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STATE OF MISSISSIPPI
DAVID RONALD MUSGROVE, GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
CHARLES H. CHISOLM, EXECUTIVE DIRECTOR

December 30, 2003

Ms. Beverly Banister, Director
Air, Pesticides & Toxics Management Division
Region 4
U. S. Environmental Protection Agency
61 Forsyth Street
Atlanta, Georgia 30303-8960

Dear Ms. Banister:

Re: Mississippi's Submittal of the Second Progress Report for the Memphis MSA Early Action Compact for Ground-level Ozone

In accordance with Mississippi's and DeSoto County's commitments to support the Memphis Metropolitan Statistical Area (MSA) Early Action Compact and our commitment to participate in the stakeholder process, we are submitting a progress report for the Mississippi portion of the Memphis MSA Early Action Compact. We have enclosed the December 2003 Progress Report.

If you have any questions, please advise.

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Sincerely,

Dwight K. Wylie, P.E.
Chief, Air Division

Enclosures

cc(w/enclosure): Yvonne Madlock, Director, Memphis/Shelby County Health Department
Dianne Arnst, Manager, Pollution Control, Memphis/Shelby County Health Department
Barry R. Stephens, P.E., Technical Secretary, Tennessee Air Pollution Control Board
Becky Keogh, Deputy Director, Arkansas Department of Environmental Quality
Keith Michaels, Chief, Air Division, Arkansas Department of Environmental Quality
J. Carter Gray, Administrator, Memphis/Shelby County Department of Regional Services
Jim McDougal, DeSoto County Planning Commission
Eddie Brawley, P.E., MPO Study Director, West Memphis MPO
Kay Prince, Chief, Air Planning Branch, U.S. EPA, Region 4

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December 2003 Progress Report for DeSoto County, Mississippi

For the Memphis Metropolitan Statistical Area Early Action Compact for Ground-Level Ozone

1. Stakeholder Input for the List of Local Control Measures

   Please refer to the "Detailed List" of stakeholder meetings.

2. Documentation of the Local Stakeholder Process

The Mississippi Department of Environmental Quality (MDEQ) in collaboration with DeSoto County has conducted numerous stakeholder meetings to develop the enclosed list of potential control measures for DeSoto County. The local stakeholder input process for Mississippi and DeSoto County has been documented and stakeholder comments have been reflected in the list of potential ground-level ozone control measures being considered for evaluation.

3. Description of the Local Stakeholder Process

   a. Primary Local Organization responsible for EAC Activities and lead contacts— In Mississippi, the State of Mississippi is the responsible party for all air regulatory matters. The Mississippi Department of Environmental Quality (MDEQ) is the primary organization coordinating the effort for Mississippi. Dwight Wylie, Mississippi Department of Environmental Quality, 101 W. Capitol, Jackson, Mississippi 39201, is the primary Mississippi organizational contact. The person heading up the local effort in DeSoto County is Jim McDougal, DeSoto County Planning, 365 Losher, Hernando, Mississippi 38635.

   b. What meetings were held and what level of public participation was there?

      i. Which stakeholders were invited and the level of participation?

         See the listed below entitled, "Memphis MSA/DeSoto County Early Action Compact (EAC) Activities". Copies of transcripts (for applicable meetings), handouts from meetings and comments are available upon request.

      ii. When/where were the meetings held?

         See the attached list entitled, "Memphis MSA/DeSoto County Early Action Compact (EAC) Activities".

      iii. How were the meetings advertised? How were invitations issued?

         Interested parties were invited. Invitations were sent out via U.S. Postal Service, e-mail, facsimile transmission and by phone calls. Numerous articles appeared in local newspapers. Copies of the newspaper articles are available upon request. The list of attendees has been included in the documentation of each meeting. A list of the invitees is available upon request.

   c. What is the website for the local EAC program (if there is one)?

      There is no website for DeSoto County. There is a website for the Arkansas-Tennessee-

Mississippi Ozone Study, which is the modeling used for the three states, in the Memphis MSA EAC. http://atmos.saintl.com

d. Description of outreach efforts.

There are no outreach efforts other than inviting interested parties (e.g., local officials, private industry, et cetera) to the stakeholder process. This has been the sole method of outreach in DeSoto County. Copies of handouts from meetings or comments are available upon request.

4. Emissions Inventories

In conjunction with the States of Arkansas and Tennessee, a 1999 inventory for the first episode of the ATMOS modeling and a 2001 inventory for the second episode of ATMOS modeling have been completed. This inventory uses current data where available (e.g. point and on-road mobile sources) and grows the emissions for other source categories. A future year inventory for 2007 has also been completed in conjunction with the ATMOS modeling.

The largest issues are uncertainty, particularly with regard to area and non-road mobile sources, and attempting to develop future year inventories. For example, the on-road 2007 future year emissions were recently revised after it became apparent that the early growth assumptions resulted in higher 2001 and 2002 traffic volume than the actual data demonstrated.

5. Photochemical Modeling

a. Has a model been selected?

The UAM-V model is being used. Mississippi has been actively collaborating with Arkansas and Tennessee (including local air pollution control agencies in Tennessee) in the Arkansas, Tennessee, and Mississippi Ozone Study (ATMOS). The ATMOS modeling analysis is designed to provide technical information relevant to attainment of the 8-hour National Ambient Air Quality Standard (NAAQS) for ozone in the Memphis and DeSoto County area as well as other areas in Tennessee. Systems Application International is the contractor performing the photochemical modeling analysis.

b. What is the base year for the ozone episode selected?

2001 is the base year for the first episode that has already been modeled. Episodes in 1999 and 2001 have been modeled.

c. What is the status of the meteorological model development?

The meteorological modeling has been completed for both episodes selected thus far.

d. What is the status of the modeling activities?

As stated in (b) above, modeling of one ozone episode has been completed. Modeling for the second episode has been completed (by and large).

e. What issues are being encountered, i.e., funding, model meeting performance criteria, etc.?

The ATMOS project is being funded by contributions from the States of Mississippi,

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Arkansas, Tennessee and local air pollution agencies in Tennessee. Modeling performance criteria is being met.

6. Geographic Area for Which Control Measures Are Anticipated to Apply

In Mississippi, the geographic area for which potential control measures have been defined is DeSoto County, Mississippi.

7. Resource Constraints

Time constraints exist both internally for DEQ staff time and externally for point sources needed to install and operate necessary emissions controls for the Early Action Compact early emissions reductions.

8. A list of control measures still under consideration for adoption by the local area as part of the March 2004 submission and current assessment of the amount of emissions reductions expected to be achieved through implementation of the local control measures

Please refer to the chart, "List of Potential Control Measures for Evaluation in DeSoto County and Memphis MSA Modeling".

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Memphis MSA/DeSoto County Early Action Compact (EAC) Activities

Meeting Summary List

July 24, 2003	**Memphis MSA EAC Participants' Meeting**
August 14 -15, 2003	**ATMOS Technical Meeting and EAC Participants' Meeting (Aug. 14 & 15, 2003)**
August 19, 2003	**Presentation at Mississippi Department of Transportation Planning Division, Statewide MPO Meeting (Aug. 18 &19, 2003)**
August 20, 2003	**Presentation at the Mississippi Manufacturers' Association Meeting**
September 9, 2003	**Memphis MSA EAC Participants' Meeting**
September 16, 2003	**DeSoto County Early Action Compact (EAC) Stakeholders' Meeting**
September 16, 2003	**Ground-level Ozone and EAC Briefing to Board of Aldermen of Southaven, Mississippi**
September 16, 2003	**Ground-level Ozone and EAC Briefing to Board of Aldermen of Horn Lake, Mississippi**
October 2 - 3, 2003	**ATMOS Policy and Technical Meeting and EAC Participants' Meeting (Oct. 2 & 3, 2003)**
October 7, 2003	**Ground-level Ozone and EAC Briefing to Board of Aldermen of Olive Branch, Mississippi**
October 10, 2003	**EAC Meeting with MDOT and MDOT Consultant**
November 14, 2003	**ATMOS Policy and Technical Meeting and EAC Participants' Meeting**
November 18, 2003	**Certified Hazardous Materials Managers' (CHMM) Meeting in West Memphis, Arkansas**
November 19, 2003	**Memphis MSA EAC Participants' Conference Call**
December 11, 2003	**Meeting with DeSoto County Officials about EAC (including State Legislators)**
December 16, 2003	**Presentation to the Mississippi Manufacturers' Association (MMA) Environmental Steering Committee**
December 18, 2003	**ATMOS Policy and Technical Workgroup Meeting (including EAC discussion)**

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Detailed List

Title of Meeting: Memphis MSA EAC Participants' Meeting

Date: July 24, 2003

Time: 1:30 p.m.

Location: DeSoto Civic Center, Southaven, Mississippi

MDEQ Attendees: Dwight Wylie, Elliott Bickerstaff, Connie Simmons and Mary Evelyn Barnes

Other Attendees: John Patton (Tennessee Air Pollution Control), Diane Arnst (Shelby County, TN and the City of Memphis, TN), Bob Rogers (Shelby County, TN and the City of Memphis, TN), Jim McDougal (DeSoto County, MS), Carter Gray (Memphis MPO), Denis Fritchie (Shelby County, TN and the City of Memphis, TN), Eddie Brawley (West Memphis MPO), Becky Keogh (Arkansas Dept. of Environmental Quality), Tony Davis (ADEQ) and Keith Michaels (ADEQ)

Meeting Summary: The discussion in the meeting focused primarily on the discussion the potential control strategies to be evaluated for the Memphis MSA EAC. The goal of the meeting was to achieve a uniform set of control strategies for each county in the EAC.

Title of Meeting: ATMOS Technical Meeting and EAC Participants' Meeting (Aug. 14 & 15, 2003)

Date: August 14 -15, 2003

Time: 1:00 p.m.

Location: Nashville, Tennessee

MDEQ Attendees: Connie Simmons and Elliott Bickerstaff

Other Attendees: ATMOS Technical Committee including Arkansas DEQ and Tennessee DEC

Meeting Summary: Meeting of the ATMOS Technical Committee to discuss the ATMOS base case and future year modeling as well as EAC modeling and preliminary discussion of control measures to be modeled.

Title of Meeting: Presentation at Mississippi Department of Transportation Planning Division, Statewide MPO Meeting (Aug. 18 &19, 2003)

Date: August 19, 2003

Time: 8:30 a.m.

Location: MDOT Training Facility, North West Street, Jackson, Mississippi

MDEQ Attendees: Dwight Wylie, Connie Simmons, Jerry Beasley, Keith Head and Mary Evelyn Barnes

Other Attendees: Mississippi Department of Transportation, MPO members from DeSoto County, the Coastal Counties and the City of Jackson, MS

Meeting Summary: Dwight presented air quality information on DeSoto County including an update on the status/progress on the EAC for the Memphis MSA.

Title of Meeting: Presentation at Mississippi Manufacturers' Association (MMA) Meeting

Date: August 20, 2003

Location: MMA, Jackson, Mississippi

MDEQ Attendees: Dwight Wylie

Meeting Summary: Review of DeSoto County and emissions reductions strategies including the Early Action Compact; the Gulf Coast and emissions reductions strategies were discussed.

Title of Meeting: Memphis MSA EAC Participants' Meeting

Date: September 9, 2003

Time**:** 1:00 p.m.

Location: DeSoto Civic Center, Southaven, Mississippi

MDEQ Attendees: Dwight Wylie, Connie Simmons and Elliott Bickerstaff

Meeting Summary: EAC modeling status was discussed including ATMOS base case and future year modeling and schedule for completion of those tasks by ICF-SAI. Control measures to be modeled were discussed.

Title of Meeting: DeSoto County Early Action Compact (EAC) Stakeholders' Meeting

Date: September 16, 2003

Time: 2:00 p.m.

Location: DeSoto County Administrative Building, Hernando, Mississippi

MDEQ Attendees: Dwight Wylie and Connie Simmons

Other Attendees: Steve Whittlesey (Brinkmann Corporation) and Darrell Morgan (Texas Gas Transmission)

Meeting Summary: The focus of the stakeholders' meeting was discussion of the list of Potential Control Measures to Be Evaluated.

Title of Meeting: Ground-level Ozone and EAC Briefing to Board of Aldermen of Southaven, Mississippi

Date: September 16, 2003

Time: 6:00 p.m.

Location: Southaven City Hall, Southaven, Mississippi

MDEQ Attendees: Dwight Wylie and Connie Simmons

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Meeting Summary: Dwight Wylie gave an overview of general ground-level ozone issues and Early Action Compact (EAC) for the City of Southaven.

Title of Meeting: Ground-level Ozone and EAC Briefing to Board of Aldermen of Horn Lake, Mississippi

Date: September 16, 2003

Time: 7:00 p.m.

Location: Horn Lake City Hall, Horn Lake, Mississippi

MDEQ Attendees: Dwight Wylie and Connie Simmons

Meeting Summary: Dwight Wylie gave an overview of general ground-level ozone issues and Early Action Compact (EAC) for the City of Horn Lake.

Title of Meeting: ATMOS Policy and Technical Meeting and EAC Participants' Meeting (Oct. 2 & 3, 2003)

Date: October 2 - 3, 2003

Time: 12:30 p.m. - 5:00 p.m.

Location: Memphis, Tennessee

MDEQ Attendees: Dwight Wylie, Elliott Bickerstaff and Connie Simmons

Meeting Summary: ATMOS modeling runs and subsequent technical details were discussed at the meeting.

Title of Meeting: Ground-level Ozone and EAC Briefing to Board of Aldermen of Olive Branch, Mississippi

Date: October 7, 2003

Time: 6:00 p.m.

Location: Olive Branch City Hall, Olive Branch, Mississippi

MDEQ Attendees: Dwight Wylie

Meeting Summary: Dwight Wylie gave an overview of general ground-level ozone issues and Early Action Compact (EAC) for the City of Olive Branch.

Title of Meeting: EAC Meeting with MDOT and MDOT Consultant

Date: October 10, 2003

Time: 10:00 a.m.

Location: MDEQ, 101 W. Capitol Street, Jackson, Mississippi

MDEQ Attendees: Connie Simmons, Elliott Bickerstaff, Keith Head and Mary Evelyn Barnes

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Other Attendees: Sarah Siwek (Consultant for MDOT) and Elton Holloway

Meeting Summary: The discussion of this meeting included: 1) transportation conformity issues in relation to air quality and the EAC and 2) potential emissions reductions programs for mobile sources, including, but not limited to, diesel retrofit programs and diesel scrappage programs.

Title of Meeting: ATMOS Policy and Technical Meeting and EAC Participants' Meeting

Date: November 14, 2003

Time: 12:30 p.m. - 5:00 p.m.

Location: Memphis, Tennessee

MDEQ Attendees: Dwight Wylie, Connie Simmons and Elliott Bickerstaff

Other Attendees: ATMOS Technical and Policy Committees

Meeting Summary: ATMOS modeling runs and subsequent technical details were discussed at the meeting.

Title of Meeting: Certified Hazardous Materials Managers' (CHMM) Meeting in West Memphis, Arkansas

Date: November 18, 2003

Time: Noon - 5:00 p.m.

Location: West Memphis, Arkansas

MDEQ Attendees: Connie Simmons

Other Attendees: Tony Davis (Arkansas Dept. of Environmental Quality), Bob Rogers (City of Memphis/Shelby County, TN) and Herb Sherrow (EPA Region 6)

Meeting Summary: Connie Simmons gave a presentation on Mississippi's participation in ATMOS and Memphis MSA EAC.

Title of Meeting: Memphis MSA EAC Participants' Conference Call

Date: November 19, 2003

Time: 9:00 a.m.

Location: Jackson, Mississippi

MDEQ Attendees: Dwight Wylie, Elliott Bickerstaff and Mary Evelyn Barnes

Other Attendees: Becky Keogh (Arkansas Dept. of Environmental Quality), Keith Michaels (ADEQ), Tony Davis (ADEQ), Mark McCorkle (ADEQ) and Bob Rogers (Shelby County, TN--City of Memphis, TN)

Meeting Summary: The discussion of the conference call included the following topics: 1) the next date of the Memphis MSA Stakeholders' Meeting and a brief discussion of the content of that next

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stakeholders' meeting, 2) the list of potential control strategies for the Memphis MSA EAC was discussed extensively in regard to which control strategies would be used in the modeling and the strategies which were not feasible and 3) the next Memphis MSA EAC Participants' Meeting.

Title of Meeting: Meeting with DeSoto County Officials about EAC (including State Legislators)

Date: December 11, 2003

Time: 10:45 a.m. – 12:15 p.m.

Location: Hernando, Mississippi

MDEQ Attendees: Dwight Wylie and Elliott Bickerstaff

Other Attendees: David Armstrong, Jim Flanagan, Michael Garaga, Rep. Wanda Jennings, Supervisor Tommy Lewis and Jim McDougal.

Meeting Summary: Briefing on the current ozone attainment and EAC status. The timelines and requirements needed to continue with the EAC process were discussed.

Title of Meeting: Presentation to the Mississippi Manufacturers' Association (MMA) Environmental Steering Committee

Date: December 16, 2003

Time: 10:30 a.m.

Location: MMA, Jackson, Mississippi

MDEQ Attendees: Dwight Wylie and Elliott Bickerstaff

Meeting Summary: : Dwight Wylie gave a presentation on ground-level ozone, the EAC process, and control measures being considered. MMA is planning to give comments in January 2004.

Title of Meeting: ATMOS Policy and Technical Workgroup Meeting (including EAC discussion)

Date: December 18, 2003

Time: 10:00 a.m.

Location: Adventure Science Center, 800 Fort Negley Boulevard, Nashville, Tennessee

MDEQ Attendees: Dwight Wylie and Elliott Bickerstaff

Meeting Summary: The latest modeling was reviewed which included oxidant tagging and control strategy simulations. Final inventory corrections and information for additional control strategy simulations will be submitted to SAI in January 2004 for continued work.

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List of Potential Control Measures for Evaluation in DeSoto County and Memphis MSA Modeling

Potential Control Measure Descriptor-Stationary Source Measures	Implemented in 2 Years?	Regulation Change Req'd?	Possible Change in Law/Stat. Req'd?	Estimated Emissions Reduction (Tons/Day)
VOC RACT for Major Sources (By 2007)	No	Yes	No	0.35 VOC includes early reductions
Early Implementation of VOC RACT for Major Sources (By 2005)	Yes	Yes	Yes	0.35 VOC
NOx RACT for Major Sources (By 2007)	No	Yes	No	0.7 NOx includes early reductions
Early NOx Reductions for Major Sources (By 2005)	Yes	Yes	Yes	0.45 NOx
NOx RACT for Major Sources in Adjoining Counties (By 2007)	No	Yes	No	3.64 NOx includes early reductions
Early NOx Reductions for Major Sources in Adjoining Counties (By 2005)	Yes	Yes	Yes	2.0 NOx
Changing open burning regulations to prohibit open burning on Ozone Action Days	Yes	Yes	Yes	0.35 NOx 0.81 VOC
Stage I Vapor Recovery (By 2007)	No	Yes	No	1.0 VOC
Early Implementation of Stage I Vapor Recovery (By 2005)	Yes	Yes	Yes	1.0 VOC

Potential Control Measure Descriptor-Mobile Source Measures	Implemented in 2 Years?	Regulation Change Req'd?	Possible Change in Law/Stat. Req'd?	Estimated Emissions Reduction (Tons/Day)
Idling Limits (e.g., an Anti-idling law) for diesel engines	Yes	Yes	Yes	0.3 NOx
Cooperate with Memphis on Remote Sensing of Emissions Violators in Mobile Sources	Yes	No	No	0.12 NOx 0.3 VOC
Low RVP Fuels (in cooperation with Memphis—if available)	Yes	Yes	Yes	0.1 VOC
Tier II or Ultra-Low Sulfur Gasoline (in cooperation with Memphis—if available)	Yes	Yes	Yes	5.0% NOx 1.6% VOC
Various Transportation Related Air Quality improvements financed through directed state CMAQ funds to DeSoto County , such as Park & Ridelots, ITS Enhancements and Signalization Systems	No	No	No	0.011 NOx (signal) 0.01 VOC (signal) 0.047 NOx (ridelots)
Development of the more strategic pedestrian and biking programs in DeSoto County that would "connect" Memphis-area biking and pedestrian paths for contiguous travel (assume: 1000 bikers)	No	No	No	0.01 NOx(bike) 0.002 NOx(walk)
Continuation of the High Occupancy Vehicle (HOV) Lanes on I-55 from the Tennessee state line south to the Goodman Road exit in Mississippi (2 lanes –northbound and southbound)	No	No	Yes	0.02 NOx 0.03 VOC

Potential Control Measure Descriptor-Voluntary Measures	Implemented in 2 Years?	Regulation Change Req'd?	Possible Change in Law/Stat. Req'd?	Estimated Emissions Reduction (Tons/Day)
Ozone Action Days	Yes	No	No	3% Claimed for All Voluntary Measures
Stationary Source Voluntary Measures on Ozone Action Days	Yes	No	No	
MDOT/County Road Reductions on Ozone Action Days (e.g., delay of lawn maintenance activities, open burning, et cetera)	Yes	No	No	
Voluntary Program for Limiting Idling-Time of Diesel Engine Fleets and Distribution Centers	Yes	No	No	
Rideshare program	Yes	No	No	