

## Washington Infrastructure SIP for Lead

In April 2014, the Department of Ecology (Ecology) will submit an infrastructure State Implementation Plan (SIP) for lead to the federal Environmental Protection Agency (EPA). An infrastructure SIP is a plan that demonstrates that Washington has the authority and means to implement the federal air quality standard in all areas of the state. Ecology must submit this SIP to meet federal Clean Air Act requirements for the lead standard.

### **Q: Why do we need an infrastructure SIP?**

**A:** When EPA updates a National Ambient Air Quality Standard (NAAQS), states must review their air programs and submit a plan to EPA certifying the state can maintain the standard. In 2008, EPA set tough new standards for how much lead is safe in our air. So, Washington must submit a plan that shows the state can continue to meet that standard.

### **Q: Why is lead a problem?**

**A:** EPA sets air quality standards for lead pollution because lead exposure can harm human health, especially in children. Exposures to low levels of lead early in life have been linked to effects on IQ, learning, memory and behavior. As a result of EPA's efforts to remove lead from gasoline, levels of lead in the air decreased 94 percent between 1980 and 1999. Since lead persists in the environment and accumulates in soils, disturbing contaminated soils can release lead into the air.

### **Q: What are the sources of lead emissions?**

**A:** Lead is a metal found naturally in the environment and in manufactured products. Historically, the major source of lead emissions to the air was from leaded gasoline used in cars. Lead emissions dropped sharply when lead was phased out of gasoline starting in the 1970s.

### WHY IT MATTERS

- Lead air pollution can have serious health effects, especially for children.
- Lead can harm the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system.
- Lead exposure affects the ability of blood to carry oxygen to the body.
- Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ.

#### Contact information:

Laurie Hulse-Moyer  
(360) 407-6783  
[lahu461@ecy.wa.gov](mailto:lahu461@ecy.wa.gov)

#### Special accommodations:

For special accommodations or documents in alternate format, call 360-407-6800, 711 (relay service), or 877-833-6341 (TTY).

Past sources of lead in Washington include a lead smelter on Harbor Island in South Seattle and the ASARCO copper smelters in Tacoma and Everett. These facilities ceased operations by the mid eighties.

We don't currently have many lead sources in Washington. Battery recyclers, wood products facilities, pulp and paper mills, glass manufacturers, and refineries are a few of the sources that emit lead at very low levels in Washington. Also, small aircraft that run on leaded gasoline still emit lead. Lead is not used in jet fuel, which is the fuel used by most commercial aircraft.

**Q: What is the new lead standard?**

**A:** The revised standard is ten times more stringent than the previous standard set in 1978. The standard was lowered from 1.5 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) to  $0.15 \mu\text{g}/\text{m}^3$ . It is designed to protect at-risk groups, especially children. No areas in Washington were found to be out of compliance with the lead standard in 2011.

**Q: How does Washington check for lead in the air?**

**A:** Washington monitors for lead at Beacon Hill in Seattle. The data show lead levels are well below the new standard. You can look at the Monitor Report on EPA's [AirData website](#). We also monitored at two airports in 2012: Harvey Field in Snohomish and the Auburn Municipal Airport. Since lead levels were well below the standard, Ecology stopped monitoring at both airports after 12 months.

EPA requires monitoring near sources that emit half a ton of lead per year or more. There are no known sources of lead over half a ton in Washington. When EPA requires sources report emissions over this threshold, we may identify other areas that we will evaluate. Based on what we know about lead sources in Washington, we estimate lead emissions are very low.

**Q: Does the SIP revision contain any new requirements?**

**A:** No. The infrastructure SIP does not add rules or change requirements for controlling lead. It will be sent to EPA to be added to Washington's comprehensive SIP for maintaining air quality.

**Q: Where can I get more information?**

**A:** The proposed SIP revision and related documents are available for review on Ecology's website at: <http://www.ecy.wa.gov/programs/air/sips/plans/infrastructure.htm>. You can also view the document at:

Department of Ecology HQ  
300 Desmond Drive SE  
Lacey, WA 98503  
Contact: Laurie Hulse-Moyer / (360) 407-6783