

NOACA Air Quality Public Advisory Task Force

Point Source Work Group Second Preliminary Report October 27, 2005

Introduction

The NOACA Air Quality Public Advisory Task Force established Work Groups for Mobile Sources, Point Sources, Area Sources, Long-Term Planning Strategies, and a Public Health Forum on air pollution. Together, these Work Groups will assist the Task Force in creating recommendations to the Ohio Environmental Protection Agency (Ohio EPA) for inclusion in the State Implementation Plans (SIPs) for both ozone and fine particulates (PM_{2.5}), thus helping Northeast Ohio to come into attainment for these criteria air pollutants.

The Task Force and the Work Groups together will enable NOACA to assist the region to plan for future growth, to protect the public health, and to comply with federal law.

Meetings

The Point Source Work Group met August 30, September 26, and October 17, 2005, each time from 1:30 – 3:30 PM at NOACA's offices. It will meet next on November 15, 2005, at 1:30 PM.

Scope of Work

The Point Source Work Group is exploring potential emission reduction strategies for sources of air pollution associated with large sources permitted under Title V of the federal Clean Air Act Amendments of 1990, as well as smaller industrial, commercial, and residential sources of air pollution.

The Work Group is expanding its study to include energy efficiency and conservation, renewable sources of energy, and miscellaneous sources of air pollution that are commonly referred to as "area sources" such as consumer products, e.g. paints and cleaning solvents.

Emission Reduction Strategies / Modeling Efforts

Source Apportionment: At its October meeting, the Work Group reviewed the modeling study presented to them by the Ohio Electrical Utility Institute (OEUI). The study revealed that ozone transported into the Northeast Ohio nonattainment area comes from a variety of sources and from a variety of geographic locations, rather than merely from the southwest. The study indicated that on-road mobile sources and non-road mobile sources were significant contributors to ozone formation in Northeast Ohio, while elevated point sources, such as coal-fired utilities, contributed to a lesser extent.

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Ohio EPA then presented its own speciation run and a set of charts prepared by the Lake Michigan Air Directors Consortium (LADCO). The two sets of results indicated, as did the OEUI study, that on-road mobile sources and non-road mobile sources were the significant contributors on the highest ozone days in the summer of 2002.

Modeling: From these studies, the Work Group concluded that it would be essential for any modeling efforts undertaken by the Task Force, by Ohio EPA, or by LADCO to include current improvements made at elevated point sources and other point sources. The Work Group and Ohio EPA will attempt to compile all current air pollution controls that would be enforceable within the 2002-2009 timeframe and which might not already be part of the existing models.

The Work Group is studying the “Development of Growth and Control Factors for LADCO” as those growth factors relate to modeling Northeast Ohio. The Work Group may end up recommending changes to the growth factors being used.

Emission Reduction Strategies: The Work Group began its review of the potential air pollution controls studied by LADCO for point sources, including controls on the following categories:

- Electric generating units (EGUs)
- Industrial/Commercial/Institutional (ICI) boilers
- Cement kilns
- Petroleum refineries
- Iron and steel plants
- Chemical plants

The Work Group noted that there are no cement kilns in the Northeast Ohio nonattainment area. The recommendations for steel mills are inapplicable to the steel mill in Northeast Ohio as it is currently configured and operating. There are no refineries in the Northeast Ohio nonattainment area, although improvements to nearby refineries might benefit the area.

The effect of the first strategy for EGUs (EGU1) as compared to the Clean Air Interstate Rule (CAIR) in its final form is still under debate. Utilities in the nonattainment area are now undertaking compliance with the federal CAIR rule, which became effective in March 2005. The cost of EGU2, which is predicted to be high, will be studied further as data becomes available.

The ICI boiler rule shows promise as a strategy, particularly if applied statewide or, at a minimum, to northern Ohio locations both inside and outside the nonattainment area. Ohio EPA has not yet decided whether all boilers (large, medium, and small) should be regulated or simply large and medium. The Work Group will consider a recommendation for all boilers throughout the state for NOx controls.

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The Work Group also reviewed the draft Ohio EPA language for cold cleaners/degreasers, auto body paint sprayers, and portable fuel containers (PFC). The Work Group intends to recommend to Ohio EPA that these rules be applicable statewide. As drafted, the cold cleaner rule and the auto body paint sprayer rule affect only Cincinnati and Dayton because of their immediate need for replacements for their I/M program. Such controls might also benefit Northeast Ohio. The PFC rule, as drafted, would apply statewide.

The Work Group intends to study groups of smaller industries in Northeast Ohio such as plastics, coatings, and metal fabrication, to see whether further reductions are possible.

Finally, the Work Group is still pursuing voluntary measures as well as energy efficiency measures. In addition, further funding of enforcement programs will be studied.

Emissions Credit Trading “Bank”: The Work Group began discussions on creating a central location in which information about air emissions, reductions, credits, and offsets could be kept so that businesses that need offsets would know where they might be found and purchased.

Next Steps

The Work Group will pursue individual point source control measures, including voluntary measures, grouped industry point sources measures, consumer energy-efficiency strategies to reduce electricity usage, and strategies for better enforcement of existing measures. The Work Group continues to gather information to refine and correct the emissions inventory and to assist in modeling efforts.

Appendix

Meeting Summary – October 17, 2005