

Developing a PBT Regulation in Washington State

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Presentation Overview

- **Background**
- **Policy**
- **Process**
- **Outline of Draft PBT Rule**
- **Next Steps**

Background

What are PBTs?

“Persistent Bioaccumulative Toxins”

Naturally occurring or human-made chemicals that:

- Remain in the environment for a long time
 - **Persistent**
- Build up in human or animal tissues
 - **Bioaccumulative**
- Have adverse effects on living organisms
 - **Toxic**
- Also can readily migrate between the air, land and water and travel long distances

What is the issue?

- 30 year history of successfully reducing the release of many harmful chemicals into the environment
- Prior to 1998 the term “**PBT**” did not exist for chemicals that increase in concentration over time or as one moves up the food chain.
- Growing awareness that “single media” statutes provide less than a full solution to reducing PBTs

PBTs are a Local and Global Problem

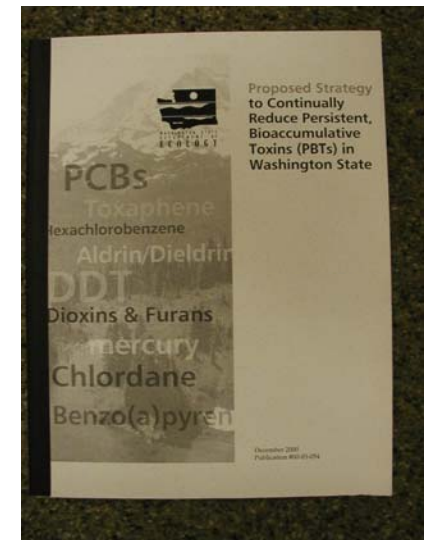
- *PBTs can readily migrate between the air, land and water and travel long distances*
- *PBTs have a tendency to accumulate at higher levels in the Polar Regions*
 - Eskimos and Inuits have higher levels of several PBTs in their bodies and they have never used or released DDT, Dioxins, PCBs, Toxaphene
 - Arctic wildlife and marine life also have high levels of PBTs

Scope of PBT Impacts in Washington State

- 15 Fish and Shellfish Consumption Advisories
- 244 Water Segments in Washington exceed “surface water quality criteria” and are listed on the 303(d) list
- Puget Sound pod of Orca whales, with high levels of PCBs, are considered to be the most “contaminated marine mammals in the world”.
- Washington State Department of Health issued a statewide fish consumption advisory regarding the consumption of certain fish species, including canned tuna due to Hg levels
- Washington State Department of Health issued a statewide fish-consumption advisory for bass in Washington’s lakes due to mercury levels

Ecology's PBT Strategy

- **Multi-Year Process to:**
 - **Prevent new releases of PBTs**
 - **Reduce and phase out existing PBT releases**
 - **Public education - “a societal problem”**
 - **Promote alternatives where available**
 - **More effectively manage past PBTs releases**
 - **Where realistic, economically feasible, and cost-effective**



Policy

2004 Executive Order and Legislation

- **2004 Legislative Session**

- January 2004 - Governor signed Executive Order 04-01
- April 2004 – Legislative funding provided to:

Establish, through rule, specific criteria for use in identifying PBTs that pose human health or environmental impacts in WA and a clear process for developing chemical action plans to address those impacts.

Draft PBT Rule – what will be addressed?

- EO and legislation directed Ecology to:
 - Establish **specific criteria** for use in identifying PBTs
 - Develop a **specific list of PBTs**
 - Establish **criteria for selecting chemicals for chemical action plans (CAPs)**
 - Establish **process for developing CAPs**

Legislatively Directed Conditions – Part 1

- Any pesticide with a valid registration issued by EPA under the FIFRA (Federal Insecticide, Fungicide and Rodenticide Act), or any fertilizer regulated under the Washington Fertilizer Act, (Chapter 15.54 RCW), **shall not be included in a persistent bioaccumulative toxin rulemaking process, list, or chemical action plan undertaken by the Department of Ecology.**

Legislatively Directed Conditions – Part 2

- Ecology to develop the criteria and PBT list consistent with the Administrative Procedures Act and shall **not adopt the rule prior to the adjournment of the 2005 legislative session.”**

Process

Process Steps Taken

- Created an external **“PBT Rule Advisory Committee”**
 - Six facilitated meetings were held between August and December.
- Hired a neutral facilitator – Cascadia Consulting Group – to facilitate the PBT Rule Advisory Committee meetings.
- GOAL:
 - To develop draft PBT Rule language (not to be finalized prior to end of 2005 Legislative Session).
 - Conduct formal rulemaking in Spring-Summer 2005
 - Finalize PBT Rule in Fall 2005

PBT Rule Advisory Committee

Business/ Industry	Agriculture	Community Organizations	Environmental Organizations	Local Government	Public Health	Academic Interests
Association of Washington Business	Far West Agribusiness	Physicians for Social Responsibility	People for Puget Sound	King County Department of Natural Resources	Kitsap County Health Department	Institute of Neurotoxicology and Neurological Disorders
American Chemistry Council	Washington Friends of Farms and Forests	WashPIRG	Washington Toxics Coalition	City of Spokane Solid Waste		
Petroleum and Aluminum		Breast Cancer Fund				
Small Business						
Pulp and Paper						

Stakeholder Process = Consultative Process

- **Ecology drafted the PBT rule relying on input from Advisory Committee members.**
 - Agreement is welcome, but not essential.
 - Solutions that work for all are encouraged.
- All PBT Rule Advisory Committee meetings were public meetings
 - Time allowed at each meeting for public comment

Meeting Schedule & Discussion Topics

Meeting # 1 (August 18)

- Introduction, ground rules, purposes and roles

Meeting # 2 (Sept 8):

- Criteria for PBT classification; other PBT Lists

Meeting # 3 (Sept 29):

- Criteria for selecting PBTs for chemical action plans; process for developing the plans

Meeting # 4 (Oct 13):

- Comparing “P”, “B”, and “T” criteria used elsewhere, prioritizing PBTs on list

Meeting # 5 (Nov 17):

- Review & discuss preliminary draft rule language

Meeting # 6 (Dec 14):

- Comment and final edits to draft rule language

Issues and Concerns Regarding PBT Rule

- What is the purpose of PBT List?
- How will the PBT List be used?
- What selection criteria will be used to add chemicals to PBT List?
- What about metals?
- What about chemical groups?
- How long should the PBT List be?
- Rule not to give Ecology any new authority

Issues and Concerns Regarding PBT Rule

- What are the costs and implications for business?
- Rule must be based on sound science.
- Need for a formal process to identify PBTs
- Need for a formal process to do Chemical Action Plans (CAPs)
- Rule not to give Ecology any new authority

Key Questions

- Are we looking at: P, B *or* T OR
P, B *and* T?
- What “criteria” will be used to “define” what a PBT is?
 - Bioaccumulation – based on fish tissue to water “bioconcentration factor (BCF)
 - Persistence – based on half-life in water and soil/sediment
- What criteria are used elsewhere?
- Are the PBTs that meet a PBT criteria present in Washington’s environment?

Outline of Draft PBT Rule

Chapter 173-333

of the

Washington Administrative Code

Part 1 – General Provisions

- Section 100 – Introduction
- Section 110 – Purpose
- Section 120 – Applicability
- Section 130 – Exemptions
- Section 140 – Administrative Principals

Part 2 – Definitions

- Section 200 - Definitions

Part 3 – The PBT List and Criteria & Procedures for Revising the List

- **Section 300** – Purpose of the PBT List
- **Section 310** – Chemicals on the PBT List
- **Section 320** – “P”, “B”, and “T” Criteria and Adding Chemicals to the PBT List
- **Section 330** – Removing Chemicals from the PBT List
- **Section 340** – Process to Revise the PBT List

“P”, “B”, and “T” Criteria Proposed in Draft Rule

- **Persistence**
 - Media-Specific Half Life > 60 days
- **Bioaccumulation**
 - BAF/BCF > 1000
- **Toxicity**
 - If chemical or chemical group is a:
 - Carcinogen or
 - Teratogen or
 - Cause reproductive effects or
 - Cause neurological disordersin humans, animals or plants

PBTs Listed in Draft PBT Rule

Metals	Flame Retardants	Banned Pesticides	Organic Chemicals
Cadmium	PBDEs	Aldrin/Dieldrin	1,2,4,5-TCB
Lead	Tetrabromobisphenol A	Chlordane	Perfluoro-octane sulfonates
Mercury	Hexabromocyclododecane	DDT/DDD/DDE	Hexachlorobenzene
	Pentachlorobenzene	Heptachlor Epoxide	Hexachlorobutadiene
		Toxaphene	Short-chain chlor paraffin
		Chlordecone	Polychlorinated Naphthalenes
		Endrin	
		Mirex	
Combustion By-Products			
PAHs			
PCDD/PCDF			
PBDD/PBDF			
	Banned Flame Retardants		Banned Organic Chemicals
	Hexabromobiphenyl		PCBs

Part 4 – Chemical Action Plans

- Section 400 – What is a CAP
- Section 410 – Process for selecting from PBT List to do a CAP
- Section 420 – Contents of a CAP
- Section 430 – Process to Develop CAPs

Next Steps

PBT Rule Development Process

- Notice of Proposed Rule-Making filed on May 18, 2005
 - Public Comment on draft rule, including public hearing
- Finalize Rule - Fall 2005 (projected to be first state regulation listing and addressing PBTs in US)

What is Ecology's vision?

- **PBT Rule** will allow:
 - 1) Comprehensive framework and predictable process in which to address certain pollutants that readily move across media (**air**, **land**, and **water**).
 - 2) Many of the reductions needed will be through
 - pollution prevention actions,
 - voluntary measures, and
 - safer alternative products for consumers.

Additional Information

Ecology PBT Rule Web Page:

<http://www.ecy.wa.gov/programs/eap/pbt/rule/index.html>

OR

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