

BNSF Hillyard Lead Site Spokane, Washington

Fact Sheet, February 2005



Health Consultation Completed

The Washington State Department of Health (DOH) in cooperation with the Agency for Toxic Substances and Disease Registry (ATSDR) has completed an evaluation of potential human health risks from lead and arsenic in soil around the Burlington Northern Santa Fe Railway Hillyard site in Spokane.

Site Background

In the 1970s, the Burlington Northern Santa Fe Railway Company (BNSF) acquired the former rail yard and railroad right of way from the Great Northern Railroad Company. In the 1980s, facilities at the site were demolished, and the site became vacant. The site is located between 4800 N. Ferrall Street and 5300 N Ferrall Street, in the Hillyard area within the northeastern portion of the city limits of Spokane. The site is bordered on the south by Wellesley Avenue and is across the street from the Hillyard Dross landfill and an asphalt plant. The site is adjacent to an active rail line and commercial activities on the west. Homes and vacant land lie east of the site.



BNSF Hillyard lead site in Spokane, Washington.

In December 2001 and January 2002, Pacific Industrial Resources, Inc., screened and excavated approximately 13,000 cubic yards of soil for use as final cover on the Hillyard Dross landfill cap. In June 2002, Environmental Management Resources, Inc. (EMR) tested the stockpiled soil and discovered elevated lead concentrations. Additional investigation was conducted to determine the source of the lead-contaminated soil. Further sampling determined the extent of the lead-contaminated soil. Lead-contaminated surface soil covers approximately 140,000 square feet and is located adjacent to Ferrall Avenue. In July 2002, about 8,640 cubic yards of lead-contaminated soil remaining in the pile was fenced and covered with polyethylene. Because of the nature of the site and the fact that the soil was visibly stained, other contaminants such as total petroleum hydrocarbons (TPHs) and volatile organic compounds (VOCs) may also be present.

Children have been observed playing and riding bikes frequently on the site. EMR personnel observed bicycle and foot tracks across the lead-contaminated soil at the area. These observations indicate that area children could very possibly have been exposed through ingestion or inhalation of contaminated soil or dust. Although children are unlikely to be playing at the site every day, lead levels are high enough to be a concern. Since the site is surrounded by homes, the possibility exists that lead may migrate into residential house dust or soil. Because of the high lead levels at the site and the possibility of children's additional exposure from lead paint in neighborhood's older homes, it is important that parents do not allow their children to play at the site.

Contaminants of Concern

Lead is the primary contaminant of concern in the Hillyard site soil. Over time, swallowing even small amounts of soil contaminated with lead could lead to a variety of health problems. **Young children are particularly susceptible to lead contamination.** Studies have shown that household dust is one of the leading ways that young children are exposed to lead. Most people swallow small amounts of soil and dust (and any contaminants they contain) without realizing they have done so. Young children often put hands, toys, pacifiers, and other things in their mouths, and these may have dirt or dust on them that can be swallowed. Soil sticking to

homegrown vegetables will be swallowed when the produce is eaten. Adults may swallow soil and dust through activities such as gardening, mowing, construction work, and dusting.

Swallowing or breathing lead can be harmful. Lead is a special danger to children under six years of age. It can damage the brain, nerves, kidneys, and other parts of the body. Children who are lead poisoned find it hard to learn and may not behave well. If you are pregnant, you can pass lead from your body to your unborn baby.

Conclusions and Recommendations

1. **A public health hazard exists for children who may be exposed to lead while playing at the site. Do not let your children play at the Hillyard site.**
2. A public health hazard may exist for children in the future if the site is used for residential homes.
3. **The property should be fenced to keep children out. Signs should be posted to let people know about the dangers of contaminated soil.**
4. The soil at the site needs to be sampled for TPHs and VOCs.
5. **Children who have played at the site should be tested for blood lead by their local physician.**
6. Soil needs to be sampled from residential yards around the site to determine the extent of contamination from dust.

More Information on Lead

National Safety Council

http://www.nsc.org/safety_home/HomeandRecreationalSafety/Poisoning/Pages/LeadPoisoning.aspx

Centers for Disease Control and Prevention

<http://www.cdc.gov/nceh/lead/>

Agency for Toxic Substances and Disease Registry

<http://www.atsdr.cdc.gov/>

Healthy Actions You Can Take

1. Do not let your children play at the Hillyard site.
2. Wash hands and toys after playing outside.
3. Vacuum carpets and rugs frequently, plus wet mop and/or wet dust all other surfaces in your home.
4. Take off your shoes before entering your home to avoid tracking soil into your house.
5. Wear gloves while gardening and wash vegetables before eating them.
6. Cover up exposed soil in your yard by growing grass on it.
7. Wipe down pets before you let them inside.
8. Serve foods that are a good source of calcium and iron. These foods help protect your child from lead poisoning. Include foods high in Vitamin C – they help your body absorb iron.

For More Information

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