

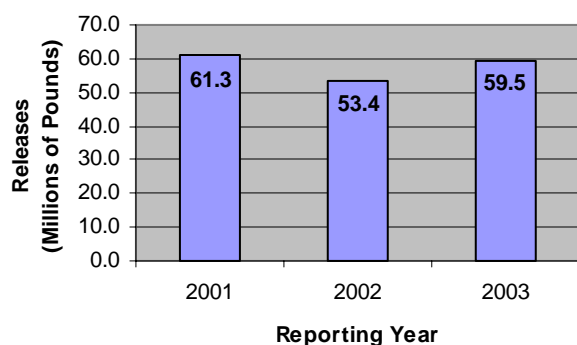


California Report: 2003 Toxics Release Inventory

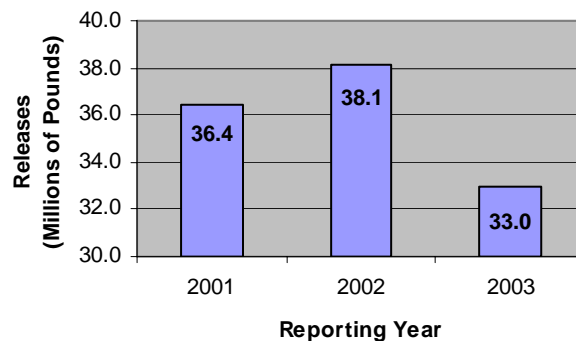
U.S. EPA Region 9
Arizona, California,
Hawaii, Nevada, the
Pacific Islands, and
Tribal Nations

Toxic Chemical Releases: 2001 - 2003

**Total On- and Off-Site Releases
All Industries**



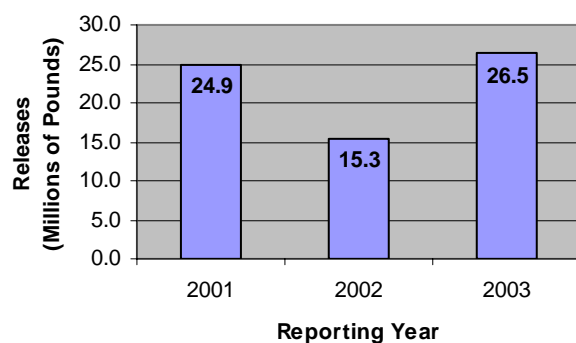
**Total On- and Off-Site Releases
All Industries, Excluding Hazardous Waste
Disposal Facilities**



Total Releases for Reporting Years 2001 – 2003

Year	Air	Water	On-Site Land	Under-ground Injection	Off-Site
2001	20,356,105	5,229,336	28,099,409	71,733	7,577,881
2002	19,257,399	5,860,104	19,508,354	37,228	8,730,311
2003	18,185,385	4,617,781	27,355,979	30,086	9,284,395

**Total On- and Off-Site Releases
Hazardous Waste Disposal Facilities**



The 2003 Public Data Release

EPA has made public the 2003 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, 1,510 facilities reported a total of 59.5 million pounds of toxic chemical releases*.

* 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. Year to year data comparisons do not reflect changes in reporting requirements.

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, these data do 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

A facility is subject to TRI reporting requirements if it: has 10 or more full-time employees; is classified under a reportable Standard Industrial Classification (SIC) code; and manufactures, processes, or otherwise uses any of the listed toxic chemicals in amounts greater than the threshold quantities. For most chemicals (excluding persistent, bioaccumulative and toxic (PBT) chemicals) the thresholds are 25,000 pounds for manufactured or processed, and 10,000 pounds for otherwise used.

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

Releases

California's total reported on- and off-site releases increased 11% when compared to 2002 data. Leading the trend was an increase of 7.8 million pounds in reported on-site land disposal, a 40% change. This is due primarily to an increase in waste from toxic cleanup projects disposed at a permitted hazardous waste landfill, Chemical Waste Management Inc. in Kettleman City.

California saw a reported decrease in water and air releases. Water releases decreased 1.2 million pounds, a 21% change, and air releases decreased 1.1 million pounds, a 6% change.

Relatively large decreases in releases to water occurred at Stockton Pacific Industries in Samoa (decrease of 600 thousand pounds of methanol); at various refineries (decrease of 423 thousand pounds of nitrate compounds); and at C&H Sugar Co. Inc. in Crockett (decrease of over 300 thousand pounds of nitrate compounds).

Persistent, Bioaccumulative, and Toxic Chemicals

In the year 2000, TRI was expanded to include additional persistent, bioaccumulative and toxic (PBT) chemicals, and to require reporting for these chemicals at lower thresholds, ranging from 0.1 grams to 100 pounds. PBT pollutants are toxic chemicals that persist in the environment and bioaccumulate in food chains, thus posing risks to human health and ecosystems.

In California, 8.4 million pounds of total on-and off-site releases of PBT chemicals were reported. Below is a table of the PBT releases in California ranked by total on- and off-site releases. The data is in pounds for all chemicals except dioxin, which is given in grams.

Table of PBT Chemical Releases in California

Chemical	Total On- and Off-Site Releases		Percent Change
	2002	2003	
Lead Compounds	4,804,517.41	7,884,405.77	64
Lead	254,367.45	233,207.70	-8
Mercury Compounds	61,033.99	164,263.48	169
Polychlorinated Biphenyls (PCBs)	90,815.08	75,060.08	-17
Polycyclic Aromatic Compounds (PACs)	24,045.44	30,012.34	25
Benzo (g,h,i) Perylene	1,198.69	1,866.44	56
Mercury	7,270.10	1,272.29	-82
Tetrabromobisphenol A	712	836.7	18
Hexachlorobenzene	91.60	502.22	448
Chlordane	672.2	387.4	-42
Toxaphene	468.9	318.1	-32
Heptachlor	23.1	24	4
Dioxin and Dioxin-like Compounds (in grams)	213.6754	213.2107	0

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

Lead and Lead Compounds

Starting in the year 2001, lead and lead compounds were reported as persistent, bioaccumulative and toxic (PBT) chemicals. While lead and lead compounds have been on the list of reportable chemicals since 1987, for the year 2001 the reporting threshold was drastically lowered (from 25,000 pounds manufactured or processed, and 10,000 pounds otherwise used to 100 pounds manufactured, processed or otherwise used). As a result, additional facilities are required to report releases of lead and lead compounds.

Approximately 8.1 million pounds of total on- and off-site releases of lead and lead compounds were reported in California. The industry category releasing the largest amounts of lead compounds was the Refuse Systems industry, releasing a total of 6.3 million pounds. Much of the lead compounds reported were released to land (approximately 6.2 million pounds) in permitted hazardous waste landfills. Federal facilities, as an industry group, released the largest amounts of lead, nearly 60 thousand pounds.

Mercury and Mercury Compounds

Much of the mercury compound releases reported were released to land in permitted hazardous waste landfills (130 thousand pounds). The largest share of air releases of mercury compounds, approximately 3,600 pounds, came from the hydraulic cement industry. The hydraulic cement industry also released over 450 pounds of mercury to the air.

Polychlorinated biphenyls (PCBs) and Polycyclic Aromatic Compounds (PACs)

Most of the reported PCBs were disposed on-site in a permitted hazardous waste landfill by Chemical Waste Management Inc. in Kettleman City (approximately 74,800 pounds).

Chemical Waste Management also reported releasing the most PACs, nearly 27,000 pounds. Refineries were another contributor to PACs releases to the land (1,911 pounds), air (158 pounds), and water (134 pounds). In addition, Petroleum Terminals and Bulk Stations reported releasing 187 pounds of PACs to the air.

Top Facilities for Releases

The top 10 facilities for total on- and off-site releases, of all chemicals, in California are:

- Ø Chemical Waste Management (Kettleman City, Kings County) with 22.3 million pounds.
- Ù Clean Harbors Buttonwillow, L.L.C. (Buttonwillow, Kern County) with 3.2 million pounds.
- Ú Quemetco Inc. (City of Industry, Los Angeles County) with 1.8 million pounds.
- Û Chevron Products Co. Div. of Chevron USA Inc. (El Segundo, Los Angeles County) with 1.8 million pounds.
- Ü ExxonMobil Oil Corp. Torrance Refinery (Torrance, Los Angeles County) with 1.7 million pounds.
- Ý Stockton Pacific Enterprises (Samoa, Humboldt County) with 1.6 million pounds.
- Þ GE Osmonics Desal Vista Plant (Vista, San Diego County) with 1.5 million pounds.
- ó ConocoPhillips Co. LA Refinery Wilmington Plant (Wilmington, Los Angeles County) with 1.4 million pounds.
- à Hilmar Cheese Co. Inc. (Hilmar, Merced County) with 1.3 million pounds.
- á Tesoro Refining & Marketing Co. (Martinez, Contra Costa County) with 1.3 million pounds.

The top 10 facilities for total on- and off-site releases, of PBT chemicals, in California are:

- Ø Chemical Waste Management (Kettleman City, Kings County) with 6.2 million pounds.
- Ù Quemetco Inc. (City of Industry, Los Angeles County) with 1.2 million pounds.
- Ú Clean Harbors Buttonwillow, L.L.C. (Buttonwillow, Kern County) with 274 thousand pounds.
- Û TXI Riverside Cement Oro Grande Plant (Oro Grande, San Bernardino County) with 128 thousand pounds.
- Ü U.S. Marine Corps MCB Camp Pendleton (Camp Pendleton, San Diego County) with 75 thousand pounds.
- Ý Clean Harbors San Jose LLC (San Jose, Santa Clara County) with 72 thousand pounds.
- Þ USFilter Recovery Services Inc. (Vernon, Los Angeles County) with 55 thousand pounds.

- ♻ Exide Technologies (Los Angeles, Los Angeles County) with 34 thousand pounds.
- Owens-Brockway Glass Container Inc. Plant 23 (Vernon, Los Angeles County) with 30 thousand pounds.
- ♻ P Kay Metal Inc. (Los Angeles, Los Angeles County) with 23 thousand pounds.

On-line Access

For national information on data releases, see:

<http://www.epa.gov/tri>

The TRI data is available through 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:

<http://www.epa.gov/ncea/dioxin.htm>

For more information on the EPA's PBT Chemicals Program, go to:

<http://www.epa.gov/opptintr/pbt/>

Information and Assistance

We are happy to answer your questions and assist you in learning more about the TRI Program in Region 9.

U.S. EPA Region 9
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