

2008 Pb NAAQS (73 FR 66964)
District of Columbia Infrastructure SIP
December 2011

ATTACHMENT 1

Section 110(a)(2)(D)(i): Interstate Transport Provisions, Part I

Include an explanation in support of the conclusion that no source will contribute significantly to nonattainment or interfere with maintenance of the Pb NAAQS in another state.

Ambient lead (Pb) monitoring in the District of Columbia (District) began in the 1960s. The District's Federal Reference Method (FRM) Pb monitoring network was discontinued in December 2001 in consultation with EPA when the monitored ambient Pb concentrations were consistently well below the 1978 Pb NAAQS of 1.5 $\mu\text{g}/\text{m}^3$. For example, the design value in the District for the 1998 to 1999 period (based on certified data that was submitted to EPA's Aerometric Information Retrieval System, now known as the Air Quality System) was 0.03 $\mu\text{g}/\text{m}^3$. The design concentration was about two percent of the 1978 NAAQS. Ambient Pb trends in the District paralleled national Pb trends at the time.

During 2001 and 2002, the District established a Chemical Speciation Network (CSN) monitor for measuring chemical species of fine particulate matter ($\text{PM}_{2.5}$) pollution, and National Air Toxics Trends Station (NATTS) monitors for measuring air toxics, including ambient Pb. These monitoring networks are based on air sampling of particulate matter pollution of 2.5 microns ($\text{PM}_{2.5}$) and 10 microns (PM_{10}) in diameter. Even though the CSN and NATTS monitors are not approved FRM Pb monitors, the recent data from the District's CSN and NATTS indicate ambient Pb concentrations in the range of 0.01 $\mu\text{g}/\text{m}^3$, which is still far below the 2008 standard of 0.15 $\mu\text{g}/\text{m}^3$.

The District plans to commence population-based ambient Pb monitoring with EPA-approved FRM samplers by January 1, 2012, in order to meet the monitoring requirements of the 2008 Pb NAAQS.

According to the October 14, 2011, Pb Infrastructure SIP Guidance, "EPA's experience with initial Pb designations suggests that sources that emit less than 0.5 ton per year (tpy) or that are located more than two miles from a state border generally appear unlikely to contribute significantly to nonattainment in another state." Levels from heliports and stationary point sources in the District are orders of magnitude lower than the threshold, as indicated by EPA's Toxics Release Inventory (TRI, 2005) and a recent EPA inventory of airport emissions (2008). For example:

SCC	Pb Emissions (tpy)
2275050011 (heliports)	0.00078
Pepco-Benning Generating Station	0.008286093
U.S. Bureau of Engraving and Printing	3.6335E-06
U.S. Soldiers and Airmens' Home	2.23524E-06

Currently, the District is not aware of any plans to establish a source that emits substantial amounts of Pb within its borders. Thus, it is reasonable to conclude that no source will contribute significantly to nonattainment or interfere with maintenance of the NAAQS in another state.

Section 110(a)(2)(D)(i): Interstate Transport Provisions, Part II

Include an explanation in support of the conclusion that no Pb source will impair visibility at Class I areas.

The following map from the District's Regional Haze SIP indicates that the Benning Road Generating Station, located in the northeast quadrant of the District along the Anacostia River, is roughly 100 km (62 miles) from Shenandoah National Park, the closest Class I area to the District.



Source: Draft BART analysis prepared by ENSR/AECOM for PEPCO Energy Systems (October 2008)

According to the Pb Infrastructure SIP Guidance, “significant impacts from Pb emissions from stationary sources are expected to be limited to short distances from the source.” More than 50 miles is considered to be more than a “short distance” from a Class I area for purposes of this SIP.

In addition, EPA analysis of total versus Pb-associated light extinction at 164 IMPROVE and 117 CSN monitoring sites has determined that Pb-related visibility effects (in Class I and other areas) are insignificant in comparison to those associated with sulfate, nitrate, and carbon PM (see Mark Schmidt memo, OAQPS, “Ambient Pb’s Contribution to Class I Area Visibility Impairment,” 11/7/2011).

Thus, visibility impairment related to ambient Pb is not a notable concern.