

Focus on Limiting the Use of Copper and Other Substances in Vehicle Brake Pads

Environmental Assessment Program

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Creating incentives to reduce the use of copper in vehicle brake pads

The Department of Ecology (Ecology) and the Puget Sound Partnership jointly propose a bill that limits the use of copper in vehicle brake pads.

The problem

Vehicle brake pads represent a significant source of copper in our environment, threatening the health of our streams, rivers and marine environment, and particularly our threatened and endangered salmon.

Copper gets into our waters from transportation, pesticides, industrial and municipal discharges, mining and rooftops. Thousands of pounds of copper are discharged into Puget Sound surface waters every year. The contribution of each of these sources has been extensively researched for the San Francisco Bay area in California. This research indicates that vehicle brake pads account for almost 40 percent of the total copper discharged into San Francisco Bay, and as much as 50 percent of the total copper discharged into highly urbanized watersheds.

The solution

Pass legislation that calls for a phased reduction of copper in vehicle brake pads over time in Washington State. Require brake pads with reduced copper only when such products are available.

Any new products must be safe for drivers and safer for the environment. Proposal allows time for entrepreneurs to develop these types of brake pad products. They will have a new market for these products in Washington.

WHY IT MATTERS

Copper is highly toxic in aquatic environments and harms fish, invertebrates, amphibians and phytoplankton.

Copper harms the sensory systems of threatened and endangered salmon. It reduces the ability of young salmon to escape from predators. It hinders adult salmon from finding their spawning streams. These toxic effects limit the abundance of salmon returning to our fisheries and spawning grounds.

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Major provisions of the bill

- By January 1, 2015, brake pads sold as replacement parts (after-market brake pads) may not exceed 5 percent copper by weight.
- By January 1, 2020, new vehicles may not have brake pads that exceed 5 percent copper.
- If Ecology, in consultation with a brake pad advisory committee (Committee), determines that a suitable alternative containing no more than 0.5 percent copper is available, new vehicles may not have brake pads that exceed 0.5 percent copper after January 1, 2025.
- If a suitable alternative containing no more than 0.5 percent copper is *not* available, Ecology will periodically evaluate the finding and convene the Committee, as needed. If Ecology, in consultation with the Committee, determines that a suitable alternative containing no more than 0.5 percent copper has become available, the new limit at 0.5 percent will go into effect five years after such a finding is made but not before January 1, 2025.
- Beginning in 2014, brake pads containing more than the specified amount of cadmium, chromium, lead, mercury and asbestos may not be sold in Washington.
- Ecology will track data provided by manufacturers to ensure that nickel, zinc and antimony in brake pads do not increase by more than 50 percent of current levels.
- Penalties are provided for non-compliance.

This proposed bill's approach

Ecology and the Puget Sound Partnership drew from an existing copper brake pad bill in California with modifications based on our own recent experience with legislation successfully preventing harmful toxics from entering the environment (for example, the successful PBDE bill referenced at: www.ecy.wa.gov/news/2009news/2009-017.html).

We have involved industry experts in a review of possible alternatives, and will assure that the proposed copper reductions move forward only when better materials are available. In effect, this legislation creates incentives for environmentally preferable and effective alternatives.

On the web

This publication is on the web at www.ecy.wa.gov/biblio/0903057.html.