

Regulation of Lead Wheel Weights

This IPRO report examines the recent efforts to regulate or ban the use of lead wheel weights on vehicle wheels.

Basic Facts

Lead wheel weights, pictured in Figure 1, are clipped or attached with adhesive to the rims of automobile wheels in order to balance tires. Virtually all wheel-weight lead, actually an alloy containing approximately 5 percent antimony, is composed of material from recycled automobile batteries.¹ On average 4.5 ounces of lead per wheel is attached to automobiles in the United States.²

Figure 1. Lead wheel weights



Issues Associated with the Use of Lead Wheel Weights

A 2003 United States Geological Survey estimated that approximately 65,000 tons of lead wheel weights were in use in the United States. Of the 65,000 tons, an estimated 2,000 tons would fall off of tires during the year. Wheel weights can fall off vehicles as a result of hitting a curb or pothole, rapid acceleration or deceleration, or a sharp turn.³

Lead wheel weights have been used on vehicles for about seventy years and all of the lost weights are potentially a major source of lead exposure.⁴ Detached weights can be washed away and end up in waterways or they can be gathered during street cleaning and placed in landfills.⁵ Lead wheel weights are susceptible to atmospheric corrosion, making the lead more soluble. This increases the risk of contamination of surface and ground water, which could contaminate drinking water supplies.⁶

¹Bleiwas, D.I., 2006, Stocks and flows of lead-based wheel weights in the United States: U.S. Geological Survey Open File Report 2006-1111, 6 p. Retrieved 29 Oct 2009 from: <http://pubs.usgs.gov/of/2006/1111/2006-1111.pdf>

²Ibid, "Lead Wheel Weight Quick Facts." Retrieved 29 Oct 2009 from: <http://www.epa.gov/waste/hazard/wastemin/nlfwwi.htm>

³Bleiwas, D.I., 2006, Stocks and flows of lead-based wheel weights in the United States: U.S. Geological Survey Open-File Report 2006-1111, 6 p. Retrieved 29 Oct 2009 from: <http://pubs.usgs.gov/of/2006/1111/2006-1111.pdf>

⁴Root, Robert A. Lead Loading of Urban Streets by Motor Vehicle Wheel Weights. *Environmental Health Perspectives*, Vol. 108, No. 10 (Oct., 2000), pp. 937-940

⁵Lead Wheel Weight Quick Facts." Retrieved 29 Oct 2009 from: <http://www.epa.gov/waste/hazard/wastemin/nlfwwi.htm>

⁶"What is the Problem with Lead Wheel Balancing?" Retrieved 29 Oct 2009 from:

Alternatives to Lead Wheel Weights

Steel, zinc, and other metals have been used to replace weights made of lead. On July 1, 2005 the European Union enacted a ban on the use of lead wheel weights on new vehicles and after market wheels.

Federal Regulation of Lead Wheel Weights

Lead has been identified by the Environmental Protection Agency (EPA) as one of 31 priority chemicals targeted for reduction. The United States has already banned the use of lead in gasoline and in paints. Currently, there are “no regulatory controls governing the use of lead wheel weights.”⁷

The EPA rejected a 2005 petition filed by the Ecology Center to begin work on the banning lead wheel weights in the United States on the grounds that more research was necessary.⁸ This decision was reversed in 2009 when the EPA granted another petition filed by the Sierra Club and the Ecology Center, under the Toxic Substances and Control Act.⁹ In a response to the petitioners, the EPA established no timeline but agreed to “initiate a proceeding for the issuance of a rule to prohibit the manufacture, processing and distribution in commerce of lead wheel balancing weights.”¹⁰

State Regulation of Lead Wheel Weights

Currently, six states have passed legislation or implemented regulations aimed at curbing or eliminating the use of lead wheel weights.

California – In 2009 a bill was signed into law prohibiting the manufacture, sale, or installation of wheel weights that contain more than .1% lead.¹¹

Maine – In 2009 Maine passed a law intended to phase out the use of lead wheel weights. Effective January 1, 2011 the use, sale and distribution of wheel weights containing lead or mercury is prohibited. The sale of vehicles equipped with wheel weights that contain lead or mercury is prohibited beginning on January 1, 2012.¹²

Minnesota – In 2009 the Minnesota Department of Administration adopted a mandate that tire dealers use only wheel weights that do not contain lead or mercury when servicing vehicles in the state fleet beginning October 1, 2009.¹³

Oregon – The Oregon Department of Transportation instituted a program to phase out the use of lead wheel weights in the state vehicle fleet. As tires are replaced lead wheel

<http://www.leadfreewheels.org/problem.shtml>

⁷Lead Wheel Weight Quick Facts.” Retrieved 29 Oct 2009 from: <http://www.epa.gov/waste/hazard/wastemin/nlffwi.htm>

⁸Bleiwas, D.I., 2006, Stocks and flows of lead-based wheel weights in the United States: U.S. Geological Survey Open-File Report 2006–1111, 6 p. Retrieved 29 Oct 2009 from: <http://pubs.usgs.gov/of/2006/1111/2006-1111.pdf>

⁹Lead Wheel Weight Quick Facts.” Retrieved 29 Oct 2009 from: <http://www.epa.gov/waste/hazard/wastemin/nlffwi.htm>

¹⁰Letter from EPA to Jeff Gearhart, Ecology Center and Tom Neltner, Sierra Club. 26 Aug 2009. Retrieved 29 Oct 2009 from: <http://www.leadfreewheels.org/>

¹¹SB 757. Retrieved 29 Oct 2009 from: <http://www.leginfo.ca.gov/cgi-bin/postquery>

¹²An Act to Protect the Public Health and the Environment by Prohibiting the Sale of Wheel Weights Containing Lead or Mercury. Retrieved 29 Oct 2009 from: http://www.mainelegislature.org/legis/bills/search_ps.asp

¹³Parisien, Lisa. “States Offer Model Approaches for Phasing Out Lead Wheel Weights in the Environment.” Retrieved 29 Oct 2009 from:

http://www.ecos.org/files/3771_file_August_2009_Green_Report.pdf?PHPSESSID=72bcf469d117f89897e766e011d2

weights will be replaced with steel wheel weights. At least 50% of the state's fleet will be lead-free by 2012 and 90% will be lead-free by 2017.¹⁴

Vermont – In 2008 Vermont enacted a law that prohibited the use of lead wheel weights in state vehicles beginning January 1, 2010 and banned them from new motor vehicles as of September 1, 2011.¹⁵

Washington – In 2009 Washington's enacted a law that prohibits the use of wheel weights containing more than .5% lead or mercury when repairing or replacing tires after January 1, 2011.¹⁶

Proposed Legislation in Iowa

Currently, Iowa has no law addressing the use of lead wheel weights. The following bills were, however, introduced in the 2009 legislative session.

HF 384, introduced by Representatives Willems, Kaufmann, Reichert and Jacoby, would prohibit the sale of motor vehicles equipped with lead wheel weights. During the servicing, repair or maintenance of motor vehicles the bill would prohibit the installation of lead wheel weights and require lead wheel weights to be replaced with wheel weights composed of something other than lead. HF 384 was referred to the Transportation Committee and is currently assigned to a subcommittee.

HF 395, introduced by Representatives Kaufmann, Willems and Jacoby, would mandate that lead wheel weights be replaced in the servicing, repair, or maintenance of state-owned vehicles. It was referred to the Transportation Committee and is currently assigned to a subcommittee.

HF 785, a successor to HF 395, would require the director of the Department of Administrative Services to establish a procedure for encouraging the use of wheel weights made of materials other than lead in the servicing, repair, or maintenance of state-owned vehicles where wheel weights composed of materials other than lead are readily available. It was referred to the Transportation Committee.

SF 220, introduced by Senator Bolckcom, would mandate that lead wheel weights be replaced with alternative metals during the service, repair, or maintenance of state-owned vehicles. It would prohibit the sale of motor vehicles equipped with lead wheel weights after December 31, 2010. It would also prohibit the installation of lead wheel weights and require wheel weights made of materials other than lead be installed during the service, repair or maintenance of all vehicles. An individual in violation of this law would be guilty of a simple misdemeanor punishable by confinement for no more than 30 days or a fine of between \$65 and \$525 or both. It was referred to the Environment and Energy Independence Committee and is currently assigned to a subcommittee.

¹⁴Ibid

¹⁵Act of the General Assembly No. 193. Retrieved 29 Oct 2009 from: <http://www.leginfo.ca.gov/cgi-bin/postqueryhttp://www.leg.state.vt.us/docs/legdoc.cfm?URL=/docs/2008/acts/ACT193.HTM>

¹⁶ Parisien, Lisa. "States Offer Model Approaches for Phasing Out Lead Wheel Weights in the Environment." Retrieved 29 Oct 2009 from: http://www.ecos.org/files/3771_file_August_2009_Green_Report.pdf?PHPSESSID=72bcf469d117f89897e766e011d2856a