

NORTHWEST ENVIRONMENT WATCH

NEW Study of PBDEs and PCBs: Regional Fact Sheet

Updated for August 25, 2005

In 2003 and 2004, Northwest Environment Watch conducted a study on chemicals in the breastmilk of 40 mothers from British Columbia, Montana, Oregon, and Washington. The samples were analyzed by the California EPA Hazardous Materials Laboratory for the presence of PBDEs (polybrominated diphenyl ethers), toxic compounds widely used as flame retardants in consumer products; and PCBs (polychlorinated biphenyls), industrial chemicals used as lubricants and insulators, which were banned in North America in the late 1970s. On **August 25, 2005**, NEW and California/EPA will release a [new analysis of the study results](#) comparing levels of PBDEs and PCBs found in the women.

Results by location were the following:*

	PBDE and PCB contamination (parts per billion in milk fat)					
	PBDEs			PCBs		
	Lowest	Average	Highest	Lowest	Average	Highest
British Columbia	6	60	241	62	141	321
Montana	9	113	321	49	92	184
Oregon	21	121	285	67	187	415
Washington	13	88	309	79	300	1,454
Northwest (all)	6	96	321	49	180	1,454

*The study included 40 first-time mothers, 10 each from British Columbia, Montana, Oregon, and Washington. Some regional differences were observed, but because of the limited number of samples in each location, and because participants were not necessarily representative of the general population, the statistical significance of these differences is uncertain.

What different regions are doing to address PBDEs and other persistent chemicals

British Columbia/Canada: In 2004, Environment Canada conducted an initial scientific assessment on PBDEs and released a draft for public comment, but no regulatory action has been taken yet to minimize the impact of PBDEs in Canada. The [Canadian Environmental Law Association](#) (CELA) recommends a PBDE ban using regulatory tools instead of waiting for voluntary actions by industry. CELA and other groups are preparing for a parliamentary committee review of the Canadian Environmental Protection Act (CEPA) in the fall of 2005. Among its priorities, CELA recommends that the CEPA enhance its provisions for access to information and development and promotion of safe alternatives. An up-to-date inventory of the information gathered under CEPA should be made publicly available, and updates should reflect results from improving reporting requirements on programs and initiatives that target toxic substances such as PBDEs. In addition to NEW's research on PBDEs in BC women, a February 2005 study by the *Globe and Mail* and CTV found that Canadian foods are among the most contaminated in the world, with PBDE levels up to 1,000 times higher than those found in tests in European countries.

Montana: In 2005, Montana introduced legislation aimed at supporting a ban on toxic flame retardants, which passed the Senate and was stymied by a tie vote in the House. Supporters of this initiative included the Montana Governor, the Montana Medical Association, University of Montana Center for Environmental Health Sciences, mothers who participated in the breastmilk studies, members of Montana organization Women's Voices for the Earth, and a wide range of healthcare providers and research professionals across the state.

Although the legislation did not pass, Women's Voices for the Earth will continue to educate Montanans about health concerns associated with PBDEs, promote ways to lessen exposure, and encourage regular monitoring for persistent toxic chemicals—such as the PCB testing recently conducted in Lewistown, Montana. See [Women's Voices for the Earth](#) website for more information.

Oregon: In 2005, the Oregon legislature approved a bill sponsored by the Oregon Environmental Council to phase out the use of two types of flame retardants, known as penta and octa, that are used in household products such as furniture, computers, and televisions. The legislature did not include the most-common form of PBDEs, known as deca, in the bill; but it did include a provision to study the effects of deca-PBDE. The Oregon Environmental Council helped coordinate a national study in 2004 by the [Safer Products Project](#) to test household dust for the presence of PBDEs and other toxic chemicals, which ranked Oregon the highest out of seven states for levels of PBDEs in dust. See [Oregon Environmental Council's website](#) for more information.

Washington: In 2004, as part of Washington state's program to phase out persistent bioaccumulative chemicals, then-Governor Gary Locke implemented an executive order requiring the Department of Ecology (Ecology) to develop an action plan to phase out all PBDEs. The interim action plan calls for a ban on all forms of PBDEs, including penta, octa, and deca. It also called for a reform of federal chemicals policy. In 2005, the Washington State Legislature delayed action on a bill that would have phased out all forms of PBDEs, including deca—the most widely used form of PBDE, found primarily in consumer electronics and textiles. But it did fund a plan for banning deca, scheduled for release in early January 2006. Ecology is currently conducting an evaluation of the alternatives to deca. Public comment on the plan will be sought in November-December 2005. See [Washington Toxics Coalition's website](#) for more information.

Nationally and internationally: Sweden phased out some forms of PBDEs in the 1990s, followed by the European Union, and several US states. Currently, a ban is set to take effect in 2006 in the European Union for the most widely used form, deca-PBDE. Maine has passed legislation with strong intent to ban deca-PBDE by 2008 and other states—including Washington, Illinois, Maryland, and others—are moving forward to ban deca.

Recommendations to reduce exposures to PBDEs and other bioaccumulative toxics

- **Phase out all PBDEs.** All Northwest jurisdictions should ban PBDEs from commerce, including penta- and octa-PBDE, and deca-PBDE, which is still being manufactured. While the phase-outs take effect, labeling products containing PBDEs would allow consumers to make informed choices.
- **Address the problem of PBDEs in people's homes and offices.** Provincial and state governments throughout the Northwest should develop strategies and recommendations to help people remove PBDEs from homes and workplaces. (PBDEs are widely used in furniture, industrials, plastics, and computers; an ordinary foam seat cushion sold in North America may be 30 percent PBDE by weight.)
- **Test people for chemical contamination.** Governments should implement programs to regularly monitor levels of human contamination, to identify particularly vulnerable or highly exposed communities, and to identify the specific pathways through which people are exposed.
- **Prove safety first.** Roughly 80,000 different synthetic compounds have been introduced since the 1940s, yet only a relative handful have been tested for their potential health effects in humans. A precautionary approach would require manufacturers to prove the safety of industrial chemicals before using them commercially, and help ensure that toxic problems are prevented before they arise. Had this precautionary approach been in place three decades ago, North Americans would not have such alarming levels of PBDEs in their bodies today.