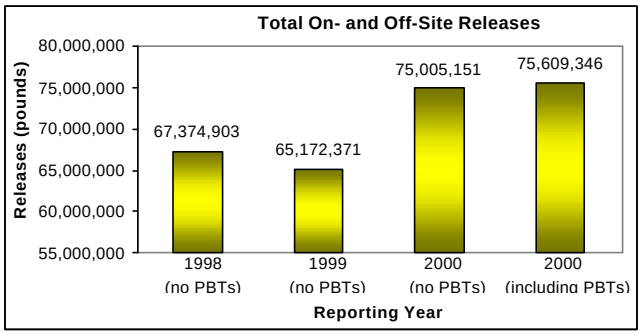
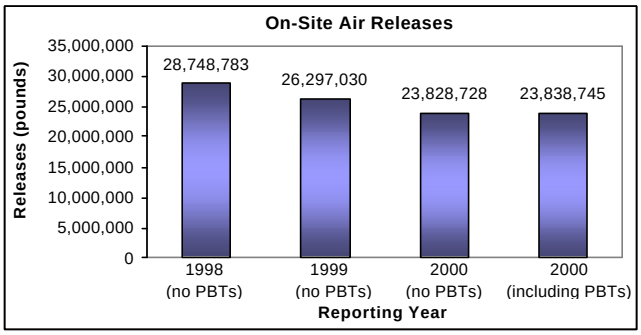
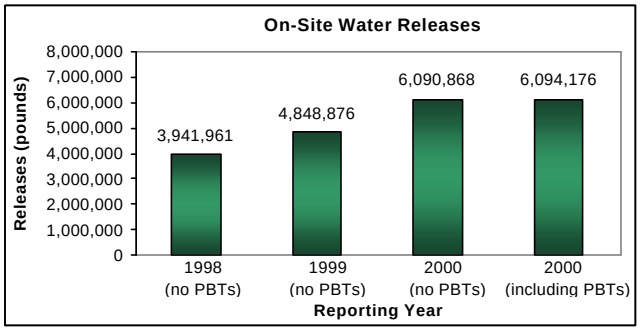
California Report: 2000 Toxics Release Inventory

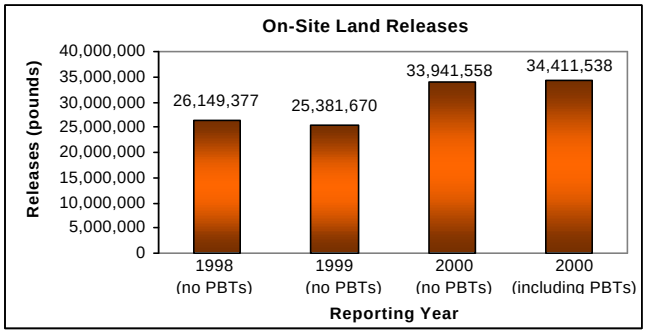
U.S. EPA Region 9
Arizona, California, Hawaii, Nevada, and the Pacific Islands

Toxic Chemical Releases: 1998-2000









Note: *In order to allow a direct comparison of 1998, 1999 and 2000 releases, the data must be controlled for changes in the list of reportable chemicals–namely, lower thresholds for persistent, bioaccumulative, and toxic (PBT) chemicals. A table detailing the 2000 PBT releases is provided in a following section of this fact sheet.*

The 2000 Public Data Release

EPA has just made public the 2000 data on toxic chemicals that were released to California's air, water and land. This information comes from the Toxics Release Inventory (TRI), a federal community right-to-know program. In California, 1442 facilities reported a total of 75.6 million pounds of toxic chemical releases*.

It is important to note that release should not be directly equated with risk. To evaluate risk, release data must be combined with information about chemical toxicity, site-specific conditions, and exposure. In addition, this data does not indicate whether a facility is violating environmental laws. Many of the substances reported through this program are subject to state and federal regulations designed to protect human health and the environment.

Industries

Manufacturing industries have been reporting their releases since 1987 and federal facilities started reporting in 1994. In 1998, seven new industry sectors began reporting their toxic chemical releases for the first time. These new sectors are metal and coal mining, electricity generation, commercial hazardous waste treatment, solvent recovery, petroleum bulk

** Release is defined as the amount of a toxic chemical released on-site (to air, water, underground injection, landfills and other land disposal), and the amount transferred off-site for disposal. When comparing data from year to year, the data is normalized to account for changes in the list of reportable chemicals and other variables.*

terminals, and wholesale chemical distributors.

Releases

California's total reported on- and off-site releases increased 15% when compared to 1999 data. Leading the trend was an increase of 8.6 million pounds in reported on-site land disposal, a 34% change. This is due primarily to an increase in waste from toxic cleanup projects (such as the LA Harbor cleanup) disposed at the Chemical Waste Management Inc. facility in Kettleman City.

Also contributing to the state trend was a reported increase in transfers off-site for disposal, up 29% from the previous year. This was due in large part to increased waste handling at DK Environmental in Vernon, increased production at a variety of manufacturing facilities, and closing of on-site landfills at some manufacturing facilities.

Reported releases to the water also increased, by 26% from 1999 levels, to 6.1 million pounds. Much of the change was due to increased discharges at the Samoa Pulp Mill in Humboldt County and the Equilon Refinery in Martinez.

Reported emissions to air have decreased by 9%. Much of this decrease is attributable to additional pollution control measures taken at the ExxonMobil Oil Torrance Refinery, and the closing of Quebecor Printing in San Jose.

New Data–Persistent, Bioaccumulative, and Toxic Chemicals

For the year 2000, TRI was expanded to include additional persistent, bioaccumulative and toxic (PBT) chemicals, and required reporting for these chemicals at lower thresholds. PBT pollutants are chemicals that are toxic, persist in the environment and bioaccumulate in food chains, posing risks to human health and ecosystems.

Seven new chemicals and 2 chemical categories were added to the reporting list of over 650 chemicals. Additionally, reporting thresholds for 18 chemicals and chemical categories have been lowered; new thresholds range from 0.1 grams to 100 pounds.

In California, 111,437 pounds of total on- and off-site releases of PBT chemicals were reported.

Table of PBT Releases in California

Chemical	*Air*	*Water*	*Land*	*Off-Site Disposal*	*Total On- and Off-Site*
Mercury Compounds	4,700.20	5.14	37,884.91	6,914.24	49,504.70
Polychlorinated biphenyls (PCBs)	0.57	0.00	27,915.00	80.00	27,995.57
Polycyclic aromatic compounds (PACs)	1,311.04	2,171.51	5,886.70	566.65	19,935.89
Mercury	898.09	0.00	10,327.71	44.71	11,270.51
Trifluralin	78.00	0.00	706.00	375.00	1,159.00
Hexachlorobenzene	2.51	0.01	610.00	0.00	612.52
Tetrabromobisphenol A	156.00	0.00	0.00	399.00	555.00
Toxaphene	0.00	0.00	200.02	0.00	200.02
Benzo(g,h,i)perylene	51.91	14.20	34.36	40.09	140.56
Chlordane	0.00	0.00	31.74	0.00	31.74
Heptachlor	0.00	0.00	30.56	0.00	30.56
Pendimethalin	1.00	0.00	0.00	0.00	1.00
Dioxin and dioxin-like compounds (in grams)	*34.578*	*4.075*	*9.000*	*27.208*	*74.861*

Releases of persistent, bioaccumulative and toxic (PBT) chemicals. Dioxin and dioxin-like compounds data in grams, not in TEQ.

Mercury and Mercury Compounds

Much of the mercury and mercury compounds reported was released to land by mining facilities. Hazardous waste management facilities reported a significant amount disposed on-site or transferred off-site for disposal. The largest share of air emissions, over 4,000 pounds, came from the portland cement manufacturing sector. Petroleum refineries reported approximately 750 pounds of mercury and mercury compounds to the air.

PCBs and PACs

Most of the reported PCBs were disposed of in an on-site hazardous waste landfill at Chemical Waste Management Inc. in Kettleman City. Refineries and commercial hazardous waste treatment facilities reported releasing the most polycyclic aromatic hydrocarbons.

Dioxin

For dioxin and dioxin-like compounds, much of the reported releases are attributable to the cement manufacturing, electricity generation, and petroleum refining industries.

Top Facilities for Releases

The top 10 facilities for on- and off-site releases in California are:

1: Chemical Waste Management (Kettleman City, Kings County) with 23.3 million pounds
2: Onyx Environmental Services (Azusa, Los Angeles County) with 5.3 million pounds
3: DK Environmental Inc. (Vernon, Los Angeles County) with 4.6 million pounds
4: Safety-Kleen (Buttonwillow, Kern County) with 3.3 million pounds
5: McLaughlin Mine (Lower Lake, Lake County) with 2.6 million pounds
6: Chevron USA Prods. Co. (El Segundo, Los Angeles County) with 2.6 million pounds
7: Samoa Pacific Cellulose L.L.C. Samoa Pulp Mill (Samoa, Humboldt County) with 2.1 million pounds
8: U.S. Filter Recovery Services (CA) Inc. (Vernon, Los Angeles County) with 1.5 million pounds
9: Chevron Products Co. Richmond Refinery (Richmond, Contra Costa County) with 1.5 million pounds
10: Hilmar Cheese Co. Inc. (Hilmar, Merced County) with 1.5 million pounds

On-line Access

For national information on data release, see http://www.epa.gov/tri

The TRI data is available through the Envirofacts Warehouse, EPA's premier Internet site for distributing environmental information at http://www.epa.gov/enviro

or the TRI Explorer tool: http://www.epa.gov/triexplorer

For general information on the Toxics Release Inventory, including reporting requirements for businesses, go to http://www.epa.gov/region09/toxic/tri

For additional information on Dioxin , go to www.epa.gov/ncea/dioxin.htm

For more information on the EPA's PBT Chemicals Program: http://www.epa.gov/opptintr/pbt/

Information and Assistance

We will be more than happy to answer your questions and assist you in learning more about the Toxics Release Inventory program in Region 9.

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