

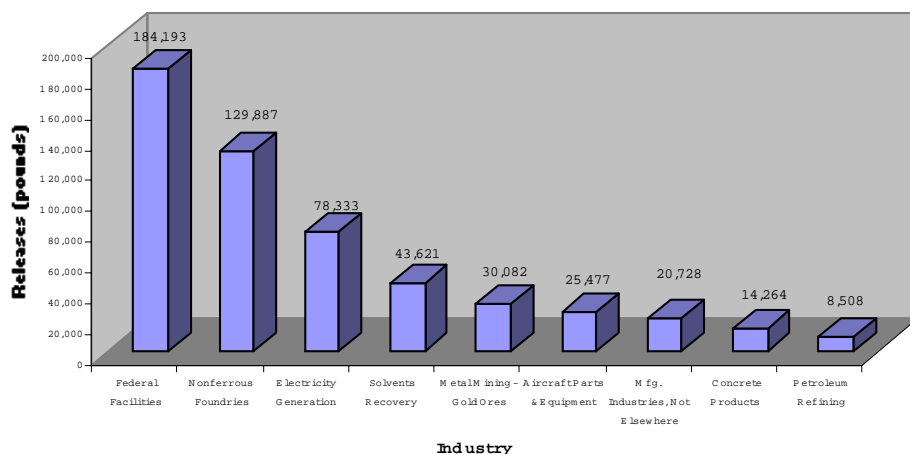


Lead Report: 2001 Toxics Release Inventory

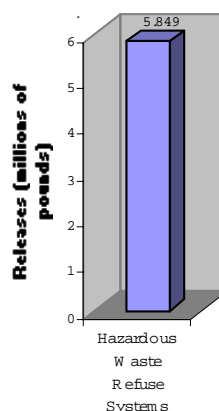
U.S. EPA Region 9
Arizona, California,
Hawaii, Nevada,
and the Pacific
Islands

a)

On- and Off-site Lead Releases

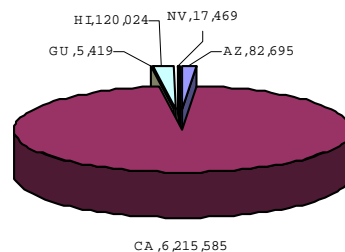


b)

On- and Off-site
Lead Releases

c)

On- and Off-site Releases of Lead by State/Territory



Note: On- and off-site releases is defined as the amount of toxic chemical releases on-site (to air, water, underground injection, landfills and other land disposal), and the amount transferred off-site for disposal. Chart **a** shows lead releases (in pounds) for the top industries, excluding hazardous waste refuse systems. Releases from hazardous waste refuse systems are shown in millions of pounds in chart **b**. Charts **a** and **b** show combined totals for the entire region, AZ, CA, HI, NV, and the Pacific Islands. Chart **c** gives state/territory totals for on- and off-site lead releases (in pounds).

The 2001 Data for Lead

EPA has just made public the 2001 data on toxic chemicals that were released* to the air, water and land within the Pacific Southwest region. This information comes from the Toxics Release Inventory (TRI), a federal community right-to-know program.

In the year 2000, TRI was expanded to include additional persistent, bioaccumulative and toxic (PBT) chemicals, and required 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.

For the year 2001, lead and lead compounds were reported as persistent, bioaccumulative and toxic (PBT) chemicals for the first time. While lead compounds have been on the list of reportable chemicals since 1987, for the year 2001 the reporting threshold was drastically lowered (to 100 pounds manufactured, processed, or otherwise used), and this change has resulted in more comprehensive release information for these compounds.

**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.*

A Note on Risk

It is important to note that releases 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 the case of lead, the TRI data does not indicate whether a facility is violating environmental laws. The majority of the major industrial sources of lead are subject to strict controls.

Industries

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. These sectors are metal and coal mining, electricity generation, commercial hazardous waste treatment, solvent recovery, petroleum bulk terminals, and wholesale chemical distributors.

Releases

In a state-by-state comparison California, Arizona, Nevada and Hawaii ranked 1, 32, 43, and 23, respectively for total on- and off-site releases of lead.

Lead Releases (in pounds) by State or U.S. Territory

	<i>Air</i>	<i>Water</i>	<i>Land</i>	<i>Under-ground Injection</i>	<i>Off-site Release</i>	<i>Total On- and Off-site</i>
AZ	705	1	73,645	0	8,343	82,695
CA	21,031	404	5,895,784	0	298,366	6,215,585
GU	0	0	5,419	0	0	5,419
HI	5	0	77,019	0	43,000	120,024
NV	94	0	16,998	0	377	17,469

Reporting Industry Sectors—the 2001 Data

A review of the TRI data suggests that among the TRI-regulated industry sectors, hazardous waste refuse systems is the largest contributor of lead releases in the Region. This industry sector accounts for 91% of the Region 9 total. Federal facilities and nonferrous foundries are also large contributors.

Lead Releases (in pounds) by Industry Sector

<i>Industry</i>	<i>Air</i>	<i>Water</i>	<i>Land</i>	<i>Off-site Release</i>	<i>Total On- and Off-site</i>
Hazardous Waste Refuse Systems	14	11	5,809,477	39,970	5,849,472
Federal Facilities	444	0	140,601	43,148	184,193
Nonferrous Foundries	47	0	0	129,840	129,887
Electricity Generation	138	0	75,648	2,547	78,333
Solvents Recovery	0	0	0	43,621	43,621
Metal Mining - Gold Ores	34	0	30,048	0	30,082
Aircraft Parts & Equipment	23	37	0	25,417	25,477
Mfg. Industries, Not Elsewhere	1	0	0	20,727	20,728
Concrete Products	11,937	0	0	2,327	14,264
Petroleum Refining	5	11	0	8,492	8,508

Hazardous Waste Refuse Systems

This industry includes hazardous waste treatment and disposal and material recovery facilities.

Four hazardous waste treatment facilities reported disposing 5.8 million pounds of lead into on-site landfills.

Federal Facilities

Many federal facilities meet the reporting requirements of the Toxic Release Inventory. The majority of facilities that reported lead releases are U.S. Army, Navy, Marines, and Air Force facilities. Of these, most are firing ranges and weapons testing facilities. In Region 9, twenty-one federal facilities reported over 184 thousand pounds of on- and off-site lead releases, with the U.S. Army Schofield Barracks Range accounting for over 58 thousand pounds released on-site.

Nonferrous Foundries

This industry is made up of establishments primarily engaged in manufacturing nonferrous metal castings (including alloys), except die-castings and other castings of aluminum or copper. Lead may be a trace constituent in scrap metal and alloys, which is used in steelmaking, in electro metallurgical products, and at iron or steel foundries. Of the six facilities that reported in Region 9, P. Kay Metal Supply reported

almost all of the 129 thousand pounds of on- and off-site lead releases.

Electricity Generating Facilities

In this industry, lead can be formed as unwanted byproducts during the combustion process. Only facilities that combust coal or oil to generate electricity for distribution in commerce are required to report to the Toxics Release Inventory. In Region 9, three electricity generating facilities reported 78 thousand pounds of on- and off-site lead releases, most of which were released to land.

Top Counties for Lead Releases

The top 10 counties for on-site releases in Arizona, California, Hawaii, and Nevada are:

- Ø Kings County, California - 5,719,939 pounds
- Û Honolulu County, Hawaii - 71,257 pounds
- Û Apache County, Arizona - 67,088 pounds
- Û Kern County, California - 60,507 pounds
- Û Imperial County, California - 48,268 pounds
- Ý San Bernardino County, California - 46,982 pounds
- Ò San Joaquin County, California - 15,829 pounds
- Ó San Diego County, California - 10,045 pounds
- Ô Humboldt County, Nevada - 8,691 pounds
- Õ Hawaii County, Hawaii - 5,764 pounds

Top Facilities for Lead Releases

The top 10 facilities for on- and off-site releases in Arizona, California, Hawaii, and Nevada are:

- Ø Chemical Waste Management Co. (5.7 million pounds) Kettleman City, CA, Kings County
- Û P. Kay Metal Supply Inc. (130 thousand pounds) Los Angeles, CA, Los Angeles County
- Û Springerville Generating Station (67 thousand pounds) Springerville, AZ, Apache County
- Û Safety-Kleen (Buttonwillow) Inc. (60 thousand pounds) Buttonwillow, CA, Kern County
- Û U.S. Army Schofield Barracks Range Facility (59 thousand pounds) Schofield Barracks, HI, Honolulu County
- Ý U.S. Marine Corps Base Hawaii Puuloa Training Facility (48 thousand pounds) Ewa Beach, HI, Honolulu County
- Ò Romic Environmental Techs. Corp. (44 thousand pounds) East Palo Alto, CA, San Mateo County

- Ó U.S. Filter Recovery Services (CA) Inc. (39 thousand pounds) Vernon, CA, Los Angeles County
- Ô Safety-Kleen (Westmorland) Inc. (30 thousand pounds) Westmorland, CA, Imperial County
- Õ Viceroy Gold Corp. Castle Mountain Mine (30 thousand pounds) Ivanpah, CA, San Bernardino County

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>

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.

U.S. EPA Region 9 TRI Coordinator
Nancy Sockabasin (415) 972-3772