Commonwealth of Pennsylvania
Department of Environmental Protection

Ambient Air Monitoring Network Plan - 2010
Notice of Public Inspection
39 Pa. B. 2268 (May 2, 2009)

Comment/Response Document

June 18, 2009

Commonwealth of Pennsylvania
PA Department of Environmental Protection

Comment and Response Document concerning
Pennsylvania's 2010 Annual Air Monitoring Network Plan

On May 2, 2009, the Pennsylvania Department of Environmental Protection published a notice in the *Pennsylvania Bulletin* concerning public inspection of Pennsylvania's 2010 Annual Air Monitoring Network Plan. (39 Pa.B. 2268). This plan describes ongoing activities to continue conversion of manual $PM_{2.5}$ fine particulate samplers to continuous equivalent methods, locate new $PM_{2,5}$ fine particulate matter sites, install source-oriented ambient lead particulate samplers, and additional Volatile Organic Compound (VOC) air toxic samplers. The public comment period closed on June 2, 2009.

This document summarizes the written comments received during the 30-day public comment period from the only commentator, Mr. Gavin Biebuyck of Liberty Environmental, Incorporated, 50 N. 5th Street, 5th Floor, Reading, PA 19601.

COMMENTS FROM MR. BIEBUYCK, LIBERTY ENVIRONMENTAL

COMMENT: General

I applaud the PA DEP on the plans to install additional $PM_{2.5}$ monitors and to replace manual $PM_{2.5}$ FRM samplers with continuous $PM_{2.5}$ FEM samplers. Plans to deploy additional VOC air toxic samplers are also admirable.

RESPONSE: The Department appreciates the commentator's support of the initiative to replace resource-intensive $PM_{2.5}$ manual samplers with continuous methods and to perform monitoring of Volatile Organic Compounds (VOC) air toxics across the Commonwealth.

COMMENT: $PM_{2.5}$ Speciated Samplers

To better understand the causes of $PM_{2.5}$ pollution and source categories contributing to $PM_{2.5}$ nonattainment problems in Pennsylvania, I recommend that PA DEP deploy an additional $PM_{2.5}$ speciation sampler at Carlisle due to citizen concerns about localized trucking impacts.

RESPONSE: There is a known problem with the carbon channel in the Met One SASS speciation monitors which has caused the U.S. Environmental Protection Agency (EPA) to try using the URG 3000 Carbon speciation monitor as a replacement. DEP has not received all of

the URG 3000 Carbon speciation monitors for deployment and will defer consideration of the request until additional URG 3000 monitors are available.

COMMENT: Ammonia Sampling

I also recommend deploying ambient ammonia monitors in Reading, Lancaster, York, and Lebanon.

RESPONSE: The Department agrees that ammonia monitoring is needed. Ammonia monitors were purchased and installed in Lancaster (Lancaster County) and York (York County) in 2004 and 2006, respectively, to test the reliability of the equipment. During this time we have found the ammonia monitoring equipment to be troublesome and unstable at the low levels of ammonia found in the ambient air. As a result, both monitors have been returned to the manufacturer for updating of the detection system. Once repaired, these ammonia samplers will be re-deployed to the Lancaster and York sites. The Department will also examine the feasibility of installing an ammonia monitor in Berks County after other continuous measurement methods for ammonia are evaluated.

COMMENT: Air Toxic Samplers

To better understand ambient air toxic impacts in southeastern Pennsylvania, I recommend deploying carbonyl samplers in Carlisle, Chester, Reading, Harrisburg, and York.

I also recommend deploying hexavalent chromium samplers in Lancaster and Reading.

RESPONSE: As part of the Commonwealth's existing air toxics sampling network, the Department currently performs carbonyl monitoring at the Arendtsville, Lancaster and Lewisburg sites and will site two additional carbonyl monitors in 2010. Once acquired, the Department will determine the appropriate location for the samplers. In addition, the City of Philadelphia's Air Management Services is conducting carbonyl sampling at five sites in 2009. With this current coverage, additional carbonyl sampling has been limited due to the strict sample handling, delivery and analysis requirements.

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With regards to sampling for hexavalent chromium (Cr6), the Department will conduct Cr6 sampling at the Riverside Elementary School in Reading (Berks County) and the Kreutz Creek Elementary School in Hallam (York County), PA over a 60-90 day period during the summer of 2009 under EPA's air toxics school monitoring program. If the data shows that additional hexavalent chromium sampling is required, either EPA or the Department will extend the sampling period. The Department will also continue to conduct Cr6 sampling, as needed, for special projects since the Department's Bureau of Laboratories cannot prepare or analyze the specialized filters. It is also important to note that a review of the 2007 emission inventory data for Lancaster County did not reveal any chromium sources that would warrant the resources required for hexavalent chromium sampling on a continuous basis.

COMMENT: Ambient Lead Sampling

To better understand the extent of ambient lead impacts in the Laureldale, Berks County area, I recommend an additional Hi-Vol lead sampler be deployed (DEP operates two lead samplers in the Lyons area) and that the lead sampling frequency be increased from 1-in-6 days to 1-in-3 days.

RESPONSE: As part of the source-oriented expansion of ambient lead samplers, Exide Technologies in Laureldale (Berks County) will be modeled to determine the potential location of the maximum 3-month running average (National Ambient Air Quality Standard – NAAQS). As part of the EPA guidance on this monitor placement, a Hi-Volume Total Suspended Particulate (TSP) sampler will be placed at this maximum concentration site. In addition, if there is a monitor that currently exceeds the revised ambient lead NAAQS, that monitor will remain in place for one year to verify that the modeled site is reading equivalent concentrations or higher than the existing exceedance site. For 2010, the Laureldale area is expected to have at least two samplers for ambient lead monitoring purposes. The Department does not believe that there is a need to sample more frequently than the requirements in 40 CFR Part 50, Appendix Q, for determining compliance with the revised NAAQS. We will continue to work closely with EPA Region 3 to establish the requisite lead NAAQS monitoring network in Pennsylvania.