 list of local measures, we advise the participants to work with stakeholders to consider carefully each of the following components needed to develop an attainment strategy:

- Local control measures that can reasonably be implemented in each area. Among the factors to consider are the resource and political constraints of that specific area;

- Realistic implementation dates for the control measures;

- The range of potential emissions reductions that will result from each control measure based on reasonably available information. (In accordance with the Protocol, these local measures must be specific, quantified, and permanent, and that if approved by EPA, will be federally enforceable SIP revisions.) A list of resources containing emissions reduction estimates for specific measures can be found in the attachment to this memorandum; and

- The geographic area to which control measures could be applied.

Any public comments received in response to the June 16, 2003 submissions will be posted on EPA's EAC website at: http://www.epa.gov/ttn/naaqs/ozone/eac/ .

2. June 30, 2003 Progress Report

The Protocol requires local areas to assess and report every 6 months their progress against milestones in a regular, public process. At a minimum, the June 2003 progress report should do the following:

- Document progress in developing the stakeholder process, including the roles and responsibilities of various stakeholder groups, a list of stakeholders, and a brief summary of stakeholder meetings;

- Report progress on evaluating and selecting emission reduction measures for the local control strategy, including stakeholder involvement in the development of the initial list of control measures (The June 2003 progress report can reference the June 16, 2003 submission discussed above.);

- Describe public outreach activities (press coverage, public presentations, websites, etc.); and

- Provide an update on modeling/technical planning activities.

3. December 31, 2003 Progress Report

As part of the December 2003 progress report, EAC areas should address in detail each of the bulleted components discussed in section 1 above. This progress report will be an important element in EPA's consideration of whether or not to grant a deferral of the effective date of the nonattainment designation at the time of final designations in April 2004. More specifically, the progress report should address:

- A list of control measures still under consideration for adoption by the local area as part of the March 2004 submission;
- Likely implementation dates for the local control measures that are under consideration;
- Current assessment of the amount of emissions reductions expected to be achieved through implementation of the local control measures; and
- The geographical area in which each control measure is anticipated to apply.

4. Attainment Demonstration

As State and local agencies move forward to develop the modeling and other technical analyses in support of attainment demonstrations for EAC areas, they have asked EPA for clarification of the modeling guidance and its application to EAC areas. As modeling demonstrations will become part of the enforceable SIP, State and local agencies should do the following:

- Follow the most recent OAQPS modeling guidance ("Draft Guidance on the Use of Models and Other Analyses in Attainment Demonstrations for the 8-hour Ozone NAAQS," May 1999, EPA-454/R-99-004); see: http://www.epa.gov/scram001/guidance/guide/drafto3.pdf ;
- Model most current emissions inventory, preferably 2002; however, if 2002 is not available, use of a 1999 or later inventory for EAC modeling is acceptable;
- Base 2007 projections on 1999 emissions inventory or later;
- Use MOBILE6 in both the current and future inventories;
- Select episodes that are representative of the area's ozone problem;
- Use appropriate assumptions and emissions analysis techniques in quantifying emissions reductions.

Please advise your States that any deviations from the above guidance need to be reviewed by and coordinated with the EPA Regional Office. For additional clarification of these and other technical requirements, State and local agencies should refer to questions and answers related to EAC modeling issues at: http://www.epa.gov/scram001/guidance/guide/eac-ozone.pdf. This document, which will be updated periodically with additional questions as necessary, provides clarification of the current modeling guidance and its application to EAC areas.

I hope this information will be helpful to you and EAC areas as they move forward to meet the swiftly-approaching milestone and semiannual reports for this year.

Any questions related to EAC policy issues should be directed to David Cole at 919/541-5565, while questions related to EAC modeling and attainment demonstration issues should be directed to Ellen Baldridge at 919/541-5684.

cc: Air Directors, Regions I, II, V, VII, IX, X
Margo Oge, OTAQ
Steve Page, OAQPS
Peter Tsirigotis, OAQPS
Joe Tikvart, OAQPS
G.T. Helms, OAQPS
Jan Tierney, OGC

ATTACHMENT

Resources for Identification of Control Strategies, Emission Reduction Estimates and Emission Inventories

URL	Downloadable Document(s) and Websites
www.epa.gov/otaq/transp/costemis.pdf	"Summary Review of Costs and Emission Reductions for 24 CMAQ Projects" (September 1999)
www.epa.gov/otaq/transp/publicat/pub_volu.htm	"Quantification of Episodic Control Programs" (EPA420-R-97-0061, April 1997)
http://www.epa.gov/oms/transp/comchoic/sipguide.pdf	"Index of Transportation Measure Quantification Efforts: Methodology Matrix" (EPA420-R-98-018, September 1998)
http://www.epa.gov/oms/transp/comchoic/sipguide.pdf	"State Implementation Plan Development Guidance: Using Emission Reductions from Commuter Choice Programs to Meet Clean Air Act Requirements" (EPA420-R-98-007, December 1998)
www.epa.gov/otaq/transp/publicat/pub_tcms.htm	"Benefit Estimates for selected TCM Programs" (EPA420-R-98-002, July 1999)
www.epa.gov/otaq/transp/publicat/pub_tech.htm	Transportation and Air Quality ACM Technical Overviews. These documents provide overviews of individual TCMs, discussing their advantages, disadvantages, and issues involved in their implementation. Topics: *Accelerated Retirement of Vehicles, Bicycle and Pedestrian Programs, Commute Alternative Incentives, Congestion Pricing, Guaranteed Ride Home, High Occupancy Vehicle Lanes, Intelligent Transportation Systems, Parking Management, Parking Pricing, Improved Public Transit, Telecommuting, Traffic Flow Improvements, Trip Reduction Ordinances, Work Schedule Changes*

www.epa.gov/otaq/transp/publicat/pub_mrkt.htm	"Opportunities to Improve Air Quality Through Transportation Pricing Programs" (EPA420-R-97-004, July 1997)
http://www.epa.gov/otaq/transp/publicat/pub_pedo.htm	"TDM Case Studies and Commuter Testimonials" (August, 1997) Successful transportation demand management programs are described in 19 case studies.
http://www.epa.gov/dced/pdf/comparing_methodologies.pdf	"Comparing Methodologies to Assess Transportation and Air Quality Impacts of Brownfields and Infill Development" (EPA-231-R-01-001, August 2001)
PDF file will be made available on EAC website at:http://www.epa.gov/ttn/naaqs/ozone/eac/	"Methodologies for Estimating Emission and Travel Activity Effects of TCMs" (EPA-420-R-94-002, July 1994)
http://www.epa.gov/ttn/chief/	Clearinghouse for Inventories and Emission Factors, including a new draft of an update to the 1999 National Emission Inventory (March 11, 2003)
PDF file will be made available on EAC website at:http://www.epa.gov/ttn/naaqs/ozone/eac/	"Meeting the 15-Percent Rate-of-Progress Requirement Under the Clean Air Act: A Menu of Options," STAPPA/ALAPCO, September 1993.
PDF file will be made available on EAC website at:http://www.epa.gov/ttn/naaqs/ozone/eac/	"Controlling Nitrogen Oxides Under the Clean Air Act: A Menu of Options," STAPPA/ALAPCO, July 1994.
PDF file will be made available on EAC website at:http://www.epa.gov/ttn/naaqs/ozone/eac/	"Serious and Severe Ozone Nonattainment Areas: Information on Emissions, Control Measures Adopted or Planned and Other Available Control Measures," November 24, 1999.
http://www.epa.gov/otaq/voluntary.htm	EPA Website: Transportation and Air Quality Voluntary Programs, including Green Vehicle Guide, Voluntary Diesel Retrofit Program, and Commuter Choice Leadership Initiative, U.S. EPA (updated January 10, 2003)

http://www.epa.gov/otaq/transp/traqdata.htm	EPA Website: Transportation and Air Quality Planning, Clearinghouse and Databases. Includes Survey of Episodic Control Programs, Market Incentives Resource Center for Air Quality Programs, Smart Travel Resource Center, Transportation-related Grants Database, and Transportation Control Measures Program Information Directory (updated June 28, 2002)
http://www.epa.gov/otaq/transp/landguid.htm	"Improving Air Quality Through Land Use Activities." Report (EPA420-R-01-001, January 2001)
http://www.epa.gov/otaq/transp/traqtcms.htm	EPA Website on Transportation Control Measures: On-line Database; Methodologies for Estimating Emission and Travel Activity Effects of TCMs - (EPA420-R-97-004, July 1997)
http://www.trb.org	Transportation Research Board Website: Quantifying Air-quality and Other Benefits and Costs of Transportation Control Measures

HAYWOOD COUNTY EARLY ACTION COMPACT

LIST OF LIKELY CONTROL MEASURES FOR

HAYWOOD COUNTY
COUNTY NAME

For the Early Action Compact, the signatory below agrees to the attached list of likely control measures for the above county. All other signatories shall sign below or attach pages as appropriate.

NAME	TITLE	DATE
John T. Sharpe, Jr.	Haywood County Executive	6/11/3

Other signatories are as follows:

NAME	TITLE	DATE
Francis D. Russell	County Commissioner	6/9/03
Reni Castellar	City of Brownsville Utilities	06-09-03
Neil F. Barker	mayor city of Brownsville	06-04-03
Sandra Silverstein	Chamber of Commerce Executive Director	06/09/2003
Robert Green	County Commissioner	6/11-03

Haywood County, Tennessee
Potential EAC Control Measures

1. Truck stop electrification/Anti-idling regulation
2. Discuss with local school board/anti-idling regulation
3. Encourage city/county and local school board to use cleaner fuels
4. Support giving preference to bidders on state jobs with re-powered, rebuilt or refueled diesel equipment
5. Open burning/only on Ozone Action Days
6. Propose an air quality Action Day in conjunction with Earth Day
7. Public education at community events
8. Support the enforcement of the smoking vehicle regulation to remove gross emitters from road
9. Support federal legislation to enhance (Air Quality Standards)
10. Student outreach through education systems; educate future drivers on the impact of motor vehicles on the environment