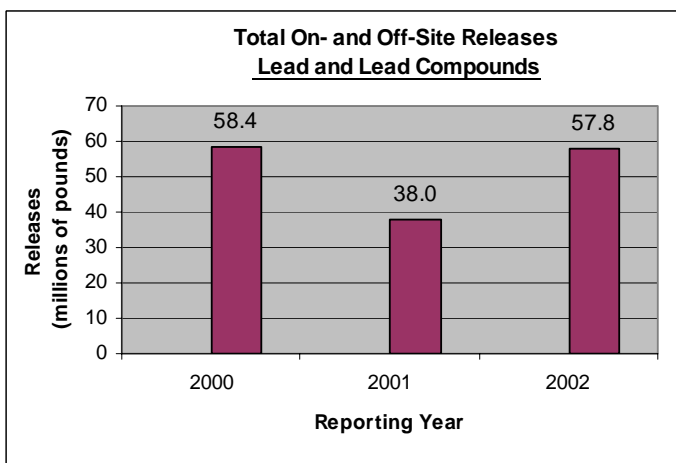
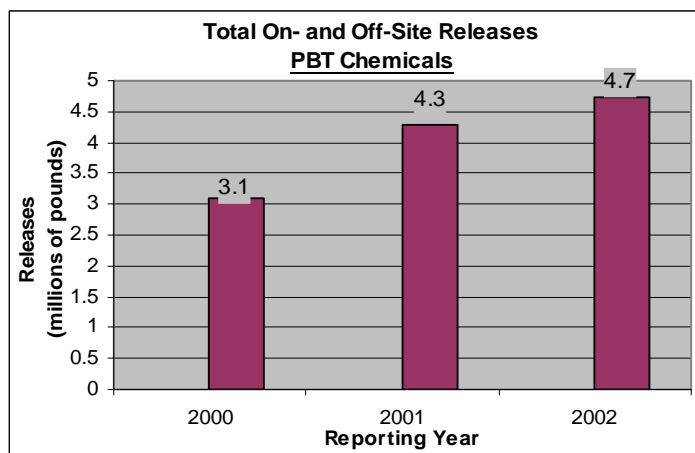
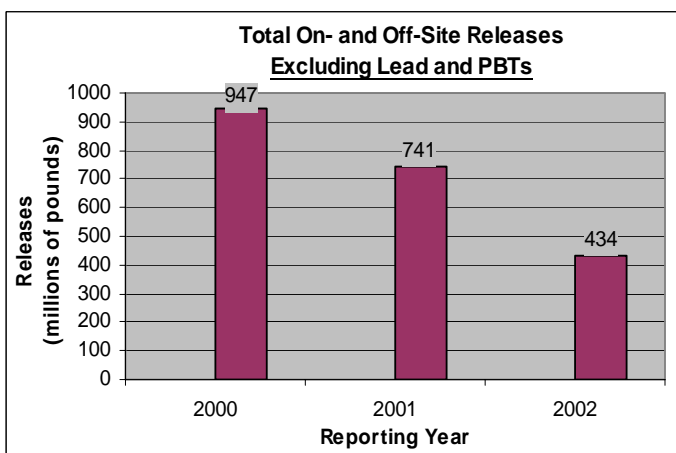




Nevada Report: 2002 Toxics Release Inventory

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

Toxic Chemical Releases: 2000 - 2002



Total Releases for Reporting Years 2000-2002					
Year	Air	Land	Under-ground Injection	Water	Off-Site
2000	3,329,287	1,002,466,400	1,050	121,819	2,445,514
2001	2,731,529	778,244,136	785	82,860	2,436,958
2002	2,737,527	493,953,321	2	92,931	80,266

The 2002 Public Data Release

EPA has just made public the 2002 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, 101 facilities reported a

total of 496.9 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

* 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.

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 PBTs) 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.

Nevada's 37% decrease for on- and off-site releases from reporting year 2001, is a result of the Barrick's decision. Ninety-eight percent of the state's releases to land are from gold ore metal mining facilities.

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 62.5 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	Total On- and Off-Site Releases		Percent Change
	2001	2002	
Lead Compounds	37,980,345	57,663,289	52
Lead	17,471	123,811	609
Mercury Compounds	4,193,580	4,683,655	12
Polychlorinated Biphenyls	88,326	46,357	-48
Polycyclic Aromatic Compounds	10,915	177	-98
Hexachlorobenzene	5,492	221	-96
Benzo(g,h,i)perylene	979	1	-100
Mercury	263	273	4
Chlordane	0	486	100
Aldrin		472	100
Dioxin and dioxin-like compounds	11.3	9.5	-19

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 57.8 million pounds of total on- and off-site releases of lead and lead compounds were reported in Nevada. Eighty-nine percent of these releases are land releases from Gold Ore Metal Mining industries. Newmont Mining Corporation, Lone Tree Mine, reported releases of 35.2 million pounds. The facility has since found an error in their calculations, and will be submitting a revision. The new release amount should be near two million pounds.

Mercury and Mercury Compounds

Nearly all of the mercury and mercury compound releases reported were released to land (99.8%) by the Gold Ore Metal Mining Facilities.

Polychlorinated Biphenyls

Polychlorinated Biphenyls releases decreased 47.5% from 2001. All of the releases in 2002 were disposed on-site in a permitted hazardous waste landfill by US Ecology Nevada Inc., in Beatty.

Top Facilities for Releases

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

- ① Newmont Mining Corp. Twin Creeks Mine (Golconda, Humboldt County) with 291 million pounds.
- ② Barrick Goldstrike Mines Inc. (Elko, Elko County) with 79 million pounds.
- ③ Newmont Mining Corp. Lone Tree (Valmy, Humboldt County) with 59 million pounds.
- ④ Newmont Mining Corp. Carlin South Area (Carlin, Eureka County) with 43 million pounds.

- ⑤ US Ecology Nevada Inc. (Beatty, Nye County) with 4.9 million pounds.
- ⑥ Coeur Rochester Inc. (Lovelock, Pershing County) with 3.3 million pounds.
- ⑦ Cortez Gold Mines Mill 2 (Crescent Valley, Lander County) with 3.3 million pounds.
- ⑧ Jerritt Canyon Joint Venture (Elko, Elko County) with 2.9 million pounds.
- ⑨ Edison Mohave Generating Station (Laughlin, Clark County) with 1.5 million pounds.
- ⑩ Ken Snyder Mine (Midas, Elko County) with 1.3 million pounds.

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

- ① Barrick Goldstrike Mines Inc. (Elko, Elko County) with 2.6 million pounds.
- ② Newmont Mining Corp. Twin Creeks Mine (Golconda, Humboldt County) with 1.1 million pounds.
- ③ Newmont Mining Corp. Carlin North Area (Carlin, Eureka County) with 300 thousand pounds.
- ④ Newmont Mining Corp. Carlin South Area (Carlin, Eureka County) with 212 thousand pounds.
- ⑤ Newmont Mining Corp. Lone Tree Mine (Valmy, Humboldt County) with 169 thousand pounds.
- ⑥ Cortez Gold Mines Mill 2 (Crescent, Lander County) with 159 thousand pounds.
- ⑦ Jerritt Canyon Joint Venture (Elko, Elko County) with 70 thousand pounds.
- ⑧ US Ecology Nevada Inc. (Beatty, Nye County) with 46 thousand pounds.
- ⑨ Coeur Rochester Inc. (Lovelock, Pershing County) with 46 thousand pounds.
- ⑩ Glamis Marigold Mining Co. (Valmy, Humboldt County) with 27 thousand pounds.

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

- ① Newmont Mining Corp. Lone Tree Mine (Valmy, Humboldt County) with 35.2 million pounds.
- ② Barrick Goldstrike Mines Inc. (Elko, Elko County) with 6.1 million pounds.
- ③ Coeur Rochester Inc. (Lovelock, Pershing County) with 3.3 million pounds.
- ④ Cortez Gold Mines Mill 2 (Crescent Valley, Lander County) with 2.7 million pounds.

- ⑤ Newmont Mining Corp. Twin Creeks Mine (Golconda, Humboldt County) with 2.6 million pounds.
- ⑥ U.S. Ecology Nevada Inc. (Beatty, Nye County) with 2.5 million pounds.
- ⑦ Newmont Mining Corp. Carlin South Area (Carlin, Eureka County) with 2.2 million pounds.
- ⑧ Smoky Valley Common Operation (Round Mountain, Nye County) with 851 thousand pounds.
- ⑨ Glamis Marigold Mining Co. (Valmy, Humboldt County) with 771 thousand pounds.
- ⑩ Florida Canyon Mining Inc. (Imlay, Pershing County) with 370 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 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.

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