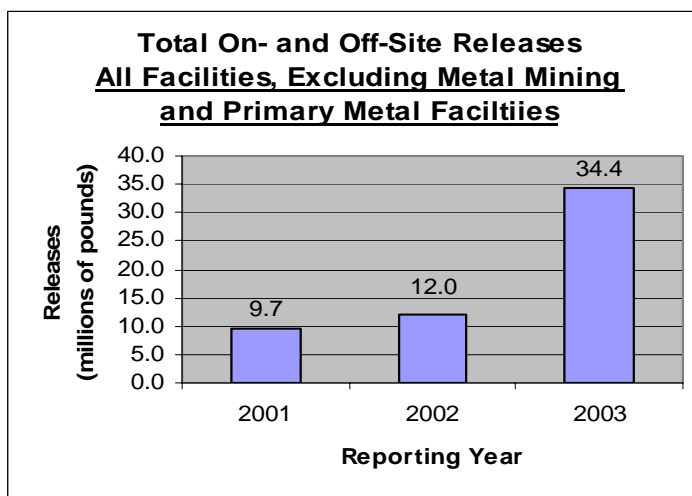
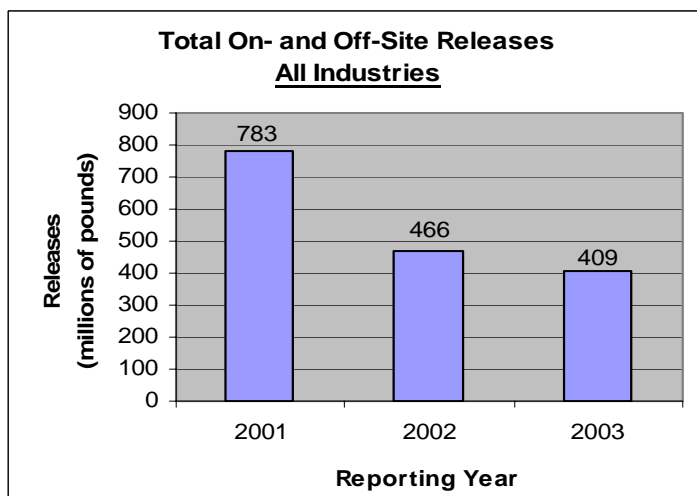




Nevada Report: 2003 Toxics Release Inventory

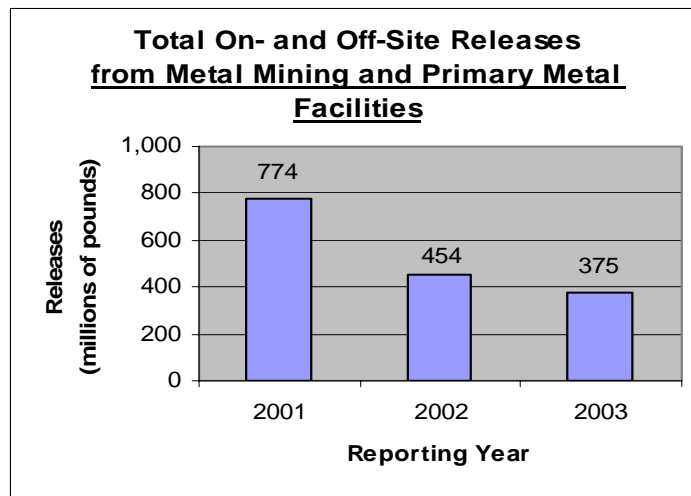
U.S. EPA Region 9
Arizona, California,
Hawaii, Nevada, the
Pacific Islands, and
Tribal Nations

Toxic Chemical Releases: 2001 - 2003



Total Releases for Reporting Years 2001-2003

Year	Air	Land	Under-ground Injection	Water	Off-Site
2001	2,731,525	777,991,337	785	82,860	2,436,958
2002	2,070,179	461,593,635	2	92,931	1,949,232
2003	1,841,316	406,365,728	3	88,601	707,748



The 2003 Public Data Release

EPA has made public the 2003 data on toxic chemicals that were released to Nevada's air, water and land. This information comes from the Toxics Release Inventory (TRI), a federal community right-to-know

program. In Nevada, 111 facilities reported a total of 409 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

* 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.

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

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

On April 2, 2003 the District Court for the District of Columbia issued a decision in *Barrick Goldstrike Mines, Inc. v. Whitman*, (Civ. Action No. 99-958 (TPJ)), regarding the TRI reporting obligations of mining facilities. The court determined that non-PBT chemicals present in waste rock are eligible for the de minimis exemption. The de minimis exemption states that a facility is not required to consider the quantity of a toxic chemical present in a mixture if it is below 1% of the mixture, or 0.1% of the mixture in the case of a toxic chemical which is a carcinogen. Prior to the decision mining facilities were required to consider all concentrations of toxic chemicals in waste rock.

Many mines extract, move, store, process, and dispose of large amounts of waste rock and ore -- materials which often contain low concentrations of naturally occurring metals. The vast majority of this material is placed in surface impoundments or on the land, and the

metals are reported as on-site releases to land. This previously buried material is exposed to potential leaching by rain, snow, and acid mine drainage, and must be carefully managed and monitored to prevent any surface water or ground-water contamination. Ninety-two percent of the state's releases to land are from gold ore metal mining facilities.

Nevada industries as a whole reported decreases, from 2002 levels, in releases to air, land, water and off-site. Leading the trend was a decrease of 55 million pounds in reported releases to land, a 12 % decrease. The majority of the decrease comes from Metal Mining facilities. Off-site releases decreased by 64%, approximately 1.2 million pounds. This decrease was primarily due to a 1.1 million pound decrease from Kerr McGee Chemical in Henderson.

Non-mining facilities saw decreases in releases to air and water, as well as increases to land. There was an 8.7% decrease in air releases from reporting year 2002. The greatest decrease in air releases came from RR Donnelly and Sons Co. (120,000 pounds). The decrease to water was due to the fact that Reporting Year 2003 releases from one power station were not yet recorded in the TRI database. Land releases from non-mining facilities increased nearly 24 million pounds. This was due to releases from US Ecology, a hazardous waste treatment facility in Beatty.

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 Nevada, over 64.6 million pounds of total on- and off-site releases of PBT chemicals were reported. Below is a table of the PBT releases in Nevada 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 Nevada

Chemical Name	Total On- and Off-Site Releases		Percent Change
	2002	2003	
Lead Compounds	24,465,359	41,651,033	70
Polychlorinated Biphenyls	46,357	16,204,234	34,855
Mercury Compounds	4,683,496	6,614,210	41
Lead	123,988	139,110	12
Hexachlorobenzene	221	4178	1791
Trifluralin		2438	
Mercury	274	270	-2
Heptachlor		161	
Polycyclic Aromatic Compounds	969	152	-84
Benzo(g,h,i)perylene	1.26	26.26	1,980
Toxaphene		0.41	
Dioxin and Dioxin-like Compounds	9.48	8.97	-5

Releases of persistent, bioaccumulative and toxic (PBT) chemicals in pounds. Dioxin and dioxin-like compounds data 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.

Nearly 42 million pounds of total on- and off-site releases of lead and lead compounds were reported in Nevada. Sixty-six percent of these releases were land releases from Gold Ore Metal Mining industries.

Hexachlorobenzene

Releases of Hexachlorobenzene increased approximately 4,000 pounds from reporting year 2002. Most of the releases were disposed on-site in a permitted hazardous waste facility landfill by US Ecology Nevada Inc., in Beatty.

Polychlorinated Biphenyls

Polychlorinated Biphenyl releases increased more than 16 million pounds from 2002. Nearly all of the releases in 2002 and 2003 were disposed on-site in a permitted hazardous waste landfill by US Ecology Nevada Inc., in Beatty. This increase was likely due to an increase in waste from toxic cleanup projects being disposed of at the facility in reporting year 2003.

Top Facilities for Releases

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

- Ø Newmont Mining Corp Twin Creeks Mine (Golconda, Humboldt County) with 200.9 million pounds.
- Ù Barrick Goldstrike Mines Inc. (Elko, Elko County) with 101.6 million pounds.
- Ú US Ecology Nevada Inc. (Beatty, Nye County) with 29.8 million pounds.
- Û Newmont Mining Corp. Carlin South Area (Carlin, Eureka County) with 29.4 million pounds.
- Ü Newmont Mining Corp. Lone Tree Mine (Valmy, Humboldt County) with 25.9 million pounds.
- Ý Coeur Rochester Inc. (Lovelock, Pershing County) with 6.1 million pounds.
- Þ Jerritt Canyon Mine (Elko, Elko County) with 3.0 million pounds.
- Ó Cortez Gold Mines (Crescent Valley, Lander County) with 2.8 million pounds.
- à Mohave Generating Station (Laughlin, Clark County) 1.6 million pounds.
- á Glamis Marigold Mining Co. (Valmy, Humboldt County) 1.0 million pounds.

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

- Ø US Ecology Nevada Inc. (Beatty, Nye County) with 24.2 million pounds.
- Ù Barrick Goldstrike Mines Inc. (Elko, Elko County) with 14.5 million pounds.
- Ú Newmont Mining Corp Twin Creeks Mine (Golconda, Humboldt County) with 8.1 million pounds.
- Û Coeur Rochester Inc. (Lovelock, Pershing County) with 6.0 million pounds.
- Ü Newmont Mining Corp. Carlin South Area (Carlin, Eureka County) with 4.8 million pounds.

- Y Cortez Gold Mines (Crescent Valley, Lander County) with 2.3 million pounds.
- P Newmont Mining Corp. Lone Tree Mine (Valmy, Humboldt County) with 1.7 million pounds.
- 6 Glamis Marigold Mining Co. (Valmy, Humboldt County) with 1.0 million pounds.
- à Smoky Valley Common Operation (Round Mountain, Nye County) 0.7 million pounds.
- á Florida Canyon Mining Inc. (Imlay, Pershing County) with 0.3 million 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 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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