

Hamilton Square
600 Fourteenth Street, N.W.
Washington, DC 20005-2004
202.220.1200
Fax 202.220.1665

Marc D. Machlin
Direct Dial: 202.220.1439
machlinm@pepperlaw.com

June 2, 2006

Via E-mail

Geoffrey L. Wilcox, Esq.
U.S. Environmental Protection Agency, Room #2344A
Ariel Rios Building
1200 Pennsylvania Avenue, N. W.
Washington, DC 20460
wilcox.geoffrey@epamail.epa.gov

Re: Oakland County's PM-2.5 Designation;
E-Docket No. EPA-HQ-OAR-2003-0061

Dear Geoff:

This letter is submitted on behalf of Oakland County, Michigan, and supplements the petition for reconsideration filed by the County on March 21, 2006. This letter addresses four basic points. *First*, pursuant Oakland County's February 6, 2006 request under the Freedom of Information Act, 5 U.S.C. §552 ("FOIA"), EPA recently released to the County an internal technical memorandum and a series of figures relating wind characteristics to PM-2.5 monitoring data. (*See* Appendix A.) These documents strongly support Oakland County's pending petition for reconsideration because they confirm that Wayne County's failure to meet the PM-2.5 standards is due to a combination of emissions from distant sources outside the Detroit CMSA and local industrial sources within central Wayne County. Nothing in these EPA documents suggests that Oakland County contributes in any material way to PM-2.5 nonattainment in Wayne County.

Second, EPA's release of these documents under FOIA and its failure to include these documents in the administrative record raises questions about whether the agency has excluded other relevant documents or data from the record. Oakland County urges EPA not only to place this letter and the attachments in the record, but also to examine whether the agency has failed to include other pertinent technical information in the record. If so, Oakland County urges EPA to correct this by adding any technical reports and data developed or relied upon by the agency in making or re-assessing its PM-2.5 designations.

Geoffrey L. Wilcox, Esq.

Page 2

June 2, 2006

Third, Oakland County is submitting for inclusion in the record a study that the County recently obtained from the Southeast Michigan Ozone Study Work Group (“SEMOS”). (See App. B.) The attached analysis, titled “Data Analysis to Determine Possible PM-2.5 Contributions from Nonattainment Counties North of Wayne County Michigan Using 2001 – 2005 Data,” was presented by Michael Lebeis of DTE Energy (“SEMOS Analysis”). Among other things, the SEMOS Analysis evaluates on a quantitative basis whether Oakland County is contributing to PM-2.5 nonattainment in Wayne County. Using a wind trajectory that tracks PM-2.5 blown towards the nonattaining Wayne monitors from the northwest, the SEMOS Analysis found that PM-2.5 levels in Oakland County were only $0.3\mu\text{g}/\text{m}^3$ higher than levels measured in Flint. By contrast, PM-2.5 levels in Flint were $1.3\mu\text{g}/\text{m}^3$ higher than PM-2.5 levels in Saginaw. This confirms that on those infrequent days when the wind is blowing from Oakland County to Wayne County, any PM-2.5 contribution from Oakland County is miniscule and far lower than the contribution from Genesee County, which was designated as an attainment area by EPA.

Fourth, Oakland County is submitting air modeling data recently developed by the Michigan Department of Environmental Quality (“MDEQ”). (See App. C). MDEQ’s analysis suggests that the State’s recent efforts to reduce PM-2.5 emissions from a handful of stationary sources in Wayne County will have a material impact on PM-2.5 levels in Wayne County in the years ahead. The reductions at these facilities, combined with the PM-2.5 reductions from the Clean Air Interstate Rule (“CAIR”), will lower PM-2.5 levels in Wayne County by a significant margin. Notably, 2005 PM-2.5 monitoring data already surpasses the EPA projection for declining PM-2.5 in Wayne County that was expected by 2010 with the upcoming implementation of the CAIR. Ultimately, MDEQ’s analysis and the improving PM-2.5 levels in Detroit indicate that EPA should focus on sources within the problematic portions of Wayne County, not on unnecessarily enlarging the PM-2.5 nonattainment area to include Oakland County.

These points are discussed in greater detail below.

I. THE FOIA DOCUMENTS RELEASED BY EPA SUPPORT OAKLAND COUNTY’S POSITION

Oakland County submitted its petition for reconsideration on March 21, 2006. As of that date, EPA had not yet responded to the County’s February 6, 2006 FOIA request. Ultimately, the agency did not release any documents under FOIA until March 29, 2006. Having reviewed the documents released by EPA (which are attached in Appendix A), Oakland County believes that they indicate that EPA either accepted many of Oakland County’s contentions or independently reached many of the same conclusions.

Geoffrey L. Wilcox, Esq.

Page 3

June 2, 2006

With respect to wind direction, EPA's diagrams confirm the findings made by the County's experts from the Gradient Corporation ("Gradient"). For example, EPA developed "Contribution Roses" for monitoring stations in Wayne County, and those diagrams confirm Gradient's finding that the prevailing winds are from the Southwest and the West. (*See, e.g.*, App. A at A-029, -032, etc.) The FOIA data also confirms that the wind blows much less often from the North or from the Northwest (*i.e.*, from Oakland County to Wayne County). (*Id.*)

In addition, the "pollution roses" developed by EPA show that the highest levels of PM-2.5 measured in Wayne County are associated with winds from the South and Southwest, while the lowest levels occur with winds from the North and Northwest. For example, at the nonattaining Southwest High School monitor in Wayne County (#261630015), EPA's data indicate that when the wind is blowing from the South, the average PM-2.5 level for 2002 to 2004 is 20.8 $\mu\text{g}/\text{m}^3$. (*See* App. A at A-033 through -035.) Likewise, when the wind is blowing from the South-Southwest ("SSW"), the average PM-2.5 level is 22.2 $\mu\text{g}/\text{m}^3$. (*Id.*) By contrast, at this same monitoring station, EPA's calculations indicate that when the wind is blowing from the North, the average PM-2.5 level was only 8.9 $\mu\text{g}/\text{m}^3$. (*Id.*) Similarly, when the wind was blowing from the North-Northwest ("NNW"), the PM-2.5 level was only 10.9 $\mu\text{g}/\text{m}^3$. (*Id.*) Thus, during those infrequent periods when the wind is blowing from Oakland County to Wayne County, the PM-2.5 levels at Southwest High School station meet the 15 $\mu\text{g}/\text{m}^3$ standard by a considerable margin and are virtually the same as the background PM-2.5 levels entering Oakland County from the North and Northwest.

Furthermore, EPA's FOIA documents include a report by Michael Rizzo of EPA titled *A Source Apportionment Analysis of the Dearborn Speciation Trends Network Site* ("Rizzo Report"). (App. A at A-001 through -014.) The Rizzo Report supports a number of points made previously by Oakland County and Gradient. In particular, the Rizzo Report echoes Oakland County's arguments that: (1) the Dearborn monitor is located in a "heavily industrialized" area with "relatively dense industry" that adversely affects PM-2.5 levels in Wayne County (*id.* at A-001 through -002); and (2) those local industrial sources near the Dearborn monitor have a significant impact on the monitoring stations in central Wayne County (*i.e.*, the Rouge Area) (*id.* at A-011 through -015).

Importantly, the Rizzo Report provides illustrations of the regional contribution to PM-2.5 nonattainment at Dearborn. In Figures 3 through 5 on p.A-008 and Figures 6 through 8 on p.A-010, the Rizzo Report acknowledges that the PM-2.5 found at the Dearborn monitoring station stems largely from regional sources outside the Detroit CMSA and from local sources near this monitoring station. The Report states that "high sulfates are seen on days when winds pass through Indiana or Ohio." (*Id.* at A-009.) Likewise, "high nitrate concentrations occur when the winds come from areas west, southwest, and east of Detroit." (*Id.*) Taken together,

Geoffrey L. Wilcox, Esq.

Page 4

June 2, 2006

Figures 3 through 8 show heavy regional PM-2.5 contribution from virtually every direction except for the directions that could be associated with Oakland County.

In addition to discussing the regional effects on nonattainment in Wayne County, the Rizzo Report identifies the local sources that are driving the urban PM-2.5 increment. Consistent with the FOIA figures, the Rizzo Report identifies a number of local industrial facilities in central Detroit that are located south and southwest of the Dearborn monitoring station, but still within the Rouge Area.¹ Given the proximity of these local sources to the Dearborn monitor, the high correlation between their specific emissions and the speciated PM-2.5 data from Dearborn, and the wind data linking those local source emissions to that monitor, it is clear that those local sources are providing the majority of the local (versus regional) PM-2.5 contribution to nonattainment in Wayne County.

Together, the FOIA figures and the Rizzo Report's discussion of regional and local industrial PM-2.5 contribution document the *de minimis* impact of Oakland County on Wayne County's PM-2.5 nonattainment.

II. EPA SHOULD ENSURE THAT THE ADMINISTRATIVE RECORD IS COMPLETE AND THAT THE RECORD CONTAINS ALL PERTINENT EVIDENCE RELATING TO PM-2.5 CONTRIBUTION

Unless otherwise specified by Congress, the administrative record should include all the evidence developed or considered by the agency. *See generally* Rule 16(a) of the Federal Rules of Appellate Procedure; 28 U.S.C. § 2112(b). Given EPA's response to Oakland County's FOIA request, however, it appears that a number of relevant documents inexplicably are missing from the record. To some extent, EPA's failure to maintain the full administrative record will be cured by placing this letter and its attachments in the record. Yet this may not be sufficient.

¹ The Rizzo Report contains the following statement:

When compared to other sites within the Region, the Dearborn site has higher contributions from soil, metals processing, diesel and industrial sources which may explain the higher ambient total PM_{2.5} measured concentrations. The soil contribution may also be influenced by rock crushing and cement production facilities in close proximity to the site. Trajectory analyses show that many of these source categories are upwind [Southwest] of the Dearborn site on days when source contributions are elevated.

Rizzo Report at 1 (A-001)

Geoffrey L. Wilcox, Esq.

Page 5

June 2, 2006

There may very well be other pertinent evidence in EPA's possession that is unaccounted for. Thus, Oakland County urges the agency to review its files and update the record as appropriate.

III. THE SEMOS ANALYSIS CONFIRMS THAT ANY CONTRIBUTION FROM OAKLAND COUNTY IS INSIGNIFICANT

Appendix B contains an analysis presented at the March 23, 2006 meeting of the SEMOS work group, a group that has met "over the last ten years to address ozone and particulate matter implementation plan issues for southeast Michigan." (App. B at 2.) The SEMOS meetings are usually attended by representatives from MDEQ, the Southeast Michigan Council of Governments ("SEMCOG"), the Lake Air Directors Consortium ("LADCO"), EPA, and members of the regulated community.

The SEMOS Analysis relies in large part on the contribution analysis that EPA used (in OAR-2003-0061-0734 and OAR-2003-0061-0740) as a basis for denying Oakland County's March 7, 2005 Petition for Reconsideration (OAR-2003-0061-0636). While using EPA's basic methodology, the SEMOS Analysis disagreed with certain assumptions made by EPA that significantly affected EPA's analytical results. The SEMOS Analysis was performed independently of Gradient's PM-2.5 contribution analysis submitted with Oakland County's March 21, 2006 Petition for Reconsideration. In fact, the SEMOS Analysis evaluated additional monitoring data and different meteorological data. In the end, however, the SEMOS Analysis shared several key criticisms of EPA's contribution analysis and reached the same fundamental conclusion as Oakland County/Gradient. That conclusion was that Oakland County is not materially contributing to PM-2.5 nonattainment in Wayne County.

Specifically, the SEMOS Analysis began by using PM-2.5 monitoring data for 2001 through 2005, and calculated the average PM-2.5 levels when the wind was blowing from the Northwest into the Detroit area. "Northwest" in the SEMOS Analysis was defined as winds originating between 300° and 360°, the latter of which represented due north. With these northwest winds, the average PM-2.5 level increased from 5.7 $\mu\text{g}/\text{m}^3$ in Saginaw, to 7.0 $\mu\text{g}/\text{m}^3$ in Flint, to 7.3 $\mu\text{g}/\text{m}^3$ in Oak Park (Oakland County). Thus, the Oakland County "increment" associated with northwest winds was only 0.3 $\mu\text{g}/\text{m}^3$. Not only is this un-weighted figure very small, but since the wind blows to Wayne County from the Northwest relatively infrequently, the actual level of PM-2.5 contribution from Oakland County is even less. Furthermore, Oakland County's incremental contribution pales in comparison to the contribution from the counties further northwest. In particular, the SEMOS Analysis found that Oakland County's contribution is much less than that of Genesee County, a county that EPA excluded from the Detroit nonattainment area. In sum, the SEMOS Analysis fully supports Oakland County's contention that any PM-2.5 contribution from it to Wayne County is insignificant.

Geoffrey L. Wilcox, Esq.

Page 6

June 2, 2006

IV. MDEQ MODELING INDICATES THAT RECENT POLLUTION REDUCTIONS AT SEVERAL LOCAL SOURCES IN THE ROUGE AREA, WHEN COMBINED WITH THE IMPLEMENTATION OF THE CAIR, WILL SIGNIFICANTLY REDUCE PM-2.5 LEVELS IN WAYNE COUNTY

Recent monitoring data confirm that EPA has underestimated the beneficial impact of the CAIR on PM-2.5 nonattainment in Wayne County. The CAIR provides a program specifically designed for addressing the regional transport of PM-2.5, one that is unfettered by artificial boundaries such as CMSAs, which are geographical units that bear no relationship to actual PM-2.5 contribution. On March 2005, in association with the CAIR rulemaking process, EPA issued the *Technical Support Document for the Final Clean Air Interstate Rule* (available at <http://www.epa.gov/air/interstateairquality/pdfs/finaltech02.pdf>). In that Document, at Appendix F, EPA modeled the CAIR's effect on PM-2.5 levels in Wayne County. EPA predicted that in 2010, PM-2.5 levels in Wayne County were expected to be 19.41 $\mu\text{g}/\text{m}^3$ without the CAIR and 18.23 $\mu\text{g}/\text{m}^3$ with the CAIR. This analysis clearly overestimates PM-2.5 levels in Wayne County because the three-year average at the Dearborn monitor has already decreased from 19.5 $\mu\text{g}/\text{m}^3$ (2001-2003) to 18.6 $\mu\text{g}/\text{m}^3$ (2002-2004) to 18.2 $\mu\text{g}/\text{m}^3$ (2003-2005). (See Appendix C: MDEQ's *Data Completeness and Quarterly Averages of Fine Particulate Material in Michigan*.) In fact, EPA predicted an 18.23 $\mu\text{g}/\text{m}^3$ level in 2010 after factoring in the beneficial impact of the CAIR, but the improving air quality at Wayne County's worst monitor in 2005 (*i.e.*, Dearborn) has already surpassed EPA's projection for 2010 without the assistance of the CAIR. Since the CAIR has yet to take effect, Dearborn air quality has already surpassed EPA predictions five years ahead of schedule and without benefiting from the additional improvements that are expected from the CAIR.

In addition, Appendix C contains an MDEQ presentation that summarizes a "hot spot" modeling analysis presented at the May 12, 2006 SEMOS meeting. These MDEQ slides build on the CAMx Modeling EPA has relied upon (*e.g.*, in connection with the CAIR rulemaking), but evaluate PM-2.5 pollution reductions that are expected at the nonattaining PM-2.5 monitors in Wayne County. (See App. C at 3-5.) Specifically, MDEQ modeled the PM-2.5 emission reductions that are required at three significant PM-2.5 sources in the vicinity of the Dearborn monitor that will be implemented by 2008. According to MDEQ's "hot spot" modeling, the reductions are expected to reduce PM-2.5 levels at the Dearborn monitor by 2.3 $\mu\text{g}/\text{m}^3$. It should be noted that this projected 2.3 $\mu\text{g}/\text{m}^3$ reduction is attributable to enforcement and permitting activity at only three of the many stationary sources in Wayne County. Thus, over time, and as additional sources' reductions are added to the analysis, even greater reductions are expected in Wayne County.

Taken together, the CAIR Rule and the MDEQ "hot spot" modeling further militate against including Oakland County in the Wayne County nonattainment area.

Geoffrey L. Wilcox, Esq.

Page 7

June 2, 2006

V. CONCLUSION

In sum, EPA's own documents, the independent SEMOS Analysis, and the MDEQ presentation all provide support for Oakland County's argument that it should be designated as an attainment area for PM-2.5. Oakland County does not significantly contribute to PM-2.5 nonattainment in Wayne County, and saddling Oakland County with a nonattainment designation will have virtually no effect on the attainment status of Wayne County. Accordingly, EPA should grant Oakland County's petition for reconsideration and should designate Oakland County as an attainment area for PM-2.5.

Sincerely,



Marc D. Machlin

Enclosures: Appendix A: EPA FOIA documents (A1-A79)
Appendix B: SEMOS Analysis of PM-2.5 Contribution
Appendix C: MDEQ's Hot Spot Analysis

cc: Kenneth Amaditz (DOJ)
William Wehrum (EPA-HQ)
Larry Wallace (EPA-RTP)
Keith J. Lermينياux (Oakland County)
Thomas Wilczak (Pepper)
Kurt Kissling (Pepper)