

Pollution Prevention

Environmental Assistance Division

January 6, 2005

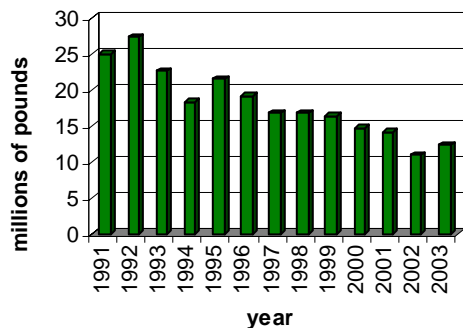
Results:

To decrease toxic chemical use, reduce hazardous waste generation, and encourage more environmentally sustainable practices by businesses, institutions, governmental organizations and consumers.

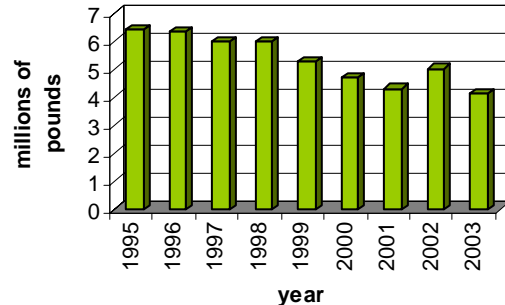
Key Environmental Program Indicators

The amount of hazardous waste reduction that has occurred over baseline from businesses, institutions, governmental organizations and consumers. The amount to toxic chemical use reduction that has occurred over baseline from businesses, institutions, governmental organizations and consumers.

Annual Hazardous Waste Shipments in Vermont



Annual Toxic Chemical Use in Vermont



Story Behind the Base Line

The Pollution Prevention program was established in 1992 to assist businesses, institutions, and governmental organizations to reduce their generation of hazardous waste and use of toxic chemicals. Larger entities became subject to a statutory requirement to develop three-year plans for toxics use and hazardous waste reduction. Baseline quantities of hazardous waste generation and toxic chemical use were established in 1992 and 1995, respectively. The Pollution Prevention program oversees the planning requirement and provides assistance to entities subject to the planning law, as well as smaller entities not subject to the law. Steady progress has been made in reducing hazardous waste generation since baseline (over 40%) and in toxics use reduction (over 25%).

Strategies

Regulation, Compliance Assistance and Enforcement

Mercury Regulatory Program – Administer mercury product labeling law to encourage reduction in mercury use and proper disposal and recycling of mercury product wastes. Provide staff support to the Advisory Committee on Mercury Pollution (Vision Program 53892)

Education and Technical Assistance

Business Assistance – Provide direct pollution prevention technical assistance to businesses. Administer toxics use reduction and hazardous waste reduction planning law. Implement Business Environmental Partnership as a business assistance and recognition program (Vision Program 53904)

EPA Initiatives – Participate in new or innovative non-regulatory approaches to improve environmental performance sponsored by the Environmental Protection Agency (Vision Program 53881)

Pollution Prevention Integration – Develop and implement department procedures, staff training, and special projects for the integration of pollution prevention into DEC permitting, compliance and enforcement programs (Vision Programs 53882 and 53889)

Governor’s Awards for Environmental Excellence – In 1994 the Annual Governor’s Awards in Environmental Excellence were initiated for businesses, individuals, and organizations that have accomplished exemplary pollution prevention or resource conservation. Each year solicitations and applications are distributed and publicized and there is an annual awards ceremony (Vision Program 53886)

Mercury Education/Reduction – Implement mercury education and reduction initiatives to promote reduced use of mercury-containing products and to encourage proper disposal and recycling. Implement mercury education programs to alert Vermonters to the risks of eating certain types of fish in order to reduce risk to especially sensitive populations. Coordinate with Advisory Committee on Mercury Pollution (Vision Program 53894 and 53908)

Publications/Written Outreach – Provide pollution prevention and compliance assistance outreach and education materials to businesses, institutions, governmental organizations and consumers (Vision Program 53896)

8. **What Will You Do to Improve Performance** * **PPA Funded Activities**

- | | |
|-------|--|
| FY 04 | *Develop pollution prevention environmental fact sheet series
*Mercury reduction initiative conducted with hospitals and affiliated clinics
Municipal grant program for household hazardous waste management
Quarterly meetings with hazardous waste management program for outreach/assistance coordination for conditionally exempt generators
* Evaluate VT Business Environmental Partnership Program standards and incentives in order to increase business participation
Review municipal solid waste implementation plans that have been submitted
Develop pollution prevention outreach program for schools
Conduct fluorescent lamp recycling campaign |
| FY 05 | Complete mercury reduction initiative with hospitals and affiliated clinics
Complete fluorescent lamp recycling campaign
Quarterly meetings with hazardous waste management program for outreach/assistance coordination
*Pollution prevention technical assistance to municipal wastewater treatment plant operators
*Conduct 2-3 environmental roundtable meetings with hospitals
* Conduct 5 pollution prevention/compliance assistance workshops for small businesses |

*Administration of Vermont Business Environmental Partnership

*On-site pollution prevention technical assistance to businesses

FY 06

*Administration of Vermont Business Environmental Partnership

*On-site pollution prevention technical assistance to businesses

Quarterly meetings with hazardous waste management program for outreach/assistance coordination

* Conduct environmental roundtable meetings with hospitals

* Conduct 3-5 small business workshops on pollution prevention/compliance issues

FY 07

*Administration of Vermont Business Environmental Partnership

*On-site pollution prevention technical assistance to businesses

Quarterly meetings with hazardous waste management program for outreach/assistance coordination

* Conduct environmental roundtable meetings with hospitals

* Conduct 3-5 small business workshops on pollution prevention/compliance issues

Proposed Accomplishments and Performance Measures Not on Track

FY 04 accomplishments and performance measures on track.

Performance Measures and projections to '05, '06, '07

Indicator	P/A	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Hazardous waste reduction statewide (% from 1992 baseline)	P			30	35	35	40	40	40	40	45	45	45
	A	21.2	29.7	38.1	38.4	28.1	46	48	55				
Toxics use reduction by large users of toxic chemicals	P			5	10	10	10	15	15	20	25	30	30
	A		6.7	6.5	17.4	22.1	27.2	21.6	35				
Pollution prevention plans reviewed	P		65	65	65	50	50	50	50	40	35	25	25
	A		65	65	55	54	45	19	24				
Biennial legislative report on pollution prevention	P		1		1		1		1		1		1
	A		1		1		1		1				
DEC rules reviewed for pollution prevention	P		3	3	3	3	3	3	3	3	3	3	3
	A		3	3	5	2	3	3	1	2			
# of businesses enlisted in VT Business Environmental Partnership *	P			25	25	25	25	15	15	10	10	10	10
	A			10	8	6	13	15	3	16			

Program Highlights

A two-year mercury reduction pilot project was completed working in collaboration with the Vermont State Dental Society (VSDS). Dental offices release mercury to the environment in wastewater discharges through the placement and removal of silver fillings or amalgam, which is about 50 percent by weight mercury. The Environmental Assistance Division and VSDS field-tested six commercially available dental amalgam separators – a technology to remove 95-99% of mercury from dental discharges. The objective of the pilot was to gather first-hand information and experience with the installation and operational issues regarding amalgam separators. This information would then be shared with the Vermont dental community to familiarize them with the technologies to remove amalgam and associated mercury and other heavy metals from wastewater discharges. The Division field-tested six commercially available dental amalgam separators over a six- to eight-month period in 2003-2004 in 18 different dental practices that volunteered for the pilot program. Vendors and manufacturers of amalgam separators were contacted about the pilot and donated one to six units each and covered installation costs for their separators.

The pilot demonstrated that there are several commercially available separators on the market that can reliably perform with minimal maintenance. These separators generally do not interfere with vacuum or suction when properly installed, maintained, and operated. A final project report was distributed to over 350 dental offices in the state and includes a list of considerations and recommendations on choosing an amalgam separator, product specifications, descriptions of units in the pilot, and unit cost information. The Division had a project display at the annual meeting of the VSDS. As a result of this project, the Vermont dental community has been educated about this mercury removal technology, and the number of dental amalgam separators voluntarily installed has dramatically increased. The pilot project report is on the Vermont DEC web site and has been shared with other state agencies around the country, to increase general understanding of the mercury reduction potential of the technology. Currently separators are not required under Vermont DEC regulations. However, this collaborative study has built the support of the dental community in supporting the technology.