WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

Chemicals in Washington State

Summary Report: 1998

Toxics Release Inventory and Chemical Storage Inventory

Washington State Department of Ecology
Hazardous Waste and Toxics Reduction Program
March,2000
Publication#00-004-010

Reduce Waste

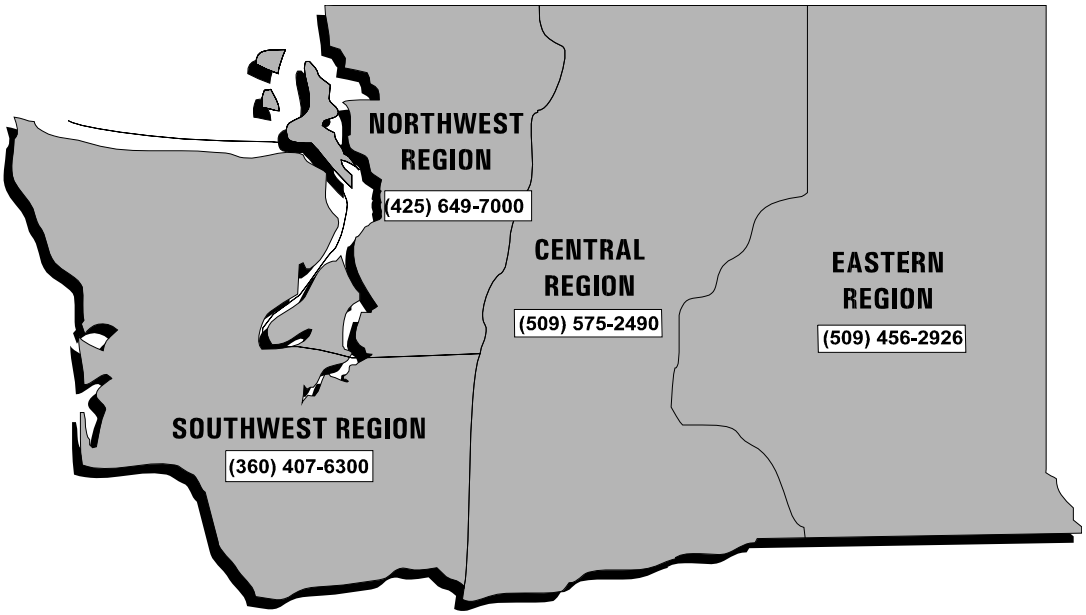
printed on recycled paper

For a copy of this document, please contact:

Department of Ecology
Publications
P.O. Box 47600
Olympia, WA 98504-7600

Please include your street address for UPS delivery

or visit our web site at *http://www.wa.gov/ecology/hwtr/hwtrpubs/index.html*



The Department of Ecology is an equal opportunity agency and does not discriminate on the basis of race, creed, color, disability, age religion, national origin, sex, marital status, disabled veteran's status, Vietnam Era veteran's status or sexual orientation.

If you have special accommodation needs or require this document in alternative format, please contact the Hazardous Waste and Toxics Reduction Program at (360) 407-6700 (voice) or (360) 407-6006 (TDD).
Ecology's telecommunications device for the deaf (TDD) number is (360) 407-6006. Regional TDD numbers are:

CRO (TDD) (509) 454-7673	NWRO (TDD) (425) 649-4259
ERO (TDD) (509) 458-2055	SWRO (TDD) (360) 407-6306

Chemicals in Washington State

Summary Report: 1998

Toxics Release Inventory and Chemical Storage Inventory

Washington State Department of Ecology
Hazardous Waste and Toxics Reduction Program
March,2000
Publication#00-004-010

printed on recycled paper

Special Acknowledgements to:
The HSIO team (Michelle Elling, Tim Gaffney, Idell Hanson, and Sadie Whitener); Carol Piening (Air Program); John Ridgeway (HWTR - Environmental Justice); and HWTR management.

Dear Citizens of the State of Washington:

The Washington Department of Ecology is pleased to release Chemicals in Washington State, 1998 Summary Report. This is the most current report on the release and management of chemicals by Washington facilities subject to the reporting requirements of Sections 311 – 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA).

This report replaces the annual Washington State Toxic Release Inventory Summary Report which was first published in 1992. In addition to information on toxic releases, this report includes, for the first time, information on the inventory of hazardous chemicals stored in Washington State. The expanded information in this report will keep Washingtonians better informed and up-to-date on the current status of toxic chemical management as reported by facilities in our state.

The real value of this report is allowing citizens, like yourself, to become better informed about the environment and using the available information to affect a positive change within their communities. I encourage you to read this summary of the 1998 data and acquaint yourself with EPCRA and the additional resources available to you through Ecology's Hazardous Substance Information Office (HSIO).

For further information about this report and/or other resources available to you through the HSIO, please contact us at (360) 407-6893 or, toll-free, at 1-800-633-7585 (1). Both numbers are staffed Monday through Friday.

Sincerely,

Tom Fitzsimmons, Director
Washington State Department of Ecology

Table of Contents

Executive Summary ..... **i**
Uses of TRI and Tier Two Data v
Statewide Summary of Reported Releases : 1989 - 1998 v
Introduction **1**
Hazardous Chemical Inventory Reporting 1
Toxics Release Inventory 2
Chemical Inventory Reporting—Tier Two **3**
Tier Two Reporting Facilities 3
Reports by LEPC 4
Most Frequently Reported Chemicals 4
The Toxics Release Inventory **5**
TRI Data Limitations 5
TRI Releases by Environmental Media 6
TRI Releases by Industry Category 7
Paper & Allied Products 7
Primary Metal Products 7
Electric Services-Burning Coal or Oil for Commercial Electricity Generation 8
Transportation Equipment Manufacturing 8
Top Reporting Facilities-Releases 8
Facilities Showing Changes in Total Releases in 1998 from 1997 8
TRI Releases by County 9
Counties Ranked-Pounds per Square Mile 9
Counties Ranked-Pounds by Population 9
TRI Releases by Water Body 10
TRI Releases by Chemical 10
Methanol 10
Hydrogen fluoride 11
Nitrate Compounds 11
Ammonia 11
Carbonyl sulfide 12
Carcinogens 12
TRI Off-site Transfers, 1998 12
Transfers to Publicly Owned Treatment Works (POTW) 13
Transfers to Other Off-site Locations 13
Pollution Prevention Act Reporting, 1998 13
Trends in TRI Releases and Transfers 14
Uses of Chemical Data **15**
Tier Two Data 15
TRI Data 15
Environmental Justice 16
New and Pending EPCRA Developments **16**
Regulatory Relief for Retail Gas Stations 16
Dioxins and Persistent Bioaccumulators 17
Lower Threshold Proposed for Lead TRI Reporting 18

Figures, Tables and Appedices

Figures

Number	*Title*	
Figure 1	Number of Tier Two Reporting Facilities	4
Figure 2	Top Ten LEPCs with Most Reporting Facilities	4
Figure 3	Top Ten LEPCs with Most Chemicals Reported	5
Figure 4	Top Ten Most Frequently Reported Chemicals	6
Figure 5	Top Ten Most Frequently Reported EHS Chemicals	6
Figure 6	Washington TRI Reporters, 1998	9
Figure 7	Washington TRI by Environmental Media, All Industries 1998 (in pounds)	9
Figure 8	Washington TRI by Environmental Media New Industries, 1998 (in pounds)	9
Figure 9	Washington TRI Releases by Industry, 1998 (in pounds)	11
Figure 10	Washington TRI Releases by County, 1998	14
Figure 11	Washington TRI Top Counties, Pounds per Square Mile, 1998	15
Figure 12	Washington TRI Top Counties, Pounds per Person, 1998	16
Figure 13	Washington TRI Releases by Chemical, 1998 (in pounds)	17
Figure 14	Washington TRI by Water Body, 1998	19
Figure 15	Washington TRI Releases, 1989-1998	24
Figure 16	Washington TRI Transfers, 1991-1998	25
Figure 17	Air Pollution Sources in Washington	27

Tables

Number	*Title*	
Table 1	Washington TRI Releases Top 20 Reporting Facilities, 1998	13
Table 2	Washington TRI Transfers Top 20 Reporting Facilities, 1998	21
Table 3	Pollution Prevention Act Reporting, 1998	23

Appendices

Number	*Title*	
Appendix 1	Reporting Requirements and Definition of Terms	31
Appendix 2	Tier Two Reporting, 1998	35
Appendix 3	Washington TRI by Chemical, 1998 (in pounds)	37
Appendix 4	Washington TRI by County, Facility, Chemical, 1998 (in pounds)	40
Appendix 5	Washington Certification Form Reporters, 1998	83

Snapshot of TRI Releases and Chemical Management in 1998

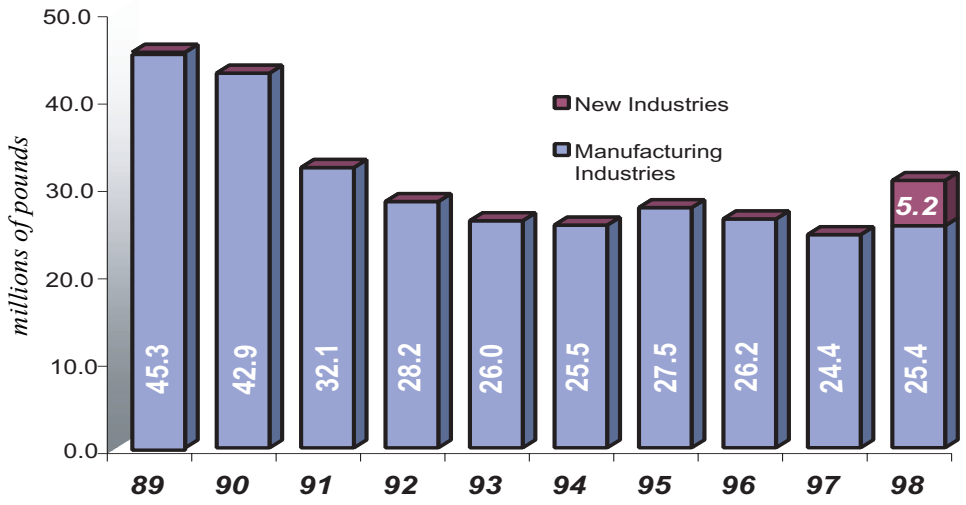
Uses of TRI and Tier Two Data

The Department of Ecology (Ecology) uses TRI data as one of several environmental indicators for the state. The data also serve as a valuable tool for monitoring the progress of pollution prevention efforts and for measuring the effectiveness of pollution prevention programs underway in Washington. Under a grant from EPA, Ecology has developed the Toxics Release Inventory Display System (TRIDS), a graphic model for viewing TRI data. This display program is available for downloading (copying) on Ecology's website (http://www.wa.gov/ecology).

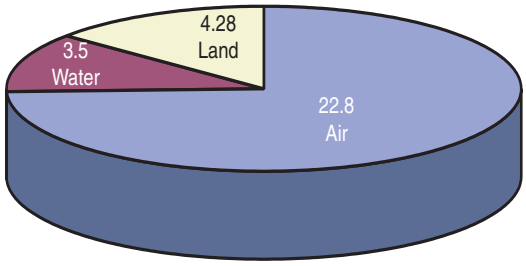
Tier Two is of value because it tells us what chemicals are stored in our communities. Local Emergency Planning Committees (LEPCs) and local fire departments use the information to prepare for a possible accident or incident at the reporting facilities.

Statewide Summary of Reported Releases : 1989—1998

There was an increase in TRI releases in 1998 compared to 1997, but almost all of it can be attributed to seven new industrial sectors that were required to report for the first time in 1998.

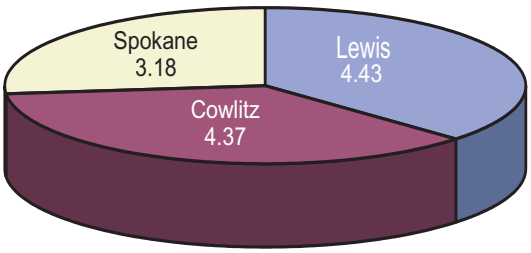


The percentage of releases to air, water and land remain fairly constant from year to year



1998 TRI Releases by Environmental Media (million pounds)

Facilities located in Cowlitz County reported a 1.23 million pound decrease from 1997's 5.6 million pounds.

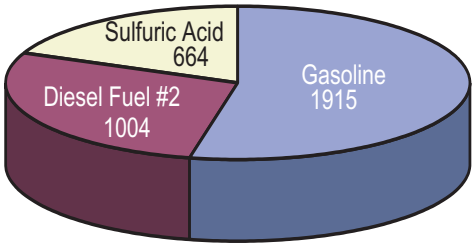


Top Three TRI Releases by County (million pounds)

The top industry reporting releases, Paper & Allied Products, decreased their total reported releases by 1.5 million pounds from 1997.

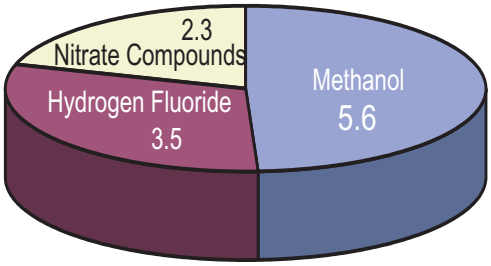
Top Three Industries	Release (Million lbs)
Paper & Allied Products	**11.0**
Primary Metal Industries	**5.9**
Electric Services	**4.5**

Gasoline and Diesel Fuel numbers should decrease under next years reports, due to a recent EPA exemption.



1998 Tier Two Top Three Most Reported Chemicals

The pulp and paper industry reported a 1.4 million pound decrease in methanol since 1997.



1998 Top Three Releases by Chemical (million pounds)

This is the first reporting year for Pacificorp Centralia, an Electric Service which is one of the seven industries reporting under the new requirements.

Top Three Facilities	Release (Million lbs)
Pacificorp Centralia Thermal Plant	**4.4**
Weyerhauser Co., Longview	**3.2**
Kaiser Mead Works	**2.5**

Top three Extremely Hazardous Substances Reported in Storage:

Chemical	# of Times Reported
Sulfuric Acid	**664**
Chlorine	**273**
Ammonia	**200**

Top three Carcinogen Release Totals:

Chemical	Release (Million lbs)
Styrene	**1.40**
Acetaldehyde	**0.73**
Chloroform	**0.46**

It is important to understand the following limitations when using TRI information:

1. Only annual total pounds are reported. Information regarding rate of release or concentration is not included.
2. The amounts reported may be based on engineering calculations or estimates rather than direct monitoring of releases.
3. Many facilities releasing or transferring toxic chemicals are not required to submit a TRI report.
4. The TRI does not include toxics introduced into the environment from sources other than industrial facilities, such as pesticide applications, motor vehicles and wood stoves.
5. The toxicity of chemicals listed in the TRI varies dramatically.
6. The TRI does not attempt to detail the risk from individual chemicals or facilities.
7. A release of a TRI toxic chemical usually does not indicate a violation of federal, state or local environmental laws.

Introduction

Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA) into federal law on October 17, 1986. EPCRA helps communities deal safely and effectively with hazardous chemicals. The law includes a number of requirements for businesses and government. It is also intended to improve emergency planning for hazardous chemicals at the local level. EPCRA has a number of provisions, but its primary objectives are to:

- Enhance emergency response capabilities for hazardous chemical incidents.
- Expand emergency planning for hazardous chemical incidents;
- Identify the storage, use and release of hazardous chemicals in communities; and
- Promote communication between facilities that handle hazardous
- chemicals and the local community;

EPCRA contains five sections that deal with the various reporting requirements of businesses. A facility may be subject to one or all of the sections depending on the types of chemicals it has and the quantities of those chemicals. This summary report focuses on two reporting requirements: Hazardous Chemical Inventory Reporting (Section 312) and Toxic Chemical Release Reporting (Section 313).

Hazardous Chemical Inventory Reporting

Any facility in Washington State that stores above a certain amount of a hazardous chemical must report this once a year. Under Section 312, the facility must file an Emergency and Hazardous Chemical Inventory (Tier Two) report by March 1, for any hazardous chemicals present in amounts above the threshold level at any time during the previous calendar year. The Tier Two reports are filed with Ecology representing the State Emergency Response Commission (SERC). The reports are also filed with the Local Emergency Planning Committee (LEPC) and local fire department. The information required on the Tier Two reports includes facility identification, chemical name, health hazards, codes representing maximum and average amounts on site and storage and location descriptions. Ecology enters this information into a database for sharing with the public, LEPCs and other interested parties.

In addition to tracking the hazardous chemicals, Tier Two data also track the number of facilities storing “extremely hazardous” (EHS) chemicals. Approximately 350 chemical compounds classified as EHS chemicals are listed by the Environmental Protection Agency (EPA).

Tier Two tells us what chemicals are stored in our communities. LEPCs and local fire departments use the information to prepare for a possible accident or incident at the reporting facilities.

Toxics Release Inventory

Toxic Chemical Release Reporting is tracked through an annual summary called the Toxics Release Inventory (TRI). The TRI tracks the amount of toxic chemicals released into the air, land and water by certain facilities. Over 600 chemical compounds and/or chemical categories listed under Section 313 of EPCRA are reported under the TRI.

TRI reports are filed every year with the EPA and the Department of Ecology. Forms submitted by facilities are due on July 1st, for the preceding calendar year's releases. For 1998 reporting, the due date for filing was July 1, 1999. After completing data entry and data quality checks, EPA and Ecology compile a TRI database. Each agency publishes an annual summary report. EPA reports from a national perspective, while Ecology focuses on Washington State.

The Department of Ecology (Ecology) uses TRI data as one of several environmental indicators for the state. The data also serve as a valuable tool for monitoring the progress of pollution prevention efforts and for measuring the effectiveness of pollution prevention programs underway in Washington. Under a grant from EPA, Ecology has developed the Toxics Release Inventory Display System (TRIDS), a graphic model for viewing TRI data. This display program is available for downloading (copying) on Ecology's website (http://www.wa.gov/ecology).

Chemical Inventory Reporting—Tier Two

Tier Two reporting is this country's response to a December 3, 1984 incident in Bhopal, India. Thousands of people were killed because of an industrial accident that sent a deadly cloud of toxic gas over the city. In 1986, in order to help facilities and communities in the United States prevent such a catastrophe from happening, Congress passed the Emergency Planning and Community Right To Know Act (EPCRA). EPCRA is also known as Title III of the Superfund Amendments and Reauthorization Act (SARA Title III).

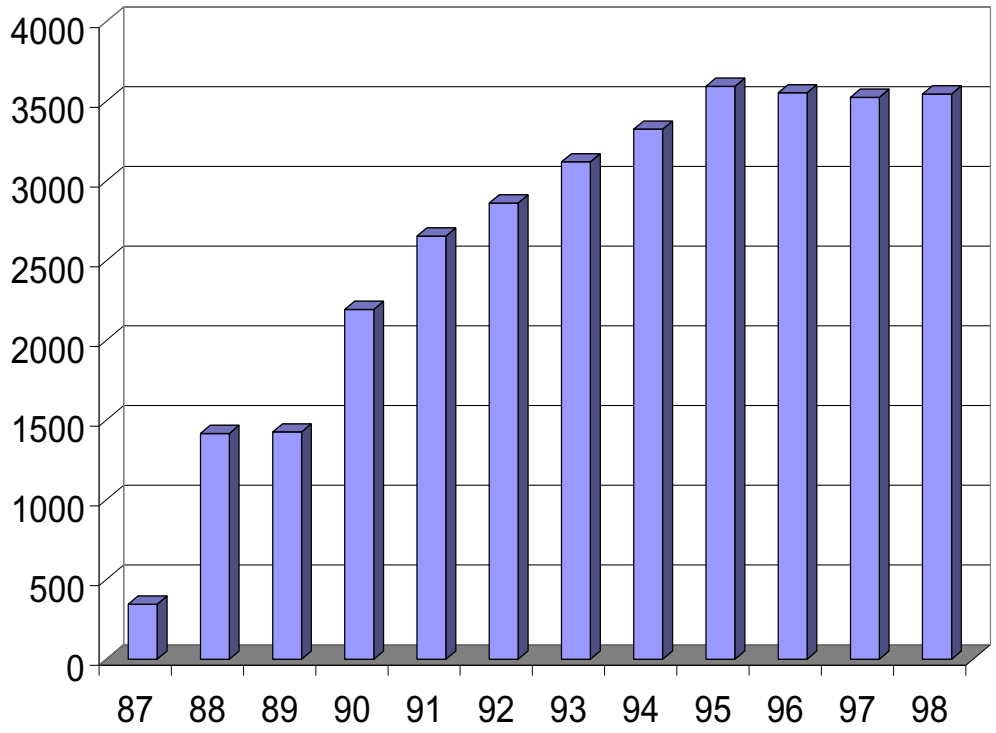
Washington Administrative Code Chapter 118-40 was adopted in 1987. This regulation established Washington's State Emergency Response Commission (SERC), the 47 Local Emergency Planning Committees (LEPCs), and adopted the federal community right-to-know reporting thresholds and requirements. The SERC's goal is to assemble and disseminate information that will help the citizens, government, and industry be better prepared for emergency response. Facilities that are required to report their stored chemicals send copies of the chemical inventories to the SERC, the local fire department, and the LEPC. LEPCs use the information to prepare for a possible accident at or near each reporting facility. The Department of Ecology is designated by Chapter 118-40 WAC to receive EPCRA reports for the SERC.

Facilities covered under the federal Community Right-to-Know laws are required by Section 312 of EPCRA to submit a Tier Two report each March first. This report is an inventory of the hazardous substances stored on site during the previous year. Businesses are required to report their chemical inventories if quantities of hazardous substances exceed the federal reporting thresholds. Reporting thresholds are 10,000 pounds of any hazardous substance at any one time, and 500 pounds, or in some cases less, of any "Extremely Hazardous Substance". The report lists maximum quantities, average quantities, number of days on site, storage methods and storage locations for Extremely Hazardous Substances (EHS) and hazardous chemicals as defined in section 311 of EPCRA.

Tier Two Reporting Facilities

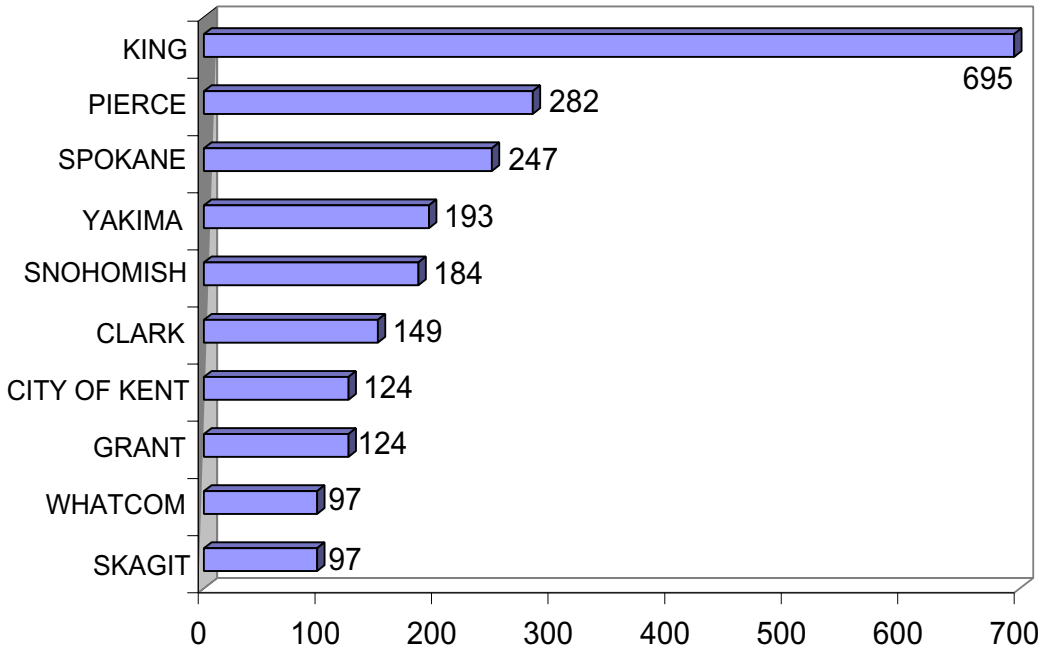
The data summarized in this report was received in 1999 and covers calendar year 1998. Figure 1 shows that 3,545 facilities stored EHSs and/or other hazardous chemicals during 1998. The increase in the number of reporting facilities from 1987 through 1995 primarily reflects a growing awareness over time of the need to report. The total number of reporters has been fairly constant for the last few years.

Figure 1
Number 0f TierTwo Reporting Facilities



Even though outreach efforts bring in new reporters each year, other facilities become inactive or are impacted by EPA rule changes that tend to offset these increases. Effective for reporting year 1998, for example, most retail gas stations were relieved from reporting because of higher reporting thresholds for gasoline and diesel. While many of these stations reported anyway in 1998, we may see a significant decrease from this sector in the 1999 reports. Facilities may become inactive when they reduce their inventories below reporting thresholds.

Figure 2
Top Ten LEPCs with Most Reporting Facilities



Washington State Department of Ecology

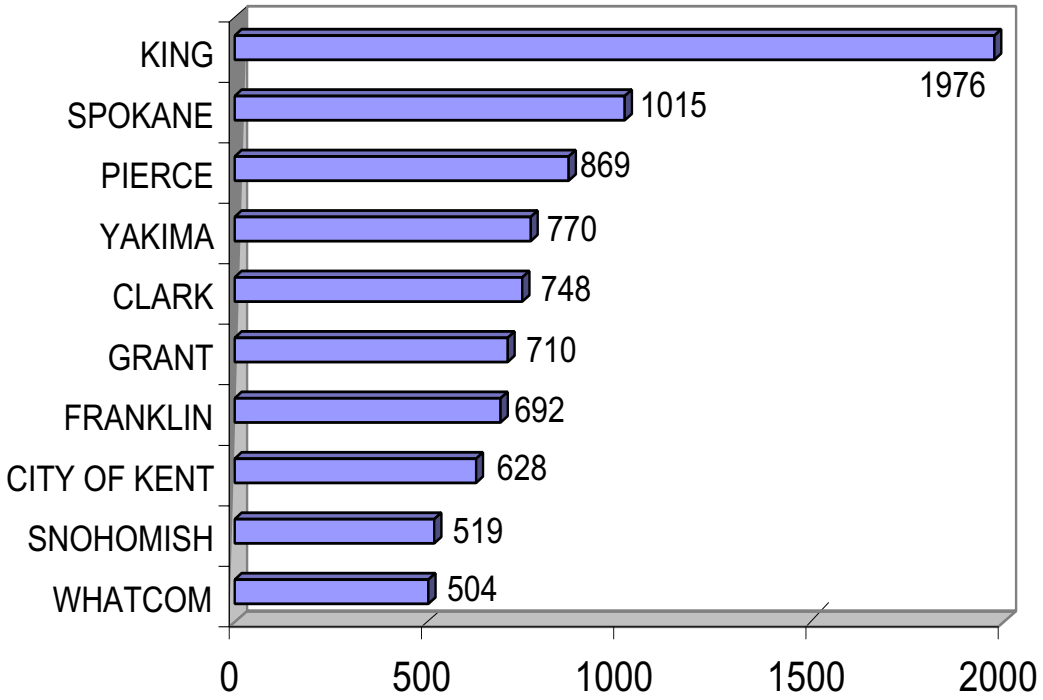


Figure 3
Top Ten LEPCs with Most Chemicals Reported

Reports by LEPC

There are 47 LEPCs in Washington. Most of these share the same jurisdictional area as counties, but a few cities serve as their own LEPC. Figure 2 displays the top ten LEPCs in terms of the most facilities within their jurisdiction that filed reports for reporting year 1998. Figure 3 is similar, but it shows the top ten LEPCs in terms of the numbers of total chemicals reported as being stored on site.

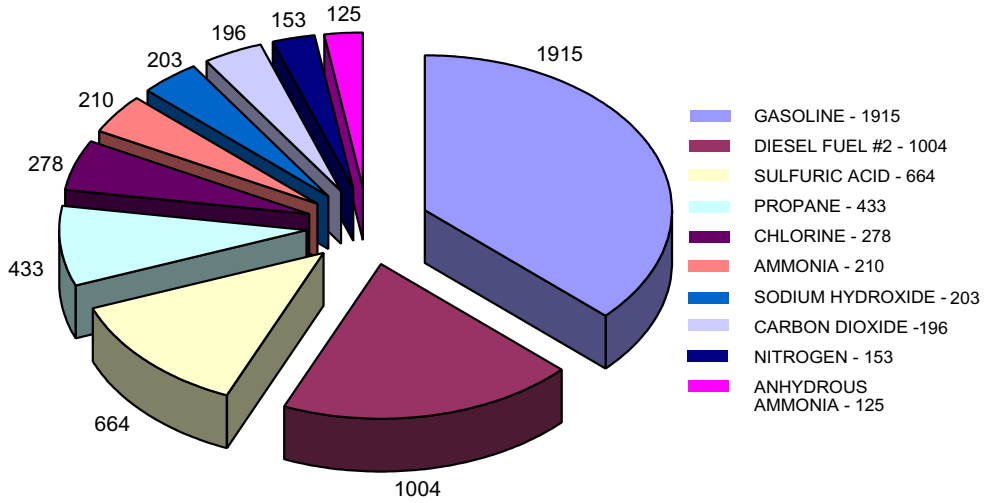


Figure 4
Top Ten Most Frequently Reported Chemicals

Most Frequently Reported Chemicals

The 10 most frequently reported chemicals are displayed in Figure 4. As a sub-set of these hazardous chemicals, Figure 5 displays the ten most frequently reported extremely hazardous substances (EHS). EHS's present a higher risk to the public and the environment, and therefore have much lower reporting thresholds. The value of making information on these chemicals available becomes apparent when one thinks of the risks faced by emergency responders.

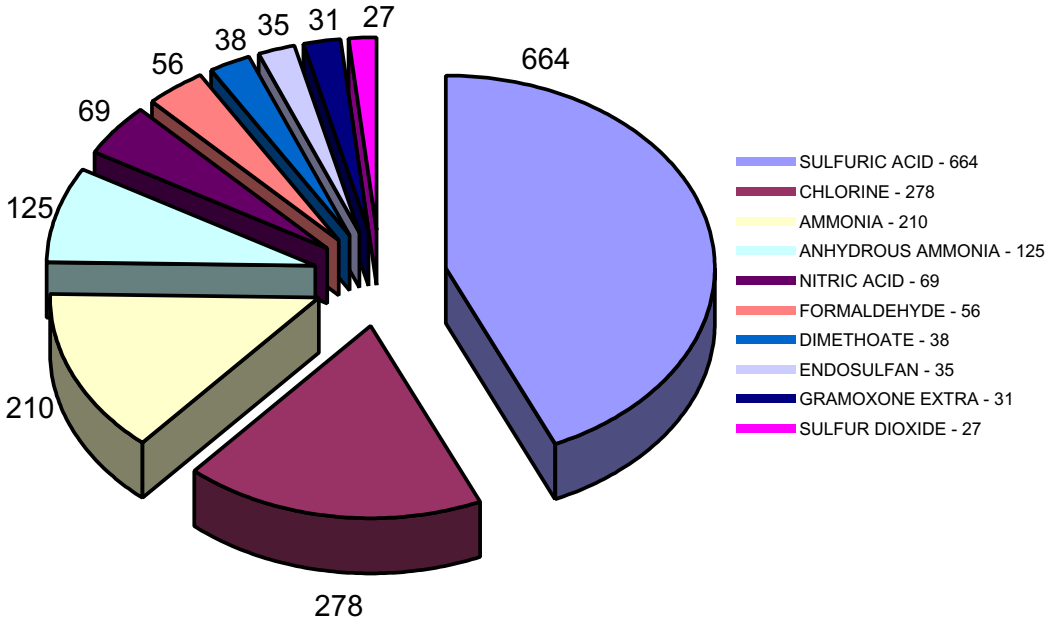


Figure 5
Top Ten Most Frequently Reported EHS Chemicals

Appendix 2 contains a complete listing of the number of reporting facilities and the number of chemicals reported. Further information on Tier Two reporting requirements can be found at http://www.wa.gov/ecology/hwtr/epcra/index.html.

The Toxics Release Inventory

The Toxics Release Inventory (TRI) is an annual summary that tracks the amount of toxic chemicals released or transferred by certain types of facilities. Facilities in specific industry categories (Appendix 1) that also meet reporting thresholds for numbers of employees and chemical use must comply with TRI reporting requirements. Facilities file a separate five-page "Form R" or two-page abbreviated "Form A" for each reportable TRI-listed chemical.

Prior to the 1998 reporting year, reporting was limited to manufacturing industries and federal facilities. Beginning with this reporting year, seven new industry categories have been added to the TRI reporting industries. These industries are: metal and coal mining, electric generating plants combusting coal or oil for commercial power generation, hazardous waste treatment firms, wholesale chemical distributors, wholesale bulk petroleum distributors and solvent recyclers.

TRI Data Limitations

It is important to remember that a release of a TRI chemical does not typically indicate a violation of federal, state or local environmental laws. Reporting facilities operate under environmental regulatory permits. TRI information includes data on permitted releases and transfers of certain chemicals. It does not indicate the rate or concentration of chemicals released, nor can it demonstrate the geographic boundaries of the chemical release. Therefore, exposures or risks to the public cannot be determined by using TRI data alone.

Another limitation under the TRI regulations is that facilities may report data based upon estimates and calculations rather than actual, measured pounds of toxic chemicals. Therefore, the information collected may reflect only general trends. Facilities may submit voluntary revisions of the report forms for any prior year. Sometimes the standards and methods for estimating releases change. Thus, the TRI data is somewhat variable and can change after this report is published. However, the revisions and changes should result in a more accurate database over time.

Finally, changes in TRI reporting requirements also limit our ability to make year to year comparisons. These changes are summarized in Appendix 1. Because reporting requirements have been relatively constant for years 1995 through 1997, it was possible to make direct comparisons over those year's without normalizing or adjusting the data for changes. For the 1998 reporting year, the new industry reports must be removed to make direct comparisons to 1995 through 1997 data. To make direct comparisons to years prior to 1995, it is necessary to adjust for other changes in reporting requirements. The normalization of data may include removing all chemicals newly added over the

reporting years, all chemicals deleted from the list of chemicals and chemicals like ammonia, hydrochloric acid and sulfuric acid that have had significant changes in the way they are reported. For overall trend analysis in this report, we have not normalized the data in order to capture changes that were implemented under TRI. The most reliable trend analysis may be for a single chemical at a particular facility.

In spite of these limitations, the TRI data continues to be useful for addressing potential risks to a community when evaluated together with other information. The TRI information is collected and often analyzed according to political boundaries such as states and counties. Of course, natural earth processes cross over such artificial boundaries. Surface water movement and weather patterns affect the impact chemical releases have on the soil, water and air. The way the winds blow and waters flow will influence the impact of chemicals on the environment independent of political boundaries.

Still, looking at releases by area and population help establish points of reference and give a starting point to better characterize the impact of these releases. The points of reference cannot, however, be used to directly assess exposure and environmental risk without other factors also being considered. The question of determining the risk associated with a chemical release is a complex process that falls far beyond the scope of this report. Some relative risk-based rankings of TRI chemicals have been developed and are available. However, to determine the risk of a particular chemical in a specific situation requires a process called risk assessment. The EPA has developed tools to help communities deal with local environmental problems including chemical risk assessments. These tools are available by contacting EPA in person, over the telephone or on their website (www.epa.gov).

TRI Releases by Environmental Media

As of December 1999, 312 facilities in Washington State had reported under the TRI reporting requirements for 1998 (Form R or Form A or both). This is an increase of 19 from 1997. Fifty-two of these were reporting for the first time. Of these, 264 facilities filed one or more five-page Toxic Release Inventory Reports Form R (Appendix 4). Eighty filed one or more two-page TRI Certification Form A (Appendix 5). Figure 6 shows the locations of the reporting facilities throughout the State of Washington.

For the 1998-reporting year, the facilities reported a total of 30,591,367 pounds of toxic chemicals released to air, water and land (Figure 7). Air releases comprised 74.6 percent of all releases (22,817,367 pounds). Water releases made up 11.4 percent (3,498,359 pounds) and land releases accounted for 14.0 percent (4,275,927 pounds) of releases. No underground injection releases were reported.

The seven new industries reporting under TRI for the first time in 1998 accounted for 17 percent of the state's releases. The distribution of the releases from these industries (Figure 8) to environmental media differs from the state's total distribution, with a much higher percentage going to land.

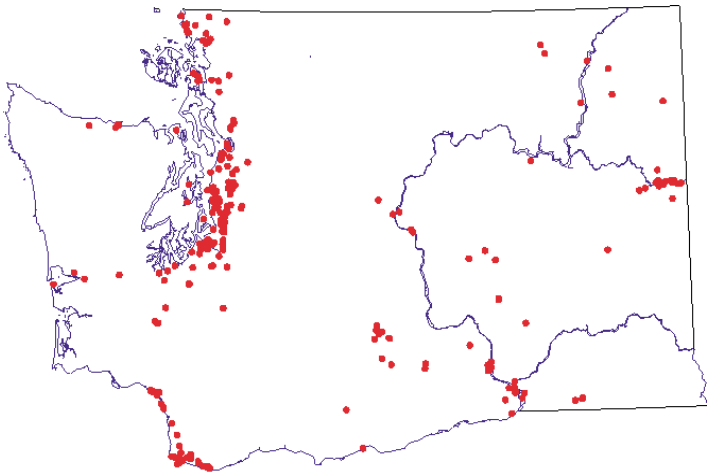


Figure 6
Washington TRI Reporters

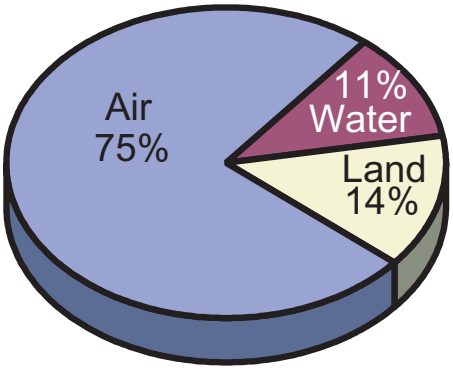


Figure 7
Washington TRI by Environmental Media, All Industries, 1998

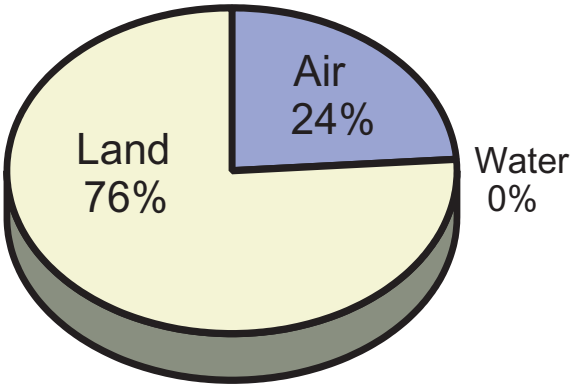


Figure 8
Washington TRI by Environmental Media, New Industries, 1998

TRI Releases by Industry Category

Four of the industry categories required to report under the TRI were responsible for over three-fourths of the releases in the state (Figure 9). The paper and allied products manufacturing category reported the largest share of releases, 11.0 million pounds. This amount comprised about 36 percent of the releases reported in the state and was a decrease of 1.5 million pounds from 1997. Primary metal industries is second with 5.9 million pounds reported (19 percent). This is an increase of 2.3 million pounds from 1997. Ranked third was electric services, 4.5 million pounds (14.7 percent). The 1998 reporting year was the first year of reporting for the electric services industry category. It includes only facilities that burn coal or oil to produce electricity commercially. Transportation equipment manufacturing was ranked fourth with 1.9 million pounds (6.1 percent).

The ten highest industry categories (Figure 9) reported 96.5 percent of the state's total releases. All other classifications combined reported releases of about 2.3 million pounds or 3.5 percent of the State of Washington total.

Paper & Allied Products

With over 11.0 million pounds of reported releases, the paper and allied products manufacturing category accounted for about one-third of the releases reported in the state. Fourteen different facilities reported in this category in 1998. The amount of releases in this industry category decreased in 1998 from 1997 by 1.5 million pounds. This continues a trend of decreases since 1995.

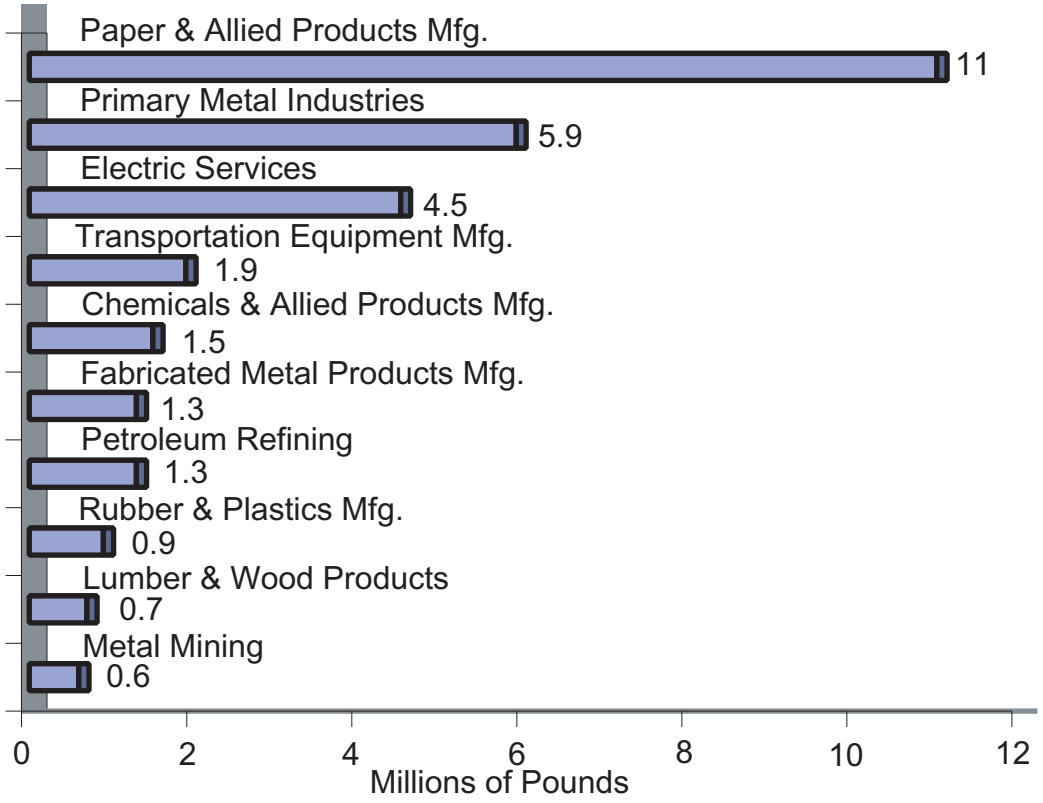
Major chemicals reported by this industry include methanol, hydrochloric acid, ammonia, and nitrate compounds.

Primary Metal Products

The primary metal products industry was the second highest category for amounts of chemical released. The twenty-four facilities reporting in this category acknowledged releases of about 5.9 million pounds. This is an increase of 2.3 million pounds from 1997.

The major chemicals reported by this industry were carbonyl sulfide, hydrogen fluoride and hydrochloric acid. The increases in this industry category represent increases in releases of hydrogen fluoride-1.4 million pounds at Kaiser Mead Works and 117,000 pounds at Kaiser Aluminum, Trentwood; nitrate compounds- 440,000 pounds at Sandvik Special Metals Corp.; and carbonyl sulfide-183,000 pounds at Intalco Aluminum Corp. and 125,000 pounds at Reynolds Metals Co. Longview.

Figure 9
Washington TRI Releases by Industries, 1998



Electric Services-Burning Coal or Oil for Commercial Electricity Generation

The electric services industry reported the third highest amount of TRI chemicals released in 1998, a total of 4.5 million pounds. Eight facilities reported in this industry category. One facility, the Pacificorp Centralia Thermal Plant reported releases of 4.4 million pounds. Of this, 3.7 million pounds were land releases primarily of barium compounds and manganese compounds.

Transportation Equipment Manufacturing

The transportation equipment manufacturing industry reported releases of 1.9 million pounds. This is decrease of about 100,000 pounds from 1997. There were thirty-seven facilities reporting in this category. Major chemicals reported by this industry are methyl ethyl ketone, styrene and toluene. The eight Boeing facilities reported 1.0 million pounds in 1998.

Top Reporting Facilities-Releases

For the 1998-reporting year, the top twenty reporting facilities for total releases on-site are listed in Table 1. Pacificorp Centralia Thermal Plant was the facility reporting the highest total releases 4.4 million pounds. This is the first year this facility has reported. The second highest releases were reported by Weyerhaeuser Co., Longview, 3.2 million pounds. The third highest reporting facility for total releases was Kaiser Mead Works in Spokane County, 2.5 million pounds. Six of the top ten ranked facilities are in the paper and allied products manufacturing category.

The top twenty reporting facilities for releases represent 23 million pounds of the state's 30.6 million pound total. This is about 74 percent.

Facilities Showing Changes in Total Releases in 1998 from 1997

The facility showing the greatest decrease from 1997 to 1998 was Weyerhaeuser Company Longview, showing a 1.2 million-pound decrease. By implementing recommendations from the company's Environmental Systems Review (ESR), chlorine dioxide emissions were reduced 97% in 1998. In addition, acetaldehyde, cresol, methanol, and methyl ethyl ketone emissions were significantly decreased.

The company with the second highest decrease was Weyerhaeuser Company, Cosmopolis, down 370,000 pounds. Two other facilities also reported decreases of over 100,000 pounds: Boeing Commercial Airplane Group, Everett (220,000 pounds) and Foamex LP, Kent (116,000 pounds). Eighty facilities reported decreases for 1998 compared to 1997.

The facility showing the greatest increase in total pounds from 1997 to 1998 was Kaiser Mead Works in Spokane County. They reported an increase of 1.4 million pounds. Their increase is attributed to hydrogen fluoride releases. Kaiser Mead Works estimates its hydrogen fluoride released based on monitoring data. This data for 1998 indicated greater releases compared to 1996 and 1997. The facility has received penalties from the Department of Ecology for violations of air emission regulations in 1998.

The second highest increase in total pounds was Sandvik Special Metals Corp in Benton County, 440,000 pounds. Other facilities reporting an increase of more than 100,000 pounds were: Arco Petroleum Products, James River Paper Co Inc., Alcoa Wenatchee Works Aluminum Co., Ponderay Newsprint Co., Texaco US Puget Sound, Reynolds Metals Co. Longview, Intalco Aluminum Corp and American Millwork Inc.

Ninety-six reporting facilities show increases in reported releases from 1997 to 1998.

Table 1
Washington TRI Releases Top 20 Reporting Facilities, 1998

Name	City	County	Air	Water	Land	Total-98 Release	Total-97 Release
PACIFICORP CENTRALIA T THERMAL PLAN	CENTRALIA	LEWIS	1,064,674	738	3,364,931	4,430,34	
WEYERHAEUSER CO LONGVIEW	LONGVIEW	COWLITZ	2,953,604	271,566	0	3,225,170	4,456,176
KAISER MEAD WORKS	MEAD	SPOKANE	2,483,255	284	250	2,483,789	1,122,363
JAMES RIVER PAPER CO INC	CAMAS	CLARK	1,124,405	436,050	1,625	1,562,080	1,376,670
BOISE CASCADE WALLULA	WALLULA	WALLA WALLA	1,232,372	89,344	39,118	1,360,834	1,371,980
GEORGIA-PACIFIC WEST INC	BELLINGHAM	WHATCOM	442,714	864,589	0	1,307,303	1,308,204
SIMPSON TACOMA KRAFT CO	TACOMA	PIERCE	956,708	68,041	0	1,024,749	1,091,745
UNOCAL AGRICULTURAL PRODUCTS BOWLES RD	KENNEWICK	BENTON	834,255	32,569	114,196	981,020	987,890
KIMBERLY-CLARK CORP	EVERETT	SNOHOMISH	169,380	567,100	0	736,480	686,530
BOEING COMM AIRPLANE GRP EVERETT	EVERETT	SNOHOMISH	697,338	562	0	697,900	919,701
INTALCO ALUMINUM CORP	FERNDALE	WHATCOM	608,553	0	0	608,553	488,345
LONGVIEW FIBRE CO LONGVIEW	LONGVIEW	COWLITZ	508,170	86,405	0	594,575	644,440
ECHO BAY MINERALS CO KETTLE RIVER JOINT VENTURE	REPUBLIC	FERRY	27,040	0	547,015	574,055	
SANDVIK SPECIAL METALS CORP	KENNEWICK	BENTON	510	559,000	580	560,090	119,510
VANALCO INC	VANCOUVER	CLARK	544,135	0	0	544,135	572,181
ALCOA WENATCHEE WORKS ALUMINUM CO	MALAGA	CHELAN	502,328	0	0	502,328	329,560
LASCO BATHWARE	YELM	THURSTON	485,996	0	0	485,996	497,200
ARCO PETROLEUM PRODUCTS	FERNDALE	WHATCOM	409,655	51,463	66	461,184	267,062
PORT TOWNSEND PAPER CORP	PORT TOWNSEND	JEFFERSON	371,550	15,750	41,800	429,100	478,738
CROWN BEVERAGE PACKAGING PLANT 076	OLYMPIA	THURSTON	397,099	0	0	397,099	396,398

TRI Releases by County

Twenty-seven of Washington's thirty-nine counties had facilities that reported under the TRI (Appendix 4). Lewis and Cowlitz counties had releases that totaled over 4 million pounds per county (Figure 10). Spokane county had over 3 million pounds of reported releases and three other counties (King, Clark and Whatcom) each totaled between one and two million pounds released per county. Four counties (Pierce, Snohomish, Benton and Walla Walla) each reported release totals of more than 1 million pounds but less than 2 million pounds. The releases in these ten counties accounted for 85 percent of all TRI releases statewide.

Lewis County reported the largest amount of chemicals released in the state in 1998. The 4.4 million pounds accounted for 14 percent of the state total. Pacificorp Centralia Thermal Plant accounted for 4.43 million pounds of the county's releases. Cowlitz County ranked second with 4.37 million pounds, followed by Spokane County with 3.18 million pounds.

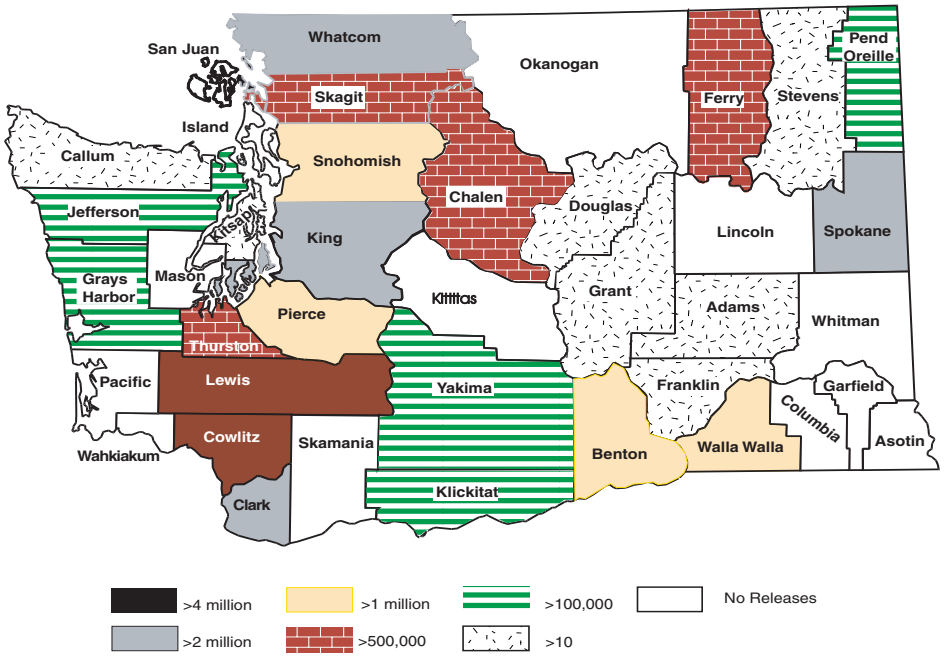


Figure 10
Washington TRI Releases by Counties, 1998

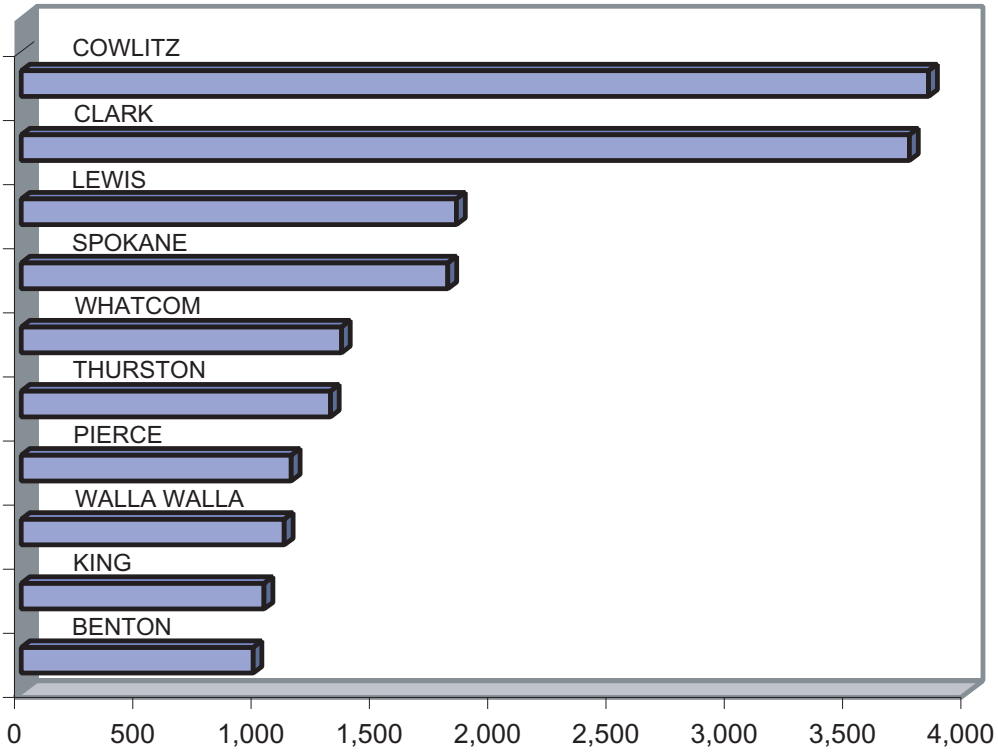


Figure 11
Washington TRI Top Counties, Pounds per Square Mile, 1998

Counties Ranked-Pounds per Square Mile

County rankings relating TRI releases per square mile appear in Figure 11. A county may rank higher on releases per area, but lower on the overall county rankings because of its relatively smaller size, even though its releases were also a relatively small number.

Cowlitz County ranked first with 3,836 pounds per square mile. Cowlitz County has a relatively small area and ranked second in the counties in releases. These two factors give it a high number for pounds per area. Clark County ranked second with 3,754 pounds per square mile. Lewis County was third with 1,840 pounds per square mile. Spokane, Whatcom and Thurston counties placed fourth, fifth and sixth respectively.

Statewide releases averaged 460 pounds per square mile.

Counties Ranked-Pounds by Population

Ferry County was first for TRI releases ranked by estimated 1998 population in pounds per person, 80.1 pounds per person (Figure 12). Lewis County reported 65.0 pounds of chemical releases per person. Cowlitz County reported 47.7 pounds per person. Walla Walla, Pend Oreille and Whatcom counties ranked fourth through sixth with 26.3, 24.4 and 18.3 pounds per person reported respectively. Statewide, releases averaged 5.4 pounds per person. This does not mean that each person was exposed to these "pounds" of chemicals.

Counties that appear high on this list often have fairly high release amounts and average populations (Lewis) or moderate releases with very small populations (Ferry). Counties like King and Pierce counties, with very large populations, do not show up in the ranking of top 10 counties even though they had high total release amounts.

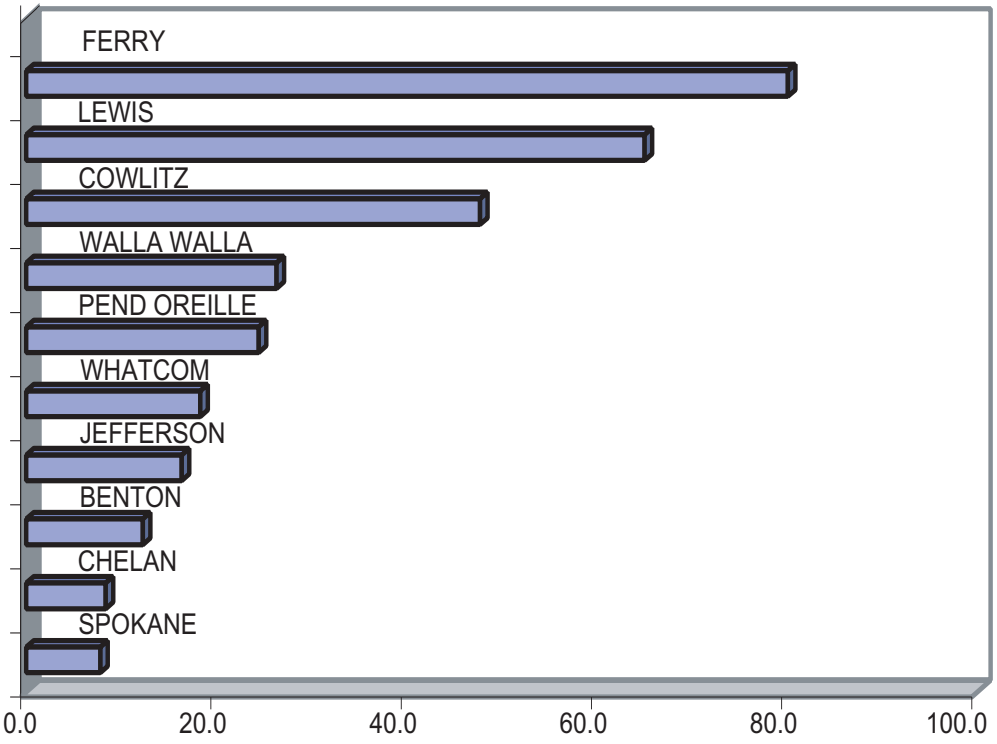


Figure 12
Washington TRI Top Counties, Pounds per Person, 1998

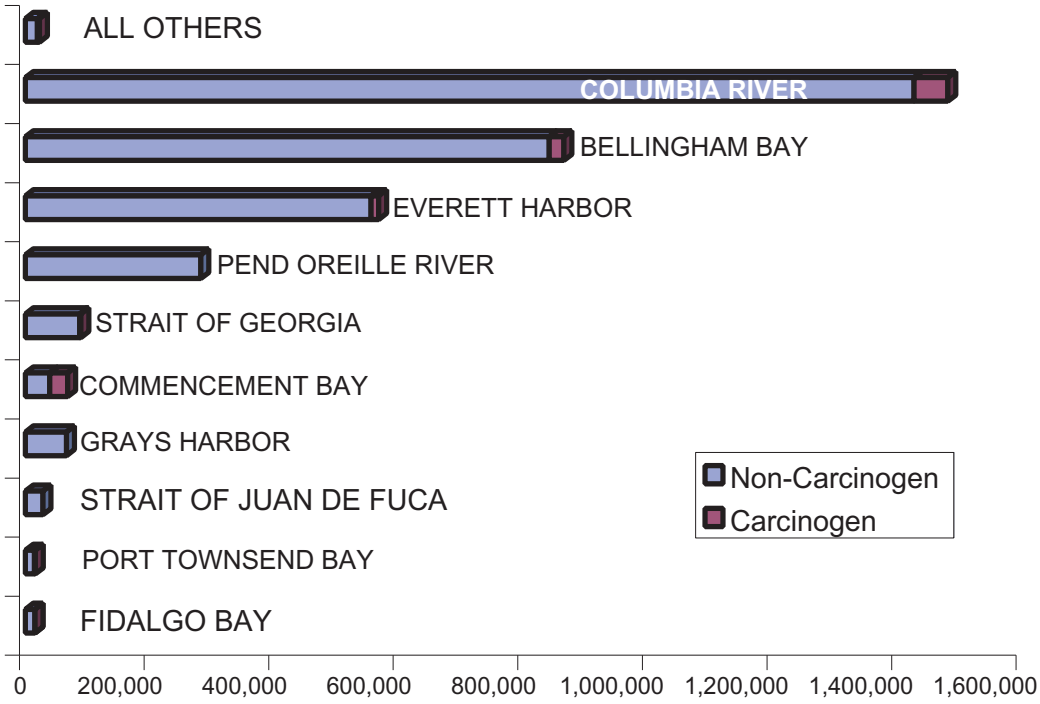


Figure 13
Washington TRI by Water Body, 1998

TRI Releases by Water Body

Releases of TRI chemicals to water in Washington state have ranked high nationally both in total chemicals and in releases of known or suspected cancer causing chemicals. One report ranked the state number one for releases of carcinogens from 1989 to 1996. Water releases in the state were 3.5 million pounds in 1998. Releases attributable to the newly reporting industry categories were only 868 pounds. Water releases have increased from the 2.5 million pounds reported for 1997. Chemicals classified by the Occupational Health and Safety Administration (OSHA) as known or suspected carcinogens totaled 125,000 pounds released to the water.

The Columbia River is reported as receiving the highest amount of TRI releases, comprised of both carcinogens and other chemicals (1.5 million pounds). The water body with the second highest reported releases of both carcinogens and total chemicals was Bellingham Bay. Figure 13 shows water releases by water body.

TRI Releases by Chemical

Only 104 of the approximately 600 chemicals or chemical categories reported under TRI, were reported by one or more facilities in Washington State (Appendix 3).

The top ten released chemicals reflect 72 percent of all chemical releases reported in the state (Figure 14). In descending order, the top 5 chemicals reported were methanol, hydrogen fluoride, nitrate compounds, ammonia and carbonyl sulfide.

Methanol

The primary reporters of methanol operate in the paper and allied products industry category. Methanol is generated through chemical reactions and occurs naturally in the breakdown of wood fibers. The pulping process releases this chemical from the wood fibers. Methanol is a flammable solvent and was the most reported chemical for 1998. Methanol releases in 1998 were 5.6 million pounds, 1.4 million pounds less than in 1997. Twenty-nine facilities reported releases of methanol in 1998. Weyerhaeuser Inc., Longview, reported 2.0 million pounds. Three other facilities reported more than 500,000 pounds of releases: James River Paper Company, Camas, Simpson Tacoma Kraft and Boise Cascade Paper Division, Wallula.

Hydrogen fluoride

Hydrogen fluoride acid is the second chemical on the list of most released TRI chemicals in Washington State in 1998. Releases of this chemical increased by 1.5 million pounds from 1997 to 3.5 million pounds.

Twenty-four facilities reported releases of hydrogen fluoride for 1998. Six of the top seven facilities reporting the highest amounts released are in the primary metal product's category. The top four reporters for releases of this chemical were Kaiser Aluminum & Chemical Co., Mead, Pacificorp Centralia Thermal Plant, Reynolds Metals, Longview, and Vanalco, Vancouver.

Nitrate Compounds

Nitrate compounds were the third highest reported chemical in 1998. The nitrates compound category was added to TRI reportable chemicals for the 1996-reporting year. Nitrate compounds are used in fertilizers, as oxidizing agents and in explosives. Nitrate compounds have harmful effects on health and the environment. A high nitrate concentration in lakes and streams results in uncontrolled plant growth as in algal blooms. This process called eutrophication can result in a deterioration of water quality.

Reported releases of nitrate compounds were 2.34 million pounds for 1998. Reported releases were 1.3 million pounds in 1997. Most nitrate compounds releases are to water. Georgia-Pacific West, Bellingham reported releases of 670,00 pounds of nitrate compounds up from 350,000 pounds in 1997. Sandvik Special Metals Corp. in Kennewick reported 559,000 pounds of nitrate compound releases, up from 119,000 pounds in 1997. Other companies with more than 100,000 pounds of reported

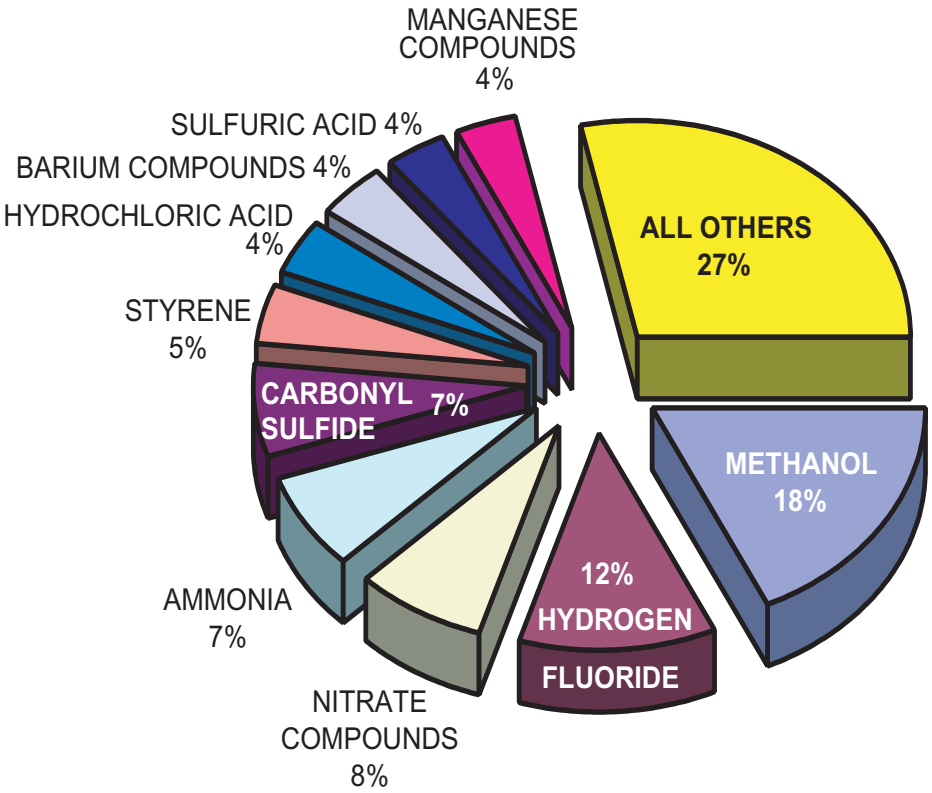


Figure 14
Washington TRI Releases by Chemical, 1998

releases were: Kimberly Clark Corp. in Everett, Ponderay Newsprint Co. in Usk, Echo Bay Mineral Co. in Republic and Unocal Agricultural Products in Kennewick.

Ammonia

EPA added a qualifier to reporting of ammonia under TRI in 1994. The qualifier for ammonia means that anhydrous (gas) forms of ammonia are 100 percent reportable; but solutions of ammonia and water are limited to 10 percent of the total solution. In past years, aqueous forms of ammonia were 100 percent reportable. For this reason, reported releases for ammonia for years prior to 1995 (when ammonia was the number one reportable chemical in the state) are not comparable to the 1995 and following years' values.

Ammonia was the fourth highest reported chemical in 1998. Reported releases of ammonia totaled 2.26 million pounds. In 1997, ammonia releases totaled 2.0 million pounds. Ammonia is widely used as a fertilizer, a refrigerant and as a wastewater treatment nutrient addition.

Ammonia was reported by forty-five facilities in 1998. The Unocal Agricultural Products, Kennewick, facilities reported about 800,000 pounds of ammonia releases to the environment, about one-third of the state total. Other facilities reporting over 100,000 pounds of ammonia releases

were Boise Cascade Paper Division, Wallula, Georgia Pacific-West in Bellingham, James River Paper Co Inc. in Camas, and Weyerhaeuser Company, Longview.

Carbonyl sulfide

Carbonyl sulfide was the fifth most reported chemical in 1998. A total of 2.1 million pounds was reported released to the environment by the six facilities reporting this chemical. All of these facilities are in the primary metal product's industry category. Intalco Aluminum in Ferndale reported 507,000 pounds. Kaiser Mead works reported 498,000 pounds, and Vanalco Inc. in Vancouver reported 431,000 pounds.

Carbonyl sulfide is a by-product of the aluminum manufacturing process.

Carcinogens

Reported releases of carcinogens (noted in Appendix 3) were 4.0 million pounds in Washington State in1998. Of these, 600,000 pounds were reported by the newly reporting industry categories, primarily cobalt, lead and nickel compounds released to land. A total of 3.4 million pounds of chemicals were reported by the manufacturing sectors. These compounds which are listed as known or suspected cancer-causing agents by OSHA were reported at 3.2 million pounds in 1997, and 3.4 million pounds in 1996. The top carcinogenic chemicals are styrene (1.4 million pounds), acetaldehyde (730,000 pounds), chloroform (458,000 pounds), and lead compounds (331,000 pounds).

TRI Off-site Transfers, 1998

Transfers reported under the TRI include chemicals transferred to Public Owned Treatment Works and those chemicals transferred to a facility located geographically or physically separate from the reporting facility. These transfers may be for treatment, energy recovery, recycling or disposal. Transfers are not included in the on-site release totals. Total transfers for 1998 were 21.5 million pounds. Transfers reported by the newly reporting industries were 4.4 million pounds. Table 2 shows the top twenty facilities reporting off-site transfers for 1998.

Total transfers in 1997 were 17.5 million pounds. Off-site transfers for the reporting industries for 1998 was 17.1 million pounds, a decrease of about 0.4 million pounds from 1997.

Transfers to Publicly Owned Treatment Works (POTW)

In 1998, transfers to Publicly Owned Treatment Works (POTW) were 2.7 million pounds, a decrease of 0.2 million pounds. Nitrate compounds continue to be the most reported chemical transferred to POTWs. SEH America in Vancouver reported POTW transfers of 1.1 million pounds of nitrate compounds. Three other companies reported POTW transfers of over 150,000 pounds of nitrate compounds: Siemans Power, Richland (861,000 pounds); Darigold Inc., Sunnyside (298,000 pounds); and Johnson Matthey, Spokane (150,000 pounds). These four chemical reports account for almost 90 percent of POTW transfers in the state.

Table 2
Washington TRI Transfers Top 20 Reporting Facilities, 1998

Facility	City	County	POTW Recovery	Disposal	Energy	Recycling	Treatment	Total
BIRMINGHAM	SEATTLE	KING		4,299,554		122,260		4,421,814
STEEL CORP BURLINGTON ENVIRONMENTAL GEORGETOWN	SEATTLE	KING		280,776	1,098,934	788,400	18,507	2,186,617
BURLINGTON ENVIRONMENTAL KENT	KENT	KING		980,983		174,187		1,155,170
SEH AMERICA INC	VANCOUVER	CLARK	1,099,005			14,102	40	1,113,147
BOEING CAG FABRICATION DIV AUBURN	AUBURN	KING	173	59,082	30,421	843,124	65,323	998,123
SIEMENS POWER CORP	RICHLAND	BENTON	861,750	250			9,600	871,600
REYNOLDS METALS CO LONGVIEW	LONGVIEW	COWLITZ		808,697		23,865	2,471	835,033
JOHNSON MATHEY ELECTRONICS INC SPOKANE	SPOKANE	SPOKANE	150,505			623,750		774,255
TORAY COMPOSITES AMERICA	TACOMA	PIERCE			229,000	455,000		684,000
BURLINGTON ENVIRONMENTAL TACOMA	TACOMA	PIERCE		384,781			296,141	680,922
KAISER ALUMINUM TRENTWOOD	SPOKANE	SPOKANE		909	81,672	580,139		662,720
BOEING FREDRICKSON	PUYALLUP	PIERCE	14	10,462	1,637	176,337	365,469	553,919
BOEING COMM AIRPLANE GRP EVERETT	EVERETT	SNOHOMISH	62,297	27,106	207,669	116,076	133,041	546,189
UNOCAL AGRICULTURAL PRODUCTS BOWLES RD	KENNEWICK	BENTON		538,826				538,826
NELSON IRRIGATION CORP	WALLA WALLA	WALLA WALLA		550		387,975		388,525
DARIGOLD INC SUNNYSIDE	SUNNYSIDE	YAKIMA	310,780					310,780
ACE GALVANIZING INC 96TH ST	SEATTLE	KING		82		284,848		284,930
JORGENSEN FORGE CORP	SEATTLE	KING		243,000				243,000
B F GOODRICH KALAMA CHEMICAL INC	KALAMA	COWLITZ		23,320		180,061	4,712	208,093
SCOTT GALVINIZING CO INC	SEATTLE	KING		70		175,680		175,750
Total			**2,484,524**	**7,658,448**	**1,649,333**	**4,945,804**	**895,304**	**17,633,413**

Chemicals sent to the POTW may be treated there by a variety of methods. Chemicals not removed in these processes typically move into surface waters such as Puget Sound, the Columbia, and other rivers. POTWs typically treat incoming chemicals with bacteria. Biological processes may reduce the quantities of chemicals into less toxic compounds before they eventually enter surface water. It is difficult to determine how much of a chemical in the surface water is from a reporting facility. Effluent limits from POTWs are monitored and regulated by permits issued by the Department of Ecology. In turn, industrial discharges into sewers are regulated and permitted by the local POTW.

Transfers to Other Off-site Locations

Chemicals reported as transferred to other locations for treatment, storage, disposal, recycling or energy recovery totaled 18.8 million pounds in 1998 for all reporting facilities. Transfers from manufacturing industries were 14.4 million pounds down from15.0 million pounds in 1997. Off-site transfers by industries other than manufacturing were 4.4 million pounds. Metals like copper, lead, and manganese, and organic solvents like xylene and toluene are among the chemicals with the greatest amounts being transferred off-site. Facilities reporting the highest amount being transferred off-site were: Birmingham Steel Corp in Seattle, sending 4.3 million pounds to off-site disposal and 122, 000 million pounds to off-site recycling and Burlington Environmental-Georgetown in Seattle, sending 280, 000 pounds to off-site disposal, 1.1 million pounds to energy recovery and 788,000 pounds to recycling.

Pollution Prevention Act Reporting, 1998

Total waste processed or disposed of by a facility is reported under The Pollution Prevention Act of 1990 (as reported in Section 8 of Form R). These data elements include the amount of chemicals reported under TRI as generated as waste or recycled and used for energy recovery, or treated both on and off the facility premises (Table 3). Facilities report for the current and prior year and provide projected totals for the next two years. Estimates for 1999 and 2000 indicate that the total waste processed or disposed of by those 312 facilities reporting under the TRI in Washington State in 1998 will decrease in 1999 but may increase again in 2000. The facilities estimate that on-site recycling and off-site recycling will increase in 1999 and 2000, but will be less than the amount reported for 1997.

	1997	1998	1999 (projected)	2000 (projected)
Release	31,432,900	37,323,224	31,336,338	30,432,624
Energy Recovery On-site	12,156,288	14,323,943	14,332,034	14,332,034
Energy Recovery Off-site	889,675	943,695	902,983	865,391
Recycling On-site	96,067,286	87,124,611	89,269,584	91,765,422
Recycling Off-site	6,321,257	6,614,031	9,797,798	9,724,835
Treatment On-site	72,655,854	74,454,896	73,802,999	75,545,988
Treatment Off-site	3,601,359	4,078,851	3,885,448	3,956,707
Total Waste Managed	223,124,619	224,863,251	223,327,184	226,623,001
One-Time Release		115,881		

Table 3
Pollution Prevention Act Reporting,1998 (in pounds)

Trends in TRI Releases and Transfers

The changes in TRI reporting requirements over time make year-to-year comparisons for TRI data difficult. Even when using normalized values, a single chemical at one facility can greatly impact the results. To be entirely accurate, perhaps we should only look at those chemicals that have been reported by particular facilities for all years. There are some facilities that have modified their chemical use so much that they no longer report. Excluding them from comparative totals would not give credit for reductions in those cases. At that level, the original reports will show what has happened at a particular facility. However, the general trends in releases and transfers adjusted for changes in reporting can provide us with valuable information on changes in releases and transfers overall.

TRI releases to all environmental media increased in 1998 by 6.2 million pounds when compared to 1997. Most of this increase, or 5.2 million pounds is accounted for by reporting by the added industry categories. One million pounds is the increase reported by manufacturing industries. The increase in hydrogen fluoride releases at Kaiser Mead Works was 1.4 million pounds. Excluding this single chemical at one facility, releases for the rest of the state's manufacturing facilities decreased from 1997. Figure 15 shows the trends in TRI releases where all chemicals reported are included. The general trend over time has been for releases to decline.

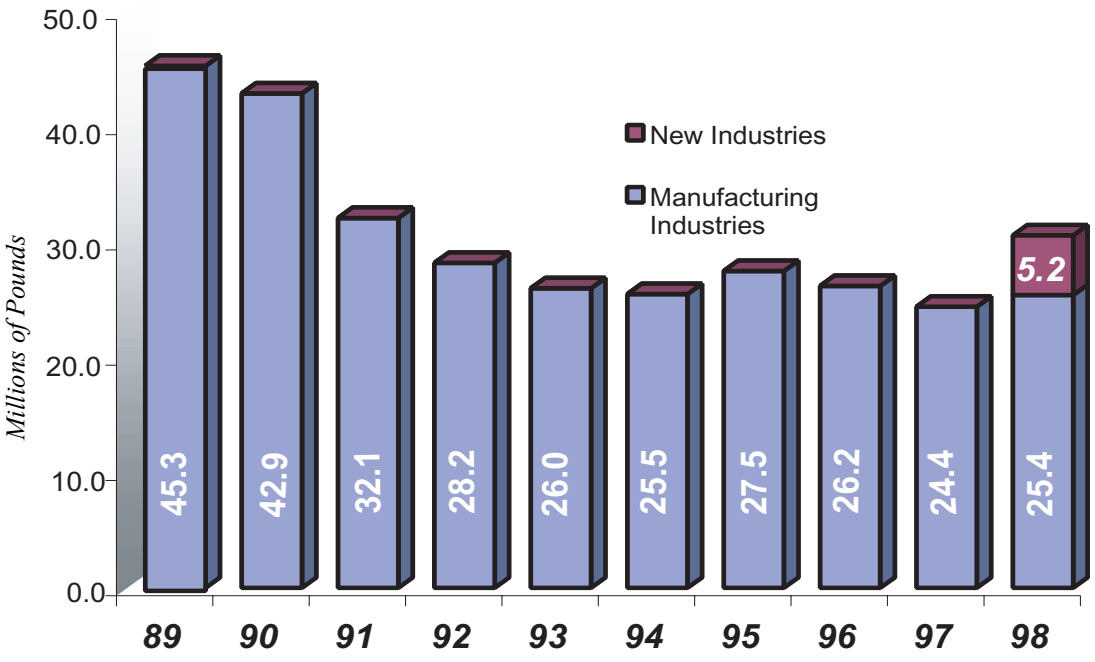


Figure 15
Washington TRI Releases: 1989 - 1998

Changes in reporting requirements for off-site transfers in 1990 limit comparisons to 1991 through 1998 reporting years. The Pollution Prevention Act of 1990 significantly expanded reporting for off-site transfers for recycling, energy recovery and treatment. Also, the changes in sulfuric acid reporting beginning with the 1994 reporting year resulted in a 60 million-pound reduction in the state's off-site transfers between 1993 and 1994 (Figure 16). The addition of reporting of nitrate compounds has resulted in an increase in reported transfers particularly to POTWs. For the 1998 reporting year, reporting by new industries resulted in an increase in reported transfers.

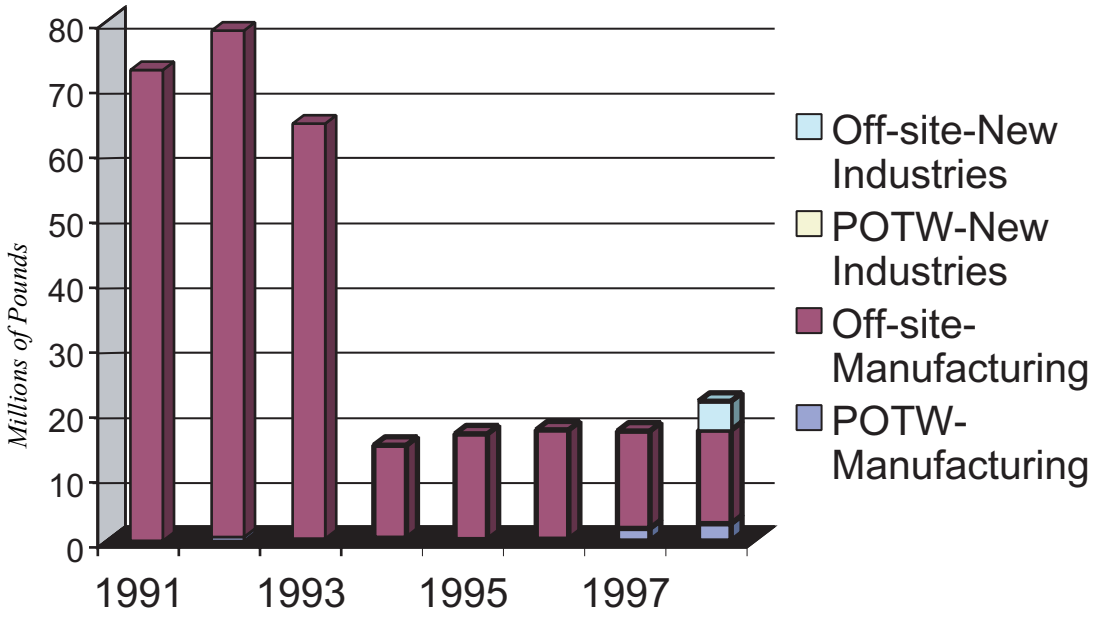


Figure 16
Washington TRI Transfers: 1991 - 1998

Uses of Chemical Data

Until EPCRA became law (in the mid 1980's), most national and local environmental laws looked at only one element of the environment at a time. Single-media reporting laws, like the Clean Air Act and the Clean Water Act, do not account for the shifting of a waste "stream" between one media and others. The comparison between them has been difficult because of conflicting reporting rules, measurement methods, chemical lists, reporting periods, and inconsistent industry exemptions and/or requirements. For these same reasons, it has been hard to build a comprehensive picture of the cumulative releases from a single facility, let alone multiple facilities in a local area.

Tier Two Data

Tier Two data is of particular value because it reflects chemical storage by facilities in the state of Washington. This information is critical to the SERC, LEPCs and local fire stations. The SERC assembles this information to help the citizens, government, and industry work toward a safer, cleaner state. LEPCs and local fire stations use the information sent by each facility to prepare for a possible accident or incident at each reporting facility.

TRI Data

TRI data is of particular value because it reflects toxic chemical releases to all the media around a facility – air, water, land, sewer, transfers off site, etc. Toxic chemicals are generated from many sources, including manufacturing and non-manufacturing processes, agricultural chemical use, use and disposal of consumer products, transportation, indoor and outdoor burning, and other sources. It is important to note that not all of these sources are tracked by TRI. Non-tracked businesses and organizations, as well as individual and personal use, may also contribute substantial amounts of toxic chemicals to the environment.

Air quality is recognized as a significant indicator of environmental health. Figure 17 shows the sources of air pollution in Washington State. While about 75 percent of TRI releases are to the air, industrial sources contributed only 14 percent of the state's air pollutants. Other major sources of air pollution include motor vehicles, outdoor burning, and wood-stoves and fireplaces.

With TRI, it is easier for a given facility's host community (and others) to see the 'total' amounts of these toxic releases into one area /community. Communities who utilize TRI data are now in a better position to build a more complete picture of the cumulative releases around them. TRI data also provoke many questions with the public. Some of the most common questions include:

- ✔ Are the releases harmful to the community (human and/or environmental)?
- ✔ Who's keeping track of all these releases in relation to human and environmental health?
- ✔ Are these releases acceptable to the host community?
- ✔ If these releases continue, will they harm the community's long-term health and sustainability, including economic viability? And,
- ✔ Who bear's the brunt of these releases?

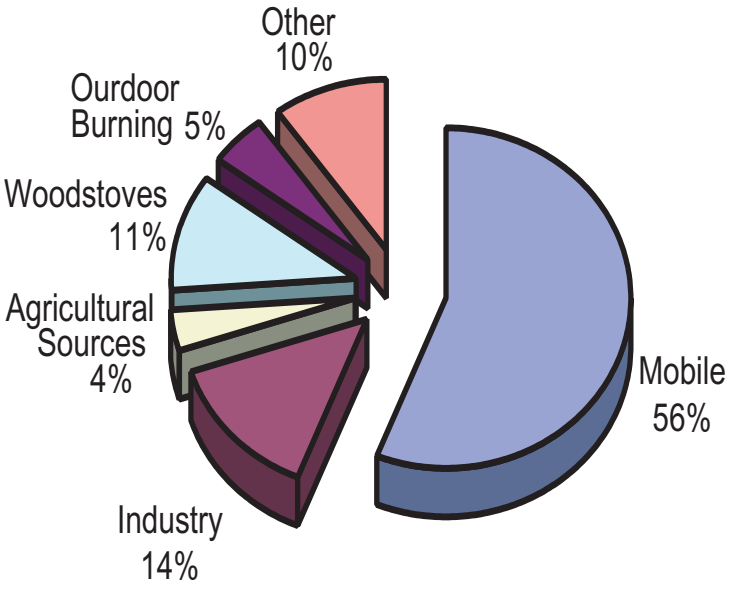


Figure 17
Statewide Emissions of Criterua Pollutants

Environmental Justice

Research has shown that low-income and 'minority' populations can be exposed to the greatest concentrations and quantities of toxic chemicals. One reason for a disproportionate impact on low-income and minority populations can be the close proximity of low-income residential housing to industrial facilities. Low-income housing tends to move closer to industry due to relatively lower property values, as compared to suburban housing rates. Housing close to high-traffic corridors, like freeways, is often more affordable to low-income households. This is also the appeal for businesses concerned about low property costs combined with easy access to those same transport corridors (including water terminals, airports, rail lines, etc.). These basic economic factors often end up putting the two conflicting land uses adjacent to each other. Air pollution is almost always going to be higher in these areas, if only due to vehicle emissions, not even taking into account industry emissions.

Washington State's 1994 Legislature requested that this issue be studied by the Department of Ecology. In October 1995, ***A Study on Environmental Equity in Washington State*** (publication # 95-413) was delivered to the Legislature. Some of the state's low-income and minority populations were found to be living near a higher number of operating industrial facilities. In some counties, substantially higher amounts of TRI releases were also reported in low-income and/or minority areas. This presents a potential 'environmental justice' issue.

The Department of Ecology is concerned about this issue and is working to ensure equitable delivery of services and carrying out of duties throughout Washington. Such duties and services include enforcement, cleanup, public outreach, and issuing permits. One of the ways Ecology can help is to make sure local communities are aware of, and understand the TRI data for what it says and what it does not say.

New and Pending EPCRA Developments

Regulatory Relief for Retail Gas Stations

Retail gas station that store gasoline and diesel fuel entirely underground *and* are in compliance with Underground Storage Tank requirements are subject to new reporting thresholds under EPCRA Section 312 (Tier Two). The new reporting thresholds will be:

- 75,000 gallons for all grades of gasoline combined; and
- 100,000 gallons for diesel fuel.

Convenience stores and truck stops that sell gasoline or diesel fuel to the public also meet the definition of "retail gas stations." Retail gas stations meeting these criteria did not have to file gas and diesel inventory reports for calendar year 1998 that were due March 1, 1999.

Dioxins and Persistent Bioaccumulators

EPA has added the chemical dioxin and other persistent bioaccumulative toxics (PBTs) to its TRI list of chemicals. PBTs are of concern in the environment because:

- ✔ They **persist** in the environment for a long time without breaking down;
- ✔ They build up in the tissues of humans, fish and animals ("**bioaccumulative**");
- ✔ They have **toxic** effects (cancer and other health problems) on living organisms.

Many of these substances are man-made and have only been in the environment for a short period of human history. Substances like cadmium and mercury that occur naturally in the environment, can create health and environmental problems when they are concentrated and refined.

In 1999, EPA published the final rule to add certain PBT chemicals to the TRI reportable chemicals, to establish a dioxin-like chemical category and to lower reporting thresholds for certain PBT chemicals. Dioxin, one of the PBTs, is a highly toxic compound that is known to cause adverse health effects in humans and animals in very small concentrations. Dioxin is produced in extremely small volumes (a few pounds per facility) by many industrial processes including incineration of waste, pulp and paper production and steel production. Because of this, dioxins have not been reported since their generation was below the minimum triggering thresholds. This rule was finalized in December of 1999. Reporting will begin for the reporting year 2000.

Along with efforts by the EPA to address PBTs through enhancements to the Toxic Release Inventory, Ecology also has a PBT initiative.

Specifically, Ecology is developing a long-term strategy to reduce and where possible eliminate PBTs from Washington State's environment. To date, Oregon is the only other state that has followed Washington's lead in this area. This is an ambitious but fundamental goal based upon (and consistent with) Ecology's three essential priorities: clean up existing sites of notable pollution, prevent or reduce future environmental contamination, and support a long-term, sustainable environment for current and future generations.

Industry and the public will have opportunities to learn more about Washington's developing PBT strategy this year. Stakeholders are invited to participate in, and support Ecology in this effort. The success of the PBT strategy development and implementation will be largely based upon coordinated support from a broad spectrum of participants, including Community Right-to-Know reporters and those interested in the TRI data.

Meanwhile, a recent study by EPA Region 10 is encouraging. Their study looked at the management of PBT chemical waste by the Region 10 states. Between 1991 and 1997, facilities in Washington that report under the Toxic Release Inventory made remarkable progress in reducing PBT production related waste. Washington achieved reductions of 69% while nationally there was and 18% increase in waste. This EPA report is titled *Region 10: Persistent, Bioaccumulative, and Toxic Chemical Summary Report*, dated November 1999.

Lower Threshold Proposed for Lead TRI Reporting

EPA is proposing to lower the threshold for reporting of lead releases to TRI as published on August 3, 1999. Lead remains in the environment for long periods of time and is toxic to humans, especially to children. Currently, facilities are not required to report their lead and lead compound releases to the air, water, and land unless they manufacture or process more than 25,000 pounds annually. These high thresholds severely limit the reporting of lead and lead compounds. Under the proposed rule, the reporting thresholds would be lowered to 10 pounds per facility per year. These lower thresholds for PBT chemicals will expand the usefulness of TRI in tracking toxic chemicals in the environment.

Information on TRI developments can be obtained from the TRI web page: http://www.epa.gov/opptintr or by calling the EPA's EPCRA hotline at 1-800-535-0202.

Reporting Requirements and Glossary of Terms

YEAR	INDUSTRY CATEGORIES	CHEMICALS	OTHER
1987-1989	Manufacturing.	Initially 308 chemicals. Deleted: titanium oxide (87), CI acid blue # 9, melamine crystal, and sodium sulfate solution (88) and sodium hydroxide solution (89). Modified: aluminum oxide, only fibrous forms reportable (89).	Threshold: Manufacture & process: 75,000 lbs. (87), 50,000, (88) & 25,000 (89 and after) for. Otherwise use: 10,000 lbs. all years.
1990	Manufacturing.	Added: allyl alcohol, cresote, 2,3-dichloropropene, dinitrobenzene, dinitrotoluene, isafrole, toluene diisocyanate. Deleted: Terephthalic acid, CI Pigment green 7 & 36, CI pigment blue 15.	Pollution Prevention data elements added.
1991-1993	Manufacturing.	Added 7 CFC's and halons (91) Deleted: CI Acid Blue 9, barium sulfate, di-N-octyl phthalate (93).	
1994	Manufacturing, federal facilities.	Added 11 HCFC's and 21 RCRA chemicals and 2 chemical categories. Deleted acetone, copper monochloro-phthalocyanine pigment, butyl benzyl phthalate, ammonium sulfate solution. Modified: ammonia, sulfuric acid, glycol ethers.	
1995	Manufacturing, federal facilities.	Added: 286 chemicals/chemical categories. Deferred addition: 41 chemicals. Deleted DEP, DEHA. Modified: Hydrochloric acid.	Alternate Threshold established.
1996-1997	Manufacturing, federal facilities.	List contains 576 individual chemicals and 28 chemical categories.	
1998	Added: metal mining, coal mining, electric utilities, commercial hazardous waste treatment, chemical wholesale distributors, solvent recyclers, wholesale bulk petroleum distributors.	List contains 579 individual chemicals and 28 chemical categories. Included but on administrative stay: Methyl mercaptan, hydrogen sulfide & 2,2-dibromo -3-propionamide.	
FUTURE/ PROPOSED	Petition to add: Transportation by air.	Final rule to add certain dioxin like chemicals. Lower thresholds for pbt chemicals. Proposed rule: Lower thresholds for lead and lead compounds reporting. On-going petitions to delist chemicals, proposal to delist phosphoric acid.	Pending: Proposals to add use data elements to TRI

Glossary of Terms

Releases to Air
Releases to air are reported as either non-point or "fugitive" or point or "stack" emissions. Fugitive emissions are releases that are not conveyed through stacks, vents, pipes or any other confined air stream. Examples include leakage from valves, pump seals, flanges, compressors, open ended lines, evaporative losses from surface impoundments and production lines, and releases from building ventilation systems. Stack or point air emissions are releases to air which are conveyed through stacks, vents, ducts, pipes or other confined air streams, and include storage tank emissions and air releases from control equipment.

Releases to Land
Releases to land occur on or near the boundary of the reporting facility. Releases to land include disposal of wastes in a landfill, in which the waste is buried, land treatment/ application farming in which a waste is applied onto or incorporated into soil, and surface impoundment which is an uncovered holding area used to volatilize and/or settle waste materials.

Releases to Water
Releases to water include releases to streams, lakes, or other bodies of water.

Standard Industrial Classifications
The SIC code numbers and names listed here are the general industrial categories, a 2 digit number representing the general categories of manufactured products. Each facility will have one or more 4 digit numbers that specifically describes its manufacturing process.

SIC CODE	NAME
10	Metal and Coal Mining
12	Metal and Coal Mining
20	Food and Kindred Products
21	Tobacco Manufacturers
22	Textile Mill Products
23	Apparel and Other Textiles
24	Lumber and Wood Products
25	Furniture and Fixtures
26	Paper and Allied Products
27	Printing and Publishing
28	Chemicals and Allied Products
29	Petroleum Refining
30	Rubber And Misc. Plastic Products
31	Leather and Leather Products
32	Stone, Clay and Glass Products
33	Primary Metal Products
34	Fabricated Metal Products
35	Industrial, Commercial Machinery and Computers
36	Electronic Equipment and Components
37	Transportation Equipment
38	Instruments and Related Products
39	Misc. Manufacturing Industries
4911	Electric Generating Plants (combusting coal or oil)
4931	Electric Generating Plants (combusting coal or oil)
4939	Electric Generating Plants (combusting coal or oil)
4953	Hazardous Waste & Treatment Firms
5169	Chemical Wholesale Distributors
5169	Wholesale Bulk Petroleum Distributors
7389	Solvent Recyclers

Transfers to Public Owned Waste Water Treatment Works (POTW)

A POTW is a waste water treatment facility that is owned by a state or local municipality. Waste waters reported as transferred to POTWs are transferred through pipes or sewers. The chemicals contained in the waste water are treated at the POTW through a variety of methods. In general, chemicals are likely to be removed to some extent. Those chemicals not removed by treatment are released by the POTW to surface waters.

Thresholds

Amounts of chemicals that trigger reporting requirements. If a facility annually manufacturers or processes any listed toxic chemical, the threshold quantity is 25,000 pounds. If a facility "otherwise uses" any listed chemical, in any way other than incorporating it into a product, the threshold quantity is 10,000 pounds.

Toxics Release Inventory Chemical List

EPA has adopted a list of some 600 chemicals which facilities must report under Section 313 of the EPCRA. With the Governor's authority, a chemical may be added to the list if it is known to cause or can reasonably be anticipated to cause significant adverse acute health hazards outside a facility as a result of continuous or frequently recurring releases. In addition, chemicals may be added if they cause or may be reasonably anticipated to cause cancer or birth defects or serious or irreversible reproductive dysfunctions, neurological disorders, heritable genetic or other chronic health effects. A chemical that causes or may cause a significant adverse effect on the environment may be included. EPA may delete chemicals from the list if there is not sufficient evidence to establish that the chemical meets any of the criteria.

Off-site Transfers

An off-site transfer is the transfer of wastes to a facility that is geographically or physical separate from the manufacturing site. Chemicals are reported as either transfers for treatment, disposal, recycling , energy recovery or "other" means.

Off-site Transfers for Disposal

Disposal of toxic chemicals usually means either release to land (as in a landfill) or underground injection, in this case, at the off-site location.

Off-site Transfers for Energy Recovery

Energy recovery is the combustion in industrial furnaces or boilers that generate energy for use at the location. Non-combustible chemicals like metals and halons should not be reported under this category. Treatment or destruction by incineration is not energy recovery.

Off-site Transfers for Recycling

Recycling means the recovery or regeneration of chemicals by a variety of methods including solvent recovery, metals recovery or acid regeneration. Once they have been

recovered, the chemicals may be returned to the originating facility or made available for commerce.

Off-site Transfers for Treatment

Treatment of toxic chemicals may include biological treatment, neutralization, incineration or physical separation. Treatment usually results in varying degrees of destruction of the chemical. Treatment may mean preparation for disposal.

Underground Injection

Underground injection is the disposal of fluids by burial of the fluids in a Class I or V well.

Number of Tier Two Reporting Facilities and Chemicals Reported

Number of Tier Two Reporting Facilities and Number of Chemicals Reported

LEPC	Total Number of Facilities Reporting	Number of Facilities Reporting EHS	Total Number of Chemicals Reported	Number of EHS Chemicals Reported
ADAMS	42	28	211	94
ASOTIN	11	3	22	3
BENTON	81	45	354	96
CHELAN	79	47	398	138
CLALLAM	56	23	132	32
CLARK	149	62	748	154
COLUMBIA	14	10	46	21
COWLITZ	60	27	319	47
DOUGLAS	28	16	65	18
FERRY	7	0	23	
FRANKLIN	70	37	692	159
GARFIELD	15	8	42	10
GRANT	124	57	710	245
GRAYS HARBOR	69	20	172	33
ISLAND	33	6	81	7
JEFFERSON	19	7	57	8
KING	695	221	1976	315
CITY OF AUBURN	39	4	136	10
CITY OF KENT	124	42	628	103
SW SNOHOMISH	18	8	43	11
KITSAP	92	39	227	50
KITTITAS	41	17	75	19
KLICKITAT	20	15	71	18
LEWIS	70	29	268	36
LINCOLN	37	24	127	32
MASON	25	6	45	6
OKANOGAN	57	30	208	94
PACIFIC	23	11	43	13
PEND OREILLE	8	2	38	8
PIERCE	282	99	869	127
CITY OF PUYALLUP	15	4	33	4
CITY OF STEILACOOM	2	1	20	1

LEPC	Total Number of Facilities Reporting	Number of Facilities Reporting EHS	Total Number of Chemicals Reported	Number of EHS Chemicals Reported
FORT LEWIS	1	1	29	3
SAN JUAN	15	4	25	4
SKAGIT	97	26	424	66
SKAMANIA	12	5	51	5
SNOHOMISH	184	59	519	84
SW SNOHOMISH	49	14	87	17
SPOKANE	247	88	1015	141
STEVENS	25	11	87	13
THURSTON	87	22	180	26
WAHKIAKUM	5	4	8	5
WALLA WALLA	64	28	271	55
WHATCOM	97	31	504	69
WHITMAN	52	28	292	60
CITY OF PULLMAN	12	5	41	12
YAKIMA	193	99	770	277
TOTAL	**3,545**	**1,373**	**13,182**	**2,749**

Washington TRI by Chemical, 1998

Rank	Chemical	Carcinogen	Air	Water	Land	98Release	98Transfer	97Release	97Transfer
54	1,1,1-TRICHLOROETHANE	Np	8,645	0	215	8,860	211	72,403	17,516
40	1,1-DICHLORO-1-FLUOROETHANE	No	37,401	0	0	37,401	5,123	34,988	5,319
51	1,2,4-TRIMETHYLBENZENE	No	11,238	0	1,811	13,049	7,034	11,529	0
99	1,2-DICHLOROETHANE	Yes	0	0	0	0	53,164		
71	1,3-BUTADIENE	No	1,277	0	0	1,277	0	1,824	0
88	1,3-DICHLOROPROPYLENE	No	145	0	0	145	0		
96	2,2-DICHLORO-1,1,1-TRIFLUOROETHANE	No	5	0	0	5	0		
13	ACETALDEHYDE	Yes	689,302	40,741	63	730,106	0	872,112	0
91	ACRYLAMIDE	Yes	27	0	0	27	24	42	250
86	ACRYLIC ACID	No	181	0	0	181	0	461	0
79	ALUMINUM (FUME OR DUST)	No	564	0	0	564	4	574	468,012
4	AMMONIA	No	1,788,485	306,062	164,618	2,259,165	381,138	2,045,230	263,324
59	ANTIMONY COMPOUNDS	No	145	5,000	120	5,265	53,508	24,175	6,716
43	ARSENIC COMPOUNDS	Yes	63	45	19,930	20,038	2,198	2,883	5,872
95	ASBESTOS (FRIABLE)	Yes	8	1	0	9	398,455	13	40,076
8	BARIUM COMPOUNDS	No	2,561	18,847	1,241,050	1,262,458	317,143	33,996	221,303
32	BENZENE	Yes	78,487	241	574	79,302	122,560	83,147	6,316
92	BENZOYL PEROXIDE	No	26	0	0	26	0		
67	BIPHENYL	No	2,381	1	0	2,382	3,870	4,640	3,624
100	BUTYL ACRYLATE	No	0	0	0	0	53,165		
93	CADMIUM COMPOUNDS	Yes	22	0	0	22	67		
52	CARBON DISULFIDE	No	10,338	3	0	10,341	5	3,083	0
101	CARBON TETRACHLORIDE	Yes	0	0	0	0	34,137		
5	CARBONYL SULFIDE	No	2,091,468	0	0	2,091,468	0	1,820,838	0
64	CATECHOL	No	750	3,113	6	3,869	0	5,474	0
21	CHLORINE	No	281,027	12,774	0	293,801	0	245,021	0
46	CHLORINE DIOXIDE	No	17,031	0	0	17,031	0	98,884	0
60	CHLORODIFLUOROMETHANE	No	5,134	0	0	5,134	325	53,155	236
18	CHLOROFORM	Yes	435,100	23,700	36	458,836	0	582,068	0
97	CHLOROPICRIN	No	4	0	0	4	0		
49	CHROMIUM	No	14,573	136	0	14,709	129,505	3,508	244,253
26	CHROMIUM COMPOUNDS	No	987	13,906	156,836	171,729	249,114	56,798	349,072
102	COBALT	Yes	0	0	0	0	5,172	0	6,029
30	COBALT COMPOUNDS	Yes	270	109	115,184	115,563	15,887	1,070	13,431
55	COPPER	No	5,445	1,216	255	6,916	1,867,925	17,567	1,516,221
20	COPPER COMPOUNDS	No	18,715	1,337	278,531	298,583	798,937	12,709	224,559
72	CREOSOTE	Yes	1,000	260	0	1,260	15,081	565	500
37	CRESOL (MIXED ISOMERS)	No	47,849	353	1	48,203	9	84,568	0
65	CUMENE	No	3,133	0	17	3,150	9,271	2,027	0

Rank	Chemical	Carcinogen	Air	Water	Land	98Release	98Transfer	97Release	97Transfer
48	CYANIDE COMPOUNDS	No	0	0	16,000	16,000	17,568		
34	CYCLOHEXANE	No	61,672	489	85	62,246	591	103,359	1,800
103	DECABROMODIPHENYL OXIDE	No	0	0	0	0	13,926	0	16,088
74	DI(2-ETHYLHEXYL) PHTHALATE	No	1,008	0	0	1,008	750	853	45
62	DIBUTYL PHTHALATE	No	4,606	0	0	4,606	501	8,030	250
42	DICHLORODIFLUOROMETHANE	No	25,030	0	0	25,030	0	34,000	0
25	DICHLOROMETHANE	Yes	176,129	294	176	176,599	171,044	318,835	152,547
50	DIETHANOLAMINE	No	2,360	12,000	0	14,360	0	11,359	14,425
78	DIISOCYANATES	No	667	0	0	667	4,190	1,184	2,078
94	DIMETHYLAMINE	No	5	7	0	12	0	7	0
84	DIPHENYLAMINE	No	0	0	250	250	0	250	0
35	ETHYLBENZENE	No	49,976	0	588	50,564	8,067	69,696	17,981
38	ETHYLENE	No	41,347	0	0	41,347	0	49,791	0
53	ETHYLENE GLYCOL	No	6,332	2,422	146	8,900	1,431,255	19,078	113,579
24	FORMALDEHYDE	Yes	139,938	55,484	0	195,422	894	193,536	2,641
75	FORMIC ACID	No	1,000	0	0	1,000	0	1,000	0
29	FREON 113	No	117,250	0	0	117,250	18,905	142,000	20,102
15	GLYCOL ETHERS	No	595,294	5,300	5	600,599	55,669	548,196	56,176
7	HYDROCHLORIC ACID	No	1,266,047	0	0	1,266,047	60,302	1,087,121	7,624
2	HYDROGEN FLUORIDE	No	3,539,798	0	45	3,539,843	85,466	1,475,716	47,800
104	ISOPROPYL ALCOHOL (MANUFACTURING, ST	No	0	0	0	0	108,664		
69	LEAD	Yes	692	812	0	1,504	62,691	4,299	72,386
19	LEAD COMPOUNDS	Yes	2,487	8	328,331	330,826	484,735	3,968	514,986
76	LITHIUM CARBONATE	No	689	250	0	939	0	887	0
45	MANGANESE	No	3,130	99	15,005	18,234	304,788	1,764	650,938
9	MANGANESE COMPOUNDS	No	7,819	213,988	870,172	1,091,979	647,735	367,456	854,956
73	MERCURY COMPOUNDS	No	1,160	23	0	1,183	1,289	1,490	466
56	METHAM SODIUM	No	6,308	40	0	6,348	4,571	5,566	4,123
1	METHANOL	No	4,868,369	679,816	4,569	5,552,754	110,806	6,959,206	96,900
11	METHYL ETHYL KETONE	No	1,020,941	3,592	848	1,025,381	1,318,038	1,099,705	969,429
31	METHYL ISOBUTYL KETONE	No	93,818	0	0	93,818	110,128	72,863	40,304
47	METHYL METHACRYLATE	No	16,678	0	0	16,678	4,655	1,902	1,516
63	METHYL TERT-BUTYL ETHER	No	4,118	0	0	4,118	5,184	1,400	0
83	MOLYBDENUM TRIOXIDE	No	260	5	0	265	66,550	15	37,000
81	NA	No	325	0	0	325	14	29,420	25
61	NAPHTHALENE	No	4,097	0	761	4,858	270,004	5,349	2,195
16	N-BUTYL ALCOHOL	No	511,558	0	0	511,558	106,190	465,101	35,278
23	N-HEXANE	No	202,548	477	616	203,641	12,718	233,281	6,873
44	NICKEL	Yes	17,824	1,438	5	19,267	150,218	13,092	133,509

Rank	Chemical	Carcinogen	Air	Water	Land	98Release	98Transfer	97Release	97Transfer
27	NICKEL COMPOUNDS	Yes	1,871	1,778	137,977	141,626	126,988	7,222	37,462
3	NITRATE COMPOUNDS	No	536	2,053,584	286,816	2,340,936	637,896	1,236,052	3,812,773
58	NITRIC ACID	No	5,726	10	275	6,011	605,738	4,566	268,222
57	N-METHYL-2-PYRROLIDONE	No	6,145	0	0	6,145	250,373	19,000	224,000
77	PENTACHLOROPHENOL	Yes	510	250	0	760	1,250	500	500
70	PHENANTHRENE	No	1,281	1	0	1,282	1,657	5,021	471
28	PHENOL	No	122,782	2,615	278	125,675	8,181	192,002	15,173
89	PHOSPHORIC ACID	No	90	0	5	95	66,577	569	15,083
36	POLYCYCLIC AROMATIC COMPOUNDS	Yes	50,175	88	250	50,513	823,095	35,662	1,800,747
39	PROPYLENE	No	39,429	0	0	39,429	0	44,310	0
85	PROPYLENE OXIDE	Yes	250	0	0	250	0	250	0
82	QUINOLINE	No	309	1	0	310	539		
41	SEC-BUTYL ALCOHOL	No	34,300	0	0	34,300	22,272	40,200	37,388
98	SELENIUM COMPOUNDS	No	1	0	0	1	1	1	750
80	SODIUM AZIDE	No	255	0	250	505	4,931	411	1,965
87	SODIUM DIMETHYLDITHIOCARBAMATE	No	173	4	0	177	149	1,246	795
6	STYRENE	Yes	1,416,998	238	0	1,417,236	43,238	1,131,820	34,702
10	SULFURIC ACID	No	1,084,920	0	0	1,084,920	0	294,496	25
33	TETRACHLOROETHYLENE	Yes	62,253	0	0	62,253	63,536	24,906	102,810
12	TOLUENE	No	895,273	114	4,066	899,453	953,668	1,197,461	449,864
90	TRANS-1,3-DICHLOROPROPENE	No	70	0	0	70	0		
22	TRICHLOROETHYLENE	Yes	229,565	5	0	229,570	79,375	175,232	50,950
68	VINYL ACETATE	No	1,050	900	0	1,950	0	5,200	0
17	XYLENE (MIXED ISOMERS)	No	479,852	129	3,998	483,979	428,319	666,866	245,068
66	ZINC (FUME OR DUST)	No	2,040	500	0	2,540	95,982	5,409	132,519
14	ZINC COMPOUNDS	No	36,160	33,753	625,163	695,076	4,452,213	52,122	5,455,063
	Total		22,817,081	3,498,359	4,275,927	30,591,367	18,827,116		

TRI by Chemical, 1998 (in pounds)

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
ADAMS										
	MCCAIN FOODS INC	OTHELLO	AMMONIA	8,290	0	76,668	**84,958**	72,960	0	0
	NESTLE BRANDS CARNATION CO	OTHELLO	AMMONIA	5,400	0	0	**5,400**		26,000	
	Total for 'County' = ADAMS			*13,690*	*0*	*76,668*	***90,358***		*26,000*	
BENTON										
	LAMB-WESTON INC RICHLAND	RICHLAND	CHLORINE	0	0	0	**0**	0	0	0
			NITRATE COMPOUNDS	0	5,147	0	**5,147**	2,341	0	0
	Total			0	5,147	0	**5,147**		0	
	PENFORD FOODS CO	RICHLAND	PROPYLENE OXIDE	250	0	0	**250**	250	0	0
	RICHLAND SPECIALTY EXTRUSIONS	RICHLAND	COPPER	0	0	0	**0**	0	0	0
	SANDVIK SPECIAL METALS CORP	KENNEWICK	HYDROGEN FLUORIDE	255	0	45	**300**	255	0	0
			NITRATE COMPOUNDS	0	559,000	265	**559,265**	119,000	0	0
			NITRIC ACID	255	0	270	**525**	255	0	0
	Total			510	559,000	580	**560,090**		0	
	SIEMENS POWER CORP	RICHLAND	AMMONIA	42,300	0	0	**42,300**	5,400	750	750
			HYDROGEN FLUORIDE	250	0	0	**250**	250	250	40,850
			NITRATE COMPOUNDS	0	0	0	**0**	0	861,000	789,000
			NITRIC ACID	0	0	0	**0**	0	9,600	13,500
	Total			42,550	0	0	**42,550**		871,600	
	TESSENDERLO KERLEY INC	KENNEWICK	AMMONIA	2,212	0	937	**3,149**	2,070	19,449	4,986
			CARBON DISULFIDE	10	0	0	**10**	10	0	0
			METHAM SODIUM	2,171	0	0	**2,171**	1,573	300	60
	Total			4,393	0	937	**5,330**		19,749	
	UNOCAL AGRICULTURAL PRODUCTS HEDGES AREA	KENNEWICK	AMMONIA	8,820	125	14,600	**23,545**		0	
	UNOCAL AGRICULTURAL PRODUCTS BOWLES RD	KENNEWICK	AMMONIA	834,000	4,540	0	**838,540**	808,570	16,926	35,680

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
BENTON										
	UNOCAL AGRICULTURAL PRODUCTS BOWLES RD	KENNEWICK	NITRATE COMPOUNDS	255	28,024	114,186	**142,465**	179,305	521,900	1,097,350
			NITRIC ACID	0	5	5	**10**	10	0	0
			PHOSPHORIC ACID	0	0	5	**5**	5	0	0
	Total			834,255	32,569	114,196	**981,020**		538,826	
	UNOCAL AGRICULTURAL PRODUCTS GAME FARM RD	KENNEWICK	AMMONIA	45,995	3,970	1,780	**51,745**	98,240	0	0
			COPPER	0	0	0	**0**	5	15,100	0
			NICKEL	0	0	5	**5**	5	0	0
			NITRATE COMPOUNDS	0	0	850	**850**	0	0	0
			ZINC COMPOUNDS	0	0	0	**0**		21,200	
	Total			45,995	3,970	2,635	**52,600**		36,300	
	Total for 'County' = BENTON			*936,773*	*600,811*	*132,948*	***1,670,532***		*1,466,475*	
CHELAN										
	ALCOA WENATCHEE WORKS ALUMINUM CO	MALAGA	CARBONYL SULFIDE	395,390	0	0	**395,390**	211,838	0	0
			COPPER	1,388	0	0	**1,388**	1,516	181	277
			HYDROGEN FLUORIDE	94,028	0	0	**94,028**	115,112	0	0
			POLYCYCLIC AROMATIC COM	11,522	0	0	**11,522**	844	13,825	13,169
	Total			502,328	0	0	**502,328**		14,006	
	TREE TOP INC WENATCHEE	WENATCHEE	NITRATE COMPOUNDS	0	0	0	**0**	0	16,300	33,700
	Total for 'County' = CHELAN			*502,328*	*0*	*0*	***502,328***		*30,306*	
CLALLAM										
	ADMIRAL MARINE WORKS INC 18TH ST	PORT ANGEL	STYRENE	2,100	0	0	**2,100**	3,300	6,780	4,586
	DAISHOWA AMERICA CO LTD	PORT ANGEL	AMMONIA	250	28,000	0	**28,250**	37,250	0	0
			SULFURIC ACID	33,000	0	0	**33,000**	32,000	0	0
	Total			33,250	28,000	0	**61,250**		0	
	Total for 'County' = CLALLAM			*35,350*	*28,000*	*0*	***63,350***		*6,780*	
CLARK										
	ALLWEATHER WOOD TREATERS	WASHOUGAL	ARSENIC COMPOUNDS	0	13	0	**13**	8	624	322

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
CLARK										
	ALLWEATHER WOOD TREATERS	WASHOUGAL	CHROMIUM COMPOUNDS	0	14	0	**14**	24	499	266
			COPPER COMPOUNDS	0	5	0	**5**	10	250	133
	Total			0	32	0	**32**		1,373	
	AMERICA KOTOBUKI ELECTRONICS	VANCOUVER	ANTIMONY COMPOUNDS	0	0	0	**0**	0	52,378	5,746
			DECABROMODIPHENYL OXID	0	0	0	**0**	0	13,926	16,088
			METHANOL	15,509	0	0	**15,509**		0	
			METHYL ETHYL KETONE	17,166	0	0	**17,166**		0	
			N-BUTYL ALCOHOL	46,474	0	0	**46,474**	19,597	0	250
	Total			79,149	0	0	**79,149**		66,304	
	ASC TRIM	VANCOUVER	DIISOCYANATES	0	0	0	**0**	250	2,550	0
	ATTABAR INC	RIDGEFIELD	STYRENE	94,612	0	0	**94,612**	60,070	0	0
	AVX CORP	VANCOUVER	BARIUM COMPOUNDS	0	0	0	**0**	0	156,980	144,646
	CHRISTENSEN SHIPYARDS INC	VANCOUVER	STYRENE	13,068	0	0	**13,068**	7,996	0	0
	COLUMBIA MACHINE INC	VANCOUVER	MANGANESE	20	0	0	**20**	18	21,013	18,424
			NICKEL	5	0	0	**5**	5	9,281	8,137
	Total			25	0	0	**25**		30,294	
	CORROSION CONTROLLERS	WASHOUGAL	STYRENE	9,860	0	0	**9,860**	8,600	0	0
	DEWILS INDUSTRIES INC	VANCOUVER	METHYL ETHYL KETONE	10,026	0	0	**10,026**	12,503	0	0
	EXTERIOR WOOD INC	WASHOUGAL	ARSENIC COMPOUNDS	2	16	0	**18**	13	1,416	1,065
			CHROMIUM COMPOUNDS	2	13	0	**15**	33	1,272	836
			COPPER COMPOUNDS	2	10	0	**12**	18	820	615
	Total			6	39	0	**45**		3,508	
	HARDER MECHANICAL FABRICATION	VANCOUVER	CHROMIUM	250	0	0	**250**	250	0	0
			NICKEL	250	0	0	**250**	250	0	0
	Total			500	0	0	**500**		0	
	INTERNATIONAL COMPOSITES CORP 10TH AVE	VANCOUVER	STYRENE	4,525	0	0	**4,525**	5,071	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
CLARK										
	JAMES RIVER PAPER CO INC	CAMAS	ACETALDEHYDE	50,000	5,300	5	**55,305**	65,650	0	0
			AMMONIA	140,250	26,000	0	**166,250**	108,250	0	0
			CATECHOL	750	2,600	5	**3,355**	4,955	0	0
			CHLORINE	9,450	0	0	**9,450**	20,000	0	0
			CHLORINE DIOXIDE	1,705	0	0	**1,705**	15,600	0	0
			CHLOROFORM	119,000	1,800	5	**120,805**	159,250	0	0
			CHROMIUM COMPOUNDS	250	1,800	1,100	**3,150**	3,950	0	0
			CYCLOHEXANE	28,000	250	0	**28,250**	53,250	0	1,800
			DICHLOROMETHANE	10,300	250	0	**10,550**	7,250	250	0
			FORMALDEHYDE	26,200	750	0	**26,950**	23,005	0	0
			FORMIC ACID	0	0	0	**0**	0	0	0
			GLYCOL ETHERS	750	4,000	5	**4,755**	5,205	0	0
			HYDROCHLORIC ACID	3,600	0	0	**3,600**	8,600	0	0
			METHANOL	681,000	390,000	250	**1,071,250**	883,000	2,000	0
			METHYL ETHYL KETONE	12,100	1,500	5	**13,605**	11,605	0	0
			NITRIC ACID	0	0	0	**0**	0	0	0
			PHENOL	250	1,800	250	**2,300**	7,100	5,300	7,700
			SULFURIC ACID	39,000	0	0	**39,000**		0	
			TOLUENE	1,800	0	0	**1,800**		750	
	Total			1,124,405	436,050	1,625	**1,562,080**		8,300	
	LAVALLEY INDUSTRIES EQUIPMENT DIV	VANCOUVER	STYRENE	12,450	0	0	**12,450**	13,461	0	750
	LINEAR TECHNOLOGY CORP	CAMAS	HYDROGEN FLUORIDE	121	0	0	**121**		14,905	
			PHOSPHORIC ACID	13	0	0	**13**		0	
	Total			134	0	0	**134**		14,905	
	PACIFIC DIE CASTING CORP	VANCOUVER	COPPER	24	0	0	**24**		1,666	
	PENDLETON WOOLEN MILLS INC	WASHOUGAL	FORMIC ACID	0	0	0	**0**	0	0	0
	SEAFAB METALS CO	VANCOUVER	LEAD COMPOUNDS	1	0	0	**1**		0	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
CLARK										
	SEH AMERICA INC	VANCOUVER	AMMONIA	3,750	0	0	**3,750**	2,350	0	0
			DICHLOROMETHANE	25	0	0	**25**	4,700	14,147	135,350
			HYDROCHLORIC ACID	950	0	0	**950**	1,000	0	0
			HYDROGEN FLUORIDE	450	0	0	**450**	500	0	6,500
			NITRATE COMPOUNDS	0	0	0	**0**	0	1,099,000	1,509,000
			NITRIC ACID	1,550	0	0	**1,550**	370	0	1,900
	Total			6,725	0	0	**6,725**		1,113,147	
	TECHNAFLOW INC	VANCOUVER	CHROMIUM	0	0	0	**0**	0	28,545	32,675
			NICKEL	0	0	0	**0**	0	20,765	21,686
	Total			0	0	0	**0**		49,310	
	TESORO MARINE SERVICES CO	VANCOUVER	1,2,4-TRIMETHYLBENZENE	417	0	0	**417**		36	
			BENZENE	406	0	0	**406**		23	
			ETHYLBENZENE	142	0	0	**142**		23	
			N-HEXANE	1,956	0	0	**1,956**		102	
			TOLUENE	802	0	0	**802**		102	
			XYLENE (MIXED ISOMERS)	627	0	0	**627**		103	
	Total			4,350	0	0	**4,350**		389	
	THOMPSON METAL FAB INC	VANCOUVER	CHROMIUM	250	0	0	**250**	250	12,500	13,000
			NICKEL	250	0	0	**250**	250	4,700	5,800
	Total			500	0	0	**500**		17,200	
	UNIVERSAL STRUCTURAL INC VICTORY AVE	VANCOUVER	NICKEL	5	0	0	**5**	5	0	0
	VAN RICH CASTING VARICAST	VANCOUVER	MANGANESE	500	0	0	**500**	500	3,325	250
	VANALCO INC	VANCOUVER	CARBONYL SULFIDE	431,000	0	0	**431,000**	428,000	0	0
			COPPER	135	0	0	**135**	181	11,580	17,046
			HYDROGEN FLUORIDE	113,000	0	0	**113,000**	144,000	0	0
	Total			544,135	0	0	**544,135**		11,580	
	VININGS INDUSTRIES WASHOUGAL	WASHOUGAL	AMMONIA	248	0	0	**248**	41	0	38

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
CLARK										
	VININGS INDUSTRIES WASHOUGAL	WASHOUGAL	ARSENIC COMPOUNDS	1	0	0	**1**	1	0	158
			CARBON DISULFIDE	10,328	3	0	**10,331**	3,073	5	0
			CHROMIUM COMPOUNDS	1	0	0	**1**	1	0	211
			COPPER COMPOUNDS	1	0	0	**1**	1	0	109
			DIMETHYLAMINE	5	7	0	**12**	7	0	0
			GLYCOL ETHERS	1	0	0	**1**	3	0	0
			METHAM SODIUM	3,313	40	0	**3,353**	3,993	2,951	4,063
			SODIUM DIMETHYLDITHIOCA	173	4	0	**177**	111	149	0
	Total			14,071	54	0	**14,125**		3,105	
	WAFERTECH LLC	CAMAS	2,2-DICHLORO-1,1,1-TRIFLUO	5	0	0	**5**		0	
			HYDROGEN FLUORIDE	425	0	0	**425**		1,880	
			NITRIC ACID	5	0	0	**5**		1,327	
			N-METHYL-2-PYRROLIDONE	245	0	0	**245**		18,570	
			PHOSPHORIC ACID	14	0	0	**14**		2,800	
	Total			694	0	0	**694**		24,577	
	Total for 'County' = CLARK			*1,919,765*	*436,175*	*1,625*	***2,357,565***		*1,508,513*	
COWLITZ										
	ALL PURE CHEMICAL CO KALAMA	KALAMA	CHLORINE	9	0	0	**9**		0	
	B F GOODRICH KALAMA CHEMICAL INC	KALAMA	ACETALDEHYDE	490	0	0	**490**	7,290	0	0
			AMMONIA	4,140	140	780	**5,060**	3,380	810	0
			BENZENE	26,700	0	0	**26,700**	18,720	3,736	5,523
			BIPHENYL	2,150	0	0	**2,150**	4,640	3,468	3,624
			COBALT COMPOUNDS	110	90	1	**201**	1,070	9,773	10,331
			COPPER COMPOUNDS	720	25	4	**749**	1,006	187,875	183,493
			METHANOL	25,200	0	0	**25,200**	16,250	21	0
			PHENOL	7,800	1	0	**7,801**	10,736	1,705	5,613
			TOLUENE	86,000	0	0	**86,000**	130,830	705	1,490
	Total			153,310	256	785	**154,351**		208,093	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
COWLITZ										
	BHP COATED STEEL CORP	KALAMA	1,2,4-TRIMETHYLBENZENE	89	0	986	**1,075**		750	
			HYDROCHLORIC ACID	2,179	0	0	**2,179**	2,635	58,932	6,224
			METHYL ETHYL KETONE	61	0	819	**880**		750	
			NAPHTHALENE	54	0	651	**705**		750	
			XYLENE (MIXED ISOMERS)	50	0	651	**701**		750	
	Total			2,433	0	3,107	**5,540**		61,932	
	CLARIANT CORP	KALAMA	ZINC COMPOUNDS	2	0	0	**2**	2	0	0
	CYTEC INDUSTRIES INC	LONGVIEW	ACRYLAMIDE	27	0	0	**27**	42	222	250
			FORMALDEHYDE	75	0	0	**75**	94	562	893
	Total			102	0	0	**102**		784	
	FOSTER FARMS KELSO	KELSO	AMMONIA	15	0	0	**15**		0	
			CHLORINE	250	0	0	**250**		0	
	Total			265	0	0	**265**		0	
	LONGVIEW FIBRE CO LONGVIEW	LONGVIEW	ACETALDEHYDE	29,005	0	0	**29,005**	37,005	0	0
			AMMONIA	49,250	21,000	0	**70,250**	37,005	0	0
			BARIUM COMPOUNDS	0	0	0	**0**	0	21,600	25,500
			CATECHOL	0	250	0	**250**	250	0	0
			FORMALDEHYDE	10,005	5	0	**10,010**	11,010	0	0
			HYDROCHLORIC ACID	41,005	0	0	**41,005**	79,005	0	0
			MANGANESE COMPOUNDS	0	0	0	**0**	0	73,000	88,000
			METHANOL	376,100	0	0	**376,100**	397,200	0	0
			NITRATE COMPOUNDS	0	65,000	0	**65,000**	79,000	0	0
			NITRIC ACID	0	0	0	**0**	0	0	0
			PHENOL	2,805	150	0	**2,955**	3,965	0	0
			ZINC COMPOUNDS	0	0	0	**0**	0	77,000	101,000
	Total			508,170	86,405	0	**594,575**		171,600	
	PACIFIC COATING & LAMINATING KELSO	KELSO	DIISOCYANATES	0	0	0	**0**		286	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
COWLITZ										
REYNOLDS METALS CO	**LONGVIEW**	LONGVIEW	BIPHENYL	231	1	0	**232**		402	
			CHLORINE	1,338	1,649	0	**2,987**	2,851	0	0
			CHROMIUM	0	1	0	**1**	3	1,480	3,936
			COPPER	6	47	0	**53**	203	10,128	17,702
			HYDROGEN FLUORIDE	354,415	0	0	**354,415**	236,885	0	0
			LITHIUM CARBONATE	0	0	0	**0**	0	0	0
			MANGANESE	3	11	0	**14**	63	13,807	30,872
			PHENANTHRENE	1,281	1	0	**1,282**		1,657	
			POLYCYCLIC AROMATIC COM	29,049	86	0	**29,135**	23,868	807,020	1,785,728
			QUINOLINE	309	1	0	**310**		539	
	Total			386,632	1,797	0	**388,429**		835,033	
SOLVAY INTEROX	**LONGVIEW**	LONGVIEW	NAPHTHALENE	215	0	4	**219**	363	696	1,340
			NITRIC ACID	0	0	0	**0**	0	0	0
	Total			215	0	4	**219**		696	
WEYERHAEUSER CO	**LONGVIEW**	LONGVIEW	ACETALDEHYDE	468,003	2,141	0	**470,144**	543,206	0	0
			AMMONIA	97,730	9,637	0	**107,367**	120,167	0	0
			ASBESTOS (FRIABLE)	7	1	0	**8**	12	20,000	40,076
			BARIUM COMPOUNDS	471	6,884	0	**7,355**	7,466	45,863	50,737
			CATECHOL	0	92	0	**92**	92	0	0
			CHLORINE	5,332	10,025	0	**15,357**	12,559	0	0
			CHLORINE DIOXIDE	1,620	0	0	**1,620**	66,496	0	0
			CRESOL (MIXED ISOMERS)	15,079	279	0	**15,358**	46,023	0	0
			DICHLOROMETHANE	31,685	1	0	**31,686**	41,001	0	0
			FORMALDEHYDE	74,175	41,303	0	**115,478**	129,218	0	0
			HYDROCHLORIC ACID	42,124	0	0	**42,124**	41,734	0	0
			MANGANESE COMPOUNDS	1,108	43,919	0	**45,027**	55,529	51,659	226,952
			METHANOL	1,872,111	137,676	0	**2,009,787**	2,957,746	250	500
			METHYL ETHYL KETONE	169,780	1,843	0	**171,623**	177,743	927	2,050
			NITRATE COMPOUNDS	0	413	0	**413**	405	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
COWLITZ										
	WEYERHAEUSER CO LONGVIEW	LONGVIEW	PHENOL	82,102	134	0	**82,236**	140,502	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
			STYRENE	36,847	238	0	**37,085**	35,871	0	0
			SULFURIC ACID	53,649	0	0	**53,649**	78,522	0	0
			ZINC COMPOUNDS	1,781	16,980	0	**18,761**	1,884	30,372	29,305
	Total			2,953,604	271,566	0	**3,225,170**		149,071	
	Total for 'County' = COWLITZ			*4,004,742*	*360,024*	*3,896*	***4,368,662***		*1,427,495*	
Douglas										
	VAN DOREN SALES	EAST WENAT	CHROMIUM	9,823	0	0	**9,823**		8,907	
			NICKEL	11,585	0	0	**11,585**		9,847	
	Total			21,408	0	0	**21,408**		18,754	
	Total for 'County' = Douglas			*21,408*	*0*	*0*	***21,408***		*18,754*	
FERRY										
	ECHO BAY MINERALS CO KETTLE RIVER JOINT VENTURE	REPUBLIC	AMMONIA	27,005	0	39,005	**66,010**		0	
			COPPER COMPOUNDS	5	0	57,000	**57,005**		0	
			CYANIDE COMPOUNDS	0	0	16,000	**16,000**		23	
			LEAD COMPOUNDS	5	0	250,000	**250,005**		0	
			MANGANESE	15	0	15,005	**15,020**		4	
			NITRATE COMPOUNDS	10	0	170,005	**170,015**		0	
	Total			27,040	0	547,015	**574,055**		27	
	LAMEFOOD MINE	REPUBLIC	NITRATE COMPOUNDS	5	0	10	**15**		21,000	
	Total for 'County' = FERRY			*27,045*	*0*	*547,025*	***574,070***		*21,027*	
FRANKLIN										
	CHEVRON USA PASCO TERMINAL	PASCO	1,2,4-TRIMETHYLBENZENE	110	0	0	**110**		13	
			BENZENE	2,562	0	0	**2,562**		19	
			ETHYLBENZENE	259	0	0	**259**		7	
			METHYL TERT-BUTYL ETHER	465	0	0	**465**		62	
			N-HEXANE	5,046	0	0	**5,046**		7	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
FRANKLIN										
	CHEVRON USA PASCO TERMINAL	PASCO	TOLUENE	3,791	0	0	**3,791**		48	
			XYLENE (MIXED ISOMERS)	1,522	0	0	**1,522**		34	
	Total			13,755	0	0	**13,755**		190	
	LAMB-WESTON INC CONNELL	CONNELL	CHLORINE	0	0	0	**0**	0	0	0
			NITRATE COMPOUNDS	0	0	0	**0**	0	0	0
	Total			0	0	0	**0**		0	
	LAMB-WESTON INC PASCO PLANT	PASCO	AMMONIA	5,400	0	17,540	**22,940**		18,260	
			CHLORINE	0	0	0	**0**	0	0	0
			PHOSPHORIC ACID	0	0	0	**0**		0	
	Total			5,400	0	17,540	**22,940**		18,260	
	TIDEWATER TERMINAL CO TANK FARM RD	PASCO	1,2,4-TRIMETHYLBENZENE	163	0	694	**857**		1,150	
			1,3-DICHLOROPROPYLENE	145	0	0	**145**		0	
			AMMONIA	18,084	0	0	**18,084**		0	
			BENZENE	1,215	0	464	**1,679**		740	
			CHLOROPICRIN	4	0	0	**4**		0	
			ETHYLBENZENE	163	0	483	**646**		738	
			METHAM SODIUM	824	0	0	**824**		1,320	
			N-HEXANE	1,468	0	551	**2,019**		828	
			NITRATE COMPOUNDS	0	0	0	**0**		0	
			TOLUENE	1,633	0	2,140	**3,773**		3,318	
			TRANS-1,3-DICHLOROPROPE	70	0	0	**70**		0	
			XYLENE (MIXED ISOMERS)	816	0	2,731	**3,547**		3,298	
	Total			24,585	0	7,063	**31,648**		11,392	
	Total for 'County' = FRANKLIN			*43,740*	*0*	*24,603*	***68,343***		*29,842*	
GRANT										
	ADVANCED SILICON MATERIALS INC	MOSES LAKE	METHANOL	8	0	0	**8**		30,044	
			NITRIC ACID	55	0	0	**55**	43	0	0
			TOLUENE	8	0	0	**8**		54,573	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
GRANT										
	Total			71	0	0	**71**		84,617	
	INFLATION SYSTEMS INC	MOSES LAKE	SODIUM AZIDE	255	0	250	**505**	411	4,936	1,965
	Total for 'County' = GRANT			*326*	*0*	*250*	***576***		*89,553*	
GRAYS HARBOR										
	MORTON THIOKOL INTERNATIONAL	ELMA	METHANOL	91,919	0	0	**91,919**	110,678	17,500	16,020
	THE HOQUIAM BOAT SHOP INC	HOQUIAM	STYRENE	4,393	0	0	**4,393**	3,082	0	0
	WESTPORT SHIPYARD INC	WESTPORT	STYRENE	19,777	0	0	**19,777**	12,546	0	0
	WEYERHAEUSER CO COSMOPOLIS	COSMOPOLIS	ACETALDEHYDE	20,000	0	0	**20,000**	49,000	0	0
			AMMONIA	250	250	0	**500**	1,000	0	0
			CHLORINE	4,405	0	0	**4,405**	3,605	0	0
			CHLORINE DIOXIDE	2,505	0	0	**2,505**	1,005	0	0
			FORMIC ACID	0	0	0	**0**	0	0	0
			MANGANESE COMPOUNDS	250	64,000	23,000	**87,250**	76,450	23,000	3,200
			METHANOL	170,250	1,800	0	**172,050**	492,050	0	0
			NITRIC ACID	5	0	0	**5**	5	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	Total			197,665	66,050	23,000	**286,715**		23,000	
	Total for 'County' = GRAYS HARBOR			*313,754*	*66,050*	*23,000*	***402,804***		*40,500*	
JEFFERSON										
	PORT TOWNSEND PAPER CORP	PORT TOWNS	ACETALDEHYDE	6,300	1,300	0	**7,600**	7,600	0	0
			AMMONIA	43,250	5,100	0	**48,350**	46,150	0	0
			BARIUM COMPOUNDS	250	0	6,800	**7,050**	11,250	0	0
			CATECHOL	0	50	0	**50**	48	0	0
			HYDROCHLORIC ACID	220,000	0	0	**220,000**	250,000	0	0
			MANGANESE COMPOUNDS	750	0	35,000	**35,750**	35,750	0	0
			METHANOL	101,000	9,300	0	**110,300**	127,700	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	Total			371,550	15,750	41,800	**429,100**		0	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
JEFFERSON										
	Total for 'County' = JEFFERSON			*371,550*	*15,750*	*41,800*	***429,100***		*0*	
KING										
	ACE GALVANIZING INC 96TH ST	SEATTLE	ZINC COMPOUNDS	1,500	0	0	**1,500**	1,500	284,930	399,163
	ALASKAN COPPER WORKS	SEATTLE	CHROMIUM COMPOUNDS	15	0	0	**15**	15	13,813	9,152
			MANGANESE COMPOUNDS	5	0	0	**5**	5	583	400
			NICKEL COMPOUNDS	5	0	0	**5**	5	755	7,568
			NITRIC ACID	5	0	0	**5**	5	0	0
	Total			30	0	0	**30**		15,151	
	AMERICAN MILLW0RK INC	KIRKLAND	ETHYLBENZENE	11,000	0	0	**11,000**		0	
			METHYL ETHYL KETONE	115,000	0	0	**115,000**	78,005	0	0
			METHYL ISOBUTYL KETONE	15,000	0	0	**15,000**		0	
			TOLUENE	131,000	0	0	**131,000**	90,005	0	0
			XYLENE (MIXED ISOMERS)	63,000	0	0	**63,000**	49,005	0	0
	Total			335,000	0	0	**335,000**		0	
	AMERICAN NATIONAL CAN	KENT	GLYCOL ETHERS	138,057	0	0	**138,057**	142,087	875	838
			HYDROGEN FLUORIDE	22	0	0	**22**	20	0	0
			MANGANESE	0	0	0	**0**	0	192	48
			N-BUTYL ALCOHOL	109,148	0	0	**109,148**	114,195	270	259
	Total			247,227	0	0	**247,227**		1,337	
	ARCO PRODUCTS CO	SEATTLE	1,2,4-TRIMETHYLBENZENE	34	0	0	**34**		0	
			BENZENE	305	0	0	**305**		294	
			CUMENE	3	0	0	**3**		0	
			CYCLOHEXANE	722	0	0	**722**		0	
			ETHYLBENZENE	105	0	0	**105**		0	
			NAPHTHALENE	161	0	0	**161**		0	
			N-HEXANE	974	0	0	**974**		0	
			TOLUENE	1,039	0	0	**1,039**		57	
			XYLENE (MIXED ISOMERS)	517	0	0	**517**		74	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	Total			3,860	0	0	**3,860**		425	
ARIMA MARINE		AUBURN	STYRENE	8,078	0	0	**8,078**	7,364	0	0
ART BRASS PLATING INC		SEATTLE	TRICHLOROETHYLENE	15,550	0	0	**15,550**	14,380	750	750
ASKO PROCESSING INC		SEATTLE	NITRIC ACID	0	0	0	**0**		0	
			TRICHLOROETHYLENE	12,962	0	0	**12,962**	10,912	597	1,805
	Total			12,962	0	0	**12,962**		597	
BALL FOSTER GLASS CONTAINER CO LLC		SEATTLE	CHROMIUM COMPOUNDS	5	0	0	**5**	5	0	250
BALL METAL BEVERAGE CONTAINER CORP		KENT	GLYCOL ETHERS	204,000	0	0	**204,000**	173,800	250	245
			HYDROGEN FLUORIDE	89	0	0	**89**	83	0	0
			N-BUTYL ALCOHOL	135,000	0	0	**135,000**	131,101	100	101
			SULFURIC ACID	380	0	0	**380**	324	0	0
	Total			339,469	0	0	**339,469**		350	
BALLARD BRASS		SEATTLE	COPPER COMPOUNDS	0	0	0	**0**	0	5,148	3,821
BIRD-JOHNSON CO COOLIDGE PROPE		SEATTLE	CHROMIUM	250	0	0	**250**	250	2,100	6,050
			NICKEL	250	0	0	**250**		750	
	Total			500	0	0	**500**		2,850	
BIRMINGHAM STEEL CORP		SEATTLE	LEAD COMPOUNDS	1,436	0	0	**1,436**	2,038	241,886	418,113
			MANGANESE COMPOUNDS	2,454	0	0	**2,454**	2,157	413,483	442,623
			NICKEL COMPOUNDS	19	0	0	**19**	17	3,272	3,504
			ZINC COMPOUNDS	22,334	0	0	**22,334**	19,635	3,763,173	4,028,392
	Total			26,243	0	0	**26,243**		4,421,814	
BOEING CAG FABRICATION DIV AUBURN		AUBURN	CHROMIUM COMPOUNDS	66	0	0	**66**	250	132,172	104,901
			COPPER	0	0	0	**0**	30	737,185	425,790
			HYDROGEN FLUORIDE	0	0	0	**0**	31	211	200
			METHYL ETHYL KETONE	35,000	0	0	**35,000**	800	11,396	59,653
			METHYL ISOBUTYL KETONE	5,800	0	0	**5,800**		5,925	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	BOEING CAG FABRICATION DIV AUBURN	AUBURN	NICKEL	0	0	0	**0**	3	37,352	35,278
			NITRIC ACID	0	0	0	**0**	150	39,108	32,072
			SEC-BUTYL ALCOHOL	9,900	0	0	**9,900**	15,800	5,625	28,906
			TETRACHLOROETHYLENE	15,100	0	0	**15,100**		10,052	
			TOLUENE	8,010	0	0	**8,010**	24,200	19,097	11,420
	Total			73,876	0	0	**73,876**		998,123	
	BOEING D&SG KENT	KENT	AMMONIA	2,720	0	0	**2,720**		9,304	
			CHROMIUM	0	0	0	**0**	0	6,335	8,200
			COBALT	0	0	0	**0**	0	5,172	6,029
			COPPER	30	0	0	**30**	255	20,259	14,746
			ETHYLENE GLYCOL	16	0	0	**16**		7,300	
			MANGANESE	0	0	0	**0**	0	2,796	4,233
			NICKEL	1	0	0	**1**	5	18,790	21,338
			NITRATE COMPOUNDS	0	0	0	**0**	0	80,200	79,000
			NITRIC ACID	130	0	0	**130**	140	3,128	11,243
	Total			2,897	0	0	**2,897**		153,284	
	BOEING NORTHERN BOEING FIELD	SEATTLE	FREON 113	13,000	0	0	**13,000**		2,000	
			GLYCOL ETHERS	3,050	0	0	**3,050**	1,000	26,750	9,700
			METHYL ETHYL KETONE	31,250	0	0	**31,250**	23,250	17,950	13,250
			METHYL ISOBUTYL KETONE	3,250	0	0	**3,250**		8,850	
			NAPHTHALENE	250	0	0	**250**	250	250	250
	Total			50,800	0	0	**50,800**		55,800	
	BOEING PLANT 2	SEATTLE	FREON 113	250	0	0	**250**		750	
			GLYCOL ETHERS	10	0	0	**10**	255	250	250
			METHYL ETHYL KETONE	1,850	0	0	**1,850**	4,850	1,750	1,250
			METHYL ISOBUTYL KETONE	1,000	0	0	**1,000**		1,250	
			NAPHTHALENE	250	0	0	**250**	250	0	0
	Total			3,360	0	0	**3,360**		4,000	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	BOEING RENTON	RENTON	CHROMIUM	5	0	0	**5**		5,855	
			COPPER	0	0	0	**0**	0	57,755	65,305
			FREON 113	20,000	0	0	**20,000**	70,000	2,900	4,950
			GLYCOL ETHERS	1,000	0	0	**1,000**	2,550	7,750	9,750
			MANGANESE	5	5	0	**10**	10	20,250	23,005
			MANGANESE COMPOUNDS	0	0	0	**0**	0	6,250	15,850
			METHYL ETHYL KETONE	43,000	0	0	**43,000**	92,000	15,400	33,800
			METHYL ISOBUTYL KETONE	20,600	0	0	**20,600**	15,450	5,950	1,005
			NAPHTHALENE	5	0	0	**5**		0	
			TOLUENE	53,000	0	0	**53,000**	45,300	19,050	22,350
	Total			137,615	5	0	**137,620**		141,160	
	BORDEN PACKAGING AND INDUSTRIAL	KENT	FORMALDEHYDE	1,740	0	0	**1,740**	1,828	750	750
			METHANOL	3,683	0	0	**3,683**	0	250	250
			PHENOL	255	0	0	**255**	255	750	750
	Total			5,678	0	0	**5,678**		1,750	
	BURLINGTON ENVIRONMENTAL GEORGETOWN	SEATTLE	1,2-DICHLOROETHANE	0	0	0	**0**		40,987	
			ASBESTOS (FRIABLE)	0	0	0	**0**		14,668	
			BENZENE	0	0	0	**0**		82,012	
			BUTYL ACRYLATE	0	0	0	**0**		40,988	
			CARBON TETRACHLORIDE	0	0	0	**0**		34,137	
			CYANIDE COMPOUNDS	0	0	0	**0**		17,545	
			DICHLOROMETHANE	0	0	0	**0**		88,267	
			ETHYLENE GLYCOL	0	0	0	**0**		728,678	
			ISOPROPYL ALCOHOL (MANU	0	0	0	**0**		84,311	
			LEAD COMPOUNDS	0	0	0	**0**		17,095	
			METHYL ETHYL KETONE	0	0	0	**0**		163,947	
			METHYL ISOBUTYL KETONE	0	0	0	**0**		40,987	
			NAPHTHALENE	0	0	0	**0**		204,933	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	BURLINGTON ENVIRONMENTAL GEORGETOWN	SEATTLE	N-BUTYL ALCOHOL	0	0	0	**0**		74,974	
			N-METHYL-2-PYRROLIDONE	0	0	0	**0**		22,843	
			TOLUENE	0	0	0	**0**		288,351	
			TRICHLOROETHYLENE	0	0	0	**0**		31,895	
			XYLENE (MIXED ISOMERS)	0	0	0	**0**		189,458	
			ZINC COMPOUNDS	0	0	0	**0**		20,541	
	Total			0	0	0	**0**		2,186,617	
	BURLINGTON ENVIRONMENTAL KENT	KENT	ASBESTOS (FRIABLE)	0	0	0	**0**		363,787	
			ETHYLENE GLYCOL	0	0	0	**0**		617,196	
			LEAD COMPOUNDS	0	0	0	**0**		174,187	
	Total			0	0	0	**0**		1,155,170	
	CAMBRIDGE INDUSTRIES AUBURN	AUBURN	METHYL METHACRYLATE	15,678	0	0	**15,678**	902	4,388	1,181
			STYRENE	114,497	0	0	**114,497**	62,499	19,252	2,169
	Total			130,175	0	0	**130,175**		23,640	
	CAPITAL INDUSTRIES INC	SEATTLE	METHYL ISOBUTYL KETONE	12,999	0	0	**12,999**	12,919	169	157
			XYLENE (MIXED ISOMERS)	11,675	0	0	**11,675**	12,953	152	155
	Total			24,674	0	0	**24,674**		321	
	CHEMCENTRAL SEATTLE	KENT	METHYL ETHYL KETONE	645	0	0	**645**		0	
			TOLUENE	575	0	0	**575**		0	
			XYLENE (MIXED ISOMERS)	2,220	0	0	**2,220**		0	
	Total			3,440	0	0	**3,440**		0	
	CHEVRON USA RICHMOND BEACH ASPHALT REFINERY	SEATTLE	BENZENE	508	239	0	**747**	578	0	0
			CYCLOHEXANE	1,017	239	0	**1,256**	1,119	0	0
			ETHYLBENZENE	865	0	0	**865**	0	0	0
			N-HEXANE	4,623	477	0	**5,100**	3,143	0	0
			TOLUENE	2,243	69	0	**2,312**	1,295	0	0
			XYLENE (MIXED ISOMERS)	961	84	0	**1,045**	684	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	Total			10,217	1,108	0	**11,325**		0	
CIRCUIT SERVICES INC		BELLEVUE	COPPER	1	0	0	**1**	1	41,776	47,193
			NITRATE COMPOUNDS	1	0	0	**1**	1	4,546	5,421
	Total			2	0	0	**2**		46,322	
CIRCUITS ENGINEERING INC		BOTHELL	COPPER	0	0	0	**0**	0	45,095	7,751
COATINGS UNLIMITED INC		KENT	METHYL ETHYL KETONE	2,852	0	0	**2,852**	2,041	1,368	17,723
COLOR TECH DIV OF ASKO PROCESS		SEATTLE	METHYL ETHYL KETONE	10,004	0	0	**10,004**	8,037	16,458	0
DANIEL BOONE PAINT CO		TUKWILA	METHANOL	274	0	0	**274**	968	1,227	900
			TOLUENE	329	0	0	**329**	620	4,090	3,000
			XYLENE (MIXED ISOMERS)	311	0	0	**311**	750	4,090	3,000
	Total			914	0	0	**914**		9,407	
DARIGOLD INC ISSAQUAH		ISSAQUAH	NITRATE COMPOUNDS	0	0	0	**0**		18,401	
			NITRIC ACID	0	0	0	**0**	0	381	1,602
			PHOSPHORIC ACID	0	0	0	**0**	0	422	2,116
	Total			0	0	0	**0**		19,204	
DARIGOLD INC SEATTLE RAINIER		SEATTLE	AMMONIA	4,577	0	0	**4,577**	17,510	4,119	0
DAVIS WIRE CORP		KENT	LEAD	0	0	0	**0**	0	490	564
DUWAMISH SHIPYARD INC		SEATTLE	COPPER COMPOUNDS	0	42	0	**42**	30	1,514	1,870
DYNO BATTERY CO		SEATTLE	LEAD	27	0	0	**27**	19	0	0
			SULFURIC ACID	168	0	0	**168**	120	0	0
	Total			195	0	0	**195**		0	
EQUILON ENTERPRISES SEATTLE SALES TEAM		SEATTLE	1,2,4-TRIMETHYLBENZENE	500	0	0	**500**		250	
			BENZENE	500	0	0	**500**		250	
			ETHYLBENZENE	500	0	0	**500**		250	
			ETHYLBENZENE	3	0	0	**3**		0	
			N-HEXANE	1,000	0	0	**1,000**		250	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	EQUILON ENTERPRISES SEATTLE SALES TEAM	SEATTLE	TOLUENE	1,000	0	0	**1,000**		500	
			XYLENE (MIXED ISOMERS)	500	0	0	**500**		500	
			XYLENE (MIXED ISOMERS)	11	0	0	**11**		0	
			ZINC COMPOUNDS	0	5	0	**5**		0	
	Total			4,014	5	0	**4,019**		2,000	
	EXOTIC METALS FORMING CO	KENT	NITRIC ACID	250	0	0	**250**	250	17,000	11,900
	FISHER MILLS INC	SEATTLE	CHLORINE	0	0	0	**0**	0	0	0
	FOAMEX LP KENT DIVISION	KENT	DICHLOROMETHANE	40,501	0	0	**40,501**	156,863	0	0
			DIISOCYANATES	586	0	0	**586**	134	0	0
	Total			41,087	0	0	**41,087**		0	
	FORMULA CORP 2ND AVE	SEATTLE	GLYCOL ETHERS	750	0	0	**750**	750	750	750
			PHOSPHORIC ACID	5	0	0	**5**	5	250	750
	Total			755	0	0	**755**		1,000	
	GACO WESTERN INC	TUKWILA	METHYL ISOBUTYL KETONE	798	0	0	**798**	331	1,000	750
			TETRACHLOROETHYLENE	467	0	0	**467**		0	
			XYLENE (MIXED ISOMERS)	2,915	0	0	**2,915**	2,857	500	750
	Total			4,180	0	0	**4,180**		1,500	
	GREAT WESTERN CHEMICAL CO SEATTLE	SEATTLE	METHANOL	250	0	0	**250**		500	
			PHOSPHORIC ACID	5	0	0	**5**		750	
	Total			255	0	0	**255**		1,250	
	HAWORTH INC LUNSTEAD OPS	KENT	METHANOL	12,176	0	0	**12,176**	13,432	3,426	2,460
			TOLUENE	13,201	0	0	**13,201**	14,488	3,715	2,654
	Total			25,377	0	0	**25,377**		7,141	
	HEATH TECHNA AEROSPACE CO KENT	KENT	METHYL ETHYL KETONE	20,184	0	0	**20,184**		7,112	
	HEXCEL CORP CRTM	KENT	STYRENE	2,420	0	0	**2,420**	2,700	1,400	1,853
	HUSSMANN CORP FIRST AVE	SEATTLE	1,1-DICHLORO-1-FLUOROETH	1,472	0	0	**1,472**	1,496	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	HUSSMANN CORP FIRST AVE	SEATTLE	DIISOCYANATES	0	0	0	**0**	0	0	0
	Total			1,472	0	0	**1,472**		0	
	HYTEK FINISHES CO 216TH	KENT	METHYL ETHYL KETONE	12,236	0	0	**12,236**	14,874	2,431	2,672
			NITRIC ACID	10	0	0	**10**	10	0	0
	Total			12,246	0	0	**12,246**		2,431	
	INDUSTRIAL PLATING CORP	SEATTLE	ZINC COMPOUNDS	271	0	0	**271**		2,141	
	J B J INC DBA LIFESTYLES	WOODINVILL	STYRENE	7,914	0	0	**7,914**	7,518	0	0
	JOHNS MANVILLE	KENT	1,1-DICHLORO-1-FLUOROETH	35,929	0	0	**35,929**	33,492	5,123	5,319
			CHLORODIFLUOROMETHANE	5,007	0	0	**5,007**	4,763	325	236
			DIISOCYANATES	76	0	0	**76**	45	139	128
	Total			41,012	0	0	**41,012**		5,587	
	JORGENSEN FORGE CORP	SEATTLE	CHROMIUM	0	0	0	**0**	0	42,000	146,082
			LEAD	0	0	0	**0**	0	1,000	1,964
			MANGANESE	0	0	0	**0**	0	197,000	463,168
			NICKEL	0	0	0	**0**	0	1,000	3,800
			ZINC (FUME OR DUST)	0	0	0	**0**	0	2,000	3,928
	Total			0	0	0	**0**		243,000	
	K-2 CORP	VASHON	DIISOCYANATES	0	0	0	**0**	750	515	1,250
			XYLENE (MIXED ISOMERS)	7,502	0	0	**7,502**	18,616	15,983	23,919
	Total			7,502	0	0	**7,502**		16,498	
	KENWORTH TRUCK CO	TUKWILA	ETHYLENE GLYCOL	13	0	0	**13**		600	
			METHYL ETHYL KETONE	18,350	0	0	**18,350**	6,890	31,050	3,773
			TOLUENE	21,325	0	0	**21,325**	9,110	35,000	3,760
	Total			39,688	0	0	**39,688**		66,650	
	KENWORTH TRUCK CO RENTON	RENTON	ETHYLENE GLYCOL	86	0	0	**86**	81	15,000	23,000
			GLYCOL ETHERS	12,690	0	0	**12,690**	10,150	4,200	3,300
			METHYL ETHYL KETONE	45,300	0	0	**45,300**	41,900	48,000	12,000

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	KENWORTH TRUCK CO RENTON	RENTON	TOLUENE	56,000	0	0	**56,000**	51,600	54,000	14,000
			XYLENE (MIXED ISOMERS)	22,200	0	0	**22,200**	17,500	6,600	5,200
	Total			136,276	0	0	**136,276**		127,800	
	LILLY INDUSTRIES	SEATTLE	ETHYLBENZENE	221	0	0	**221**	271	853	5,044
			GLYCOL ETHERS	549	0	0	**549**	857	2,194	0
			METHANOL	1,249	0	0	**1,249**	1,861	0	0
			N-BUTYL ALCOHOL	1,596	0	0	**1,596**	1,311	3,169	7,122
			TOLUENE	2,523	0	0	**2,523**	5,702	6,337	17,801
			XYLENE (MIXED ISOMERS)	3,333	0	0	**3,333**	4,063	4,022	24,625
	Total			9,471	0	0	**9,471**		16,575	
	MIKRON INDUSTRIES INC	KENT	DICHLOROMETHANE	16,600	0	0	**16,600**	15,120	33,300	4,100
	MODINE WESTERN	SEATTLE	COPPER	1	0	0	**1**	1	40,330	26,514
	MUTUAL MATERIALS CO NEWCASTLE BRICK PLANT	RENTON	HYDROGEN FLUORIDE	58,652	0	0	**58,652**	68,450	0	0
	NONFERROUS METALS INC	SEATTLE	LEAD	255	0	0	**255**	18	0	0
	NORTHLAKE CABINET CORP	WOODINVILL	TOLUENE	25,429	0	0	**25,429**	39,510	0	2,452
	PACIFIC CIRCUITS INC REDMOND	REDMOND	AMMONIA	1,812	0	0	**1,812**	8,217	90,631	107,725
			COPPER	0	0	0	**0**	0	18,195	1,195
			FORMALDEHYDE	3,593	0	0	**3,593**	750	250	5
	Total			5,405	0	0	**5,405**		109,076	
	PACIFIC COCA-COLA BOTTLING BELLEVUE	BELLEVUE	PHOSPHORIC ACID	0	0	0	**0**	0	818	968
	PRAEGITZER INDUSTRIES	REDMOND	AMMONIA	1,753	0	0	**1,753**	4,675	122,765	33,902
			COPPER	5	0	255	**260**	5	1,250	197
			NITRIC ACID	10	0	0	**10**	10	0	0
	Total			1,768	0	255	**2,023**		124,015	
	PROTECTIVE COATINGS INC	KENT	METHYL ETHYL KETONE	13,350	5	0	**13,355**	13,010	16,405	5,005
			NITRIC ACID	1,000	5	0	**1,005**	1,005	5	5

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	PROTECTIVE COATINGS INC	KENT	TOLUENE	1,000	5	0	**1,005**	5,875	5	5
			TRICHLOROETHYLENE	16,700	5	0	**16,705**	17,055	9,105	9,805
			XYLENE (MIXED ISOMERS)	500	5	0	**505**	4,215	5	5
	Total			32,550	25	0	**32,575**		25,525	
	PUGET SOUND COATINGS INC	SEATTLE	METHYL ETHYL KETONE	18,004	0	0	**18,004**	18,004	500	500
			XYLENE (MIXED ISOMERS)	21,769	0	0	**21,769**	21,769	500	500
	Total			39,773	0	0	**39,773**		1,000	
	RAINIER BREWING CO	SEATTLE	PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	RED DOT CORP	SEATTLE	TRICHLOROETHYLENE	32,340	0	0	**32,340**	38,000	250	750
	REYNOLDS CORP	LYNNWOOD	STYRENE	2,856	0	0	**2,856**	2,572	0	0
	ROMAC INDUSTRIES INC	SEATTLE	CHROMIUM	1	0	0	**1**	1	250	41
			MANGANESE	4	0	0	**4**	10	0	0
			NICKEL	4	0	0	**4**	4	69	20
	Total			9	0	0	**9**		319	
	RUDD COMPANY INC	SEATTLE	DI(2-ETHYLHEXYL) PHTHALAT	630	0	0	**630**	730	0	40
			ETHYLBENZENE	630	0	0	**630**	630	500	4,070
			GLYCOL ETHERS	1,350	0	0	**1,350**	1,350	170	250
			METHANOL	1,500	0	0	**1,500**	1,400	0	520
			METHYL ETHYL KETONE	2,200	0	0	**2,200**	2,260	130	180
			METHYL ISOBUTYL KETONE	5,000	0	0	**5,000**	4,430	240	10,300
			N-BUTYL ALCOHOL	3,700	0	0	**3,700**	3,560	500	470
			TOLUENE	7,600	0	0	**7,600**	7,480	23,200	13,170
			XYLENE (MIXED ISOMERS)	4,700	0	0	**4,700**	4,500	5,000	16,370
	Total			27,310	0	0	**27,310**		29,740	
	SCOTT GALVINIZING CO INC	SEATTLE	ZINC COMPOUNDS	0	0	0	**0**	0	175,750	876,450
	SEAFAB METALS CORP	SEATTLE	LEAD COMPOUNDS	756	0	0	**756**	1,424	6	32
	SPECTRUM-GLASS CO	WOODINVILL	CADMIUM COMPOUNDS	22	0	0	**22**		67	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	SPECTRUM-GLASS CO	WOODINVILL	CHROMIUM COMPOUNDS	13	0	0	**13**		13	
			MANGANESE COMPOUNDS	36	0	0	**36**		20	
			ZINC COMPOUNDS	286	0	0	**286**		200	
	Total			357	0	0	**357**		300	
	TEMPRESS INC	SEATTLE	DICHLOROMETHANE	10,250	0	0	**10,250**	14,294	5,170	8,409
			DIISOCYANATES	0	0	0	**0**	0	0	0
	Total			10,250	0	0	**10,250**		5,170	
	TODD PACIFIC SHIPYARDS CORP	SEATTLE	COPPER COMPOUNDS	1,078	500	0	**1,578**	410	1,890	1,644
			N-BUTYL ALCOHOL	22,246	0	0	**22,246**	14,193	4,906	3,437
			XYLENE (MIXED ISOMERS)	12,237	0	0	**12,237**	8,862	4,840	2,148
			ZINC (FUME OR DUST)	238	500	0	**738**	94	1,194	3,771
	Total			35,799	1,000	0	**36,799**		12,830	
	TOSCO NORTHWEST CO RENTON TERMINAL	RENTON	1,2,4-TRIMETHYLBENZENE	1,210	0	0	**1,210**		200	
			BENZENE	1,311	0	0	**1,311**		218	
			CYCLOHEXANE	938	0	0	**938**		161	
			ETHYLBENZENE	1,210	0	0	**1,210**		200	
			NAPHTHALENE	33	0	0	**33**		10	
			N-HEXANE	1,916	0	0	**1,916**		329	
			TOLUENE	2,118	0	0	**2,118**		369	
			XYLENE (MIXED ISOMERS)	3,328	0	0	**3,328**		564	
	Total			12,064	0	0	**12,064**		2,051	
	UNIVERSAL MFG INC	WOODINVILL	COPPER	2	0	0	**2**	10	1,309	7,600
			NITRATE COMPOUNDS	255	0	0	**255**		7,117	
	Total			257	0	0	**257**		8,426	
	VAN WATERS & ROGERS INC KENT	KENT	DI(2-ETHYLHEXYL) PHTHALAT	255	0	0	**255**		750	
			ETHYLENE GLYCOL	255	0	0	**255**		2,315	
			METHANOL	1,000	0	0	**1,000**		750	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KING										
	VAN WATERS & ROGERS INC KENT	KENT	METHYL ETHYL KETONE	1,265	0	0	**1,265**		1,250	
			PHOSPHORIC ACID	10	0	0	**10**		3,656	
			XYLENE (MIXED ISOMERS)	1,265	0	0	**1,265**		3,073	
	Total			4,050	0	0	**4,050**		11,794	
	VIOX CORP (NUCLEAR PACIFIC)	SEATTLE	LEAD COMPOUNDS	134	0	0	**134**	277	28,288	45,141
	WASSER HIGH TECH COATINGS INC	KENT	METHYL ISOBUTYL KETONE	71	0	0	**71**	2,082	564	1,200
			XYLENE (MIXED ISOMERS)	3,400	0	0	**3,400**	1,460	17,639	1,200
			ZINC (FUME OR DUST)	1,052	0	0	**1,052**	4,565	564	1,000
	Total			4,523	0	0	**4,523**		18,767	
	WESCOR GRAPHICS CORP	SEATTLE	N-BUTYL ALCOHOL	1,508	0	0	**1,508**	0	3,341	7,574
			TETRACHLOROETHYLENE	17,059	0	0	**17,059**	0	37,783	85,656
	Total			18,567	0	0	**18,567**		41,124	
	WESTERN PNEUMATIC TUBE CO	KIRKLAND	HYDROGEN FLUORIDE	0	0	0	**0**	0	0	0
			NITRIC ACID	0	0	0	**0**	0	0	0
			TRICHLOROETHYLENE	44,633	0	0	**44,633**	53,206	5,623	30,839
	Total			44,633	0	0	**44,633**		5,623	
	Total for 'County' = KING			*2,180,412*	*2,185*	*255*	***2,182,852***		*10,790,781*	
KITSAP										
	USNAV PUGET SOUND NAVAL SHIPYARD	BREMERTON	CHROMIUM	3,351	88	0	**3,439**	1,750	2,678	3,755
			COPPER	1,651	737	0	**2,388**	8,050	5,421	8,905
			COPPER COMPOUNDS	16,753	737	0	**17,490**	10,900	10,022	14,355
			LEAD	150	812	0	**962**	4,000	24,159	34,705
			MANGANESE	1,745	73	0	**1,818**		2,699	
			N-BUTYL ALCOHOL	28,395	0	0	**28,395**	26,300	18,930	13,200
			NICKEL	4,925	1,188	0	**6,113**	12,300	12,415	21,050
			XYLENE (MIXED ISOMERS)	19,350	1	0	**19,351**	16,320	12,903	8,455
			ZINC COMPOUNDS	7,117	2,944	0	**10,061**	24,300	20,336	16,600
	Total			83,437	6,580	0	**90,017**		109,563	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
KITSAP										
	Total for 'County' = KITSAP			*83,437*	*6,580*	*0*	***90,017***		*109,563*	
KLICKITAT										
COLUMBIA ALUMINUM		GOLDENDALE	CARBONYL SULFIDE	93,000	0	0	**93,000**	96,000	0	0
			HYDROGEN FLUORIDE	51,600	0	0	**51,600**	36,400	0	0
	Total			144,600	0	0	**144,600**		0	
	Total for 'County' = KLICKITAT			*144,600*	*0*	*0*	***144,600***		*0*	
LEWIS										
DARIGOLD INC CHEHALIS		CHEHALIS	NITRATE COMPOUNDS	0	0	0	**0**	0	0	0
			NITRIC ACID	0	0	0	**0**	0	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	Total			0	0	0	**0**		0	
FOSECO INC CHEHALIS		CHEHALIS	ALUMINUM (FUME OR DUST)	564	0	0	**564**	574	4	12
			COPPER	21	0	0	**21**		0	
	Total			585	0	0	**585**		4	
PACIFICORP CENTRALIA THERMAL PLANT		CENTRALIA	ARSENIC COMPOUNDS	60	16	19,930	**20,006**		158	
			BARIUM COMPOUNDS	921	503	1,234,249	**1,235,673**		32,570	
			CHLORINE	10	0	0	**10**		0	
			CHROMIUM COMPOUNDS	60	3	155,736	**155,799**		2,485	
			COBALT COMPOUNDS	160	19	115,183	**115,362**		2,714	
			COPPER COMPOUNDS	146	18	221,527	**221,691**		8,446	
			HYDROCHLORIC ACID	244,222	0	0	**244,222**		0	
			HYDROGEN FLUORIDE	645,368	0	0	**645,368**		0	
			LEAD COMPOUNDS	106	8	78,330	**78,444**		1,581	
			MANGANESE COMPOUNDS	357	109	777,220	**777,686**		8,066	
			NICKEL COMPOUNDS	23	38	137,844	**137,905**		3,199	
			SULFURIC ACID	173,239	0	0	**173,239**		0	
			ZINC COMPOUNDS	2	24	624,912	**624,938**		28,852	
	Total			1,064,674	738	3,364,931	**4,430,343**		88,071	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
LEWIS										
	QUALI-CAST FOUNDRY INC	CHEHALIS	CHROMIUM	250	0	0	**250**	250	250	0
			MANGANESE	5	0	0	**5**	5	250	0
			MOLYBDENUM TRIOXIDE	5	0	0	**5**	5	250	0
			NICKEL	250	0	0	**250**	5	250	0
	Total			510	0	0	**510**		1,000	
	Total for 'County' = LEWIS			*1,065,769*	*738*	*3,364,931*	***4,431,438***		*89,075*	
PEND OREILLE										
	PONDERAY NEWSPRINT CO	USK	AMMONIA	0	750	0	**750**	550	0	0
			NITRATE COMPOUNDS	0	281,000	0	**281,000**	130,000	0	0
	Total			0	281,750	0	**281,750**		0	
	Total for 'County' = PEND OREILLE			*0*	*281,750*	*0*	***281,750***		*0*	
PIERCE										
	ABITIBI CONSOLIDATED CORP W TACOMA	STEILACOOM	METHANOL	16,190	0	0	**16,190**	15,790	0	0
	AGRILINK FOODS INC	TACOMA	AMMONIA	0	0	0	**0**	0	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	Total			0	0	0	**0**		0	
	AMERICAN REINFORCED PLASTICS	TACOMA	STYRENE	16,978	0	0	**16,978**	12,773	5	5
	ATLAS FOUNDRY & MACHINE	TACOMA	CHROMIUM	255	0	0	**255**	255	9,105	12,000
			COPPER	10	250	0	**260**	10	755	750
			MANGANESE	255	5	0	**260**	10	1,305	1,400
			MOLYBDENUM TRIOXIDE	255	5	0	**260**	10	1,305	1,600
			NICKEL	255	250	0	**505**	255	4,005	6,300
	Total			1,030	510	0	**1,540**		16,475	
	BEATRICE CHEESE INC	SUMNER	NITRIC ACID	0	0	0	**0**	0	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	Total			0	0	0	**0**		0	
	BOEING FREDRICKSON	PUYALLUP	COPPER	0	0	0	**0**	0	183,230	102,442

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
PIERCE										
	BOEING FREDRICKSON	PUYALLUP	HYDROGEN FLUORIDE	0	0	0	**0**		10,026	
			NITRIC ACID	0	0	0	**0**	44	358,812	150,000
			TOLUENE	14,330	0	0	**14,330**	22,670	1,851	589
		Total		14,330	0	0	**14,330**		553,919	
	BURLINGTON ENVIRONMENTAL TACOMA	TACOMA	1,2-DICHLOROETHANE	0	0	0	**0**		12,177	
			BENZENE	0	0	0	**0**		31,830	
			BUTYL ACRYLATE	0	0	0	**0**		12,177	
			CHROMIUM COMPOUNDS	0	0	0	**0**		46,597	
			DICHLOROMETHANE	0	0	0	**0**		27,380	
			HYDROGEN FLUORIDE	0	0	0	**0**		60,599	
			ISOPROPYL ALCOHOL (MANU	0	0	0	**0**		24,353	
			METHYL ETHYL KETONE	0	0	0	**0**		52,654	
			METHYL ISOBUTYL KETONE	0	0	0	**0**		12,177	
			NAPHTHALENE	0	0	0	**0**		60,883	
			NITRIC ACID	0	0	0	**0**		111,963	
			PHOSPHORIC ACID	0	0	0	**0**		62,027	
			TOLUENE	0	0	0	**0**		89,184	
			TRICHLOROETHYLENE	0	0	0	**0**		10,959	
			XYLENE (MIXED ISOMERS)	0	0	0	**0**		65,962	
		Total		0	0	0	**0**		680,922	
	CASCADE POLE CO	TACOMA	CREOSOTE	1,000	255	0	**1,255**	565	14,556	500
	DYNO OVERLAYS INC MILWAUKEE WY	TACOMA	FORMALDEHYDE	7,598	0	0	**7,598**	6,896	894	993
			METHANOL	152,241	0	0	**152,241**	145,711	0	0
			PHENOL	370	0	0	**370**	336	1,176	1,110
		Total		160,209	0	0	**160,209**		2,070	
	GENERAL PLASTICS	TACOMA	DICHLOROMETHANE	16,193	0	0	**16,193**	17,303	901	1,277
			DIISOCYANATES	5	0	0	**5**	5	0	0
		Total		16,198	0	0	**16,198**		901	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
PIERCE										
	GIRARD CUSTOM COATERS INC	TACOMA	ETHYLBENZENE	10,215	0	0	**10,215**	10,215	1,135	1,135
			XYLENE (MIXED ISOMERS)	53,163	0	0	**53,163**	58,115	5,907	6,457
	Total			63,378	0	0	**63,378**		7,042	
	I CORP AND FORT LEWIS	FORT LEWIS	1,1,1-TRICHLOROETHANE	8,645	0	215	**8,860**		211	
			CHLORINE	0	0	0	**0**		0	
			DICHLOROMETHANE	7,075	0	176	**7,251**		108	
			ETHYLENE GLYCOL	11	2,422	146	**2,579**	3,957	60,166	88,308
			METHANOL	7,505	0	19	**7,524**		3,086	
			METHYL ETHYL KETONE	8,496	0	24	**8,520**		1,000	
			TOLUENE	10,436	0	134	**10,570**	8,285	1,734	233
			XYLENE (MIXED ISOMERS)	6,693	0	90	**6,783**	8,538	1,800	179
	Total			48,861	2,422	804	**52,087**		68,105	
	JONES CHEMICALS	TACOMA	CHLORINE	1	0	0	**1**	6	0	0
	KAISER ALUMINUM	TACOMA	CARBONYL SULFIDE	167,000	0	0	**167,000**	182,000	0	0
			COPPER	841	22	0	**863**	863	114,840	102,394
			HYDROGEN FLUORIDE	110,200	0	0	**110,200**	109,870	0	0
			LITHIUM CARBONATE	434	0	0	**434**	382	0	0
			POLYCYCLIC AROMATIC COM	4,760	2	0	**4,762**	5,172	2,000	1,600
	Total			283,235	24	0	**283,259**		116,840	
	LIANGA PACIFIC INC	TACOMA	XYLENE (MIXED ISOMERS)	11,000	0	0	**11,000**	12,000	0	0
	MATSUSHITA SEMICONDUCTOR	PUYALLUP	AMMONIA	27,350	2,400	0	**29,750**	37,685	250	0
			HYDROGEN FLUORIDE	1,340	0	0	**1,340**	2,090	500	250
			NITRIC ACID	110	0	0	**110**	178	500	250
			PHOSPHORIC ACID	14	0	0	**14**	22	500	0
	Total			28,814	2,400	0	**31,214**		1,750	
	MILGARD TEMPERING INC	FIFE	ZINC COMPOUNDS	0	0	0	**0**		5,500	
	NORTHCOAST YACHTS INC	TACOMA	STYRENE	1,525	0	0	**1,525**	8,100	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
PIERCE										
	NORTHWEST ETCH TECHNOLOGY INC TACOMA	TACOMA	COPPER	0	0	0	**0**	0	6,400	8,000
			HYDROCHLORIC ACID	0	0	0	**0**	0	1,370	1,400
		Total		0	0	0	**0**		7,770	
	PACE INDUSTRIES PUGET DIVISION	TACOMA	COPPER	159	0	0	**159**	125	13,662	7,631
	PARKER PAINT MFG CO INC	TACOMA	ETHYLENE GLYCOL	3,201	0	0	**3,201**	2,640	0	421
			TOLUENE	938	0	0	**938**	1,036	2,177	695
			XYLENE (MIXED ISOMERS)	5,980	0	0	**5,980**	5,824	769	695
		Total		10,119	0	0	**10,119**		2,946	
	PIONEER CHLOR ALKALI CO	TACOMA	ASBESTOS (FRIABLE)	1	0	0	**1**	1	0	0
			CHLORINE	252	0	0	**252**	278	0	0
			DICHLORODIFLUOROMETHAN	22,030	0	0	**22,030**	34,000	0	0
			HYDROCHLORIC ACID	152	0	0	**152**	151	0	0
		Total		22,435	0	0	**22,435**		0	
	RAVEN INDUSTRIES INC	TACOMA	STYRENE	29,206	0	0	**29,206**	5,500	0	0
	SIMPSON TACOMA KRAFT CO	TACOMA	ACETALDEHYDE	45,004	11,400	0	**56,404**	51,504	0	0
			AMMONIA	80,300	14,400	0	**94,700**	81,200	0	0
			BARIUM COMPOUNDS	18	6,160	0	**6,178**		17	
			CATECHOL	0	57	0	**57**	62	0	0
			CHLORINE	56	0	0	**56**	49	0	0
			CHLORINE DIOXIDE	7,000	0	0	**7,000**	7,600	0	0
			CHLOROFORM	37,100	4,250	0	**41,350**	32,600	0	0
			CRESOL (MIXED ISOMERS)	32,700	74	0	**32,774**	38,470	0	0
			FORMALDEHYDE	13,900	13,400	0	**27,300**	14,540	0	0
			FORMIC ACID	0	0	0	**0**	0	0	0
			GLYCOL ETHERS	1,900	1,300	0	**3,200**	2,700	0	0
			HYDROCHLORIC ACID	39,600	0	0	**39,600**	45,200	0	0
			MANGANESE COMPOUNDS	450	16,700	0	**17,150**		67	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
PIERCE										
	SIMPSON TACOMA KRAFT CO	TACOMA	METHANOL	647,080	0	0	**647,080**	771,300	0	0
			NITRIC ACID	0	0	0	**0**	0	0	0
			PHENOL	20,600	300	0	**20,900**	19,820	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
			SULFURIC ACID	31,000	0	0	**31,000**	26,700	0	0
	Total			956,708	68,041	0	**1,024,749**		84	
	TACOMA CONSUMER PRODUCTS INC	TACOMA	CHLORINE	7	0	0	**7**	3	0	0
	TACOMA DPU STEAM PLANT 2	TACOMA	BARIUM COMPOUNDS	1	0	1	**2**		5,713	
			HYDROCHLORIC ACID	12,724	0	0	**12,724**		0	
			LEAD COMPOUNDS	20	0	1	**21**		5,575	
			MANGANESE COMPOUNDS	5	0	2	**7**		25,317	
			ZINC COMPOUNDS	12	0	1	**13**		7,707	
	Total			12,762	0	5	**12,767**		44,312	
	TACOMA RUBBER STAMP CO	TACOMA	TETRACHLOROETHYLENE	26,105	0	0	**26,105**	21,392	15,680	17,150
	TORAY COMPOSITES AMERICA	TACOMA	METHANOL	11,000	0	0	**11,000**	24,000	69,000	76,000
			METHYL ETHYL KETONE	48,000	0	0	**48,000**	58,000	254,000	189,000
			N-METHYL-2-PYRROLIDONE	5,900	0	0	**5,900**	19,000	209,000	224,000
			TOLUENE	33,000	0	0	**33,000**	48,000	152,000	162,000
	Total			97,900	0	0	**97,900**		684,000	
	U S OIL & REFINING CO	TACOMA	BENZENE	2,872	0	0	**2,872**	9,042	0	0
			CYCLOHEXANE	1,528	0	0	**1,528**		0	
			ETHYLBENZENE	1,075	0	0	**1,075**	4,383	250	0
			NAPHTHALENE	56	0	0	**56**		250	
			N-HEXANE	3,759	0	0	**3,759**		0	
			TOLUENE	5,645	0	0	**5,645**	22,482	250	0
			XYLENE (MIXED ISOMERS)	6,579	0	0	**6,579**	25,506	250	0
	Total			21,514	0	0	**21,514**		1,000	
	Total for 'County' =	*PIERCE*		*1,839,664*	*73,652*	*809*	***1,914,125***		*2,237,539*	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SKAGIT										
	FIBREX CORP	BURLINGTON	STYRENE	9,485	0	0	**9,485**	2,746	0	0
	GENERAL CHEMICAL CORP ANACORTES	ANACORTES	SULFURIC ACID	11,534	0	0	**11,534**	12,000	0	0
	MARCH POINT COGENERATION CO	ANACORTES	1,3-BUTADIENE	0	0	0	**0**	8	0	0
			AMMONIA	480	0	0	**480**	400	0	0
			ETHYLENE	0	0	0	**0**	3,000	0	0
			PROPYLENE	0	0	0	**0**	1,100	0	0
	Total			480	0	0	**480**		0	
	PACIFIC CIRCUITS INC NORTH	BURLINGTON	AMMONIA	78	0	0	**78**		0	
			COPPER	0	0	0	**0**		7,366	
			FORMALDEHYDE	50	0	0	**50**		5	
	Total			128	0	0	**128**		7,371	
	TECNAL CORP	ANACORTES	PHOSPHORIC ACID	0	0	0	**0**		0	
	TESORO NORTHWEST COMPANY	ANACORTES	1,2,4-TRIMETHYLBENZENE	1,200	0	0	**1,200**	2,200	0	0
			1,3-BUTADIENE	60	0	0	**60**	70	0	0
			AMMONIA	1,100	950	370	**2,420**	2,920	0	0
			ANTIMONY COMPOUNDS	145	5,000	120	**5,265**	24,175	1,130	970
			BENZENE	10,100	0	40	**10,140**	17,521	605	160
			CHLORINE	4,300	0	0	**4,300**	3,700	0	0
			CUMENE	200	0	0	**200**	200	0	0
			CYCLOHEXANE	13,500	0	0	**13,500**	23,000	430	0
			DIETHANOLAMINE	500	0	0	**500**	500	0	0
			ETHYLBENZENE	6,700	0	42	**6,742**	18,035	697	6
			ETHYLENE	5,000	0	0	**5,000**	5,000	0	0
			HYDROCHLORIC ACID	51	0	0	**51**	41	0	0
			METHANOL	50	0	0	**50**	500	0	0
			METHYL TERT-BUTYL ETHER	1,400	0	0	**1,400**	1,400	0	0
			MOLYBDENUM TRIOXIDE	0	0	0	**0**	0	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SKAGIT										
	TESORO NORTHWEST COMPANY	ANACORTES	NA	325	0	0	**325**	420	14	25
			NAPHTHALENE	1,580	0	60	**1,640**	2,400	1,503	40
			N-HEXANE	31,000	0	30	**31,030**	46,000	430	0
			NICKEL COMPOUNDS	1,600	40	6	**1,646**	3,020	11,720	8,400
			PROPYLENE	17,000	0	0	**17,000**	17,000	0	0
			SULFURIC ACID	153,000	0	0	**153,000**		0	
			TETRACHLOROETHYLENE	3,512	0	0	**3,512**	3,512	21	4
			TOLUENE	29,500	0	52	**29,552**	62,100	1,058	10
			XYLENE (MIXED ISOMERS)	33,700	0	110	**33,810**	70,260	2,319	45
	Total			315,523	5,990	830	**322,343**		19,927	
	TEXACO USA PUGET SOUND PLANT	ANACORTES	1,2,4-TRIMETHYLBENZENE	578	0	110	**688**	1,247	0	0
			1,3-BUTADIENE	350	0	0	**350**	386	0	0
			AMMONIA	1,450	8,300	0	**9,750**	9,280	0	0
			BENZENE	3,000	0	47	**3,047**	5,714	45	562
			CHLORINE	6,100	1,100	0	**7,200**	8,600	0	0
			CYCLOHEXANE	887	0	29	**916**	1,615	0	0
			ETHYLBENZENE	920	0	62	**982**	1,617	108	4,078
			ETHYLENE	34,020	0	0	**34,020**	36,280	0	0
			METHANOL	10	0	0	**10**	10	0	0
			MOLYBDENUM TRIOXIDE	0	0	0	**0**	0	65,000	35,400
			NAPHTHALENE	2	0	46	**48**	20	123	499
			N-HEXANE	3,800	0	0	**3,800**	8,902	0	0
			NICKEL COMPOUNDS	4	0	127	**131**		9,189	
			PHENOL	0	100	0	**100**	0	0	0
			PHOSPHORIC ACID	0	0	0	**0**	1	0	0
			POLYCYCLIC AROMATIC COM	0	0	0	**0**	0	0	0
			PROPYLENE	20,098	0	0	**20,098**	22,700	0	0
			SULFURIC ACID	150,000	0	0	**150,000**		0	
			TETRACHLOROETHYLENE	10	0	0	**10**		0	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SKAGIT										
	TEXACO USA PUGET SOUND PLANT	ANACORTES	TOLUENE	5,600	0	1,660	**7,260**	12,205	541	837
			XYLENE (MIXED ISOMERS)	5,700	0	328	**6,028**	10,232	812	1,685
	Total			232,529	9,500	2,409	**244,438**		75,818	
	Total for 'County' = SKAGIT			*569,679*	*15,490*	*3,239*	***588,408***		*103,116*	
SNOHOMISH										
	ACHILLES USA INC	EVERETT	DI(2-ETHYLHEXYL) PHTHALAT	123	0	0	**123**	123	5	5
			PHENOL	7,900	0	0	**7,900**	7,900	0	0
	Total			8,023	0	0	**8,023**		5	
	AEROSTRUCTURES CORP THE	EVERETT	COPPER	0	0	0	**0**		85,400	
			MANGANESE	0	0	0	**0**		29,500	
			NICKEL	0	0	0	**0**		26,000	
	Total			0	0	0	**0**		140,900	
	AMERICAN BOILER WORKS INC	EVERETT	METHYL ETHYL KETONE	19,340	0	0	**19,340**	13,460	500	500
	ARTISAN FINISHING SYSTEMS INC	MARYSVILLE	TOLUENE	11,000	0	0	**11,000**		1,070	
	B F GOODRICH AEROSPACE TRAMCO INC 112TH AVE	EVERETT	METHYL ETHYL KETONE	37,000	0	0	**37,000**	21,481	41,257	44,487
			TOLUENE	2,600	0	0	**2,600**	2,360	9,927	11,293
	Total			39,600	0	0	**39,600**		51,184	
	BOEING COMM AIRPLANE GRP EVERETT	EVERETT	AMMONIA	15,600	0	0	**15,600**	13,300	189	131
			CHROMIUM COMPOUNDS	125	76	0	**201**	3,978	51,276	231,165
			COPPER	0	121	0	**121**	3,960	66,474	114,025
			DICHLOROMETHANE	14,500	43	0	**14,543**		815	
			FREON 113	84,000	0	0	**84,000**	72,000	13,255	15,152
			GLYCOL ETHERS	21,100	0	0	**21,100**	7,670	95,935	23,450
			MANGANESE COMPOUNDS	1	0	0	**1**	3	32,349	33,086
			METHYL ETHYL KETONE	278,000	244	0	**278,244**	393,070	104,066	154,600
			METHYL ISOBUTYL KETONE	27,800	0	0	**27,800**	20,100	18,629	11,182
			NAPHTHALENE	12	0	0	**12**		606	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SNOHOMISH										
	BOEING COMM AIRPLANE GRP EVERETT	EVERETT	NITRIC ACID	0	0	0	**0**	0	64,300	45,500
			SEC-BUTYL ALCOHOL	24,400	0	0	**24,400**	24,400	16,647	8,482
			TOLUENE	112,000	39	0	**112,039**	289,480	51,915	75,585
			TRICHLOROETHYLENE	102,100	0	0	**102,100**	33,700	19,600	6,400
			XYLENE (MIXED ISOMERS)	17,700	39	0	**17,739**	22,640	10,133	8,128
	Total			697,338	562	0	**697,900**		546,189	
	BOEING HARBOR POINTE	MUKILTEO	METHYL ETHYL KETONE	8,780	0	0	**8,780**	11,000	2,788	3,240
	CALVERT INDUSTRIES INC	SNOHOMISH	METHYL ETHYL KETONE	22,025	0	0	**22,025**	20,939	688	917
			XYLENE (MIXED ISOMERS)	25,345	0	0	**25,345**	24,231	459	458
	Total			47,370	0	0	**47,370**		1,147	
	CANYON CREEK CASCADE CABINET CO MONROE	MONROE	TOLUENE	13,371	0	0	**13,371**		1,918	
	COOK COMPOSITES & POLYMERS CO	ARLINGTON	METHYL METHACRYLATE	1,000	0	0	**1,000**	1,000	267	335
			STYRENE	2,540	0	0	**2,540**	2,435	1,961	4,415
	Total			3,540	0	0	**3,540**		2,228	
	CREST CABINET	EVERETT	TOLUENE	18,385	0	0	**18,385**	12,132	1,155	1,218
	FLUKE CORP EVERGREEN WAY	EVERETT	AMMONIA	12	0	0	**12**	12	24,604	25,324
			COPPER COMPOUNDS	0	0	0	**0**	0	22,408	17,277
			NITRIC ACID	38	0	0	**38**	38	0	0
	Total			50	0	0	**50**		47,012	
	J H BAXTER & CO	ARLINGTON	PENTACHLOROPHENOL	500	0	0	**500**	500	500	500
	KIMBERLY-CLARK CORP	EVERETT	AMMONIA	5,030	57,000	0	**62,030**	56,730	0	0
			BARIUM COMPOUNDS	900	5,300	0	**6,200**		54,400	
			CHLORINE	1,000	0	0	**1,000**	1,100	0	0
			CHLOROFORM	109,000	12,100	0	**121,100**	113,500	0	0
			FORMIC ACID	0	0	0	**0**	0	0	0
			MANGANESE COMPOUNDS	1,000	31,700	0	**32,700**		12,100	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SNOHOMISH										
	KIMBERLY-CLARK CORP	EVERETT	METHANOL	50,300	96,000	0	**146,300**	160,000	0	0
			NITRATE COMPOUNDS	0	357,000	0	**357,000**	350,000	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	500	0
			VINYL ACETATE	1,050	900	0	**1,950**	5,200	0	0
			ZINC COMPOUNDS	1,100	7,100	0	**8,200**		7,800	
	Total			169,380	567,100	0	**736,480**		74,800	
	NORTHWEST COMPOSITES	MARYSVILLE	METHYL ETHYL KETONE	16,593	0	0	**16,593**	13,841	0	6,190
	SKAGIT MARINE DISTRIBUTING	MONROE	STYRENE	7,205	0	0	**7,205**	1,129	0	0
	TIZ'S DOOR SALES INC	EVERETT	TOLUENE	14,728	0	0	**14,728**	13,108	250	250
			XYLENE (MIXED ISOMERS)	18,995	0	0	**18,995**	13,863	250	250
	Total			33,723	0	0	**33,723**		500	
	U S MARINE/BAYLINER MARINE	ARLINGTON	STYRENE	117,461	0	0	**117,461**	103,126	0	0
	Total for 'County' = SNOHOMISH			*1,211,659*	*567,662*	*0*	***1,779,321***		*871,896*	
SPOKANE										
	ADM ANIMAL HEALTH & NUTRITION	SPOKANE	COPPER COMPOUNDS	1	0	0	**1**	1	262	142
			MANGANESE COMPOUNDS	2	0	0	**2**	1	553	492
			SELENIUM COMPOUNDS	1	0	0	**1**	1	1	750
			ZINC COMPOUNDS	6	0	0	**6**	2	1,973	1,175
	Total			10	0	0	**10**		2,789	
	ALLOY TRAILERS INC GEIGER BLVD	SPOKANE	CHLORODIFLUOROMETHANE	127	0	0	**127**	1,142	0	0
			TOLUENE	309	0	0	**309**		0	
			XYLENE (MIXED ISOMERS)	5,840	0	0	**5,840**	24,127	6,341	11,284
	Total			6,276	0	0	**6,276**		6,341	
	ALLOY TRAILERS INC SIP	SPOKANE	TOLUENE	3,274	0	0	**3,274**	7,560	0	0
			XYLENE (MIXED ISOMERS)	29,088	0	0	**29,088**	63,726	18,429	19,505
	Total			32,362	0	0	**32,362**		18,429	
	APOLLO PLASTICS	SPOKANE	STYRENE	3,218	0	0	**3,218**	4,900	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SPOKANE										
	COLUMBIA LIGHTING INC	SPOKANE	XYLENE (MIXED ISOMERS)	9,677	0	0	**9,677**	16,236	8,999	25,364
	COLUMBIA PAINT & COATINGS	SPOKANE	ETHYLENE GLYCOL	2,750	0	0	**2,750**	2,650	0	0
			METHANOL	3,050	0	0	**3,050**	1,000	0	0
			TOLUENE	1,000	0	0	**1,000**	1,000	0	0
			XYLENE (MIXED ISOMERS)	500	0	0	**500**	500	0	0
	Total			7,300	0	0	**7,300**		0	
	CONOCO INC SPOKANE TERMINAL & DELIVERY FACILITY	SPOKANE	1,2,4-TRIMETHYLBENZENE	500	0	0	**500**		4,635	
			BENZENE	1,408	0	0	**1,408**		2,675	
			CUMENE	500	0	0	**500**		9,271	
			ETHYLBENZENE	500	0	0	**500**		2,425	
			METHYL TERT-BUTYL ETHER	2,253	0	0	**2,253**		5,122	
			N-HEXANE	2,279	0	0	**2,279**		4,172	
			TOLUENE	1,898	0	0	**1,898**		14,852	
			XYLENE (MIXED ISOMERS)	1,000	0	0	**1,000**		15,065	
	Total			10,338	0	0	**10,338**		58,217	
	HUNTWOOD INDUSTRIES	SPOKANE	ETHYLBENZENE	2,978	0	0	**2,978**	18,837	250	3,107
			FORMALDEHYDE	750	0	0	**750**	1,114	0	0
			TOLUENE	113,468	0	0	**113,468**	97,962	15,500	13,592
			XYLENE (MIXED ISOMERS)	12,854	0	0	**12,854**	21,827	750	4,660
	Total			130,050	0	0	**130,050**		16,500	
	JOHNSON MATHEY ELECTRONICS INC SPOKANE	SPOKANE	COPPER COMPOUNDS	5	0	0	**5**		559,650	
			DICHLOROMETHANE	29,000	0	0	**29,000**	23,287	750	3,411
			LEAD	5	0	0	**5**	10	14,255	9,755
			N-HEXANE	12,000	0	0	**12,000**	5,760	6,600	6,868
			NICKEL COMPOUNDS	10	0	0	**10**	10	43,000	10,290
			NITRATE COMPOUNDS	10	0	0	**10**		150,000	
			NITRIC ACID	1,000	0	0	**1,000**	500	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SPOKANE										
	Total			42,030	0	0	**42,030**		774,255	
KAISER ALUMINUM TRENTWOOD		SPOKANE	CHLORINE	247,600	0	0	**247,600**	175,120	0	0
			CHROMIUM	93	47	0	**140**	483	146	214
			COPPER	97	5	0	**102**	489	406	566
			GLYCOL ETHERS	730	0	0	**730**	653	7,318	5,644
			HYDROCHLORIC ACID	26,200	0	0	**26,200**	18,568	0	0
			MANGANESE	311	5	0	**316**	880	357	533
			METHYL ETHYL KETONE	3,084	0	0	**3,084**	3,004	526,971	406,386
			METHYL ISOBUTYL KETONE	1,011	0	0	**1,011**	875	14,637	11,287
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
			TOLUENE	3,395	0	0	**3,395**	3,210	95,138	73,366
			XYLENE (MIXED ISOMERS)	339	0	0	**339**	724	17,747	12,987
	Total			282,860	57	0	**282,917**		662,720	
KAISER MEAD WORKS		MEAD	CARBONYL SULFIDE	498,000	0	0	**498,000**	521,000	0	0
			COPPER	500	34	0	**534**	608	17,615	24,900
			HYDROGEN FLUORIDE	1,984,000	0	0	**1,984,000**	599,000	0	0
			LITHIUM CARBONATE	255	250	0	**505**	505	0	0
			POLYCYCLIC AROMATIC COM	500	0	250	**750**	1,250	250	250
	Total			2,483,255	284	250	**2,483,789**		17,865	
MELCHER MFG CO		SPOKANE	STYRENE	21,068	0	0	**21,068**	19,410	0	0
MUTUAL MATERIALS CO MICA BRICK PLANT		MICA	HYDROGEN FLUORIDE	28,000	0	0	**28,000**	66,785	0	0
SPOKANE GALVANIZING INC		AIRWAY HEIG	SULFURIC ACID	750	0	0	**750**	750	0	0
			ZINC (FUME OR DUST)	750	0	0	**750**	750	92,229	123,820
	Total			1,500	0	0	**1,500**		92,229	
SPOKANE METAL PRODUCTS 2		SPOKANE	CHROMIUM	5	0	0	**5**	5	9,400	11,800
			NICKEL	5	0	0	**5**	5	4,900	6,200
	Total			10	0	0	**10**		14,300	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
SPOKANE										
	SPOKANE STEEL FOUNDRY	SPOKANE	CHROMIUM	10	0	0	**10**	10	250	0
			MANGANESE	255	0	0	**255**	255	7,500	6,800
			NICKEL	10	0	0	**10**		250	
	Total			275	0	0	**275**		8,000	
	TRAVIS PATTERN & FOUNDRY INC	SPOKANE	COPPER	0	0	0	**0**	0	0	0
			TRICHLOROETHYLENE	5,280	0	0	**5,280**	7,979	601	601
	Total			5,280	0	0	**5,280**		601	
	U S MARINE	SPOKANE	STYRENE	112,284	0	0	**112,284**	103,765	0	0
	UNITED PAINT MFG CO	GREENACRE	DIISOCYANATES	0	0	0	**0**	0	700	700
			ETHYLBENZENE	1,300	0	0	**1,300**	1,300	541	541
			XYLENE (MIXED ISOMERS)	3,900	0	0	**3,900**	3,900	1,427	1,625
	Total			5,200	0	0	**5,200**		2,668	
	Total for 'County' = SPOKANE			*3,180,993*	*341*	*250*	***3,181,584***		*1,683,913*	
STEVENS										
	ALADDIN STEEL PRODUCTS INC	COLVILLE	CHROMIUM	30	0	0	**30**		0	
			COPPER	6	0	0	**6**		0	
			LEAD	5	0	0	**5**		0	
			MANGANESE	12	0	0	**12**		0	
			NICKEL	29	0	0	**29**		0	
			TOLUENE	32,870	0	0	**32,870**	20,821	180	0
			ZINC COMPOUNDS	4	0	0	**4**		0	
	Total			32,956	0	0	**32,956**		180	
	BOISE CASCADE CORP KETTLE FALLS	KETTLE FALL	METHANOL	25,784	0	0	**25,784**		0	
	NORTHWEST ALLOYS INC	ADDY	AMMONIA	9,643	0	3,938	**13,581**	22,255	0	9,288
			COPPER	318	0	0	**318**	222	0	0
			HYDROCHLORIC ACID	11,100	0	0	**11,100**	2,802	0	0
	Total			21,061	0	3,938	**24,999**		0	
	Total for 'County' = STEVENS			*79,801*	*0*	*3,938*	***83,739***		*180*	

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
THURSTON										
	AMTECH CORP	YELM	STYRENE	66,000	0	0	**66,000**	49,120	0	8,546
	CROWN BEVERAGE PACKAGING PLANT 076	OLYMPIA	GLYCOL ETHERS	169,881	0	0	**169,881**	156,887	0	0
			HYDROGEN FLUORIDE	0	0	0	**0**	0	0	0
			MANGANESE COMPOUNDS	0	0	0	**0**	0	255	255
			N-BUTYL ALCOHOL	163,491	0	0	**163,491**	137,616	0	0
			N-HEXANE	63,727	0	0	**63,727**	101,895	0	0
	Total			397,099	0	0	**397,099**		255	
	LASCO BATHWARE	YELM	STYRENE	485,996	0	0	**485,996**	497,200	250	0
	OLYMPIA CHEESE CO	LACEY	NITRATE COMPOUNDS	0	0	1,500	**1,500**		0	
			NITRIC ACID	0	0	0	**0**	0	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	Total			0	0	1,500	**1,500**		0	
	Total for 'County' = THURSTON			*949,095*	*0*	*1,500*	***950,595***		*505*	
WALLA WALLA										
	AGRIPAC INC PLANT 11	WALLA WALL	AMMONIA	20,900	0	0	**20,900**		0	
	BOISE CASCADE WALLULA	WALLULA	ACETALDEHYDE	37,500	1,600	58	**39,158**	40,057	0	0
			AMMONIA	170,500	12,000	0	**182,500**	190,500	0	0
			CATECHOL	0	64	1	**65**	67	0	0
			CHLORINE	372	0	0	**372**	520	0	0
			CHLORINE DIOXIDE	4,100	0	0	**4,100**	5,500	0	0
			CHLOROFORM	37,000	750	31	**37,781**	34,818	0	0
			FORMIC ACID	0	0	0	**0**	0	0	0
			HYDROCHLORIC ACID	492,000	0	0	**492,000**	474,000	0	0
			MANGANESE COMPOUNDS	1,200	1,800	34,700	**37,700**	27,340	7	131
			METHANOL	465,000	45,000	4,300	**514,300**	534,300	0	0
			NITRATE COMPOUNDS	0	28,000	0	**28,000**		0	
			PHENOL	700	130	28	**858**	848	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
WALLA WALLA										
BOISE CASCADE WALLULA		WALLULA	SULFURIC ACID	24,000	0	0	**24,000**	25,200	0	0
	Total			1,232,372	89,344	39,118	**1,360,834**		7	
IBP INC		WALLULA	AMMONIA	17,100	0	9,000	**26,100**	46,900	45,000	38,900
			CHLORINE	5	0	0	**5**	5	0	0
			PHOSPHORIC ACID	5	0	0	**5**	5	0	0
	Total			17,110	0	9,000	**26,110**		45,000	
NELSON IRRIGATION CORP		WALLA WALL	COPPER	250	0	0	**250**	250	365,475	343,450
			LEAD	250	0	0	**250**	250	23,050	18,850
	Total			500	0	0	**500**		388,525	
REIFF MANUFACTURING		WALLA WALL	STYRENE	5,212	0	0	**5,212**	1,609	0	0
Total for 'County' =	*WALLA WALLA*			*1,276,094*	*89,344*	*48,118*	***1,413,556***		*433,532*	
WHATCOM										
ARCO PETROLEUM PRODUCTS		FERNDALE	1,2,4-TRIMETHYLBENZENE	5,140	0	8	**5,148**	5,892	0	0
			1,3-BUTADIENE	288	0	0	**288**		0	
			AMMONIA	790	11,000	0	**11,790**	14,790	0	0
			BENZENE	24,400	2	3	**24,405**	22,016	113	71
			COBALT COMPOUNDS	0	0	0	**0**	0	3,400	3,100
			CRESOL (MIXED ISOMERS)	70	0	1	**71**	0	9	0
			CUMENE	700	0	12	**712**	832	0	0
			CYCLOHEXANE	6,280	0	14	**6,294**	6,291	0	0
			DIETHANOLAMINE	1,220	12,000	0	**13,220**	9,850	0	0
			ETHYLBENZENE	6,820	0	0	**6,820**	7,700	90	0
			ETHYLENE	587	0	0	**587**	600	0	0
			MANGANESE COMPOUNDS	60	760	0	**820**	1,680	0	43,000
			METHANOL	6,700	0	0	**6,700**	5,490	2	0
			NAPHTHALENE	830	0	0	**830**	1,200	0	0
			N-HEXANE	18,700	0	27	**18,727**	9,339	0	0
			NICKEL COMPOUNDS	210	1,700	0	**1,910**	4,170	56,108	7,700

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
WHATCOM										
	ARCO PETROLEUM PRODUCTS	FERNDALE	NITRATE COMPOUNDS	0	26,000	0	**26,000**	26,000	0	0
			PROPYLENE	860	0	0	**860**	910	0	0
			SULFURIC ACID	260,000	0	0	**260,000**	79,000	0	25
			TOLUENE	36,000	1	0	**36,001**	40,401	0	0
			XYLENE (MIXED ISOMERS)	40,000	0	1	**40,001**	30,901	820	0
		Total		409,655	51,463	66	**461,184**		60,542	
	DARIGOLD INC LYNDEN	LYNDEN	NITRATE COMPOUNDS	0	0	0	**0**	0	54,796	44,557
			NITRIC ACID	0	0	0	**0**	0	5	0
			PHOSPHORIC ACID	0	0	0	**0**	0	12	0
		Total		0	0	0	**0**		54,813	
	ENCOGEN NORTHWEST COGENERATION PLANT	BELLINGHAM	AMMONIA	59,005	0	0	**59,005**		0	
	ERSHIGS INC	BELLINGHAM	STYRENE	63,297	0	0	**63,297**	22,480	6,800	2,870
	GEORGIA-PACIFIC WEST INC	BELLINGHAM	ACETALDEHYDE	33,000	19,000	0	**52,000**	70,800	0	0
			ACRYLIC ACID	181	0	0	**181**	461	0	0
			AMMONIA	756	97,000	0	**97,756**	110,773	0	0
			CHLORINE	540	0	0	**540**	3,830	0	0
			CHLORINE DIOXIDE	101	0	0	**101**	433	0	0
			CHLOROFORM	133,000	4,800	0	**137,800**	208,900	0	0
			CHROMIUM COMPOUNDS	450	12,000	0	**12,450**	48,510	1,053	791
			DICHLORODIFLUOROMETHAN	3,000	0	0	**3,000**	0	0	0
			FORMALDEHYDE	1,852	26	0	**1,878**	5,081	0	0
			FORMIC ACID	1,000	0	0	**1,000**	1,000	0	0
			HYDROCHLORIC ACID	130,140	0	0	**130,140**	160,130	0	0
			MANGANESE COMPOUNDS	134	55,000	0	**55,134**	168,145	1,010	950
			MERCURY COMPOUNDS	1,160	23	0	**1,183**	1,490	1,289	466
			METHANOL	130,230	40	0	**130,270**	170,364	0	0
			METHYL ISOBUTYL KETONE	489	0	0	**489**	579	0	0
			NITRATE COMPOUNDS	0	670,000	0	**670,000**	350,000	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
WHATCOM										
	GEORGIA-PACIFIC WEST INC	BELLINGHAM	NITRIC ACID	1,303	0	0	**1,303**	1,303	0	0
			PHOSPHORIC ACID	19	0	0	**19**	26	0	0
			SULFURIC ACID	5,200	0	0	**5,200**	6,200	0	0
			ZINC COMPOUNDS	159	6,700	0	**6,859**	179	601	807
	Total			442,714	864,589	0	**1,307,303**		3,953	
	INTALCO ALUMINUM CORP	FERNDALE	CARBONYL SULFIDE	507,078	0	0	**507,078**	382,000	0	0
			HYDROGEN FLUORIDE	97,131	0	0	**97,131**	95,445	0	0
			POLYCYCLIC AROMATIC COM	4,344	0	0	**4,344**	4,528	0	0
	Total			608,553	0	0	**608,553**		0	
	LISTER CHAIN & FORGE	BLAINE	MANGANESE	0	0	0	**0**	0	4,907	3,291
	MAAX HYDRO SWIRL MFG CORP	BELLINGHAM	STYRENE	93,288	0	0	**93,288**	18,600	0	0
	OCEANUS PLASTICS INC	FERNDALE	STYRENE	2,542	0	0	**2,542**		6,795	
	PRAXAIR INC FERNDALE	FERNDALE	AMMONIA	27,220	0	0	**27,220**	24,860	9,000	0
	TENASKA FERNDALE COGENERATION FACILITY	FERNDALE	AMMONIA	3,500	0	0	**3,500**		0	
	THE OESER CO	BELLINGHAM	CREOSOTE	0	5	0	**5**		525	
			PENTACHLOROPHENOL	10	250	0	**260**	0	750	0
	Total			10	255	0	**265**		1,275	
	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	1,2,4-TRIMETHYLBENZENE	1,297	0	13	**1,310**	2,190	0	0
			1,3-BUTADIENE	579	0	0	**579**	1,360	0	0
			AMMONIA	170	3,500	0	**3,670**	7,330	0	0
			BENZENE	3,200	0	20	**3,220**	9,556	0	0
			CUMENE	1,730	0	5	**1,735**	995	0	0
			CYCLOHEXANE	8,800	0	42	**8,842**	18,084	0	0
			DIETHANOLAMINE	640	0	0	**640**	740	0	0
			ETHYLBENZENE	4,370	0	1	**4,371**	6,708	0	0
			ETHYLENE	1,740	0	0	**1,740**	4,911	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
WHATCOM										
	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	HYDROGEN FLUORIDE	452	0	0	**452**	540	0	0
			NAPHTHALENE	649	0	0	**649**	800	0	0
			N-HEXANE	5,300	0	8	**5,308**	9,242	0	0
			NITRATE COMPOUNDS	0	34,000	0	**34,000**	0	0	0
			PROPYLENE	1,471	0	0	**1,471**	2,600	0	0
			SULFURIC ACID	150,000	0	0	**150,000**		0	
			TOLUENE	11,100	0	80	**11,180**	20,687	0	0
			XYLENE (MIXED ISOMERS)	7,090	0	87	**7,177**	20,483	0	0
	Total			198,588	37,500	256	**236,344**		0	
	WRIGHT BROS INC	BELLINGHAM	STYRENE	8,737	0	0	**8,737**	8,241	0	0
	Total for 'County' = WHATCOM			*1,917,109*	*953,807*	*322*	***2,871,238***		*148,085*	
YAKIMA										
	BAY ZINC CO INC	MOXEE	COPPER COMPOUNDS	4	0	0	**4**	25	1,223	600
			LEAD COMPOUNDS	29	0	0	**29**	229	16,124	51,700
			MANGANESE COMPOUNDS	7	0	0	**7**	146	26	17
			SULFURIC ACID	0	0	0	**0**	0	0	0
			ZINC COMPOUNDS	1,586	0	0	**1,586**	3,870	4,170	2,171
	Total			1,626	0	0	**1,626**		21,543	
	DARIGOLD INC SUNNYSIDE	SUNNYSIDE	BENZOYL PEROXIDE	26	0	0	**26**		428	
			CHLORINE	0	0	0	**0**		12,300	
			NITRATE COMPOUNDS	0	0	0	**0**	0	298,052	172,745
			NITRIC ACID	0	0	0	**0**	0	0	0
			PHOSPHORIC ACID	0	0	0	**0**	0	0	0
	Total			26	0	0	**26**		310,780	
	JOHN I HAAS EXTRACT PLANT	YAKIMA	N-HEXANE	45,000	0	0	**45,000**	49,000	5	5
	SENECA FOODS WAPATO	WAPATO	COPPER COMPOUNDS	0	0	0	**0**	250	0	0
			DIPHENYLAMINE	0	0	250	**250**	250	0	0
			MANGANESE COMPOUNDS	0	0	250	**250**	250	0	0

County	Name	City	Chemical	Air	Water	Land	Release Total-98	Release Total-97	Transfer Total-98	Transfer Total-97
YAKIMA										
	SENECA FOODS WAPATO	WAPATO	PHOSPHORIC ACID	5	0	0	**5**	500	0	0
			ZINC COMPOUNDS	0	0	250	**250**	750	0	0
	Total			5	0	750	**755**		0	
	SHIELDS BAG & PRINTING CO	YAKIMA	DIBUTYL PHTHALATE	4,606	0	0	**4,606**	8,030	501	250
	SILGAN CONTAINERS MFG CORPORATION	TOPPENISH	GLYCOL ETHERS	39,476	0	0	**39,476**	42,024	977	1,999
	TRAIL WAGONS INC	YAKIMA	STYRENE	19,119	0	0	**19,119**	10,884	0	0
	TREE TOP INC ROSS PACKING	SELAH	NITRATE COMPOUNDS	0	0	0	**0**	0	74,400	82,000
	WESTERN RECREATION VEHICLES INC	YAKIMA	DIISOCYANATES	0	0	0	**0**	0	0	0
			STYRENE	18,440	0	0	**18,440**	16,007	0	0
	Total			18,440	0	0	**18,440**		0	
	Total for 'County' = YAKIMA			*128,298*	*0*	*750*	***129,048***		*408,206*	
Grand Total				***22,817,081***	***3,498,359***	***4,275,927***	***30,591,367***		***21,541,636***	

TRI 'Form A' Reporters—1998

Chemical	Facility	City	County	Industry
1,1,1-TRICHLOROETHANE	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	WHATCOM	*Petroleum Refining*
1,1-DICHLORO-1-FLUOROETHANE	SPECIALTY PRODUCTS INC	TACOMA	Pierce	*Chemicals & Allied Products Mfg.*
1,2,4-TRICHLOROBENZENE	CHEVRON USA RICHMOND BEACH ASPHALT REFINERY	SEATTLE	KING	*Petroleum Refining*
1,2,4-TRIMETHYLBENZENE	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
ACRYLIC ACID	CYTEC INDUSTRIES INC	LONGVIEW	COWLITZ	*Chemicals & Allied Products Mfg.*
ALUMINUM (FUME OR DUST)	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
AMMONIA	BASIC AMERICAN FOODS	MOSES LAKE	GRANT	*Food & Kindred Products Mfg*
	BORDEN PACKAGING AND INDUSTRIAL	KENT	KING	*Chemicals & Allied Products Mfg.*
	CYTEC INDUSTRIES INC	LONGVIEW	COWLITZ	*Chemicals & Allied Products Mfg.*
	JONES CHEMICALS	TACOMA	PIERCE	*Chemicals & Allied Products Mfg.*
	SNOKIST GROWERS YAKIMA	YAKIMA	YAKIMA	*Food & Kindred Products Mfg*
	TRIDENT SEAFOODS CORP	ANACORTES	SKAGIT	*Food & Kindred Products Mfg*
	WESTERN SINTERING CO INC	RICHLAND	BENTON	*Fabricated Metal Products Mfg.*
ANTIMONY COMPOUNDS	MIKRON INDUSTRIES INC	KENT	KING	*Rubber & Plastics Mfg.*
ARSENIC COMPOUNDS	CASCADE POLE CO	TACOMA	PIERCE	*Lumber & Wood Products*
	CHEMCO INC	FERNDALE	WHATCOM	*Lumber & Wood Products*
	INCHELIUM WOOD TREATMENT PLANT	INCHELIUM	OKANOGAN	*Lumber & Wood Products*
	SUPERIOR WOOD TREATING	SUMNER	PIERCE	*Lumber & Wood Products*
	WESTERN WOOD PRESERVING CO	SUMNER	PIERCE	*Lumber & Wood Products*
BARIUM COMPOUNDS	ACHILLES USA INC	EVERETT	SNOHOMISH	*Rubber & Plastics Mfg.*

Chemical	Facility	City	County	Industry
BARIUM COMPOUNDS	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
	MUTUAL MATERIALS CO NEWCASTLE BRICK PLANT	RENTON	KING	*Stone, Clay, Glass & Concrete Mfg.*
CADMIUM	ACHILLES USA INC	EVERETT	SNOHOMISH	*Rubber & Plastics Mfg.*
CARBONYL SULFIDE	REYNOLDS METALS CO LONGVIEW	LONGVIEW	COWLITZ	*Primary Metal Industries*
CHLORINE	COLUMBIA ALUMINUM	GOLDENDALE	KLICKITAT	*Primary Metal Industries*
	PEPSI-COLA BOTTLING CO	YAKIMA	YAKIMA	*Food & Kindred Products Mfg*
	PONDERAY NEWSPRINT CO	USK	PEND OREILLE	*Paper & Allied Products Mfg.*
	SNOKIST GROWERS YAKIMA	YAKIMA	YAKIMA	*Food & Kindred Products Mfg*
	US DOE HANFORD SITE	RICHLAND	BENTON	*Other*
	VANALCO INC	VANCOUVER	CLARK	*Primary Metal Industries*
CHROMIUM	BIRMINGHAM STEEL CORP	SEATTLE	KING	*Primary Metal Industries*
	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
	COLUMBIA ALUMINUM	GOLDENDALE	KLICKITAT	*Primary Metal Industries*
	NORTHWEST CASTINGS	SEATTLE	KING	*Primary Metal Industries*
	WESTERN STEEL CASTING CO	SEATTLE	KING	*Primary Metal Industries*
CHROMIUM COMPOUNDS	BIRMINGHAM STEEL CORP	SEATTLE	KING	*Primary Metal Industries*
	CASCADE POLE CO	TACOMA	PIERCE	*Lumber & Wood Products*
	CHEMCO INC	FERNDALE	WHATCOM	*Lumber & Wood Products*
	EXOTIC METALS FORMING CO	KENT	KING	*Fabricated Metal Products Mfg.*
	INCHELIUM WOOD TREATMENT PLANT	INCHELIUM	OKANOGAN	*Lumber & Wood Products*
	MIKRON INDUSTRIES INC	KENT	KING	*Rubber & Plastics Mfg.*
	MUTUAL MATERIALS CO MICA BRICK PLANT	MICA	SPOKANE	*Stone, Clay, Glass & Concrete Mfg.*
	R A PEARSON CO	SPOKANE	SPOKANE	*Industrial & Computer Mfg.*
	SUPERIOR WOOD TREATING	SUMNER	PIERCE	*Lumber & Wood Products*
	WESTERN WOOD PRESERVING CO	SUMNER	PIERCE	*Lumber & Wood Products*
COPPER	AMERICAN SILICON TECHNOLOGIES	ROCK ISLAND	DOUGLAS	*Primary Metal Industries*

Chemical	Facility	City	County	Industry
COPPER	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
	COLUMBIA ALUMINUM	GOLDENDALE	KLICKITAT	*Primary Metal Industries*
	CUTLER HAMMER	KENT	King	*Electronic Equipment Mfg.*
	FLUKE CORP EVERGREEN WAY	EVERETT	SNOHOMISH	*Instruments Mfg.*
	METALLIC ARTS	SPOKANE	SPOKANE	*Primary Metal Industries*
COPPER COMPOUNDS	CASCADE POLE CO	TACOMA	PIERCE	*Lumber & Wood Products*
	CHEMCO INC	FERNDALE	WHATCOM	*Lumber & Wood Products*
	GREAT WESTERN CHEMICAL CO SEATTLE	SEATTLE	KING	*Chemical/Petroleum Products-Wholesale*
	INCHELIUM WOOD TREATMENT PLANT	INCHELIUM	OKANOGAN	*Lumber & Wood Products*
	PURINA MILLS INC SPOKANE	SPOKANE	SPOKANE	*Food & Kindred Products Mfg*
	SUPERIOR WOOD TREATING	SUMNER	PIERCE	*Lumber & Wood Products*
	WESTERN WOOD PRESERVING CO	SUMNER	PIERCE	*Lumber & Wood Products*
CRESOL (MIXED ISOMERS)	CHEVRON USA PASCO TERMINAL	PASCO	FRANKLIN	*Chemical/Petroleum Products-Wholesale*
	CHEVRON USA RICHMOND BEACH ASPHALT REFINERY	SEATTLE	KING	*Petroleum Refining*
	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	WHATCOM	*Petroleum Refining*
CUMENE	CHEVRON USA RICHMOND BEACH ASPHALT REFINERY	SEATTLE	KING	*Petroleum Refining*
DICHLOROMETHANE	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
DIETHANOLAMINE	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
DIISOCYANATES	BAXTER MFG	ORTING	Pierce	*Industrial & Computer Mfg.*
	CONNELLY SKIS INC	LYNNWOOD	SNOHOMISH	*Misc. Mfg.*
	FLEETWOOD HOMES OF WASH INC #31	WOODLAND	COWLITZ	*Lumber & Wood Products*
	FOAMEX LAKEWOOD	LAKEWOOD	PIERCE	*Rubber & Plastics Mfg.*

Chemical	Facility	City	County	Industry
DIISOCYANATES	GACO WESTERN INC	TUKWILA	KING	*Chemicals & Allied Products Mfg.*
	GACO WESTERN INC	TUKWILA	KING	*Chemicals & Allied Products Mfg.*
	JANICKI MACHINE DESIGN	SEDRO WOOLE	Snohomish	*Rubber & Plastics Mfg.*
	O'BRIEN INTERNATIONAL INC REDMOND	REDMOND	KING	*Misc. Mfg.*
	TELECT INC LIBERTY LAKE	LIBERTY LAKE	Spokane	*Industrial & Computer Mfg.*
	TELECT INC SPOKANE	SPOKANE	SPOKANE	*Electronic Equipment Mfg.*
DIMETHYLAMINE	CYTEC INDUSTRIES INC	LONGVIEW	COWLITZ	*Chemicals & Allied Products Mfg.*
	TESSENDERLO KERLEY INC	KENNEWICK	BENTON	*Chemicals & Allied Products Mfg.*
DISODIUM CYANODITHIOIMIDOCARBONATE	JAMES RIVER PAPER CO INC	CAMAS	CLARK	*Paper & Allied Products Mfg.*
ETHYLBENZENE	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
ETHYLENE GLYCOL	ASAHIPEN AMERICA INC	SEATTLE	KING	*Chemicals & Allied Products Mfg.*
	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	TEMPRESS INC	SEATTLE	KING	*Industrial & Computer Mfg.*
	VAN WATERS & ROGERS INC SPOKANE	SPOKANE	SPOKANE	*Chemical/Petroleum Products-Wholesale*
GLYCOL ETHERS	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	PRESERVATIVE PAINT CO	SEATTLE	KING	*Chemicals & Allied Products Mfg.*
	U S OIL & REFINING CO	TACOMA	PIERCE	*Other*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
HYDROCHLORIC ACID	CYTEC INDUSTRIES INC	LONGVIEW	COWLITZ	*Chemicals & Allied Products Mfg.*
LEAD	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
	YAKIMA BAIT CO FIRST ST	GRANGER	YAKIMA	*Misc. Mfg.*
LEAD COMPOUNDS	BARDAHL MANUFACTURING CORP	SEATTLE	KING	*Petroleum Refining*

Chemical	Facility	City	County	Industry
MANGANESE	BALL METAL BEVERAGE CONTAINER CORP	KENT	KING	*Fabricated Metal Products Mfg.*
	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
	COLUMBIA ALUMINUM	GOLDENDALE	KLICKITAT	*Primary Metal Industries*
	NORTHWEST CASTINGS	SEATTLE	KING	*Primary Metal Industries*
MANGANESE COMPOUNDS	MUTUAL MATERIALS CO MICA BRICK PLANT	MICA	SPOKANE	*Stone, Clay, Glass & Concrete Mfg.*
	MUTUAL MATERIALS CO NEWCASTLE BRICK PLANT	RENTON	KING	*Stone, Clay, Glass & Concrete Mfg.*
	PURINA MILLS INC SPOKANE	SPOKANE	SPOKANE	*Food & Kindred Products Mfg*
	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	WHATCOM	*Petroleum Refining*
METHANOL	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	COLUMBIA MACHINE INC	VANCOUVER	CLARK	*Industrial & Computer Mfg.*
	CYTEC INDUSTRIES INC	LONGVIEW	COWLITZ	*Chemicals & Allied Products Mfg.*
	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	WHATCOM	*Petroleum Refining*
	VAN WATERS & ROGERS INC SPOKANE	SPOKANE	SPOKANE	*Chemical/Petroleum Products-Wholesale*
METHYL ETHYL KETONE	VAN WATERS & ROGERS INC SPOKANE	SPOKANE	SPOKANE	*Chemical/Petroleum Products-Wholesale*
METHYL ISOBUTYL KETONE	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
MOLYBDENUM TRIOXIDE	ARCO PETROLEUM PRODUCTS	FERNDALE	WHATCOM	*Petroleum Refining*
NAPHTHALENE	ACHILLES USA INC	EVERETT	SNOHOMISH	*Rubber & Plastics Mfg.*
	BETZ DEARBORN-WASHOUGAL	WASHOUGAL	CLARK	*Chemicals & Allied Products Mfg.*
	CHEVRON USA RICHMOND BEACH ASPHALT REFINERY	SEATTLE	KING	*Petroleum Refining*
N-BUTYL ALCOHOL	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*

Chemical	Facility	City	County	Industry
N-BUTYL ALCOHOL	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
N-HEXANE	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	KOCH MATERIALS CO SPOKANE	SPOKANE	SPOKANE	*Petroleum Refining*
NICKEL	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
NICKEL COMPOUNDS	EXOTIC METALS FORMING CO	KENT	KING	*Fabricated Metal Products Mfg.*
NITRATE COMPOUNDS	BETZ DEARBORN-WASHOUGAL	WASHOUGAL	CLARK	*Chemicals & Allied Products Mfg.*
	TESSENDERLO KERLEY INC	KENNEWICK	BENTON	*Chemicals & Allied Products Mfg.*
NITRIC ACID	CASCADE COLUMBIA DISTRIBUTION	SEATTLE	KING	*Chemical/Petroleum Products-Wholesale*
	CH20 INC	OLYMPIA	THURSTON	*Chemicals & Allied Products Mfg.*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	WESMAR CO INC	SEATTLE	KING	*Chemicals & Allied Products Mfg.*
N-METHYL-2-PYRROLIDONE	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
PENTACHLOROPHENOL	BROOKS MANUFACTURING CO	BELLINGHAM	WHATCOM	*Lumber & Wood Products*
	CASCADE POLE CO	TACOMA	PIERCE	*Lumber & Wood Products*
PHENOL	ARCO PETROLEUM PRODUCTS	FERNDALE	WHATCOM	*Petroleum Refining*
	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	WHATCOM	*Petroleum Refining*
PHOSPHORIC ACID	ARCO PETROLEUM PRODUCTS	FERNDALE	WHATCOM	*Petroleum Refining*
	B F GOODRICH KALAMA CHEMICAL INC	KALAMA	COWLITZ	*Chemicals & Allied Products Mfg.*
	BETZ DEARBORN-WASHOUGAL	WASHOUGAL	CLARK	*Chemicals & Allied Products Mfg.*
	CASCADE COLUMBIA DISTRIBUTION	SEATTLE	KING	*Chemical/Petroleum Products-Wholesale*
	CH20 INC	OLYMPIA	THURSTON	*Chemicals & Allied Products Mfg.*
	CHEMCO INC	FERNDALE	WHATCOM	*Lumber & Wood Products*
	COLUMBIA BEVERAGE CO	TUMWATER	THURSTON	*Food & Kindred Products Mfg*

Chemical	Facility	City	County	Industry
PHOSPHORIC ACID	CONTINENTAL LIME	TACOMA	PIERCE	*Stone, Clay, Glass & Concrete Mfg.*
	DAISHOWA AMERICA CO LTD	PORT ANGELES	CLALLAM	*Paper & Allied Products Mfg.*
	JAMES RIVER PAPER CO INC	CAMAS	CLARK	*Paper & Allied Products Mfg.*
	LONGVIEW FIBRE CO LONGVIEW	LONGVIEW	COWLITZ	*Paper & Allied Products Mfg.*
	PEPSI-COLA BOTTLING CO	YAKIMA	YAKIMA	*Food & Kindred Products Mfg*
	PEPSI-COLA BOTTLING CO SPOKANE	SPOKANE	SPOKANE	*Food & Kindred Products Mfg*
	PEPSI-COLA CO	SEATTLE	KING	*Food & Kindred Products Mfg*
	PONDERAY NEWSPRINT CO	USK	PEND OREILLE	*Paper & Allied Products Mfg.*
	SAFEWAY BEVERAGE PLANT	BELLEVUE	KING	
	WESMAR CO INC	SEATTLE	KING	*Chemicals & Allied Products Mfg.*
PHOSPHORUS (YELLOW OR WHITE)	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
POLYCHLORINATED ALKANES	BARDAHL MANUFACTURING CORP	SEATTLE	KING	*Petroleum Refining*
POTASSIUM DIMETHYLDITHIOCARBAMATE	INLAND EMPIRE PAPER CO	SPOKANE	SPOKANE	*Paper & Allied Products Mfg.*
	PONDERAY NEWSPRINT CO	USK	PEND OREILLE	*Paper & Allied Products Mfg.*
POTASSIUM N-METHYLDITHIOCARBAMATE	JAMES RIVER PAPER CO INC	CAMAS	CLARK	*Paper & Allied Products Mfg.*
SEC-BUTYL ALCOHOL	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
SILVER	HALLMARK REFINING CORP MT VERNON	MT VERNON	SKAGIT	*Primary Metal Industries*
SODIUM DIMETHYLDITHIOCARBAMATE	TESSENDERLO KERLEY INC	KENNEWICK	BENTON	*Chemicals & Allied Products Mfg.*
SODIUM NITRITE	CH20 INC	OLYMPIA	THURSTON	*Chemicals & Allied Products Mfg.*
STYRENE	ADMIRAL MARINE WORKS INC CEDAR ST	PORT ANGELES	CLALLAM	*Transportation Equipment Mfg.*
	ADMIRAL MARINE WORKS INC HAINES ST	PORT TOWNSE	JEFFERSON	*Transportation Equipment Mfg.*
	CHEVRON USA RICHMOND BEACH ASPHALT REFINERY	SEATTLE	KING	*Petroleum Refining*
	JANICKI MACHINE DESIGN	SEDRO WOOLE	Snohomish	*Rubber & Plastics Mfg.*

Chemical	Facility	City	County	Industry
TETRACHLOROETHYLENE	ARCO PETROLEUM PRODUCTS	FERNDALE	WHATCOM	*Petroleum Refining*
	CHEMCENTRAL SEATTLE	KENT	KING	*Chemical/Petroleum Products-Wholesale*
	TOSCO NORTHWEST CO FERNDALE REFINERY	FERNDALE	WHATCOM	*Petroleum Refining*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
TOLUENE	FARWEST PAINT MANUFACTURING	TUKWILA	KING	*Chemicals & Allied Products Mfg.*
	PRESERVATIVE PAINT CO	SEATTLE	KING	*Chemicals & Allied Products Mfg.*
	VAN WATERS & ROGERS INC KENT	KENT	KING	*Chemical/Petroleum Products-Wholesale*
TRICHLOROETHYLENE	CASCADE COLUMBIA DISTRIBUTION	SEATTLE	KING	*Chemical/Petroleum Products-Wholesale*
XYLENE (MIXED ISOMERS)	FARWEST PAINT MANUFACTURING	TUKWILA	KING	*Chemicals & Allied Products Mfg.*
	KOCH MATERIALS CO SPOKANE	SPOKANE	SPOKANE	*Petroleum Refining*
	PRESERVATIVE PAINT CO	SEATTLE	KING	*Chemicals & Allied Products Mfg.*
ZINC (FUME OR DUST)	CANAM STEEL CORP	SUNNYSIDE	YAKIMA	*Fabricated Metal Products Mfg.*
ZINC COMPOUNDS	ACHILLES USA INC	EVERETT	SNOHOMISH	*Rubber & Plastics Mfg.*
	BETZ DEARBORN-WASHOUGAL	WASHOUGAL	CLARK	*Chemicals & Allied Products Mfg.*
	PURINA MILLS INC SPOKANE	SPOKANE	SPOKANE	*Food & Kindred Products Mfg*