

# ADEQ

ARKANSAS  
Department of Environmental Quality

March 24, 2004

Richard E. Greene, Administrator  
U.S. EPA Region 6  
1445 Ross Avenue  
Suite 1200  
Dallas, TX 75202-2733

J.I. Palmer, Jr., Administrator  
U.S. EPA Region 4  
Sam Nunn Atlanta Federal Center  
61 Forsyth Street, SW  
Atlanta, GA 30303

Dear Sirs:

In accordance with the March 31, 2004 milestone requirement of the Early Action Compact, enclosed please find Crittenden County, Arkansas's plan describing emission reduction strategies for the County. These strategies are consistent with control strategies developed in other jurisdictions comprising the Memphis Metropolitan Statistical Area (MSA). These jurisdictions include the State of Tennessee (Fayette and Tipton Counties), including the City of Memphis and Shelby County, and the State of Mississippi (DeSoto County). Implementation of the Crittenden County strategies is contingent on implementation of the strategies proposed by these other jurisdictions. Local control strategy plans for these areas, including the Technical Support Document for the entire MSA, will be submitted under separate cover.

If you have any questions or need additional information, please contact Tony Davis, Interim Chief of the Air Division of ADEQ, at (501) 682-0728.

Sincerely,



Marcus Devine  
Director

cc: Eddie E. Brawley, West Memphis MPO  
Melton Holt, Crittenden Co. Judge  
Frank A. Fogleman, Mayor, City of Marion  
William H. Johnson, Mayor, City of West Memphis  
Barry Stephens, Tennessee DEC  
Dwight Wylie, Mississippi DEQ  
Diane L. Arnst, Memphis and Shelby Co. Health Department



**METROPOLITAN PLANNING ORGANIZATION**  
 796 WEST BROADWAY WEST MEMPHIS, AR. 72301  
 TELEPHONE 870-735-8148 FAX 870-735-8158

March 16, 2004

Environmental Protection Agency, Region IV  
 Environmental Protection Agency, Region VI

REFERENCE: March 31, EAC Milestone

Gentlemen:

In cooperation with the regional efforts of the Memphis MSA Early Action Compact, Crittenden County continues to support participants' goals for achieving compliance. In keeping with our local commitment, a public meeting was held in Crittenden County on February 24, with representatives of the Arkansas Department of Environmental Quality, West Memphis MPO, City Councils of Marion and West Memphis and Crittenden County Quorum Court to decide upon local control measures to be submitted for the March 31, 2004, Early Action Compact Milestone. The consensus at this meeting was that the following four measures should be submitted for adoption and inclusion in the local plans with related quantification attached:

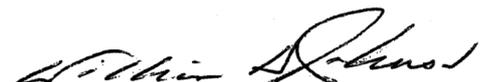
1. Stage I vapor recovery
2. Ozone Alert Program
3. Truck stop electrification - idling emission reduction
4. Construction equipment, -20% replacement

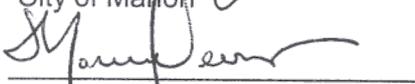
Any questions relating to these matters may be directed to Mr. Tony Davis, ADEQ, at (501) 682-0728 or Mr. Eddie Brawley, MPO (870) 735-8148.

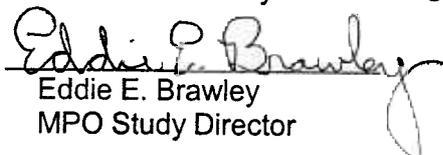
Sincerely yours,

  
 Frank A. Fogleman, Mayor  
 City of Marion

  
 Melton Holt, County Judge  
 Crittenden County

  
 William H. Johnson, Mayor  
 City of West Memphis

  
 Marcus Dewine  
 ADEQ Director

  
 Eddie E. Brawley  
 MPO Study Director

## Early Action Compact Emission Reduction Strategies for Crittenden County, Arkansas

The following emission reduction strategies have been proposed for Crittenden County. These commitments are in support of the Early Action Compact for the Memphis area. When considered in conjunction with strategies that other counties in the area are implementing, these should provide measurable reductions of ozone precursor pollutants throughout the region.

### Stage 1 Vapor Recovery

Stage 1 vapor recovery is used during the refueling of gasoline storage tanks to reduce hydrocarbon emissions. During the refueling process, hydrocarbon vapor in the storage tank, which is displaced by the fuel entering the tank, is routed back into the refueling tanker, rather than being vented to the atmosphere. Installation of stage 1 vapor recovery equipment at all retail fuel facilities in Crittenden County is expected to reduce volatile organic compound (VOC) emissions by 0.49 tons per day.

Costs associated with installation of the stage 1 vapor recovery equipment vary depending upon the specific type of equipment installed and the specific design of the existing fuel system. Generally speaking, costs to retrofit an existing underground storage tank system consisting of three or four tanks would likely range from \$1,000 to \$5,000.

Small businesses (fewer than 100 employees,) which meet certain financial requirements may be eligible for low interest loans through the Small Business Loan program administered by the Arkansas Dept. of Environmental Quality. The loans are made available to small businesses and farms to implement pollution control measures required by State or Federal law, or to institute pollution prevention measures that reduce pollution.

The State Implementation Plan will be revised to include a requirement for the installation and use of stage 1 vapor recovery in all non-attainment or EAC areas of the state.

### VMT Reduction on Ozone Alert Days

Ozone action days are announced when ozone levels are predicted to exceed the 8-hour ozone standard. The action days may be ozone advisories, ozone alerts, or ozone health alerts, depending upon the severity of the predicted exceedance. The ozone forecasts will be provided by the Memphis/Shelby County Health Department. When the forecasted ozone levels exceed the 8-hour standard, appropriate state, county, and local officials, MPO's and the media will be notified by phone, email, or FAX. The information will then be broadcast to the public through appropriate media outlets.

The public is asked to undertake voluntary measures on ozone action days to reduce emissions of ozone precursor pollutants. Specific measures which may be implemented include:

- Using public transportation
- Joining a car pool or van pool

- Walking or biking if possible
- Postponing and/or consolidating errands
- Reducing travel as much as possible during peak rush hours
- Scheduling meetings and appointments as late in the day as possible
- Avoiding driving at lunch time
- Taking advantage of alternative work arrangements, such as telecommuting, flex time, four day work weeks, or staggered work hours

The expected 1% reduction in vehicle miles traveled (VMT) on ozone alert days would result in a 0.02 ton per day reduction in nitrogen oxides (NO<sub>x</sub>) emissions, a 0.03 ton per day reduction in VOC emissions, and a 0.35 ton per day reduction in carbon monoxide (CO) emissions.

### **Truck Stop Electrification**

Truck stop electrification is provided at select truck stops around the country. The service provides heat and air conditioning, cable or satellite television, internet access, a telephone line, and electrical outlets to trucks parked in designated spaces. The services are provided via a compact unit attached to a service line conduit. The service unit is placed inside the truck through a specially designed port which fits in the passenger side window of the truck. Having access to these units enables truck drivers to remain parked comfortably during rest periods without allowing their diesel engines to idle.

Forty-four such spaces are currently available in West Memphis. It is unknown whether additional spaces will be made available in the future. Predicted emission reductions are based upon the use of each of the existing spaces for 16 hours per day. The predicted impact of truck stop electrification in Crittenden County is a 0.04 ton per day reduction of NO<sub>x</sub>, and a 0.28 ton per day reduction of CO.

### **Replacement or Retro-fitting of Construction Equipment**

It is expected that 20% of the operating construction equipment fleet in Crittenden County will be replaced or retro-fitted with emission-reducing components per year. The goal of 20% turnover per year will be accomplished by periodic replacement or retro-fitting of County- and City-owned construction equipment and through contract language which will encourage County and City contractors to use upgraded equipment. Low interest loans through the ADEQ Small Business Loan Program may be available for these activities.

Tracking of the upgrade process for publicly-owned equipment and County and City contractors will be accomplished through direct communication with County and City government agencies. Upgrades of privately-owned equipment may also be estimated based upon periodic surveys of private contracting companies.

The predicted 20% replacement/retro-fit of existing equipment within Crittenden County will result in a 0.11 ton per day reduction in NO<sub>x</sub> emissions, a 0.01 ton per day reduction in VOC emissions and a 0.05 ton per day reduction in CO emissions.

**Early Action Compact Emission Reduction Strategies Proposed for Crittenden County,  
Arkansas**

Emission Reduction Strategy	Source Category	Emission Reductions (tons/day)		
		NO <sub>x</sub>	VOC	CO
Stage 1 Vapor Recovery	area	0.00	0.49	0.00
1% VMT Reduction on Ozone Alert Days	area/mobile	0.02	0.03	0.35
20% New/Retrofit Construction Equipment	nonroad mobile	0.11	0.01	0.05
Truck Stop Electrification (44 spaces)	area	0.04	0.00	0.28
<b>Total Daily Emission Reductions Achieved</b>		<b>0.17</b>	<b>0.53</b>	<b>0.68</b>

NO<sub>x</sub> – oxides of nitrogen

VOC – volatile organic compounds

CO – carbon monoxide