



PENTACHLOROPHENOL

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Pentachlorophenol: Poisonous Utility Poles

Pentachlorophenol (Penta) is an extremely toxic wood preservative that threatens the health of people and the environment. It builds up in the food chain and our bodies and is passed on to our children through breast milk (Jorens 1993). Penta belongs to a class of dangerous chemicals that have left a toxic legacy around the globe. This class of chemicals, often referred to as PBTs (persistent bioaccumulative toxics), also includes dioxin, mercury, and PCBs.



The Cascade Pole wood-treatment facility on the Tacoma tide flats is one of four such plants in Washington that use pentachlorophenol for utility poles.

Penta is so toxic that it is banned in 26 countries, yet the United States continues to allow registration and use of this chemical for treating utility poles and other wood. As a result of this registration, penta contaminates soil, rivers, streams, and our bodies. Even more alarming is the fact that penta is heavily contaminated with dioxins, which are among the most dangerous chemicals known.

Health Effects: The Risk is Too High

Penta is devastating to human health and the environment. It is classified as a probable carcinogen by the Environmental Protection Agency (EPA), which means that exposure to penta can cause cancer. Penta has also been linked to the impairment of the immune system,

interference with reproduction, birth defects, and hormonal problems (Schwetz 1974; Daniel 1995; Schettler et al. 1999). Consider these disturbing facts about penta:

- According to EPA estimates, ongoing exposure to contaminated soil at the base of penta-treated telephone poles puts two children at risk for cancer each day (Beyond Pesticides/NCAMP 1999).
- According to EPA, at least 4 in 10 workers who apply penta grease to utility poles and have a lifetime exposure to penta are expected to get cancer. If the workers don't use protective equipment, EPA estimates that every worker can be expected to get cancer (U.S. EPA 1999).
- Penta has been found in milk, fruit, and meat (Jorens 1993).
- Penta has been found in human body fat, breast milk, cerebrospinal fluid, and other body fluids (Jorens 1993).
- A blue heron colony failed to reproduce when none of its 200 eggs hatched. This failure was attributed to penta exposure (Sloan et al. 1988).

Penta Pollution Sources

Utilities nationwide account for more than 90% of current penta use (Beyond Pesticides/ NCAMP 1999). Of the approximately 60 million utility poles currently in service in the United States about 36 million have been treated with penta (Malecki, 1992). Penta has been shown to leach from poles and contaminate the soil at the base of poles.

Although penta is not manufactured in Washington, there are four active wood treatment facilities in the state that use penta in their operations:

- Brooks Manufacturing and Oeser Co. in Bellingham,
- J.H. Baxter & Company in Arlington, and
- Cascade Pole in Tacoma.

All four facilities have contaminated their grounds to the extent that they are considered toxic sites under state or federal law. According to 1998 Toxics Release Inventory data, the four facilities together released 510 pounds of penta to the air and 250 pounds to water during that year.

Alternatives to Penta

There are alternatives to penta-treated poles. Alternatives include non-wood (steel, fiberglass, or concrete) poles, wood treated with copper naphthenate or alkaline copper quaternary (ACQ), and burying utility lines underground. Although some of the alternatives may have environmental impacts, none of the options are as hazardous as penta.

Vision for the Future: Penta Solutions

In December 2000, Washington State released a plan to phase out and eliminate dioxin, mercury, PCBs, and other persistent pollutants. At the end of last year, the Washington State Department of Ecology (Ecology) released a working list of priority chemicals from which it will choose chemicals for state action. Despite the fact that penta is persistent, bioaccumulative, extremely toxic, and contami-

risk due to penta exposure, public utilities should stop purchasing poles treated with penta.

What You Can Do

- Send the Department of Ecology a letter requesting that penta be placed on the Persistent Bioaccumulative Toxic (PBT) working list and prioritized for action. Letters should be sent to: Director Linda Hoffman, Department of Ecology, PO Box 47600, Olympia, WA 98504-7600; lhof461@ecy.wa.gov; phone 360-407-7001, fax 360-407-6989.
- Send a letter to your local public utility asking it to adopt a policy to stop purchasing penta-treated poles and begin purchasing alternatives.

Contact us at 206-632-1545 or visit our website at www.watoxics.org for the latest information on current activities and to find out how you can get more involved.



There are numerous alternatives to penta-treated wood utility poles.

nates numerous waterbodies and communities in our state, penta is missing from Ecology's list. Penta should be placed on Ecology's list and prioritized for action.

Public utilities around the state still purchase penta-treated poles. These poles are near schools, close to streams, and in residential backyards. To stop environmental and health

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