STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Air Pollution Control Division
9th Floor, L & C Annex, 401 Church Street, Nashville, TN 37243

March 30, 2004

J.I. Palmer, Jr.
Regional Administrator
US EPA, Region IV
Sam Nunn Atlanta Federal Center
61 Forsythe Street, SW
Atlanta, GA 30303

RE: Tennessee Early Action Compact Submittal for March 31, 2004 Milestone

Dear Mr. Palmer:

In accordance with the Early Action Compact (EAC) agreements, you will find enclosed air quality improvement plans for each of the seven (7) EAC Areas in Tennessee. The enclosed documentation is being submitted on behalf of each EAC area. This submittal is for the purpose of complying with the March 31, 2004 deadline to submit local air quality plans defining the measures to be taken to achieve compliance with the 8-hour ozone National Ambient Air Quality Standard no later than December 31, 2007.

Each local plan includes local measures that are specific and can be federally enforceable as either a part of the State Implementation Plan or Transportation Improvement Program no later than December 31, 2004. The documentation supporting each local plan and the modeling analysis are based on local controls demonstrating attainment of the 8-hour standard. The following information is enclosed:

- Chattanooga EAC Air Quality Improvement Plan
  for Hamilton, Marion, and Meigs Counties
  (Catoosa and Walker County, GA will make separate submittals)

- Knoxville EAC Air Quality Improvement Plan
  for Anderson, Blount, Jefferson, Loudon, Knox, Sevier, and Union Counties

- Nashville EAC Air Quality Improvement Plan
  for Cheatham, Davidson, Dickson, Robertson, Rutherford, Sumner, Williamson, and Wilson Counties

- Memphis EAC Air Quality Improvement Plan
  for Fayette, Tipton, and Shelby Counties
  (Desoto County, MS and Crittenden County, AR are to be submitted separately)

- Tri-Cities EAC Air Quality Improvement Plan
  for Carter, Hawkins, Sullivan, Unicoi, and Washington Counties

- Haywood County Air Quality Improvement Plan (Attainment)

- Putnam County Air Quality Improvement Plan (Attainment)

- Status of Statewide Measures

- Modeling Analysis Technical Support Documentation (TSD)
  (ATMOS TSD Final and Appendices A & B)

- Additional Technical Support Documentation (see CD)
  -Nashville EAC Report from UT 032204
  -TDOT VMT Emissions Growth 1999-2030
  -ATMOS Presentation 040212

The 2001-2003 ozone monitoring data shows that both Haywood and Putman Counties have demonstrated attainment for the 8-hour ozone National Ambient Air Quality Standard. Haywood and Putnam Counties recognize the importance of air quality as it relates to the health and welfare of its citizens, and for this reason are volunteering to take additional measures. Their efforts at the local level are an attempt to target citizen behavior through education and outreach.

All of the Early Action Compact areas in Tennessee will be substantially impacted by forthcoming federal measures. The Regional impacts of low sulfur diesel fuel and Heavy-Duty Diesel Engine standards will have significant impacts on regional NOx and VOC emissions as well as an expected benefit from lowering the gasoline sulfur content beginning in 2004. The change in gasoline sulfur content is expected to make considerable emissions reductions from light and some heavy-duty gasoline powered vehicles. Following the implementation of these federal measures, some of the EAC areas in Tennessee with a minimal amount of local voluntary control measures should be able to achieve attainment of the 8-hour ozone standard by 2007.

Due to time constraints, some documents may not have all of the local signatures. The documents have been signed, we have just not received the originals. They will be forwarded to EPA upon our receipt. I believe this submittal satisfies all requirements of the March 31, 2004 EAC milestone, but if more information is needed do not hesitate to contact me.

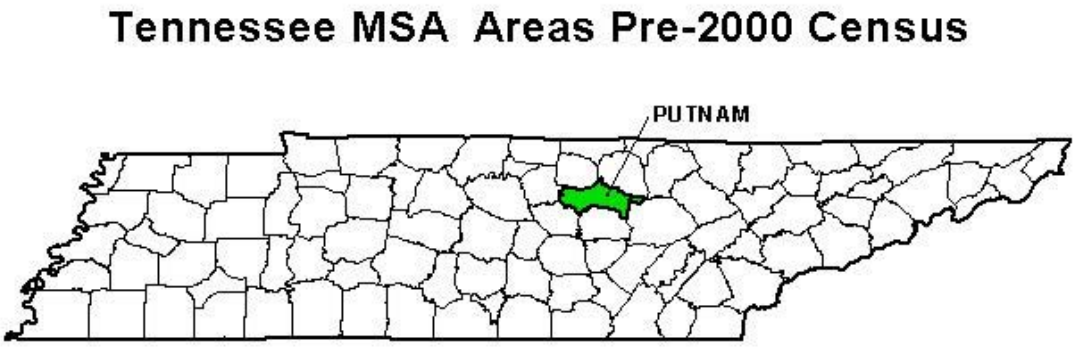
Sincerely,

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

cc: Kay Prince, Karen Borel, Dick Schutt, Clifford Beller, and Kenny Richardson
at EPA Region IV
Local Air Programs
Tennessee Air Pollution Control Board
EAC Signatories

Putnam County

Local Air Quality Improvement Plan



Putnam County Area

Putnam County, Tennessee

Geography/Topography

Putnam County has a land area of 401 square miles and is located on the Eastern Highland Rim of the Middle Grand Division of the state along the Interstate 40 corridor between Nashville and Knoxville.

Meteorological Information

Wind data from Nashville for the period of record from 1988 through1992 was determined to be representative for Putnam County. The predominate wind direction and speed is from the south at 7 to 10 knots (see Figure 1 A). The mean high temperature for July is 88.7 F, while the mean low is 69.5 F. The mean July precipitation is 3.8 inches. The period of record for this data is from 1971 through 2000.

Planning Authority

The authority for air quality planning for Putnam County resides with the Tennessee Department of Environment and Conservation. Transportation planning for Putnam County is performed by the Tennessee Department of Transportation.

Air Monitoring

For the 2001-2003 monitoring period, the ozone monitor (471410004 – 2) located at 1382 Benson Road shows an 8-hour design value of 0.082 parts per million (ppm) which would be classified as attainment (see Table 1 A). It is unlikely that after the final quality assurance of the 2003 data the 8-hour design value will change significantly.

For the monitoring period of 2000-2002, the 8-hour design value showed a value of 0.086 ppm. In the July 18, 2003 Governor's recommendation for counties not meeting the ozone standard, Putnam County was recommended as non-attainment for ozone based on the 2000-2002 data. However, after reviewing the most recent data for 2001-2003 the State would propose Putnam County be classified as attainment (see Table 1 A).

Population

Based on projections to 2002 from the 2000 census data, there are 64,300 persons living in Putnam County (see Table 1 C). This indicates a population density of 160.4 persons per square mile. The population of Putnam County is approximately 39.3% rural with the remaining 60.7% living in incorporated areas. The largest city in Putnam County is Cookeville (see Table 1 C).

Putnam County's population from 1990 through 2000 increased by approximately 20.8% (51,568 to 62,315). The population is expected to increase by 7.7% between 2000 and 2010 (see Table 1 B).

Air Emissions

Point source NOX emissions from Putnam County were estimated at 1.98 ton/day in 1999. Point source VOC emissions from Putnam County were estimated at 12.50 ton/day in 1999 (see Table 1 D).

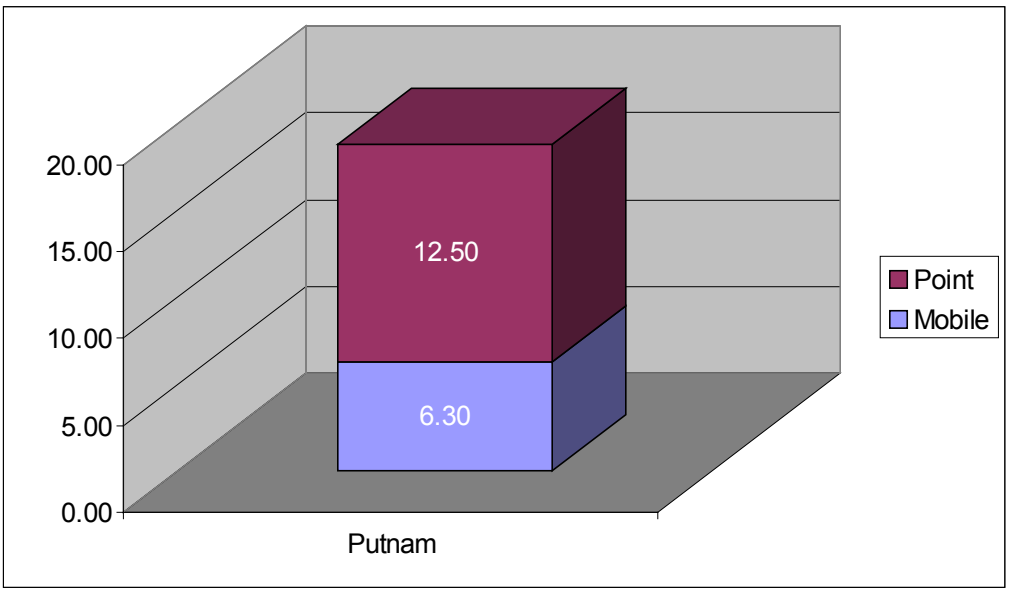
For NOX and VOC control, point sources located within Putnam County are subject to PSD requirements, CTG RACT requirements, Maximum Achievable Control Technology (MACT) requirements for Hazardous Air Pollutants (HAP), and New Source Performance Standards (NSPS).

Mobile source NOX emissions from Putnam County were estimated at 21.73 ton/day in 1999. Mobile source VOC emissions from Putnam County were estimated at 6.30 ton/day in 1999 (see Table 1 D).

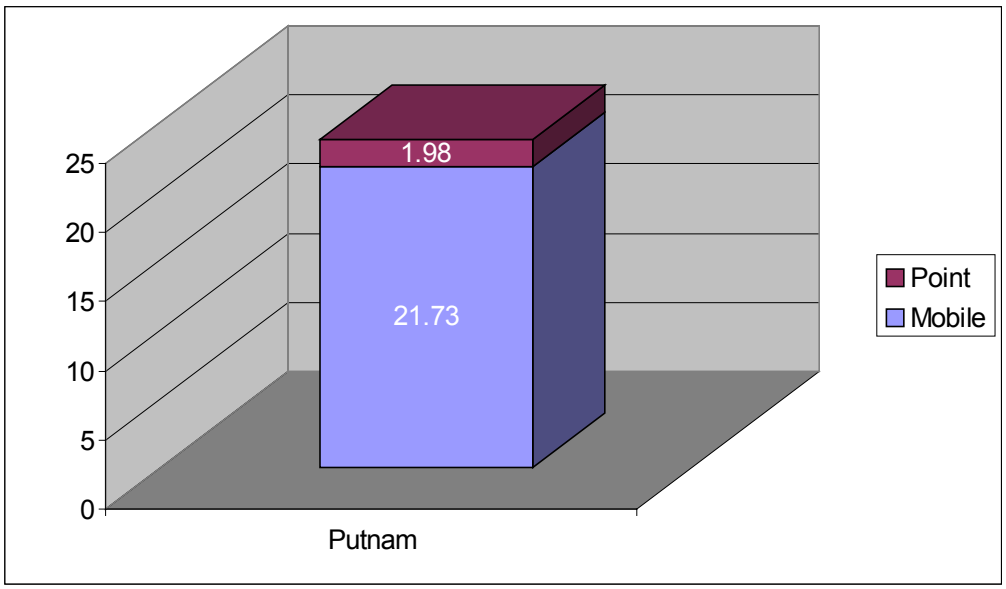
Commuting traffic from surrounding counties into Putnam County is minimal. Commuting traffic from Putnam County into surrounding counties is minimal.

Commuting Classifications	
Not Significant	0-10%
Minimal	11-30%
High	31-50%
Significant	51% or more

1999 NEI VOC Contribution
(ton/day)



1999 NEI NOX Contribution
(ton/day)



Summary

Putnam County has demonstrated attainment for the 8-hour National Ambient Air Quality Standard for ozone. Based on the 2001-2003 ozone design value Putnam County's ozone design value is measured at 0.082 ppm. Although measuring attainment, the County recognizes the importance of air quality to the health and welfare of its citizens. For this reason the local government is volunteering to take measures not required of them to improve air quality.

The County has selected several measures for local implementation. Due to the County's rural nature and few stationary source air pollution emissions, emphasis is being placed on public education. The primary source of NOx in the County is likely Interstate 40, traversing the County's length, east to west. It is possible the second most prevalent NOx source in the County is individual citizen behavior. Efforts on the local level will attempt to target citizen behavior through education and outreach. Through these efforts, and additional local government efforts, the County is attempting to reduce air pollution for its citizens

Putnam County

Figure 1 A
Putnam County
Wind Rose

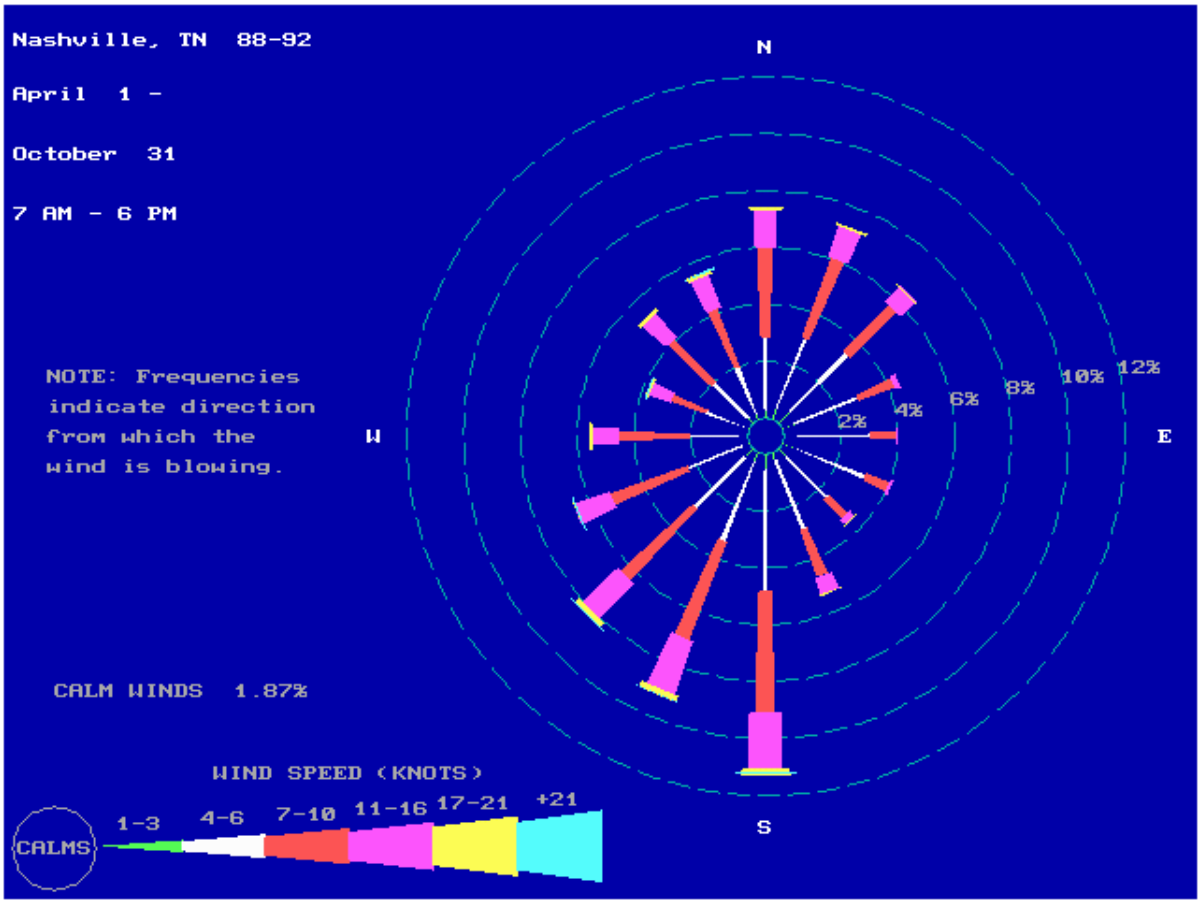


Figure 1 B
Putnam County
1999 NEI VOC and NOX Emissions
(ton/day)

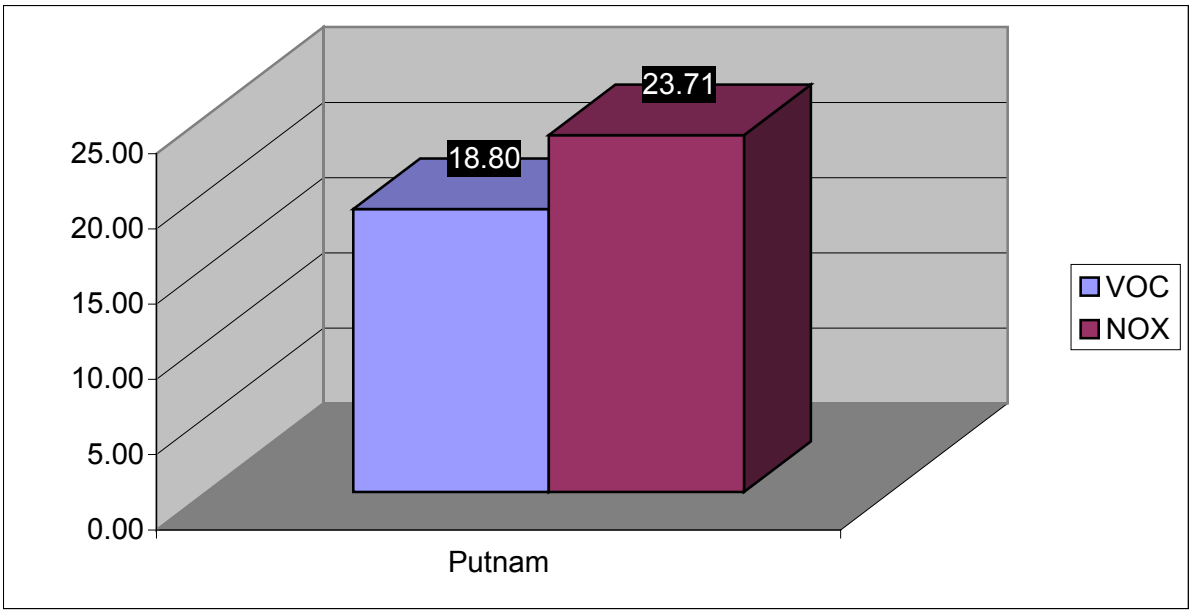


Table 1 A
Putnam County
Ozone Design Values
(ppm)

County	Site Name	MONITOR ID	1999 2001 Design Value PPM	2000 2002 Design Value PPM	2001 2003 Design Value PPM
Putnam Co	1382 Benson Road, Cookeville, TN	471410004 - 2	0.087	0.086	0.082

Table 1 B
Putnam County
Population Growth Data

County	Population 1990	Population 2000	PERCENT CHANGE 1990 - 2000	Population 2002	Area in Square Miles	2002 Pop. Density (Sq. Mile)	Projection 2010	% Growth 2000 - 2010
Putnam	51,568	62,315	20.8	64,300	401	160.35	67,128	7.7

Table 1 C
Putnam County
2002 Population Estimates

Tennessee	Estimated Population
Putnam	**64,300**
* Cookeville	(23,923)
* Algood	(2,942)
* Monterey	(2,717)
* Baxter	(1,279)

* Based on 2000 Census Data

Table 1 D
Putnam County
1999 NEI VOC and NOX Emissions
(ton/day)

County	VOC			NOX		
	Mobile	Point	Total	Mobile	Point	Total
Putnam	6.30	12.50	18.80	21.73	1.98	23.71

Letters of Support and Resolutions

Kim BLAYLOCK
COUNTY EXECUTIVE
300 E. Spring St. - Rm. 8 Cookeville, TN 38501 (931) 526-2161 Ph. 528-1300 Fax

PUTNAM COUNTY EARLY ACTION COMPACT
FINAL LIST OF LIKELY CONTROL MEASURES

1. Encourage accelerated replacement with newer lower emitting vehicles for both on-road HDDV and buses and on and off-road diesel vehicles
2. Support the use of Cetane diesel fuel additives
3. Support designating an "Air Quality Action Day"
4. Posting signs at truck stops to encourage no idling
5. Encourage citizens to stop open burning on ozone action days
6. Student outreach through education
7. Public education at community events
8. Develop an Air Quality Web Page
9. Plan to request that TDOT reduce speed limit for big trucks on ozone action days to 55 mph
10. No idle rule for school buses

This is the list approved by the Putnam County Commission at it's regular meeting on March 15, 2004. If there are any questions, contact me at (931)526-2161.

Sincerely,

Kim Blaylock, County Executive