

November 2003
Number 103

Waste Minimization Priority Chemicals

What are Waste Minimization Priority Chemicals?

Waste Minimization Priority Chemicals are 30 chemicals targeted by the United States Environmental Protection Agency (U.S. EPA) to be reduced by 50 percent by 2005, compared to 1991 levels. These chemicals are found in hazardous waste and are contaminants of air, land, water, plants and animals. U.S. EPA's National Waste Minimization Partnership Program focuses on reducing or eliminating the generation of hazardous waste containing any of these 30 Waste Minimization Priority Chemicals. Numerous facilities throughout Ohio and the rest of the U.S. generate one or more of these chemicals in their hazardous waste.

Background

U.S. EPA's Strategic Plan contains ten goals for protecting human health and the environment from many types of pollutants. One of these goals encourages government and industry to work together to prevent risks from persistent, bioaccumulative and toxic chemicals.

Persistent, bioaccumulative, and toxic pollutants (PBTs) are highly toxic, long-lasting substances. They can build up in the food chain to levels that can be harmful to human and ecological health. These contaminants travel long distances in the environment and can move readily from land to air and water. They do not break down easily because of their persistence and bioaccumulative properties. PBTs include man-made and naturally

| Waste Minimization Priority Chemicals | |
|---|---|
| Organic Chemicals and Chemical Compounds | Hexachlorocyclohexane, gamma-Hexachloroethane |
| 1,2,4-Trichlorobenzene | Methoxychlor |
| 1,2,4,5-Tetrachlorobenzene | Naphthalene |
| 2,4,5-Trichlorophenol | Polycyclic Aromatic Hydrocarbons Group |
| 4-Bromophenyl phenyl ether | Pendimethalin |
| Acenaphthene | Pentachlorobenzene |
| Acenaphthylene | Pentachloronitrobenzene |
| Anthracene | Pentachlorophenol |
| Benzo(g,h,i)perylene | Phenanthrene |
| Dibenzofuran | Pyrene |
| Dioxins/Furans | Trifluralin |
| Endosulfan, alpha & beta | |
| Fluorene | Metals and Metal Compounds |
| Heptachlor & Heptachlor epoxide | Cadmium |
| Hexachlorobenzene | Lead |
| Hexachlorobutadiene | Mercury |

occurring substances. A few of these substances - mercury, for example - are naturally occurring. It is the refinement and concentrated human use of these substances that creates environmental problems.

PBTs are associated with a range of adverse human health effects, including effects on the nervous system, reproductive and developmental problems, cancer and genetic impacts. U.S. EPA is committed to protecting children and women of child-bearing years from exposure to PBTs and reducing the concentration of PBTs in our environment. The agency's PBT Program is developing National Action Plans for several of the chemicals included on the Waste Minimization Priority Chemical list. These include dioxins/furans, hexachlorobenzene, mercury,

benzo(a)pyrene and six additional polycyclic aromatic hydrocarbons.

The 30 Waste Minimization Priority Chemicals replace the draft list of 53 chemicals U.S. EPA previously identified in the 1998 Federal Register "Notice of Availability: Draft RCRA Waste Minimization Persistent, Bioaccumulative and Toxic Chemical List" [Federal Register: November 9, 1998. Volume 63, Number 216]. Twenty six of the chemicals in the current list were also in the draft list published in 1998. The remaining four chemicals in the current list were added in response to comments and information received from the public regarding the methodology for selecting the 53 chemicals in the draft list.

Several Waste Minimization Priority Chemicals are a focus of international

Waste Minimization Priority Chemicals

efforts. The United States is committed to working with the international community to address chemicals of international concern. U.S. EPA is involved in the Canada-U.S. Binational Toxics Strategy, the United Nations Environment Programme's Persistent Organic Pollutants effort and the United Nations Economic Commission for Europe's Long Range Transport Air Pollutants - Persistent Organic Pollutants effort.

Waste Minimization Partnership Program

The National Waste Minimization Partnership Program encourages federal, state and local governments, business and non-governmental organizations to participate in voluntary partnerships to reduce the generation of hazardous wastes containing any of 30 Waste Minimization Priority Chemicals. The primary goal of this program is to reduce the quantity of Waste Minimization Priority Chemicals found in hazardous waste by 50 percent by 2005 using a 1991 baseline. The program encourages reductions of Waste Minimization Priority Chemicals through source reduction and, where source reduction is not economically practical, through environmentally-sound recycling.

Companies interested in participating in the Waste Minimization Partnership Program are eligible to receive national recognition for their contribution to the national reduction goal. Program benefits include a membership plaque, posting of environmental achievements and success stories on U.S. EPA's Web site, use of the Waste Minimization Partnership Program logo to identify participation in the program and the ability to receive an Achievement Award from U.S. EPA when achieving short term

and/or long term goals identified in enrollment applications.

Further information on the Waste Minimization Partnership Program can be found at:

www.epa.gov/epaoswer/hazwaste/minimize/descrip.htm

Technical Assistance

Companies and other organizations interested in reducing Waste Minimization Priority Chemicals can receive help from Ohio EPA's Office of Pollution Prevention. The office provides non-regulatory technical assistance ranging from over the phone consultations to on-site assessments.

A pollution prevention assessment is an on-site survey of a company's operations to identify and evaluate opportunities to reduce wastes and pollution. Companies can use assessments to identify ways to reduce costs associated with waste generation and disposal. The office will provide participating companies with an assessment report that includes recommendations on improved operating practices, material substitutions, process modifications and recycling. Estimated economic and environmental benefits are also provided to illustrate potential waste reduction savings.

The office maintains its own library, containing over 3,000 documents, and a vendor database of companies that provide pollution prevention-related equipment and services. Staff search the Internet and technical journal, industry and government databases for the latest information. Staff also have contacts with experts in government and industry.

For technical assistance with pollution prevention concerns, contact the Office of Pollution Prevention by e-mail p2mail@epa.state.oh.us, phone (614) 644-3469, or fax (614) 644-2807.

Sources

Agency for Toxic Substances and Disease Registry
www.atsdr.cdc.gov

TOXNET, National Library of Medicine, National Institutes of Health
www.toxnet.nlm.nih.gov

National Pollution Prevention Roundtable
www.p2.org

U.S. Environmental Protection Agency
www.epa.gov

The Office of Pollution Prevention was created to encourage multimedia pollution prevention activities in Ohio to reduce risk to public health, safety, welfare and the environment. Pollution prevention stresses source reduction and, as a second choice, environmentally-sound recycling while avoiding cross media transfers. The office develops information related to pollution prevention, increases awareness of pollution prevention opportunities and can offer technical assistance to business, government and the public.

For more information, visit the Office of Pollution Prevention's Web site at www.epa.state.oh.us/opp

 Printed on recycled and recyclable paper with soy-based inks