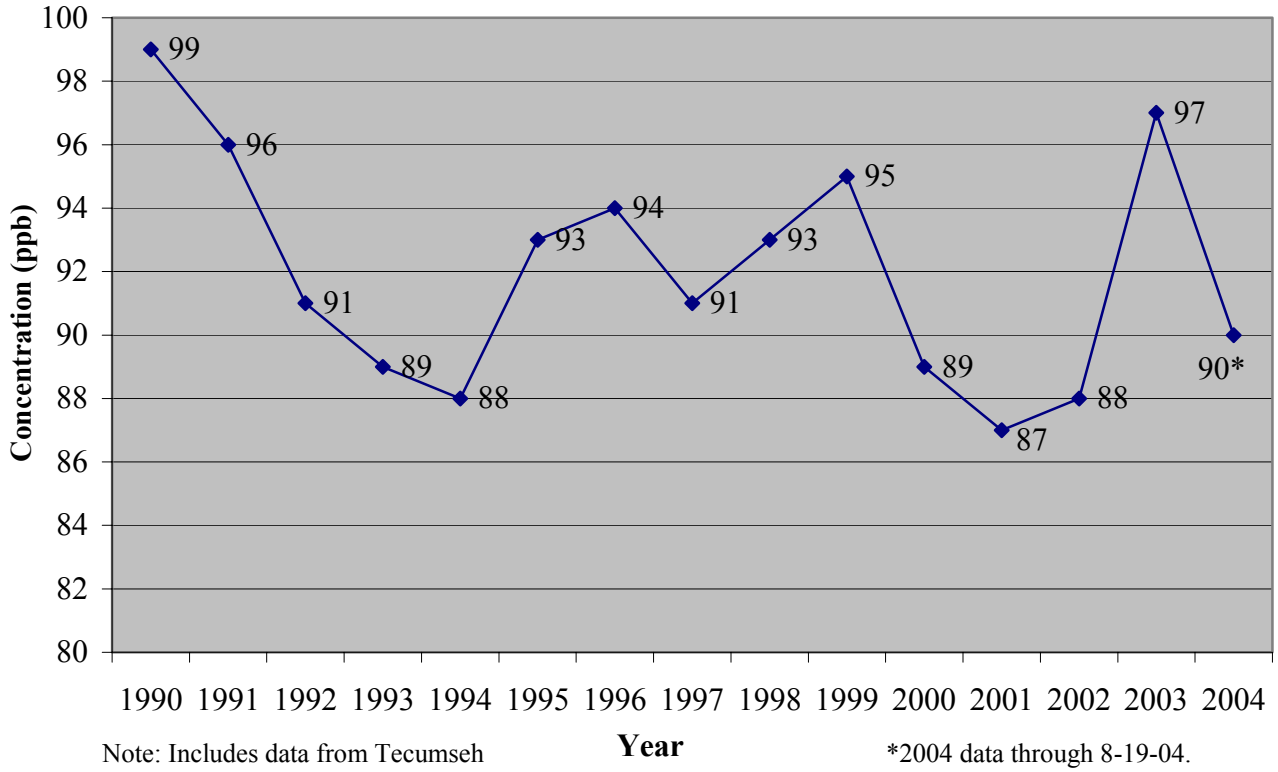
Additional Submittal for Detroit-Ann Arbor Area's (Southeast Michigan) Ozone Reclassification Request
Appendix

Figure 1. Eight-hour Ozone Design Values for Detroit-Ann Arbor Area (Southeast Michigan) 1990 – 2004



Note: Includes data from Tecumseh monitor in Lenawee County.

*2004 data through 8-19-04. 2004 data is not yet validated.

Table 1. Time Table for Southeast Michigan's June 2005 Submittal

TASK NAME	2003				2004												2005					
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Modeling																						
Determine emission reductions from various control measures																						
Work with SEMOS group to determine proper inputs for 2007 photochemical modeling (see below)																						
Determine reductions in 2007 ozone concentrations from various control measures																						
Southeast Michigan Task Force on Air Quality*																						
Task force formed and first meeting held																						
Discussion of ozone reclassification request																						
Discussion of control measure options																						
Control measure recommendations																						
Fuels Group**																						
Fuels Group formed and first meeting held																						
Consultant's evaluation of emission reduction benefits of various gasoline and diesel fuels																						
Fuels Group evalaution of "non-emission" criteria of fuels (i.e. costs, distribution, etc.)																						
Fuels Group holds sorkshop/seminar with other Midwest states on consultant's results and other issues																						
Submittal																						
Draft																						
Finalize																						
Complete & Submit																						

Additional Submittal for Detroit-Ann Arbor Area's (Southeast Michigan) Ozone Reclassification Request
Attachments

Attachment A. Commitments from Southeast Michigan's original ozone reclassification request to EPA. Submitted July 15, 2004.

Commitment to Control Measures

The State of Michigan is committed to early compliance and maintenance of the ozone standard. As such, Michigan commits to the implementation of control measures necessary to achieve and maintain the ozone standard. The MDEQ and the SEMCOG are working with a task force with broad–based representation to evaluate the merits of several emission reduction alternatives. This includes a special study to quantify the benefits of a wide range of fuels.

The fact that the SIPs are due on the same date attainment is required for marginal areas poses a dilemma. In order to address this dilemma and consistent with the policy approach in Early Action Compacts, Michigan commits to interim milestones in advance of a 2007 SIP submittal should the EPA grant a marginal classification for Southeast Michigan. Specifically, Michigan commits to the following schedule, which will result in emission reductions and cleaner air earlier than under the current moderate classification.

1. June 2005 – Identification of additional controls

By June 2005, the MDEQ will submit to the EPA, Region 5 an analysis of various emission control strategies. In order to account for the uncertainty of predictive models, Michigan commits to additional control(s). The results of the analysis, evaluation of alternatives, and details of the control strategy, including an air quality assessment, will be in this submittal.

2. June 2006 – Adoption of rules/laws

Following the June 2005 submittal, the MDEQ will expeditiously p ursue the necessary rules and/or legislative authority to implement the control strategy for submittal to the EPA by June 2006.

3. June 2007 – Submittal of SIP

The complete SIP package will be submitted by June 2007 as specified for marginal nonattainment areas. However, reclassification based on this request places the state on a track for implementation of controls more expeditiously than for either moderate areas or marginal areas, both of which are not required to make any such commitments prior to June 2007.

Attachment B.
Membership List for SEMCOG's Task Force on Air Quality

SEMCOG . . . ***Local Governments Advancing Southeast Michigan***

Southeast Michigan Council of Governments • 535 Griswold Street • Suite 300 • Detroit, Michigan 48226 • (313) 961-4266 • *Fax (313) 961-4869*
www.semcog.org

SEMCOG's Task Force on Air Quality

As of August 5, 2004

Chair:
Gordon Allardyce, Councilmember
City of Orchard Lake Village

Vice Chair:
Rhonda Ross, Attorney
Warner, Norcross & Judd

Members:
Christine M. Bates, Director, Regulatory/Legislative Group
Environmental Services
General Motors Corporation

Mary Lynn Becker, Public Affairs Officer
Canadian Consulate General

Brian Blaesing, Director of Planning and Development
Road Commission for Oakland County

Skiles Boyd, Director, Environmental Affairs Department
DTE Energy

Stephen Cassin, Executive Director
Macomb County Planning and Economic Development Department

James R. Cramer, Transportation Planning Engineer
Federal Highway Administration

John Czarnecki, Vice President, Community Services
Michigan Economic Development Corporation

Dan Dirks, General Manager
SMART, Suburban Mobility Authority for Regional Transportation

Karen East, Science Research Analyst
Legislative Service Bureau, Michigan Science and Technology Division

Katherine K. Edgren, Project Manager
Community Action Against Asthma

David Gard, Energy Policy Specialist
Michigan Environmental Council

John Griffin, Executive Director
Associated Petroleum Industries of Michigan

Kurt Heise, Director
Wayne County Department of Environment

Daniel P. Hunter, Planning Manager
Oakland County Development & Planning Division

Duane Johnson, Environmental Quality Office
Ford Motor Company

Mike Johnston, Director of Regulatory Affairs
Michigan Manufacturers Association

Diana J. Kolakowski, Commissioner
Macomb County

Ralph Kummler, Dean, College of Engineering
Wayne State University

Sarah Lile, Director
City of Detroit, Department of Environmental Affairs

Royce R. Maniko, Director
Monroe County Planning Department

John Mooney, Environmental Specialist
Environmental Protection Agency, Region 5

William Morris, President
Monroe County Industrial Development Corporation

Matthew Naud, Environmental Coordinator
City of Ann Arbor

Phillip Pavlov, Commissioner
St. Clair County

SEMCOG's Task Force on Air Quality

Lou Pocalujka, Senior Environmental Planner
Consumers Energy Company

Kathryn Savoie, Environmental Program Director
ACCESS, the Arab Community Center for Economic and Social Services

Mary Snow-Cooper, Specialist, Air Compliance
DaimlerChrysler

David Tyler, Assistant to the Director
Wayne County Community Development

Anthony VanDerWorp, Director
Washtenaw County Department of Planning and Environment

Kathy Vosburg, Commissioner
Macomb County

Sebastian Wade, Senior Director of Policy
Detroit Regional Chamber

William D. Wagoner, Director
Livingston County Planning Department

Kathleen Wendler
Southwest Detroit Business Association

Heaster Wheeler, Executive Director, Detroit Branch
NAACP, the National Association for the Advancement of Colored People

George Wolff, Principal Scientist
General Motors Corporation

Support Staff:
Michigan Department of Environmental Quality
Michigan Department of Transportation
SEMCOG

Attachment C.
Agendas from Air Quality Task Force where ozone reclassification request was discussed and/or results of control strategy analyses.

SEMCOG's TASK FORCE ON AIR QUALITY

Thursday, February 19, 2004
9:30 a.m. – Noon
SEMCOG
Buhl Building
535 Griswold, Suite 300
Detroit, MI

In order to assist us in preparing for this meeting, please contact Ken Bishop at 313-961-4266 or bishop@semcog.org if you plan to attend.

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AGENDA

Time (Minutes)	Page		
		I.	**Welcome and Introductions** Gordon Allardyce, Chair
5		**II.**	**Meeting Overview and Purpose** Gordon Allardyce, Chair Meeting Purposes: • To update the group on regulatory developments pertaining to the implementation of the eight-hour ozone and $PM_{2.5}$ standards, • To review information on current and future mobile source emission estimates, and • To inform the group about the purpose and recent activities of the Fuels Subgroup.
10	3	**III.**	**Update on the Nonattainment Boundaries for the Eight-hour Ozone and $PM_{2.5}$ Standards** Attachment A G. Vinson Hellwig, Chief, Air Quality Division, Michigan Department of Environmental Quality (MDEQ) *Information will be provided about the following events, which have occurred since the last meeting:* • *EPA's (Environmental Protection Agency) response to MDEQ and SEMCOG's eight-hour ozone nonattainment boundary recommendation, and* • *The $PM_{2.5}$ nonattainment boundary recommendation.*

Time (Minutes)	Page		
10-15	6	**IV.**	**Update on EPA's Regulatory Schedule for the Eight-hour Ozone and $PM_{2.5}$ Standards** Attachment B Chuck Hersey, SEMCOG *An update will be provided on EPA's regulatory schedule for implementing the new standards. General information will also be presented about EPA's recently proposed transport rule and its effect on SIP planning.*
20	8	**V.**	**Mobile Source Emissions** Attachment C Elena Berg, SEMCOG Joan Weidner, SEMCOG *At each of the next few meetings, staff will be presenting background information to help prepare for future discussions about control measures. First on our list is EPA's new model for estimating vehicle emissions. EPA requires that this model be used for air quality planning. Staff has been working with this model and will present emission results and discuss implications.*
5	10	**VI.**	**Fuels Subgroup** Attachment D Gordon Allardyce, Fuels Subgroup *The Fuels Subgroup was created in order to assist in our understanding of fuels issues. A brief overview of the purpose and recent activities of the Fuels Subgroup will be presented.*
10-15		**VI.**	**Public Comment**
		VII.	**Next Steps**

SEMCOG's TASK FORCE ON AIR QUALITY

Wednesday, May 19, 2004
9:30 a.m. – Noon
SEMCOG
Buhl Building
535 Griswold, Suite 300
Detroit, MI

In order to assist us in preparing for this meeting, please contact Ken Bishop at 313-961-4266 or bishop@semcog.org if you plan to attend.

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AGENDA

Time (Minutes)	Page		
5		**I.**	**Welcome and Introductions** Gordon Allardyce, Chair
5		**II.**	**Meeting Overview and Purpose** Gordon Allardyce, Chair Meeting Purposes: • To update the group on regulatory developments pertaining to the implementation of the eight-hour ozone and fine particulate matter ($PM_{2.5}$) standards, • To review a draft time line of the tasks needed for State Implementation Plan (SIP) development, • To review information about current and future stationary source emission estimates, • To gain a basic understanding of $PM_{2.5}$, and • To inform the group about the purpose and recent activities of the Detroit Air Toxics Initiative.
10	3	**III.**	**Update on the Nonattainment Boundaries for the Eight-hour Ozone and $PM_{2.5}$ Standards** Attachment A Elena Berg, SEMCOG *A brief update will be presented on the following items:* • *Southeast Michigan's final eight-hour ozone nonattainment boundary, and* • *The Environmental Protection Agency's (EPA) schedule for finalizing $PM_{2.5}$ nonattainment boundaries.*

Time (Minutes)	Page		
20	6	**IV.**	**EPA's Final Eight-hour Ozone Implementation Rule** Attachment B Chuck Hersey, SEMCOG *EPA released the first phase (of two) of its final eight-hour ozone implementation rule on April 15. The rule outlines the classifications for eight-hour ozone nonattainment areas. These classifications, in turn, affect an area's planning requirements. A brief overview will be presented.*
10	7	**V.**	**Time Line for SIP Development** Attachment C Bob Irvine, Michigan Department of Environmental Quality (MDEQ) *The draft time line, found on page 8, addresses tasks such as emissions inventory development, air quality modeling, and rule-making activities. A brief overview will be presented to give members a sense of what will be transpiring over the next several years.*
20	9	**VI.**	**Emission Inventory Development for Stationary Sources** Attachment D John Schroeder, MDEQ *At the last meeting, the task force discussed mobile source emissions. In an effort to continue our discussion of emission sources, John will present an overview of the development of current and future emission inventories for stationary sources. This will include information about how growth and control measures will be estimated.*
20		**VII.**	**Overview of $PM_{2.5}$** George T. Wolff, General Motors Corporation *Dr. Wolff, an expert on $PM_{2.5}$ and member of EPA's Clean Air Scientific Advisory Committee, will provide a basic overview of $PM_{2.5}$. This presentation will address questions such as:* • *What is $PM_{2.5}$?* • *How is it formed?* • *What are the components of $PM_{2.5}$?* • *What are the issues that complicate planning for $PM_{2.5}$ attainment?*
10	10	**VIII.**	**Detroit Air Toxics Initiative** Attachment E Cathy Simon or Bob Sills, MDEQ *This MDEQ initiative will assess the risks of exposure to air toxics in the Detroit area using the air toxics monitoring data from the Detroit Pilot Project. Then, risk reduction measures will be evaluated with the assistance of a community stakeholder group. A brief overview will be presented.*
10-15		**IX.**	**Public Comment**
10		**X.**	**Next Steps**

SEMCOG's TASK FORCE ON AIR QUALITY

Tuesday, June 29, 2004
9:30 a.m. – Noon
SEMCOG
Buhl Building
535 Griswold, Suite 300
Detroit, MI

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AGENDA

Time (Minutes)	Page		
5		**I.**	**Welcome and Introductions** Gordon Allardyce, Chair
5		**II.**	**Meeting Overview and Purpose** Gordon Allardyce, Chair Meeting Purposes: • To update the group on the regulatory developments pertaining to the implementation of the fine particulate matter ($PM_{2.5}$) standard, • To update the group on the status of Southeast Michigan's eight-hour ozone reclassification request, • To discuss estimates of emission reductions from various on-road mobile source control measures, and • To learn more about the work of the fuels sub-group.
10		**III.**	**Update on the $PM_{2.5}$ Nonattainment Boundary for Southeast Michigan** Mary Maupin, Michigan Department of Environmental Quality (MDEQ) *In June, EPA plans to propose $PM_{2.5}$ nonattainment boundaries. An update on Southeast Michigan's boundary will be provided at the meeting.*
15	3	**IV.**	**Update on the Ozone Reclassification Request for Southeast Michigan** Attachment A Chuck Hersey, SEMCOG *At the last meeting, MDEQ and SEMCOG shared their plans for requesting that EPA reclassify Southeast Michigan's eight-hour ozone nonattainment area from moderate to marginal nonattainment. An update will be provided on the status of this work and the supporting information that will be provided to EPA. The request must be submitted to EPA by July 15.*

Time (Minutes)	Page		
25	4	**V.**	**Emission Reductions from Various On-road Mobile Source Controls** Attachment B Elena Berg and Joan Weidner, SEMCOG *Using EPA's Mobile6.2 model and SEMCOG's local travel data, SEMCOG staff estimated the range of emission reductions that can be obtained from various on-road mobile source control measures, such as a vehicle emissions testing program and improved public transit. These results will be presented at the meeting.*
15	5	**VI.**	**Overview of Fuels Evaluation** Attachment C John Griffin, Associated Petroleum Industries of Michigan *John Griffin, a member of the fuels sub-group, will discuss the matrices that were developed by the sub-group to help evaluate fuels. These matrices can be found on pages 6 – 8. He will also discuss the timetable for completing the fuels evaluation.*
15		**VII.**	**Alternative-Fueled Vehicles** *Information will be presented about the emission reduction benefits of these vehicles, including hybrid vehicles.*
10-15		**VIII.**	**Public Comment**
10		**IX.**	**Next Steps**

SEMCOG's TASK FORCE ON AIR QUALITY

Tuesday, September 14, 2004
9:30 a.m. – Noon
SEMCOG
Buhl Building
535 Griswold, Suite 300
Detroit, MI

In order to assist us in preparing for this meeting, please contact Ken Bishop at 313-961-4266 or bishop@semcog.org if you plan to attend.

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AGENDA

Time (Minutes)	Page		
5		**I.**	**Welcome and Introductions** Gordon Allardyce, Chair
5		**II.**	**Meeting Overview and Purpose** Gordon Allardyce, Chair Meeting Purposes: • To update the group on the regulatory developments pertaining to the implementation of the eight-hour ozone and fine particulate matter ($PM_{2.5}$) standards, • To update the group on the status of Southeast Michigan's eight-hour ozone reclassification request, • To discuss estimates of emission reductions from various stationary source control measures, and • To overview the group's next steps.
5		**III.**	**Recognition of New Members** Gordon Allardyce, Chair
15	3	**IV.**	**Update on the $PM_{2.5}$ Nonattainment Boundary and Ozone Implementation Rule** Attachment A Mary Maupin, Michigan Department of Environmental Quality (MDEQ) *A map of EPA's proposed $PM_{2.5}$ nonattainment boundary and MDEQ's recommended $PM_{2.5}$ nonattainment boundary can be found on page 4 of this agenda packet. MDEQ provided a detailed, technical response to EPA's proposed nonattainment boundary on September 1. An update on this response and the status of the second and final phase of EPA's eight-hour ozone implementation rule will be provided at the meeting.*

Time (Minutes)	Page		
15	5	**V.**	**Update on the Ozone Reclassification Request for Southeast Michigan** Attachment B Chuck Hersey, SEMCOG *MDEQ and SEMCOG submitted a request to EPA on July 15 asking that Southeast Michigan's eight-hour ozone nonattainment area be reclassified from moderate to marginal, the next lower classification. Since then, SEMCOG and MDEQ submitted additional supporting information to EPA. EPA is expected to respond to this request by September 15. An overview of the additional submittal and an update on the status of EPA's response will be provided at the meeting.*
25		**VI.**	**Estimates of Emission Reductions from Various Stationary Source Controls** Bob Irvine, MDEQ *At the last meeting, SEMCOG presented its estimates of the emission reductions resulting from various on-road mobile source controls. As a follow-up to that discussion, MDEQ will present its estimates of the emission reduction potential resulting from various stationary source controls.*
15		**VII.**	**Upcoming Discussion Topics** Elena Berg, SEMCOG *At the next several meetings, the group will focus on the following topics:* • *Results from fuels sub-group's analyses (this is likely to focus on gasoline results first and then diesel results at a later meeting),* • *Latest air quality monitoring data,* • *Preliminary discussion of photochemical modeling results and sensitivities,* • *Ozone reclassification request (if decision not made by September 14 meeting), and* • *Requirements under Phase 2 of eight-hour ozone implementation rule (dependent on the timing of this action).*
10-15		**VIII.**	**Public Comment**

Attachment D.
Members of SEMCOG and MDEQ Fuels Group

SEMCOG's FUELS GROUP
As of June 25, 2004

Gordon Allardyce – Chair, SEMCOG's Task Force on Air Quality

Marshah-Reaff Barrett – Mitsubishi

Loren Beard, Ph.D. – Daimler Chrysler

Tom Darlington – President, Air Improvement Resource, Inc.

Bob Elvert – Exxon Mobil

Bill Geubelle – Conoco Phillips

John Griffin – Associated Petroleum Industries of Michigan

Peg Gutmann – Ford Motor Company (Dominic DiCicco as alternate)

Jeremy Heiken – Air Improvement Resource, Inc.

Vinson Hellwig – Michigan Department of Environmental Quality

Gary Herwick – General Motors

Bob Irvine – Michigan Department of Environmental Quality

Bob Leidich – British Petroleum (BP)

Mike Leister – Marathon Ashland Petroleum

Peter Lidiak – American Petroleum Industries

Mary Maupin – Michigan Department of Environmental Quality

John Mooney – U.S. Environmental Protection Agency, Region 5

Pete Porciello – Michigan Department of Transportation

H.J. Reed – Conoco Phillips

John Reese – Shell Oil Products US

Bob Rusch – Michigan Department of Environmental Quality

Bill Schedel – Marathon Ashland Petroleum

Ellen Shapiro – Alliance of Automobile Manufacturers

Mary Snow-Cooper – DaimlerChrysler

Tim White – Michigan Department of Agriculture (Bill Spitzley as alternate)

George Wolff – General Motors Corporation

SEMCOG Staff:
Elena Berg

Chuck Hersey

Joan Weidner

Attachment E. Gasoline and diesel fuel matrices developed by SEMCOG's Fuels Group to assist in evaluations.

Matrix for Gasoline Fuels
SEMCOG **Name:**
December 12, 2003

Fuel Type and Criteria for Evaluation	**RFG**	**RVP lower than 7.8 psi**	**Oxygenated fuels**	**< 10 ppm Sulfur Gasoline**
% Change in NOx Emission Rate Using Fuel (g/mi)				
% Change in VOC Emission Rate Using Fuel (g/mi)				
% Change in PM2.5 Emission Rate Using Fuel (g/mi)				
Proportional Ozone Benefit				
Proportional PM2.5 Benefit				
Timing				
Toxics Benefits?				
Haze Benefits?				
GHG Benefits?				
Cost per Gallon				
Cost per Ton of Reduction				
Implementation Issues				
Refining Issues				
Distribution Issues				
Uncertainty Factors				
Disbenefits?				
Other?				
Notes				

Matrix for Diesel Fuels
SEMCOG **Name:**
February 2, 2004

Fuel Type and Criteria for Evaluation	CARB Diesel	50 Cetane	Diesel Retrofits	Biodiesel (B5)	Biodiesel (B20)
% Change in NOx Emission Rate Using Fuel (g/mi)					
% Change in VOC Emission Rate Using Fuel (g/mi)					
% Change in PM2.5 Emission Rate Using Fuel (g/mi)					
Proportional Ozone Benefit					
Proportional PM2.5 Benefit					
Timing					
Toxics Benefits?					
Haze Benefits?					
GHG Benefits?					
Cost per Gallon					
Cost per Ton of Reduction					
Implementation Issues					
Refining Issues					
Distribution Issues					
Uncertainty Factors					
Disbenefits?					
Other?					
Notes					