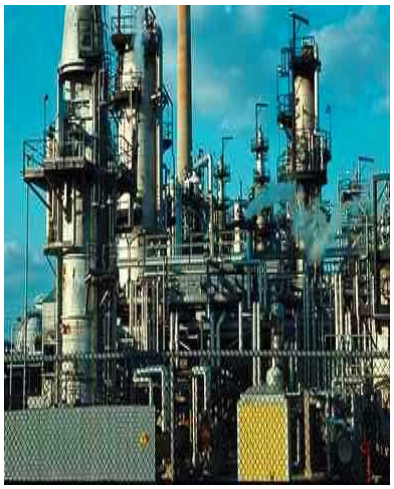
new jersey department of environmental protection

RELEASE AND POLLUTION PREVENTION AND COMMUNITY RIGHT TO KNOW ANNUAL REPORT FOR REPORTING YEARS 2005 & 2006

An Analysis of Release and Pollution Prevention
and Community Right To Know Data for 2005 & 2006



March 2009

Jon S. Corzine, Governor
Mark N. Mauriello, Acting Commissioner

The Release and Pollution Prevention and Community Right To Know Annual Report for Reporting Years 2005 & 2006

New Jersey Department of Environmental Protection
Environmental Regulation
Division of Environmental Safety and Health
Office of Pollution Prevention and Right To Know
P.O. Box 443
Trenton, NJ 08625-0443
(609) 777-0518

www.state.nj.us/dep/opppc

Jon S. Corzine, Governor
Mark N. Mauriello, Acting Commissioner

The Release and Pollution Prevention and Community Right To Know Annual Report for Reporting Years 2005 & 2006

Table of Contents

Executive Summary

New Jersey was one of the first states in the nation to require public reporting of toxic and hazardous chemical storage, or inventory, data and chemical throughput and multi-media environmental release data, and to establish a mechanism to promote public awareness of the information. The first hazardous substances inventory data for New Jersey was collected for reporting year (RY) 1984. The inventory data are reported annually on the Community Right to Know (CRTK) Survey. Chemical throughput, or materials accounting, data were first collected statewide for RY 1987 and are reported on the Release and Pollution Prevention Report (RPPR). This summary report represents a landmark 20th year of materials accounting data reporting by New Jersey industry. Materials accounting includes facility-level chemical throughput, environmental releases, on-site waste management and quantities sent to off-site locations for further waste management or disposal. These data are reported on an annual basis, along with other supporting information about toxic and hazardous chemicals and facility processes. Materials accounting provides a comprehensive, or holistic, view of chemical use and management at a facility for a reporting year.

Overview of Findings

Community Right to Know (CRTK) Survey

- 9,035 facilities reported chemical storage for RY 2005 and 9,582 facilities reported for 2006
- There are 958 unique substances and compound categories found on the New Jersey Environmental Hazardous Substance (EHS) list - 575 of them were reported for RY 2005 while 573 were reported for 2006
- 37,491 EHS records were reported for RY 2005 while 37,948 EHS records were reported for 2006
- 8,600 facilities reported one or more of the top 20 EHSs for RY 2005 and 9,162 facilities reported top 20 EHSs for 2006
- The top 20 most frequently reported EHSs accounted for 65.5% of the substance records for RY 2005 and 66.8% for 2006
- Bergen County had the most facilities reporting EHSs in RY 2005 and 2006 (1,052 and 1,131 respectively); Salem County had the fewest (86 & 88). Middlesex County had the most EHS records in RY 2005 and 2006 (4,876 & 4,883); Cape May County had the fewest (228 & 247).
- The industry summary for RY 2005 and 2006 (by 3-digit North American Industry Classification System [NAICS] code) shows that gasoline stations (NAICS # 447) had the highest number of facilities reporting (1,566 and 1,755 respectively).
- Chemical Manufacturing (NAICS # 325) had the highest number of substances reported (363 and 352) and the highest number of EHSs records reported (6,339 and 6,110) for both years.

For both RY 2005 and 2006 the number of facilities reporting inventories and the number of hazardous substance storage records were lower than those reported for 2004. All numbers reported are a "snapshot" in time, are somewhat fluid, and are subject to a variety of conditions and reporting challenges. One of the most important considerations is the number of facilities

that comply from year to year by submitting the CRTK Survey. The challenge is that businesses come into being, they close, they change ownership, or they overlook reporting obligations. The New Jersey Department of Environmental Protection (NJDEP) commits to compliance assistance through database analyses of which facilities are potentially out of compliance and through field inspections by Department staff or delegated inspections by County Lead Agencies.

The NJDEP adopted changes to the Worker and Community Right to Know (W&CRTK) regulations, New Jersey Administrative Code (N.J.A.C.) 7:1G that expanded the reporting exemptions for certain facilities. The changes, which took affect for RY 2004, exempt facilities that do not use any hazardous substances or that use hazardous substances below the reporting thresholds from the annual CRTK reporting requirements provided that initial notice, in the form of a CRTK Survey, is submitted. Additionally, an exemption was added for unstaffed sites provided that federal EPCRA inventory thresholds were not exceeded. These changes most likely account for the decrease in the number of facilities reporting inventories and the number of hazardous substance storage records. Other factors for lower numbers may be: 1) facilities may be reducing storage quantities and the subsequent costs of maintaining chemical inventories; and 2) facilities may be moving away from toxic and hazardous substances and moving toward environmentally friendlier substances when possible.

Release and Pollution Prevention Report (RPPR)

- 528 facilities submitted materials accounting data for RY 2005 and 490 submitted for 2006 (including Dioxin and Dioxin-like Compounds)
- 2,060 chemical records were submitted for RY 2005 and 1,941 were submitted for 2006 (including Dioxin and Dioxin-like Compounds)
- New Jersey facilities reported 221 of the 609 listed chemicals and compound categories for RY 2005 and reported 202 chemicals or compounds for 2006 (including Dioxin and Dioxin-like Compounds)
- Facilities reported almost 25.3 billion pounds of chemical Use for RY 2005 and almost 21.1 billion pounds for 2006
- Facilities reported more than 274.1 million pounds of nonproduct output (NPO) for RY 2005 and more than 256.2 million pounds of NPO for 2006
- Facilities reported on-site releases of more than 20.1 million pounds for RY 2005 and almost 18.5 million pounds for 2006
- 674 reports for carcinogenic substances were submitted for RY 2005 and 629 carcinogen reports were submitted for 2006
- Facilities reported 7.5 billion pounds of carcinogens Used for RY 2005 and almost 5 billion pounds for 2006
- Facilities reported almost 33 million pounds of nonproduct output of carcinogens for RY 2005 and 27.6 million pounds for 2006
- Facilities reported almost 990,000 pounds of on-site releases of carcinogens for RY 2005 and over 731,000 pounds for 2006

Compared to RY 2004, there were more facilities reporting for 2005 and fewer reporting for 2006. The number of substance reports, and the amount of chemical Use and NPO are lower

than 2004. However, the amount of on-site releases for both RY 2005 and 2006 are greater than for 2004 largely due to increased stack air emissions and surface water discharges.

PSEG Fossil LLC (Mercer Generating, Hamilton Twp), PSEG Fossil LLC (Hudson Generating, Jersey City), and RC Cape May Holdings LLC (B L England Generating Station, Beesley's Point) accounted for the significant increases of note when compared to 2004 data. Mercer Generating's stack emissions increased nearly one million pounds from 2004 to 2005 and more than 900,000 pounds in 2006 compared to 2004. The increase was predominantly due to hydrochloric acid aerosols, sulfuric acid aerosols and hydrogen fluoride emissions. Hudson Generating's stack emissions increased more than 840,000 pounds from 2004 to 2005. Again, hydrochloric acid aerosols, sulfuric acid aerosols and hydrogen fluoride emissions were the significant increases. B L England Generating's sulfuric acid aerosol stack emissions increased more than 309,000 pounds from 2004 to 2006.

DuPont Chambers Works (E I DuPont, Pennsville), ConocoPhillips Refinery (Linden), and Mallinckrodt Baker Inc (Phillipsburg) accounted for the significant increases of note when compared to 2004 data. DuPont Chambers Works' surface water discharges increased more than 1,161,000 pounds in 2005 and more than 1,230,000 pounds in 2006 compared to 2004. The increase was predominantly due to water dissociable nitrate compounds, sodium nitrite and epichlorohydrin discharges. ConocoPhillips' surface water discharges increased more than 191,000 pounds in 2005 and more than 396,000 pounds in 2006 compared to 2004. The increase was exclusively due to water dissociable nitrate compounds discharges. Mallinckrodt Baker's surface water discharges increased nearly 233,000 pounds in 2006 compared to 2004.

The general trend points to lower numbers being reported year after year. A comparison of RY 2005 and 2006 data showed that about 50 facilities that reported for 2005 did not report for 2006 but there were 12 new facilities reporting for 2006. Many of the RY 2005 facilities reported falling below the reporting threshold for previously reported chemicals and several went out of business. (Note: the RPPR numbers reported in this Overview of Findings do not include any data for "Dioxin and Dioxin-like Compounds," unless noted, as the quantities reported for dioxins are in grams and not pounds as for all other substances.)

The Release and Pollution Prevention and Community Right to Know Annual Report for 2005 & 2006

The Release and Pollution Prevention and Community Right to Know Program

A program designed to collect information about the storage, release and transfer of hazardous substances in the community and to provide citizens and government agencies with access to that information.

I. Introduction and Background

In passing the New Jersey Worker and Community Right to Know (W&CRTK) Act in 1983,[1] the New Jersey Legislature determined that:

> "…it is in the public interest to establish a comprehensive program for the disclosure of information about hazardous substances in the workplace and the community, and to provide a procedure whereby residents of this State may gain access to this information."

This report is an analysis and summary of the 2005 and 2006 hazardous substances inventory data and the 2005 and 2006 materials accounting data reported by New Jersey companies in support of the goal of "…access to this information." This Report and more detailed appendices can be found online at www.state.nj.us/dep/opppc.

Information submitted by facilities under the New Jersey Worker and Community Right to Know (W&CRTK) Act (N.J.S.A. 34:5A-1 et seq.) and subsequent regulations includes two types of data. The first is hazardous substance inventory data. Inventory data covers the substances that are stored on site during the year at facilities in New Jersey. Included, among other information, are the substance name, its physical state (solid, liquid or gas), the maximum daily amount and average daily amount on site (by use of inventory range codes), storage container types, and substance hazard codes (e.g., health hazards, flammables, etc.). These data are submitted annually on the Community Right to Know (CRTK) Survey. The reported substances are those found on the CRTK Environmental Hazardous Substance (EHS) list. The EHS list includes, among other chemicals, the Extremely Hazardous Substances (ExmHS for the purposes

[1] N.J.S.A. 34:5A L.1983, c. 315, s. 1, effective Aug. 29, 1984

of this report) as defined by the federal Emergency Planning and Community Right To Know Act of 1986 (EPCRA), Section 302 emergency planning provisions, and the Toxic Chemicals as defined by EPCRA Section 313, the Toxic Chemical Release Inventory (TRI). The EHS list also includes some of the substances classified as Extraordinarily Hazardous Substances (ExHS). These are substances covered by the New Jersey Toxic Catastrophe Prevention Act (TCPA). See Appendix A for the list of TCPA regulated substances that also appear on the EHS List.

New Jersey employers are in businesses that may be regulated by the state W&CRTK Act, the federal EPCRA, also known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA), or both. A regulated employer is required to report its inventory of the hazardous substances manufactured, used, or stored at its facility. Appendix B shows the business activities, according to the North American Industry Classification System (NAICS) codes that are subject to the CRTK reporting requirements under the state Act. In contrast to the state law, EPCRA reporting requirements are based on hazardous substance inventory amounts and not on a business' NAICS code. Inventory information is collected and made available to the public and to emergency responders such as police and fire departments and local offices of emergency management. It is also used to supplement other regulatory programs within the state and to facilitate proper planning for a response to an emergency at a facility that may threaten the surrounding community or the environment. The CRTK Surveys are due to the NJDEP by March 1 of the year following the reporting year.

The second data type collected under the W&CRTK Act is commonly referred to as facility-level materials accounting data that provides a complete view of hazardous substances as they flow through a facility's manufacturing operations and the community. This information, which is collected only in this manner in the state of New Jersey, provides insight into annual chemical throughput and Use, including chemical releases, and pollution prevention accomplishments that cannot be seen by analyzing other data such as the federal TRI. Under NJDEP's materials accounting requirements, an employer reports approximately 20 different data elements that make up a complete accounting of the hazardous substance throughput or Use. Data are reported annually to the NJDEP on a form known as the Release and Pollution Prevention Report (RPPR). Materials accounting data permit the calculation of chemical inputs and outputs (in pounds) from processes and activities, the generation of mass balances (where inputs should equal outputs), and the tracking of trend data over long periods of time.

Any New Jersey employer required to submit a TRI form (Form R including release data or the shorter Form A Certification Statement) is also required to submit the RPPR. Owners and operators of facilities that meet all three of the following criteria must submit a RPPR:

- the facility has 10 or more full-time employee equivalents (that is, the facility's payroll includes 20,000 or more work-hours for the reporting year); and

- the facility is included in a regulated NAICS code; regulated NAICS codes correspond to the following Standard Industrial Classification (SIC) codes: SIC 20 through 39, 4911 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4931 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in commerce), 4939 (limited to facilities that combust coal and/or oil for the purpose of generating electricity for distribution in

commerce), 4953 (limited to facilities regulated under RCRA subtitle C, 42 U.S.C. section 6921 et seq.), 5169, and 5171; and

- the facility manufactures (defined to include import), processes, or otherwise uses any TRI listed chemical in quantities equal to or greater than the established threshold (for most substances the thresholds are 25,000 pounds for manufacture or process, and 10,000 pounds for otherwise use; however for persistent, bioaccumulative and toxic (PBT) substances the threshold may be 100 or 10 pounds, or even 0.1 gram for dioxin and dioxin-like compounds.

Facilities that are required to complete one or more federal TRI Form R or Form A must provide additional information to NJDEP regarding the EPCRA Section 313 toxic chemicals that were reported on the TRI forms. These facilities are required to submit the RPPR, as well as the TRI forms, by July 1 of the year that follows the reporting year. Like the TRI forms, the data reported on the RPPR are facility-wide, chemical-specific annual quantities for the previous calendar year. In addition to quantities of environmental releases, on-site management of wastes, and off-site transfers that are reported on Form R (or the substance name only as reported on the Form A), chemical throughput data and annual pollution prevention activity information are collected on the RPPR. These result in a comprehensive collection of data.

The CRTK and RPPR data used for this report were updated as of June 2008, and have since been locked to ensure that the data set remains consistent. An Annual Report of the 2004 data was published in January 2007 and is also available at the Internet address cited previously. The data in this report may be compared with the 2004 report to identify short-term trends in hazardous substances inventories and materials accounting. Additionally, a Trends Report was published by the Department in the Spring of 2007 and analyzed changes in the Use of hazardous substances and the generation as nonproduct output (NPO) for reporting years 1994 – 2004. The NJDEP encourages the staff of industrial facilities, the general public and other stakeholders to review and ask questions concerning the data and analyses presented in this and prior reports. The Office of Pollution Prevention and Right to Know welcomes your comments. Send them to the address listed inside the front cover of this report.

II. Community Right to Know Survey Summary

Approximately 30,000 regulated employers are covered annually by the W&CRTK Act environmental hazardous substance inventory reporting requirements based on their NAICS code classification. Also, there are businesses that report only according to the inventory requirements of the federal Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) while not being covered under the state law. Some facilities report according to the requirements of both the state and federal programs.

The state and federal CRTK laws are similar in concept although coverage and reporting requirements differ between the two. Businesses covered under the state and/or the federal CRTK laws are required to report their chemical inventories to the NJDEP on the NJ CRTK Survey by March 1 of the year following the reporting year. The W&CRTK Act regulates employers by business activity, that is, those that are most likely to store and use NJ Environmental Hazardous Substances. The general threshold for EHSs is 500 pounds. Business activities were once designated by the Standard Industrial Classification (SIC) code system and are now designated by the NAICS code (see Appendix B for the list of New Jersey regulated NAICS codes). Coverage under the federal EPCRA law is based on the quantity of a hazardous substance stored on site at the facility without concern to its industrial classification or business activity. The general threshold for EPCRA-reportable substances is 10,000 pounds. The EPCRA Section 302 ExmHSs may have much lower thresholds including 100, 10 or even one pound. Public sector employers are exempt from federal inventory reporting requirements.

Of the covered employers, about 9,000 reported inventories of NJ EHSs above threshold quantities for RY 2005 and nearly 9,600 reported for RY 2006 (see Table 1). There were 958 unique substances and chemical categories on the CRTK EHS list, including 355 substances on the federal EPCRA Section 302 ExmHS list. There are 30 chemical categories on the EHS list that may each cover hundreds of individual chemicals as well, but the information for chemicals in a group is summarized and reported under the category name.

Table 1. Summary and Comparison of CRTK Data for 2005 & 2006

	2005	**2006**
# of Facilities reporting Environmental Hazardous Substances (EHS)	9,035	9,582
# of Environmental Hazardous Substances (EHS) Records	37,491	37,948
# of Facilities reporting EHSs at 10,000 pounds or more	3,598	3,965
# of EHS Records at 10,000 pounds or more	7,420	8,127
# of Facilities reporting EPCRA 302 Substances	2,196	2,311
# of EPCRA 302 Extremely Hazardous Substances (ExmHS) Records	4,024	4,090
# of Facilities reporting TCPA Extraordinarily Hazardous Substances	2,061	2,083
# of Extraordinarily Hazardous Substances (ExHS) Records	3,677	3,634

Table 1 shows the number of facilities that submitted CRTK inventory data and the number of substance records reported for: 1) all EHSs; 2) the storage of EHSs at 10,000 pounds or more; 3) EPCRA 302 substances; and 4) TCPA ExHS. More than 2,000 facilities reported both EPCRA 302 and TCPA ExHS substances each year.

The facilities subject to EPCRA 302 are required to must notify the LEPC of a facility representative who will participate in the emergency planning process when a substance is stored in excess of the EPCRA 302 threshold planning quantity for each individual substance.

Contrary to the number of facilities reporting ExHSs on the CRTK Survey, the TCPA Program has only about 90 facilities that are specifically covered by its program requirements. The goal of the TCPA program is to protect the public from catastrophic accidental releases of extraordinarily hazardous substances (ExHS) into the environment. TCPA requires owners or operators of facilities having ExHSs at certain threshold quantities to anticipate the circumstances that could result in accidental releases of ExHS and to take precautionary or preemptive actions and, where appropriate, to implement preventive measures to avert such releases.

A small group of EHSs accounted for the majority of substance reports and the facilities that are reporting them. Tables 2 and 3 present the top 20 most frequently reported EHSs for 2005 and 2006, respectively. The same 20 substances are found on both lists with the first 13 being identically ranked for both years. This is not surprising considering the significance of certain industry sectors in New Jersey, specifically gasoline and petroleum products manufacturing, marketing and distribution.

Tables 4 and 5 present the top 10 most frequently reported Extremely Hazardous Substances pursuant to federal EPCRA Section 302 reporting requirements for 2005 and 2006. The same 10 substances are reported and identically ranked for both years with the exception of hydrogen peroxide and chlorine exchanging places as #5 and #6 from 2005 to 2006.

For both RY 2005 and 2006, 77 different industry subsectors (by 3-digit NAICS code) submitted CRTK inventory reports. Tables 6 and 7 present the top 10 reporting industries on the CRTK Survey, summarized by 3-digit NAICS code. Gasoline Stations (NAICS # 447) top the lists for 2005 and 2006 with the most facilities reporting hazardous substance inventories. The Chemical Manufacturing subsector (NAICS # 325) reported the greatest variety of substances and the most substance records for each reporting year. The same 10 industry sectors are represented in each year; the top eight are identically ranked. Utilities are #9 in 2005 and #10 in 2006. Administrative and Support Services are #10 in 2005 and #9 in 2006.

A geographic summary of CRTK reports is presented in Table 8. Bergen County had the most facilities reporting EHSs in RY 2005 and 2006 (1,052 and 1,131 respectively); Salem County had the fewest number of facilities (86 & 88). Middlesex County had the most EHS records in RY 2005 and 2006 (4,876 & 4,883); Cape May County had the fewest EHS records (228 & 247).

Table 2. The Top 20 Most Frequently Reported Environmental Hazardous Substances on the 2005 Community Right to Know Survey at any Inventory Quantity

CAS #	SUBSTANCE NAME	# of Facilities	# of Records
68476-34-6	DIESEL FUEL OR #2 HEATING OIL	2,350	3,122
8006-61-9	GASOLINE	2,645	2,897
107-21-1	ETHYLENE GLYCOL	1,770	2,671
7664-93-9	SULFURIC ACID	1,467	2,058
74-98-6	PROPANE	1,493	1,952
7439-92-1	LEAD	1,416	1,591
74-86-2	ACETYLENE	1,204	1,259
108-88-3	TOLUENE	616	1,235
67-56-1	METHANOL	664	1,151
127-18-4	TETRACHLOROETHYLENE [PERCHLOROETHYLENE]	950	1,114
1330-20-7	XYLENE (MIXED ISOMERS)	544	1,030
67-63-0	ISOPROPYL ALCOHOL (MFG-STRONG ACID PROCE	446	802
N230	GLYCOL ETHERS (EXCEPT SURFACTANTS)	194	595
N982	ZINC COMPOUNDS	220	544
7647-01-0	HYDROCHLORIC ACID	280	508
8008-20-6	KEROSENE	389	474
7440-50-8	COPPER	280	425
7664-41-7	AMMONIA	284	398
75-09-2	DICHLOROMETHANE	239	382
75-45-6	CHLORODIFLUOROMETHANE [HCFC-22]	182	331
	TOTAL:	**8,600**	**24,539**

Table 3. The Top 20 Most Frequently Reported Environmental Hazardous Substances on the 2006 Community Right to Know Survey at any Inventory Quantity

CAS #	SUBSTANCE NAME	# of Facilities	# of Records
68476-34-6	DIESEL FUEL OR #2 HEATING OIL	2,528	3,322
8006-61-9	GASOLINE	2,887	3,181
107-21-1	ETHYLENE GLYCOL	1,720	2,612
7664-93-9	SULFURIC ACID	1,624	2,235
74-98-6	PROPANE	1,529	1,963
7439-92-1	LEAD	1,574	1,772
74-86-2	ACETYLENE	1,239	1,287
108-88-3	TOLUENE	621	1,182
67-56-1	METHANOL	691	1,148
127-18-4	TETRACHLOROETHYLENE [PERCHLOROETHYLENE]	985	1,142
1330-20-7	XYLENE (MIXED ISOMERS)	550	1,045
67-63-0	ISOPROPYL ALCOHOL (MFG-STRONG ACID PROCE	443	811
N230	GLYCOL ETHERS (EXCEPT SURFACTANTS)	200	573
7647-01-0	HYDROCHLORIC ACID	297	516
N982	ZINC COMPOUNDS	218	510
8008-20-6	KEROSENE	389	476
7440-50-8	COPPER	289	442
75-45-6	CHLORODIFLUOROMETHANE [HCFC-22]	205	386
7664-41-7	AMMONIA	264	370
75-09-2	DICHLOROMETHANE	244	368
	TOTAL:	**9,162**	**25,341**

Table 4. The Top 10 Most Frequently Reported Extremely Hazardous Substances (EPCRA 302) on the 2005 Community Right to Know Survey at any Inventory Quantity

CAS #	SUBSTANCE NAME	# of Facilities	# of Records
7664-93-9	SULFURIC ACID	1,467	1,775
7664-41-7	AMMONIA	284	347
7697-37-2	NITRIC ACID	179	242
50-00-0	FORMALDEHYDE	112	141
7722-84-1	HYDROGEN PEROXIDE (> 52% CONC.) ^	110	140
7782-50-5	CHLORINE	109	128
123-31-9	HYDROQUINONE	79	89
108-95-2	PHENOL	45	57
143-33-9	SODIUM CYANIDE (NA(CN)) ^	48	57
108-05-4	VINYL ACETATE	44	53
	TOTAL:	**1,932**	**3,029**

Table 5. The Top 10 Most Frequently Reported Extremely Hazardous Substances (EPCRA 302) on the 2006 Community Right to Know Survey at any Inventory Quantity

CAS #	SUBSTANCE NAME	# of Facilities	# of Records
7664-93-9	SULFURIC ACID	1,624	1,942
7664-41-7	AMMONIA	264	329
7697-37-2	NITRIC ACID	180	242
50-00-0	FORMALDEHYDE	104	128
7782-50-5	CHLORINE	105	124
7722-84-1	HYDROGEN PEROXIDE (> 52% CONC.) ^	96	123
123-31-9	HYDROQUINONE	71	78
108-95-2	PHENOL	48	61
143-33-9	SODIUM CYANIDE (NA(CN)) ^	47	56
108-05-4	VINYL ACETATE	43	53
	TOTAL:	**2,054**	**3,136**

The EPCRA Section 302 Extremely Hazardous Substances (ExmHS) are a subset of the NJ CRTK Environmental Hazardous Substance List. In part, EPCRA was created to help communities plan for emergencies involving hazardous substances. Nearly 700 active facilities have submitted notifications to the NJDEP that they are subject to the emergency planning requirements of EPCRA. Compare this with the more than 2,000 facilities noted in Table 1 that reported storage of one or more ExmHS. Not all facilities stored these substances in excess of the threshold reporting quantities.

Emergency planning is accomplished when: 1) regulated facilities notify the state and local emergency responders of the presence of ExmHSs stored in excess of the EPCRA 302 threshold planning quantity for each individual substance; and 2) the facility notifies the LEPC of a facility representative who will participate in the emergency planning process. Not all facilities that report ExmHSs have them above EPCRA planning thresholds and not all ExmHSs reported are above planning thresholds. The numbers presented in this report are an aggregate of all inventory records submitted to the NJDEP.

Table 6. Top 10 Industries (3-digit NAICS Code) by Number of Facilities Reporting on the 2005 Community Right to Know Survey

NAICS Code 1st 3 digits	NAICS Description	# of Facilities	# of Substances	# of Records
447	Gasoline Stations	1,566	80	3,531
811	Repair and Maintenance	899	172	3,245
812	Personal and Laundry Services	741	48	1,041
424	Merchant Wholesalers, Nondurable Goods	548	264	2,307
517	Telecommunications	456	15	1,052
325	Chemical Manufacturing	445	363	6,339
332	Fabricated Metal Product Manufacturing	417	120	2,060
441	Motor Vehicle and Parts Dealers	346	86	1,436
221	Utilities	276	58	1,051
561	Administrative and Support Services	274	100	638

Table 7. Top 10 Industries (3-digit NAICS Code) by Number of Facilities Reporting on the 2006 Community Right to Know Survey

NAICS Code 1st 3 digits	NAICS Description	# of Facilities	# of Substances	# of Records
447	Gasoline Stations	1,755	60	3,677
811	Repair and Maintenance	946	181	3,280
812	Personal and Laundry Services	785	29	1,013
424	Merchant Wholesalers, Nondurable Goods	568	257	2,396
517	Telecommunications	472	13	1,048
325	Chemical Manufacturing	441	352	6,110
332	Fabricated Metal Product Manufacturing	440	120	2,086
441	Motor Vehicle and Parts Dealers	378	87	1,465
561	Administrative and Support Services	284	113	683
221	Utilities	257	54	1,053

New Jersey industry is quite diverse. As noted earlier, thousands of facilities in 77 different business activity codes (by 3-digit NAICS classifications) submitted hazardous substance inventory reports for RY 2005 and 2006. Not all New Jersey business activities are covered under the state and federal reporting requirements. And not all businesses that are in regulated industry codes store or use hazardous substances. Tables 6 and 7 rank the top 10 industry codes by the number of facilities that reported storage of New Jersey CRTK EHSs. The number of EHSs reported and the number of individual substance records for these industry groups are also listed. As noted earlier, Gasoline Stations top the lists for both years with the most number of facilities reporting hazardous substance inventories while the Chemical Manufacturing sector reported the greatest variety of substances and the most substance records for each reporting year.

Table 8. Number of CRTK Facilities and EHS Reports Submitted per County

2005 CRTK Survey

COUNTY	# of Facilities	# of Records
BERGEN	1,052	3,874
MIDDLESEX	937	4,876
ESSEX	776	3,460
UNION	661	3,606
MORRIS	600	2,136
MONMOUTH	563	1,591
PASSAIC	536	2,114
BURLINGTON	465	1,759
CAMDEN	452	1,479
HUDSON	441	1,674
OCEAN	395	1,052
SOMERSET	370	1,578
MERCER	353	1,175
GLOUCESTER	300	2,668
ATLANTIC	236	745
HUNTERDON	193	682
SUSSEX	188	519
CUMBERLAND	184	634
WARREN	158	817
CAPE MAY	89	228
SALEM	86	824
Total:	9,035	37,491

2006 CRTK Survey

COUNTY	# of Facilities	# of Records
BERGEN	1,131	4,066
MIDDLESEX	991	4,883
ESSEX	811	3,441
UNION	702	3,387
MORRIS	663	2,217
MONMOUTH	600	1,599
PASSAIC	584	2,249
BURLINGTON	501	1,756
CAMDEN	472	1,566
HUDSON	447	1,611
OCEAN	410	1,034
SOMERSET	396	1,748
MERCER	373	1,187
GLOUCESTER	313	2,672
ATLANTIC	235	684
HUNTERDON	215	707
SUSSEX	201	550
CUMBERLAND	188	646
WARREN	170	815
CAPE MAY	91	247
SALEM	88	883
Total:	9,582	37,948

A geographic analysis of the CRTK data is useful in identifying areas or regions for a focus on potential environmental issues, emergency planning, and/or compliance assistance. The ranking of counties by the number of facilities that reported hazardous substance inventories is identical for 2005 and 2006. However, the number of facilities and the number of substance records reported varies, occasionally by quite a bit. For example, approximately 80 more facilities reported in Bergen County in 2006 than reported in 2005. These data may then be used by the Department to prioritize, for example, field compliance activities.

III. Release and Pollution Prevention Report Summary

Any New Jersey facility that is subject to the federal TRI reporting requirements is also subject to the state RPPR requirements. The RPPR is made up of four sections (A, B, C and D). Information provided in Section A pertains to the facility site and its overall operations. Only one Section A is prepared and submitted for each reporting facility. Section B consists of questions concerning chemical throughput, environmental release and off-site transfer data, on-site waste management activities, as well as some general pollution prevention (P2) activity data, about each specific reportable substance subject to the reporting requirements. One RPPR Section B form must be completed for each reportable substance that was manufactured, processed, or otherwise used in excess of 10,000 pounds or the lower PBT threshold. Section C focuses on facility-level P2 progress – changes in the Use and NPO of a substance per unit of production - about each specific reportable substance subject to the pollution prevention reporting requirements. Section D focuses on P2 progress for substances within targeted processes or targeted grouped processes identified in a facility's Pollution Prevention Plan. The Pollution Prevention Process-Level Data Worksheet (P2-115) may be submitted in place of Sections C and D to report on P2 progress. The P2-115 is a spreadsheet-style form that addresses the substance Use and nonproduct output (NPO) data elements for a five-year P2 planning cycle. The NJDEP encourages submission of the P2-115 worksheet for each reportable substance in place of Sections C and D.

An on-site release is a discharge of a toxic chemical at the facility into the environment. On-site management includes recycling the chemical back into a process, energy recovery through combustion in an approved unit (industrial boiler, furnace, or kiln), or destruction of the substance through a treatment process. An off-site transfer is a shipment of a toxic chemical as, or in, a waste to a facility that is geographically or physically separate from the facility that submits the RPPR. Off-site transfers may occur for recycling, energy recovery, treatment or disposal and include discharges to publicly owned treatment works (POTWs). Nonproduct output (NPO) means all hazardous substances or hazardous wastes that are generated prior to storage, out-of-process recycling, treatment, control or disposal, and that are not intended for use as a product.[2] Therefore, NPO consists of on-site releases (stack and fugitive air, etc.), on-site waste management, and off-site waste transfers (see Table 9 for all the materials accounting data elements).

For reporting purposes, an employer is not required to monitor or sample the various processes and/or waste streams that its materials accounting report covers to any extent beyond the requirements of federal and state laws, regulations and permits regarding such processes and waste streams. Instead, quantities reported may be based on best estimates rather than actual monitoring or measurements. If an employer is required to test a waste stream or a discharge pipe under other federal or state laws, regulations, or permits, the results of those tests are typically used in developing the materials accounting data. Other quantities may be determined by a variety of other methods.

There are four basic methods by which industry may calculate hazardous substance quantities: 1) an estimate based on actual monitoring data or measurements for the substance; 2) an estimate based on mass balance calculations; 3) an estimate based on published emission factors; and

[2] NJ Department of Environmental Protection, Pollution Prevention Program Rules, New Jersey Administrative Code (N.J.A.C.) 7:1K-1.5 Definitions.

4) an estimate based on other approaches such as engineering calculations or best engineering judgment. Naturally, different reporting methods may introduce some level of variation into the data set. Different methods of calculating quantities produced, consumed, released and transferred may also be employed for any one substance and affect the final estimates and materials accounting. Similar to Form R reporting, these estimated figures may be rounded to two significant integers. However, the NJDEP does not encourage the practice of rounding in the materials accounting process since rounding may introduce further discrepancies than may already exist in the estimation techniques. NJDEP encourages the use of the estimated value to the precision that the estimation technique supports.

Data quality in the materials accounting process has long been a focus of evaluations and assessments of chemical throughput data. These data are the foundation of NJDEP's P2 program which tracks progress in reducing the Use and NPO of toxic and hazardous substances in New Jersey. The NJDEP reviews the materials accounting data submitted by facilities to identify reporting errors and to improve the quality of the data. Also, the internet-based electronic RPPR (eRPPR) reporting software contains program logic, data checks and warning messages that flag data entry errors. From the reported RPPR data, total input and output quantities are calculated. Using these two calculated values, an assessment is made of the mass balance, or closure, achieved in the materials accounting process. The resultant discrepancies in materials accounting are then addressed as either a quantitative difference or a percent error.

The department traditionally investigated discrepancies between inputs and outputs, especially the large ones, to gain a better understanding of the underlying reasons for any errors. A facility that reports large quantitative or large percent errors may be contacted and NJDEP staff will discuss the calculated discrepancies. These discussions prove to be beneficial in several ways. First, facility personnel receive direct technical guidance from department staff. Second, revised reports may then be submitted, improving the overall quality of the database. Third, the NJDEP staff is alerted to misunderstandings or misinterpretations of the instructions and, therefore, the errors made in the completion of the reporting form.

One outcome of these annual reviews was a new rule effective RY 2004 requiring that all reports be submitted using the Department's eRPPR that was first made available for RY 2000. The eRPPR contains program logic, error checks and warning messages that minimize, if not eliminate, materials accounting discrepancies and numerous other reporting errors noted through previous quality assurance reviews of paper submissions. This has been a major step forward in providing the most accurate data possible. Another rule requirement effective RY2004 is that the total input and output quantities may not differ by more than five percent (±5%). Therefore, once a Section B is completed for a substance, a materials accounting assessment is made and if there is any difference between the input and output quantities the software will advise the user of the quantity and percent discrepancy. If the difference is greater than ±5%, the Section B will not be considered complete and the user will be required to refine the quantities so that an acceptable difference is achieved.

New Jersey's CRTK program rules allow facility owners and operators to claim chemical throughput data as trade secret, thereby protecting sensitive and confidential business information. Trade secret data are not entered into the computerized database and are, therefore, not a part of these analyses. Environmental release, on-site management of nonproduct output,

and off-site transfer data, however, may not be claimed as confidential. For 2005 and 2006, three facilities each claimed throughput confidentiality for 21 and 20 chemical reports, respectively. One of these facilities also submitted one 2006 RPPR with full materials accounting data, i.e., no trade secret claims. Therefore, the materials accounting data summaries in this report exclude the chemical throughput data from these facilities and substance reports for which trade secret claims were made. Conversely, all summaries for NPO data elements do include all facilities and substance reports.

This report presents summaries of RY 2005 and 2006 materials accounting data for: 1) all hazardous substances; 2) carcinogens; 3) persistent, bioaccumulative, toxic (PBT) substances; 4) TCPA-regulated substances; and 5) dioxin and dioxin-like compounds. The last two categories are addressed in a simplified data analysis manner only. The focus of this report is on toxic and hazardous substance Use and the generation of these substances as NPO. Use is defined as the quantity consumed in process + the quantity shipped as (or in) product + all NPO. NPO is defined as the quantity of all on-site releases (including stack and fugitive emissions) + on-site waste management + off-site waste transfers + ending inventory (as NPO) – starting inventory (as NPO).

A. Materials Accounting Data Summary for All Hazardous Substances

A summary of the materials accounting data is presented in Table 9 for a side-by-side comparison of the 2005 and 2006 data. Except for the number of facilities and the number of substance reports, all quantities are in pounds per year. It becomes readily apparent that reductions in toxic chemical Use and the generation as NPO occurred across the board in almost all categories of materials accounting data elements. The few exceptions are increased surface water discharges, on-site land disposal, on-site and off-site energy recovery, and off-site disposal. (This summary does not include reports covering "Dioxin and Dioxin-like Compounds" since this chemical category is reported in grams and not in pounds as with all other substances.)

There is a data element listed in Table 9 as "EI (as NPO) - SI (as NPO)." This is the difference between the Ending Inventory (as Nonproduct Output) and the Starting Inventory (as Nonproduct Output). It is a calculated field from the data and not a reported field on the RPPR. A facility may have a substance as a waste in inventory at the start of or the end of the reporting year. The Starting Inventory as NPO was created during and leftover from the previous reporting year (or possibly multiple prior years). Among other evaluations, it is subtracted from the total amount of NPO to determine the quantity of NPO created in the reporting year. For any one facility and substance, this value may be positive or negative, depending on the specific amounts involved. Therefore, EI (as NPO) - SI (as NPO) summarizes the net change (plus or minus) in the quantity of the reported substance in inventory as a waste for the reporting year.

The data in Table 9 demonstrate a 16.7% reduction in the Use of toxic chemicals from 2005 to 2006. A 6.5% reduction in the quantity of NPO generated also occurred from 2005 to 2006. The percent changes noted are not adjusted for annual production of goods and services and may represent pollution prevention in practice, changes in market demands, or some combination of these and other factors.

Table 9. RPPR Materials Accounting Data (in pounds) - 2005 & 2006

	2005	2006
Number of Facilities	528	490
Number of Substance Reports	2,044	1,928
Starting Inventory (SI)	1,030,061,829	1,012,016,897
Starting Inventory as NPO	5,390,765	3,083,955
Manufactured	11,292,158,895	9,844,805,930
Brought on Site	13,910,783,743	10,990,469,318
Brought on Site as Recycled	90,372,612	51,501,101
Consumed	4,288,737,391	4,039,687,207
Shipped	20,730,863,462	16,772,989,107
Ending Inventory (EI)	995,617,851	851,378,254
Ending Inventory as NPO	3,272,496	4,605,872
NPO	274,152,349	256,217,499
On-Site Releases	20,110,353	18,454,378
Stack Air Emissions	12,101,769	10,254,340
Fugitive Air Emissions	1,375,688	1,094,255
Surface Water Discharges	6,463,522	6,934,873
Ground Water Discharges	3	3
Land Disposal on site	169,371	170,907
On-Site Management	173,507,084	165,350,725
Recycled & Reused on site	63,241,167	51,763,215
Energy Recovery on site	2,094,664	6,995,389
Destroyed on site	108,171,253	106,592,121
EI (as NPO) – SI (as NPO)	- 2,118,268	1,521,917
Off-Site Transfers	82,653,181	70,890,479
POTW Discharge	18,473,315	17,278,394
Waste Transfer – Recycling	39,413,031	30,461,512
Waste Transfer – Energy Recovery	16,970,102	17,379,976
Waste Transfer – Treatment	4,743,308	2,407,399
Waste Transfer – Disposal	3,053,213	3,362,987
Total Substance USE or Throughput	25,293,753,203	21,068,893,813

A.1. Use, NPO and On-site Releases by North American Industry Classification System

The conversion from SIC codes to NAICS codes (which occurred for RY 2006 for facilities subject to TRI and RPPR) to classify business activities, as well as the use of NAICS codes in analyzing and summarizing data by industry types, has created a few challenges of its own. The translation from SIC to NAICS was not a direct cross walk for all business activities. As a potentially extreme example, SIC group 30 – Rubber and Miscellaneous Plastics Products manufacturing, was converted to at least eight distinct NAICS subsectors (313, 314, 315, 316, 325, 326, 337 and 339). To further demonstrate this issue, 21 distinct 2-digit SIC groups

submitted RPPRs for RY 2004. In 2005 and 2006, 28 and 26 industry groups, respectively, by 3-digit NAICS code submitted RPPRs. So the same mix of facilities is divided into more NAICS classifications than previously grouped by SICs. Tables 10 and 11 present the top 10 industry groups (by 3-digit NAICS code) for toxic and hazardous chemical Use for RY 2005 and 2006, respectively. The mix and rankings of the top 10 industry subsectors are identical for both years, only the number of facilities and substance records and the quantities of Use are different. A NAICS group may be represented by only one facility or, as in the case of Chemical Manufacturing, more than one hundred facilities. The quantities in Tables 10 and 11 are for the entire NAICS group. The petroleum refineries and related business activities have traditionally overshadowed other industry groups in the quantities of Use. For both years, Petroleum and Coal Products Manufacturing (324) accounted for 62.5% of total chemical Use.

Table 10. Top 10 Industry Groups (3-digit NAICS Code) Reporting Chemical Use on the 2005 Release and Pollution Prevention Report

NAICS CODE	Description	# of Facilities	# of Reports	USE (lbs.)
324	Petroleum and Coal Products Manufacturing	21	163	15,807,438,442
424	Merchant Wholesalers, Nondurable Goods	31	258	6,382,571,822
325	Chemical Manufacturing	167	818	2,256,758,145
331	Primary Metal Manufacturing	38	140	396,948,653
326	Plastics and Rubber Products Manufacturing	32	70	212,868,123
335	Electrical Equip, Appliance, and Component Mfg	17	25	92,154,029
221	Utilities	19	133	54,577,335
332	Fabricated Metal Product Manufacturing	50	147	27,815,181
336	Transportation Equipment Manufacturing	10	26	12,937,059
322	Paper Manufacturing	17	39	9,786,582

Table 11. Top 10 Industry Groups (3-digit NAICS Code) Reporting Chemical Use on the 2006 Release and Pollution Prevention Report

NAICS CODE	Description	# of Facilities	# of Reports	USE (lbs.)
324	Petroleum and Coal Products Manufacturing	20	170	13,179,307,182
424	Merchant Wholesalers, Nondurable Goods	31	264	5,171,881,930
325	Chemical Manufacturing	155	756	1,974,837,200
331	Primary Metal Manufacturing	36	137	363,769,992
326	Plastics and Rubber Products Manufacturing	28	64	199,588,617
335	Electrical Equip, Appliance, and Component Mfg	15	25	55,692,941
221	Utilities	17	120	38,398,672
332	Fabricated Metal Product Manufacturing	45	141	28,837,394
336	Transportation Equipment Manufacturing	8	14	12,630,194
322	Paper Manufacturing	17	40	9,581,724

For both years, the top 10 industry groups accounted for more than 99.8% of all chemical Use reported on the RPPR. Nine of the 10 industry groups in Tables 10 and 11 showed decreases in Use, some substantial, from 2005 to 2006; Fabricated Metal Product Manufacturing (332) was the one exception.

Seeing that the top industry groups responsible for the largest amounts of Use are consistent from year to year, which facilities in each of these industries are the significant contributors to chemical Use? Tables 12 through 21 present the Top 10 facilities within each of the top five NAICS subsectors reporting the most chemical Use. Each of these tables also shows the quantity of Use for the 10 listed facilities and the percent contribution to the total Use reported by all facilities in the reporting year. Tables 12 and 13 show the top 10 facilities within the #1-ranked group: Petroleum and Coal Products Manufacturing. The same 10 facilities are ranked one through 10 and accounted for 62.5% of reported Use for all industries in both years.

Table 12. Top 10 Facilities in NAICS Group 324 for Use in 2005
(#1 - Petroleum and Coal Products Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
CONOCOPHILLIPS CO (LINDEN)	6,286,786,712	24.86 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	4,856,607,253	19.20 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	2,495,068,832	9.86 %
HESS CORPORATION (PORT READING)	1,881,913,818	7.44 %
CITGO ASPHALT REFINING CO. (WEST DEPTFORD TWP)	217,375,276	0.86 %
CHEVRON PRODUCTS COMPANY (PERTH AMBOY)	54,464,746	0.22 %
EXXON MOBIL OIL CORPORATION (PAULSBORO)	11,975,363	0.05 %
EXXONMOBIL L&S COMPANY (BAYONNE)	909,218	0.00 %
OWENS-CORNING (KEARNY)	433,666	0.00 %
TOTAL LUBRICANTS USA INC (LINDEN CITY)	364,919	0.00 %
NAICS #324 - Sum of Top 10:	**15,805,899,804**	**62.49 %**

Table 13. Top 10 Facilities in NAICS Group 324 for Use in 2006
(#1 - Petroleum and Coal Products Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
CONOCOPHILLIPS CO (LINDEN)	5,627,085,093	26.71 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	4,317,211,708	20.49 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	1,804,811,815	8.57 %
HESS CORPORATION (PORT READING)	1,108,364,411	5.26 %
CITGO ASPHALT REFINING CO. (WEST DEPTFORD TWP)	253,921,305	1.21 %
CHEVRON PRODUCTS COMPANY (PERTH AMBOY)	58,541,720	0.28 %
EXXON MOBIL OIL CORPORATION (PAULSBORO)	6,752,169	0.03 %
EXXONMOBIL L&S COMPANY (BAYONNE)	804,888	0.00 %
OWENS-CORNING (KEARNY)	412,917	0.00 %
TOTAL LUBRICANTS USA INC (LINDEN CITY)	359,515	0.00 %
NAICS #324 - Sum of Top 10:	**13,178,265,540**	**62.55 %**

Tables 14 and 15 show the top 10 facilities within the #2-ranked Merchant Wholesalers, Nondurable Goods group. Tables 16 and 17 show the top 10 facilities within the #3-ranked Chemical Manufacturing group. Tables 18 and 19 show the top 10 facilities within the #4-ranked Primary Metal Manufacturing group. Tables 20 and 21 show the top 10 facilities within the #5-ranked Plastics and Rubber Products Manufacturing group.

2005 and 2006 RPPR: #2 & #3 Ranked NAICS Groups for Chemical Use
Top 10 Facilities in Each Group

Table 14. Top 10 Facilities in NAICS Group 424 for Use in 2005 (#2 - Merchant Wholesalers, Nondurable Goods)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
MOTIVA ENTERPRISES LLC (SEWAREN)	1,153,788,657	4.56 %
GULF OIL LIMITED PARTNERSHIP (THOROFARE)	1,095,725,548	4.33 %
CITGO PETROLEUM CORPORATION (LINDEN)	953,005,342	3.77 %
GULF OIL LIMITED PARTNERSHIP (LINDEN)	814,428,307	3.22 %
BP PRODUCTS NORTH AMERICA INC (CARTERET)	734,705,784	2.90 %
HESS CORPORATION (PENNSAUKEN)	514,249,852	2.03 %
MOTIVA ENTERPRISES LLC (NEWARK)	371,227,749	1.47 %
GETTY PETROLEUM MARKETING INC (NEWARK)	311,144,771	1.23 %
HESS CORPORATION (PERTH AMBOY)	221,999,105	0.88 %
HESS CORPORATION (NEWARK)	62,087,438	0.25 %
NAICS #424 - Sum of Top 10:	**6,232,362,553**	**24.64 %**

Table 15. Top 10 Facilities in NAICS Group 424 for Use in 2006 (#2 - Merchant Wholesalers, Nondurable Goods)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
CONOCO PHILLIPS (LINDEN)	800,082,058	3.80 %
CITGO PETROLEUM CORPORATION (LINDEN)	692,510,329	3.29 %
GULF OIL LIMITED PARTNERSHIP (THOROFARE)	597,457,822	2.84 %
HESS CORPORATION (PENNSAUKEN)	596,524,384	2.83 %
GULF OIL LIMITED PARTNERSHIP (LINDEN)	571,850,311	2.71 %
MOTIVA ENTERPRISES LLC (SEWAREN)	568,771,115	2.70 %
BP PRODUCTS NORTH AMERICA INC (CARTERET)	488,284,282	2.32 %
MOTIVA ENTERPRISES LLC (NEWARK)	252,017,100	1.20 %
GETTY PETROLEUM MARKETING INC (NEWARK)	241,866,805	1.15 %
HESS CORPORATION (PERTH AMBOY)	178,871,147	0.85 %
NAICS #424 - Sum of Top 10:	**4,988,235,352**	**23.68 %**

Table 16. Top 10 Facilities in NAICS Group 325 for Use in 2005 (#3 - Chemical Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	490,626,521	1.94 %
OXY VINYLS LP (PEDRICKTOWN)	363,049,968	1.44 %
FERRO CORP (LOGAN TWP)	250,529,251	0.99 %
SOLVAY SOLEXIS (THOROFARE)	162,633,445	0.64 %
HONEYWELL-PRESTONE PRODUCTS (FREEHOLD TWP)	149,756,878	0.59 %
KUEHNE COMPANY (KEARNY)	82,428,200	0.33 %
BASF CORPORATION -DEL- (WASHINGTON)	81,674,241	0.32 %
AIR PRODUCTS POLYMERS, L.P. (SOUTH BRUNSWICK TWP)	70,343,172	0.28 %
BASF CORPORATION DEL (SOUTH BRUNSWICK TWP)	67,581,152	0.27 %
GENERAL CHEMICAL LLC (GREENWICH TWP)	55,234,649	0.22 %
NAICS #325 - Sum of Top 10:	**1,773,857,477**	**7.01 %**

Table 17. Top 10 Facilities in NAICS Group 325 for Use in 2006 (#3 - Chemical Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	422,561,488	2.01 %
OXY VINYLS LP (PEDRICKTOWN)	300,231,398	1.42 %
FERRO CORP (LOGAN TWP)	232,350,694	1.10 %
SOLVAY SOLEXIS (THOROFARE)	144,910,312	0.69 %
HONEYWELL-PRESTONE PRODUCTS (FREEHOLD TWP)	132,994,008	0.63 %
BASF CORPORATION -DEL- (WASHINGTON)	89,244,135	0.42 %
AIR PRODUCTS POLYMERS, L.P. (SOUTH BRUNSWICK TWP)	85,301,234	0.40 %
KUEHNE COMPANY (KEARNY)	67,948,280	0.32 %
LUBRIZOL ADVANCED MATERIALS INC (OLD MANS TWP)	44,884,354	0.21 %
GENERAL CHEMICAL LLC (GREENWICH TWP)	37,807,234	0.18 %
NAICS #325 - Sum of Top 10:	**1,558,233,137**	**7.40 %**

2005 and 2006 RPPR: #4 & #5 Ranked NAICS Groups for Chemical Use
Top 10 Facilities in Each Group

Table 18. Top 10 Facilities in NAICS Group 331 for Use in 2005 (#4 - Primary Metal Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
AMROD CORP (NEWARK)	140,091,366	0.55 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	75,057,648	0.30 %
COLONIAL WIRE & CABLE (EDISON)	67,572,635	0.27 %
ACUPOWDER INTERNATIONAL L L C (UNION)	21,813,821	0.09 %
GERDAU AMERISTEEL SAYREVILLE INC (SAYREVILLE)	16,457,559	0.07 %
THE OKONITE COMPANY, INC (PATERSON)	9,848,957	0.04 %
F W WINTER INC & CO (CAMDEN)	8,647,090	0.03 %
PHELPS DODGE SPECIALTY COPPER PRODUCTS (ELIZABETH)	7,975,285	0.03 %
UNITED STATES BRONZE POWDERS INC (RARITAN TWP)	6,047,758	0.02 %
THYSSEN KRUPP VDM USA, INC. (EAST HANOVER TWP)	5,840,598	0.02 %
NAICS #331 - Sum of Top 10:	**359,352,717**	**1.42 %**

Table 19. Top 10 Facilities in NAICS Group 331 for Use in 2006 (#4 - Primary Metal Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
AMROD CORP (NEWARK)	136,744,929	0.65 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	60,402,811	0.29 %
COLONIAL WIRE & CABLE (EDISON)	47,485,589	0.23 %
ACUPOWDER INTERNATIONAL L L C (UNION)	19,809,189	0.09 %
GERDAU AMERISTEEL SAYREVILLE INC (SAYREVILLE)	17,586,100	0.08 %
THE OKONITE COMPANY, INC (PATERSON)	14,019,804	0.07 %
THYSSEN KRUPP VDM USA, INC. (EAST HANOVER TWP)	13,969,828	0.07 %
PHELPS DODGE SPECIALTY COPPER PRODUCTS (ELIZABETH)	11,047,449	0.05 %
RATHGIBSON (NORTH BRANCH)	5,710,607	0.03 %
JOHNSON MATTHEY INC (WEST DEPTFORD TWP)	5,299,024	0.03 %
NAICS #331 - Sum of Top 10:	**332,075,330**	**1.58 %**

Table 20. Top 10 Facilities in NAICS Group 326 for Use in 2005 (#5 - Plastics and Rubber Products Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
POLYONE CORPORATION (OLDMANS TWP)	91,857,065	0.36 %
COLORITE SPECIALTY RESINS (BURLINGTON)	85,522,502	0.34 %
COLORITE PLASTICS COMPANY (RIDGEFIELD)	15,951,639	0.06 %
FOAMEX (EAST RUTHERFORD)	6,905,193	0.03 %
RHEIN CHEMIE CORP. (EWING)	3,330,882	0.01 %
CRESTFOAM INDUSTRIES INCORPORATED (MOONACHIE)	2,284,751	0.01 %
CYBERTECH POLYMERS (PISCATAWAY TWP)	1,577,637	0.01 %
CREST-FOAM CORP (EDISON)	1,204,479	0.00 %
DECEUNINCK NORTH AMERICA, LLC (OAKLAND)	750,734	0.00 %
CARY COMPOUNDS LLC (DAYTON)	681,269	0.00 %
NAICS #326 - Sum of Top 10:	**210,066,151**	**0.83 %**

Table 21. Top 10 Facilities in NAICS Group 326 for Use in 2006 (#5 - Plastics and Rubber Products Manufacturing)

FACILITY NAME (CITY)	USE (lbs.)	Percentage of Total Use
COLORITE SPECIALTY RESINS (BURLINGTON)	85,140,887	0.40 %
POLYONE CORPORATION (OLDMANS TWP)	78,475,207	0.37 %
COLORITE PLASTICS COMPANY (RIDGEFIELD)	18,977,376	0.09 %
FOAMEX (EAST RUTHERFORD)	6,262,220	0.03 %
CYBERTECH POLYMERS (PISCATAWAY TWP)	3,668,954	0.02 %
CRESTFOAM INDUSTRIES INCORPORATED (MOONACHIE)	2,447,931	0.01 %
CREST-FOAM CORP (EDISON)	1,390,230	0.01 %
CARY COMPOUNDS LLC (DAYTON)	515,889	0.00 %
SAINT GOBAIN PERFORMANCE PLASTICS CORP (WAYNE)	446,980	0.00 %
SARVETNICK INDUSTRIES INC (JERSEY CITY)	350,050	0.00 %
NAICS #326 - Sum of Top 10:	**197,675,724**	**0.94 %**

Table 22. Top Five Industry Groups for NPO reported on the RPPR

NAICS CODE	Description	2005 (pounds)	2006 (pounds)
325	Chemical Manufacturing	117,404,848[1]	118,765,761[1]
331	Primary Metal Manufacturing	78,737,764[2]	68,843,123[2]
221	Utilities	16,300,396[3]	14,138,844[4]
324	Petroleum and Coal Products Manufacturing		16,402,066[3]
332	Fabricated Metal Product Manufacturing	15,681,032[4]	14,124,224[5]
335	Electrical Equipment, Appliance, and Component Mfg.	15,333,698[5]	

superscript = NAICS Group Rank for the Report Year

Table 22 presents the top five industry groups for NPO generation for 2005 and 2006. Since the third through fifth ranked groups are not the same for both years, a superscript number follows the NPO quantity to denote the group's rank for each year. Tables 23 through 32 present the top 10 facilities within each of the top five NAICS groups reporting the most NPO. Tables 23 and 24 show the top 10 facilities within the #1-ranked group: Chemical Manufacturing. These 10 facilities accounted for 36% of reported NPO for 2005 and 40% of NPO for 2006.

Table 23. Top 10 Facilities in NAICS Group 325 for NPO in 2005
(#1 - Chemical Manufacturing)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	56,860,591	20.74 %
INFINEUM USA (LINDEN)	10,627,262	3.88 %
AGC CHEMICALS AMERICAS, INC (BAYONNE)	5,730,996	2.09 %
FERRO CORP (LOGAN TWP)	5,314,157	1.94 %
HERCULES INCORPORATED (PARLIN)	4,970,976	1.81 %
CHEM-FLEUR INC (NEWARK CITY)	3,946,757	1.44 %
BASELL USA INC (EDISON)	3,792,188	1.38 %
SOLVAY SOLEXIS (THOROFARE)	3,051,054	1.11 %
SOLUTIA INC. (BRIDGEPORT)	2,627,313	0.96 %
SIEGFRIED (USA), INC. (PENNSVILLE)	2,489,085	0.91 %
NAICS #325 - Sum of Top 10:	**99,410,379**	**36.26 %**

Table 24. Top 10 Facilities in NAICS Group 325 for NPO in 2006
(#1 - Chemical Manufacturing)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	59,734,226	23.31 %
INFINEUM USA (LINDEN)	10,161,896	3.97 %
AGC CHEMICALS AMERICAS, INC (BAYONNE)	7,878,223	3.07 %
HERCULES INCORPORATED (PARLIN)	5,807,559	2.27 %
FERRO CORP (LOGAN TWP)	5,313,836	2.07 %
CHEM-FLEUR INC (NEWARK CITY)	3,767,189	1.47 %
SIEGFRIED (USA), INC. (PENNSVILLE)	2,914,097	1.14 %
SOLUTIA INC. (BRIDGEPORT)	2,556,466	1.00 %
BASELL USA INC (EDISON)	2,477,631	0.97 %
MALLINCKRODT BAKER INC (PHILLIPSBURG)	2,331,362	0.91 %
NAICS #325 - Sum of Top 10:	**102,942,485**	**40.18 %**

2005 RPPR: #2 through #5 Ranked NAICS Groups for NPO
Top 10 Facilities in Each Group

Table 25. Top 10 Facilities in NAICS Group 331 for NPO in 2005 (#2 - Primary Metal Manufacturing)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	45,243,483	16.50 %
AMROD CORP (NEWARK)	14,207,298	5.18 %
GERDAU AMERISTEEL SAYREVILLE INC (SAYREVILLE)	4,067,786	1.48 %
GRIFFIN PIPE PRODUCTS CO. (FLORENCE)	2,874,637	1.05 %
JOHNSON MATTHEY INC (WEST DEPTFORD TWP)	2,115,508	0.77 %
PHELPS DODGE SPECIALTY COPPER PRODUCTS (ELIZABETH)	1,632,085	0.60 %
KEARNY SMELTING & REFINING CORP. (KEARNY)	1,626,927	0.59 %
FRY'S METALS INC. (JERSEY CITY)	1,499,261	0.55 %
UNITED STATES PIPE AND FOUNDRY CO LCC (BURLINGTON)	1,109,935	0.40 %
THE OKONITE COMPANY, INC (PATERSON)	995,059	0.36 %
NAICS #331 - Sum of Top 10:	**75,371,980**	**27.49 %**

Table 26. Top 10 Facilities in NAICS Group 221 for NPO in 2005 (#3 - Utilities)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
PSEG FOSSIL LLC (JERSEY CITY)	6,207,840	2.26 %
PSEG FOSSIL LLC (HAMILTON TWP)	3,371,495	1.23 %
CHAMBERS COGENERATION L.P. (CARNEYS POINT)	2,308,585	0.84 %
LOGAN GENERATING COMPANY, L.P. (LOGAN TWP)	2,256,708	0.82 %
RC CAPE MAY HOLDINGS LLC (BEESLEYS POINT)	1,313,641	0.48 %
CONECTIV-DEEPWATER GENERATING STATION (PENNSVILLE)	369,099	0.13 %
COGEN TECHNOLOGIES LINDEN VENTURE, L.P (LINDEN CITY)	192,194	0.07 %
VINELAND CITY (VINELAND)	130,544	0.05 %
PSEG FOSSIL LLC (LINDEN)	50,701	0.02 %
PSEG FOSSIL LLC (SEWAREN)	49,831	0.02 %
NAICS #221 - Sum of Top 10:	**16,250,638**	**5.93 %**

Table 27. Top 10 Facilities in NAICS Group 332 for NPO in 2005 (#4 - Fabricated Metal Product Manufacturing)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
FERRO CORP (SOUTH PLAINFIELD)	9,569,365	3.49 %
CROWN ROLL LEAF INC (PATERSON)	903,120	0.33 %
GENTEK BUILDING PRODUCTS INC (AVENEL)	834,135	0.30 %
NEW JERSEY GALVANIZING & TINNING WORKS (NEWARK)	603,820	0.22 %
VICTAULIC COMPANY (FRANKLIN TOWNSHIP)	551,563	0.20 %
MAUSER CORPORATION (WOODBRIDGE)	362,056	0.13 %
ARROW GROUP INDUSTRIES -CORP- (HASKELL)	329,162	0.12 %
SILGAN CONTAINER CORPORATION (EDISON)	282,700	0.10 %
PARAMOUNT PLATING CO. INC. (LINDEN)	235,909	0.09 %
ENGLERT, INC. (PERTH AMBOY)	235,900	0.09 %
NAICS #332 - Sum of Top 10:	**13,907,730**	**5.07 %**

Table 28. Top 10 Facilities in NAICS Group 335 for NPO in 2005 (#5 - Electrical Equipment, Appliance, and Component Mfg.)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	14,351,371	5.24 %
ATLANTIC BATTERY CORP. (PATERSON)	570,043	0.21 %
BLEEMA MANUFACTURING CORPORATION (IRVINGTON)	135,500	0.05 %
PEARL ASSOCIATES & RICHARDS MFG CO SALES (IRVINGTON)	135,500	0.05 %
POWER BATTERY CO INC (PATERSON)	92,475	0.03 %
TRIANGLE TUBE/PHASE III (BLACKWOOD)	26,549	0.01 %
COMUS INTERNATIONAL INC. (CLIFTON)	13,039	0.00 %
KURT VERSEN INC. (WESTWOOD)	5,870	0.00 %
THOMAS & BETTS CORP ELASTIMOLD PLANT (WASHINGTON TOWNSHIP)	1,518	0.00 %
JEROME INDUSTRIES (ELIZABETH)	1,502	0.00 %
NAICS #335 - Sum of Top 10:	**15,333,367**	**5.59 %**

Tables 25 through 28 present the top 10 facilities for the #2 through #5 ranked industry groups for NPO generation in 2005. Again, the top five for each year are not a one-to-one match in ranking as are those for chemical Use so the 2005 data are kept together here. Where appropriate, groups may be compared with the industries for 2006 found on the next page.

2006 RPPR: #2 through #5 Ranked NAICS Groups for NPO
Top 10 Facilities in Each Group

Table 29. Top 10 Facilities in NAICS Group 331 for NPO in 2006
(#2 - Primary Metal Manufacturing)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	34,488,745	13.46 %
AMROD CORP (NEWARK)	13,202,369	5.15 %
GERDAU AMERISTEEL SAYREVILLE INC (SAYREVILLE)	4,590,063	1.79 %
JOHNSON MATTHEY INC (WEST DEPTFORD TWP)	3,210,216	1.25 %
THYSSEN KRUPP VDM USA, INC. (EAST HANOVER TWP)	1,974,278	0.77 %
GRIFFIN PIPE PRODUCTS CO. (FLORENCE)	1,960,284	0.77 %
PHELPS DODGE SPECIALTY COPPER PRODUCTS (ELIZABETH)	1,844,546	0.72 %
KEARNY SMELTING & REFINING CORP. (KEARNY)	1,730,840	0.68 %
FRY'S METALS INC. (JERSEY CITY)	1,354,272	0.53 %
UNITED STATES PIPE AND FOUNDRY CO LCC (BURLINGTON)	807,887	0.32 %
NAICS #331 - Sum of Top 10:	**65,163,500**	**25.43 %**

Table 30. Top 10 Facilities in NAICS Group 324 for NPO in 2006
(#3 - Petroleum and Coal Products Manufacturing)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
CONOCOPHILLIPS CO (LINDEN)	7,732,851	3.02 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	4,434,540	1.73 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	2,289,210	0.89 %
HESS CORPORATION (PORT READING)	1,783,701	0.70 %
CHEVRON PRODUCTS COMPANY (PERTH AMBOY)	72,047	0.03 %
ANDEROL, INC (EAST HANOVER)	64,524	0.03 %
CITGO ASPHALT REFINING CO. (WEST DEPTFORD TWP)	15,369	0.01 %
OWENS-CORNING (KEARNY)	5,133	0.00 %
KARNAK CORPORATION (CLARK TWP)	2,411	0.00 %
ZIEGLER CHEMICAL & MINERAL CORP (PISCATAWAY TWP)	1,357	0.00 %
NAICS #324 - Sum of Top 10:	**16,401,144**	**6.40 %**

Table 31. Top 10 Facilities in NAICS Group 221for NPO in 2006
(#4 - Utilities)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
PSEG FOSSIL LLC (JERSEY CITY)	4,479,080	1.75 %
PSEG FOSSIL LLC (HAMILTON TWP)	3,257,677	1.27 %
LOGAN GENERATING COMPANY, L.P. (LOGAN TWP)	2,178,132	0.85 %
CHAMBERS COGENERATION L. P. (CARNEYS POINT)	2,168,983	0.85 %
RC CAPE MAY HOLDINGS LLC (BEESLEYS POINT)	1,399,357	0.55 %
CONECTIV-DEEPWATER GENERATING STATION (PENNSVILLE)	352,208	0.14 %
COGEN TECHNOLOGIES LINDEN VENTURE, L.P (LINDEN CITY)	204,053	0.08 %
VINELAND CITY (VINELAND)	50,341	0.02 %
PSEG FOSSIL LLC (LINDEN)	18,568	0.01 %
BAYONNE PLANT HOLDING LLC (BAYONNE)	18,006	0.01 %
NAICS #221 - Sum of Top 10:	**14,126,405**	**5.51 %**

Table 32. Top 10 Facilities in NAICS Group 332 for NPO in 2006
(#5 - Fabricated Metal Product Manufacturing)

FACILITY NAME (CITY)	NPO (lbs.)	Percentage of Total NPO
FERRO CORP (SOUTH PLAINFIELD)	8,211,008	3.20 %
CROWN ROLL LEAF INC (PATERSON)	909,768	0.36 %
GENTEK BUILDING PRODUCTS INC (AVENEL)	902,320	0.35 %
NEW JERSEY GALVANIZING & TINNING WORKS (NEWARK)	693,254	0.27 %
MAUSER CORPORATION (WOODBRIDGE)	326,279	0.13 %
PHOENIX CONTAINER INC (NORTH BRUNSWICK TWP)	318,592	0.12 %
ARROW GROUP INDUSTRIES -CORP- (HASKELL)	296,982	0.12 %
CUSTOM ALLOY CORP (HIGH BRIDGE)	293,777	0.11 %
FOREMOST MFG CO., INC. (UNION)	266,562	0.10 %
SILGAN CONTAINER CORPORATION (EDISON)	265,750	0.10 %
NAICS #332 - Sum of Top 10:	**12,484,292**	**4.87 %**

Tables 29 through 32 present the top 10 facilities for the #2 through #5 ranked industry groups for NPO generation in 2006. Primary Metal Manufacturing, Utilities, and Fabricated Metal Product Manufacturing appear for both 2005 and 2006. However, Utilities and Fabricated Metal Product Manufacturing are differently ranked. Petroleum and Coal Products Manufacturing did not appear in the top five for 2005. Where appropriate these groups may be compared with those found on the previous page for 2005.

Table 33. Top Five Industry Groups for Releases reported on the RPPR

NAICS GROUP	Description	2005 (pounds)	2006 (pounds)
221	Utilities	8,722,771	7,457,338
325	Chemical Manufacturing	5,726,373	5,784,664
324	Petroleum and Coal Products Manufacturing	3,244,574	3,351,840
311	Food Manufacturing	699,183	473,050
424	Merchant Wholesalers, Nondurable Goods	501,921	361,356

Table 33 presents the top five industry groups for Releases for 2005 and 2006. Tables 34 through 43 present the Top 10 facilities within each of the top five NAICS groups reporting the most Releases. Since the top five groups responsible for the largest amounts of Releases are a one-to-one match from 2005 to 2006, the groups are presented over-under for #1 Utilities (on this page) and side-by-side for #2 to #5 (on the next page) so that comparisons between 2005 and 2006 are simplified. Tables 34 and 35 show the top 10 facilities within the #1-ranked group: Utilities. Eight of the 10 facilities appear in both tables. These 10 facilities accounted for 43% of Releases for 2005 and 40% of Releases for 2006.

Table 34. Top 10 Facilities in NAICS Group 221 for Releases in 2005 (#1 - Utilities)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
PSEG FOSSIL LLC (JERSEY CITY)	4,451,976	22.14 %
PSEG FOSSIL LLC (HAMILTON TWP)	3,160,094	15.71 %
RC CAPE MAY HOLDINGS LLC (BEESLEYS POINT)	449,259	2.23 %
CONECTIV-DEEPWATER GENERATING STATION (PENNSVILLE)	249,336	1.24 %
COGEN TECHNOLOGIES LINDEN VENTURE, L.P (LINDEN CITY)	192,194	0.96 %
VINELAND CITY (VINELAND)	130,232	0.65 %
BAYONNE PLANT HOLDING LLC (BAYONNE)	35,860	0.18 %
PSEG FOSSIL LLC (SEWAREN)	24,937	0.12 %
PSEG POWER FOSSIL LLC (RIDGEFIELD)	6,140	0.03 %
LOGAN GENERATING COMPANY, L.P. (LOGAN TWP)	5,610	0.03 %
NAICS #221 - Sum of Top 10:	**8,705,638**	**43.29 %**

Table 35. Top 10 Facilities in NAICS Code 221 for Releases in 2006 (#1 - Utilities)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
PSEG FOSSIL LLC (HAMILTON TWP)	3,113,239	16.87 %
PSEG FOSSIL LLC (JERSEY CITY)	2,985,336	16.18 %
RC CAPE MAY HOLDINGS LLC (BEESLEYS POINT)	736,016	3.99 %
CONECTIV-DEEPWATER GENERATING STATION (PENNSVILLE)	305,270	1.65 %
COGEN TECHNOLOGIES LINDEN VENTURE, L.P (LINDEN CITY)	204,053	1.11 %
VINELAND CITY (VINELAND)	50,130	0.27 %
PSEG FOSSIL LLC (LINDEN)	18,192	0.10 %
BAYONNE PLANT HOLDING LLC (BAYONNE)	18,006	0.10 %
LOGAN GENERATING COMPANY, L.P. (LOGAN TWP)	7,942	0.04 %
CHAMBERS COGENERATION L.P. (CARNEYS POINT)	6,889	0.04 %
NAICS #221 - Sum of Top 10:	**7,445,072**	**40.34 %**

2005 and 2006 RPPR: #2 & #3 Ranked NAICS Groups for Releases
Top 10 Facilities in Each Group

Table 36. Top 10 Facilities in NAICS Code 325 for Releases in 2005 (#2 - Chemical Manufacturing)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	4,505,218	22.40 %
MALLINCKRODT BAKER INC (PHILLIPSBURG)	265,545	1.32 %
FERRO CORP (LOGAN TWP)	130,377	0.65 %
DSM NUTRITIONAL PRODUCTS INC (BELVIDERE)	107,349	0.53 %
INFINEUM USA (LINDEN)	66,400	0.33 %
GENERAL CHEMICAL LLC (GREENWICH TWP)	66,233	0.33 %
BASELL USA INC (EDISON)	61,835	0.31 %
SCHERING CORPORATION (KENILWORTH)	57,844	0.29 %
MERCK & CO INC (RAHWAY)	49,798	0.25 %
GEO SPECIALTY CHEMICALS (GIBBSTOWN)	49,118	0.24 %
NAICS #325 - Sum of Top 10:	**5,359,718**	**26.65 %**

Table 37. Top 10 Facilities in NAICS Code 325 for Releases in 2006 (#2 - Chemical Manufacturing)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	4,442,866	24.07 %
MALLINCKRODT BAKER INC (PHILLIPSBURG)	502,212	2.72 %
FERRO CORP (LOGAN TWP)	126,565	0.69 %
BASELL USA INC (EDISON)	86,924	0.47 %
DSM NUTRITIONAL PRODUCTS INC (BELVIDERE)	81,428	0.44 %
SCHERING CORPORATION (KENILWORTH)	65,363	0.35 %
INFINEUM USA (LINDEN)	57,314	0.31 %
MERCK & CO INC (RAHWAY)	57,130	0.31 %
GENERAL CHEMICAL LLC (GREENWICH TWP)	42,589	0.23 %
HERCULES INCORPORATED (PARLIN)	21,880	0.12 %
NAICS #325 - Sum of Top 10:	**5,484,271**	**29.72 %**

Table 38. Top 10 Facilities in NAICS Code 324 for Releases in 2005 (#3 - Petroleum and Coal Products Manufacturing)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
CONOCOPHILLIPS CO (LINDEN)	2,096,475	10.42 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	487,339	2.42 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	457,279	2.27 %
HESS CORPORATION (PORT READING)	181,600	0.90 %
CHEVRON PRODUCTS COMPANY (PERTH AMBOY)	13,581	0.07 %
CITGO ASPHALT REFINING CO. (WEST DEPTFORD TWP)	7,985	0.04 %
KARNAK CORPORATION (CLARK TWP)	141	0.00 %
ZIEGLER CHEMICAL & MINERAL CORP (PISCATAWAY TWP)	87	0.00 %
OWENS-CORNING (KEARNY)	61	0.00 %
EXXON MOBIL OIL CORPORATION (PAULSBORO)	12	0.00 %
NAICS #324 - Sum of Top 10:	**3,244,560**	**16.13 %**

Table 39. Top 10 Facilities in NAICS Code 324 for Releases in 2006 (#3 - Petroleum and Coal Products Manufacturing)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
CONOCOPHILLIPS CO (LINDEN)	2,362,033	12.80 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	468,089	2.54 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	353,088	1.91 %
HESS CORPORATION (PORT READING)	155,002	0.84 %
CHEVRON PRODUCTS COMPANY (PERTH AMBOY)	6,883	0.04 %
CITGO ASPHALT REFINING CO. (WEST DEPTFORD TWP)	6,465	0.04 %
KARNAK CORPORATION (CLARK TWP)	113	0.00 %
ZIEGLER CHEMICAL & MINERAL CORP (PISCATAWAY TWP)	90	0.00 %
OWENS-CORNING (KEARNY)	57	0.00 %
EXXON MOBIL OIL CORPORATION (PAULSBORO)	12	0.00 %
NAICS #324 - Sum of Top 10:	**3,351,832**	**18.16 %**

2005 and 2006 RPPR: #4 & #5 Ranked NAICS Groups for Releases
Top 10 Facilities in Each Group

Table 40. Top 10 Facilities in NAICS Code 311 for Releases in 2005 (#4 - Food Manufacturing)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
CHART CORP (PATERSON)	622,655	3.10 %
KRAFT FOODS GLOBAL INC (FAIR LAWN)	42,760	0.21 %
NITTA CASINGS INC. (SOMERVILLE)	23,788	0.12 %
ADM COCOA (GLASSBORO)	7,650	0.04 %
ADRON INC (PARSIPPANY-TROY HILLS)	1,891	0.01 %
GIVAUDAN FRAGRANCES CORPORATION (MOUNT OLIVE TOWNSHIP)	218	0.00 %
THE HARTZ MOUNTAIN CORPORATION (BLOOMFIELD)	115	0.00 %
GIVAUDAN FLAVORS CORP (EAST HANOVER TWP)	99	0.00 %
MARS SNACKFOODS US (HACKETTSTOWN)	6	0.00 %
READINGTON FARMS INC (WHITE HOUSE)	1	0.00 %
NAICS #311 - Sum of Top 10:	**699,183**	**3.48 %**

Table 41. Top 10 Facilities in NAICS Code 311 for Releases in 2006 (#4 - Food Manufacturing)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
CHART CORP (PATERSON)	389,401	2.11 %
KRAFT FOODS GLOBAL INC (FAIR LAWN)	46,435	0.25 %
NITTA CASINGS INC. (SOMERVILLE)	20,877	0.11 %
ADM COCOA (GLASSBORO)	14,330	0.08 %
ADRON INC (PARSIPPANY-TROY HILLS)	1,550	0.01 %
GIVAUDAN FRAGRANCES CORPORATION (MOUNT OLIVE TOWNSHIP)	296	0.00 %
THE HARTZ MOUNTAIN CORPORATION (BLOOMFIELD)	120	0.00 %
MARS SNACKFOODS US (HACKETTSTOWN)	25	0.00 %
GIVAUDAN FLAVORS CORP (EAST HANOVER TWP)	15	0.00 %
READINGTON FARMS INC (WHITEHOUSE)	1	0.00 %
NAICS #311 - Sum of Top 10:	**473,050**	**2.56 %**

Table 42. Top 10 Facilities in NAICS Code 424 for Releases in 2005 (#5 - Merchant Wholesalers, Nondurable Goods)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
NATIONAL REFRIGERANTS INC (ROSENHAYN)	288,282	1.43 %
MOTIVA ENTERPRISES LLC (SEWAREN)	95,417	0.47 %
CITGO PETROLEUM CORPORATION (LINDEN)	19,758	0.10 %
HESS CORPORATION (PENNSAUKEN)	15,547	0.08 %
MOTIVA ENTERPRISES LLC (NEWARK)	14,293	0.07 %
HESS CORPORATION (PERTH AMBOY)	14,218	0.07 %
ALLIED AVIATION SERVICE CO OF NJ INC (ELIZABETH)	14,177	0.07 %
BP PRODUCTS NORTH AMERICA INC (CARTERET)	10,696	0.05 %
ELCO SOLVENTS/HOUGHTON CHEMICAL CORP (CARLSTADT)	7,623	0.04 %
GULF OIL LIMITED PARTNERSHIP (LINDEN)	6,899	0.03 %
NAICS #424 - Sum of Top 10:	**486,911**	**2.42 %**

Table 43. Top 10 Facilities in NAICS Code 424 for Releases in 2006 (#5 - Merchant Wholesalers, Nondurable Goods)

FACILITY NAME (CITY)	Releases (lbs.)	Percentage of Total Releases
NATIONAL REFRIGERANTS INC (ROSENHAYN)	253,786	1.38 %
CITGO PETROLEUM CORPORATION (LINDEN)	19,891	0.11 %
HESS CORPORATION (PENNSAUKEN)	11,838	0.06 %
MOTIVA ENTERPRISES LLC (SEWAREN)	10,638	0.06 %
ELCO SOLVENTS/HOUGHTON CHEMICAL CORP (CARLSTADT)	10,602	0.06 %
HESS CORPORATION (PERTH AMBOY)	9,547	0.05 %
BP PRODUCTS NORTH AMERICA INC (CARTERET)	9,179	0.05 %
CONOCO PHILLIPS (LINDEN)	6,275	0.03 %
GULF OIL LIMITED PARTNERSHIP (THOROFARE)	5,878	0.03 %
GULF OIL LIMITED PARTNERSHIP (LINDEN)	5,062	0.03 %
NAICS #424 - Sum of Top 10:	**342,696**	**1.86 %**

Figures 1 and 2 present the overall picture for hazardous substance throughput in the state for 2005 and 2006. The majority of hazardous substance Use (82% in 2005 and 80% in 2006) was shipped in the products manufactured by the reporting facilities. Approximately 17% of the hazardous substances were consumed in on-site production processes in 2005 and 19% were consumed in 2006. One percent of the hazardous substance Use resulted in NPO in each year.

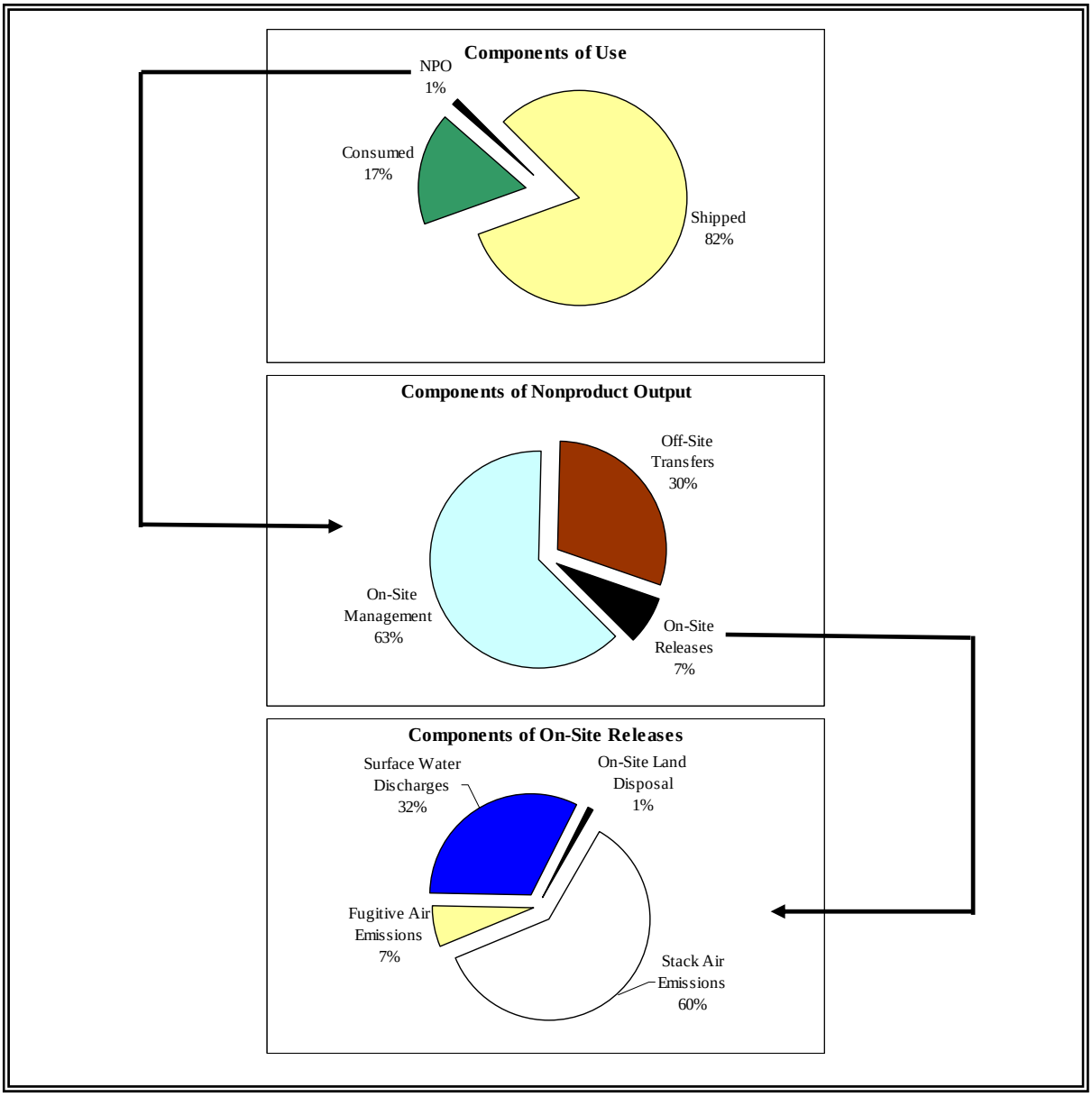


Figure 1. 2005 RPPR – Statewide Percentages of Hazardous Substance Throughput

Of the 274.1 million pounds of NPO reported for 2005, 63% was managed on site at the production facilities, 30% was transferred off site for further waste management, and 7% was released on site from the producing facilities. Of the 20.1 million pounds of on-site releases, 60% was stack air emissions, 32% surface water discharges, 7% fugitive air emissions, and 1% was sent to on-site land disposal.

Of the 256.2 million pounds of NPO reported for 2006, 65% was managed on site at the production facilities, 28% was transferred off site for further waste management, and 7% was released on site from the producing facilities. Of the 18.5 million pounds of on-site releases, 55% was stack air emissions, 38% surface water discharges, 6% fugitive air emissions, and 1% was sent to on-site land disposal.

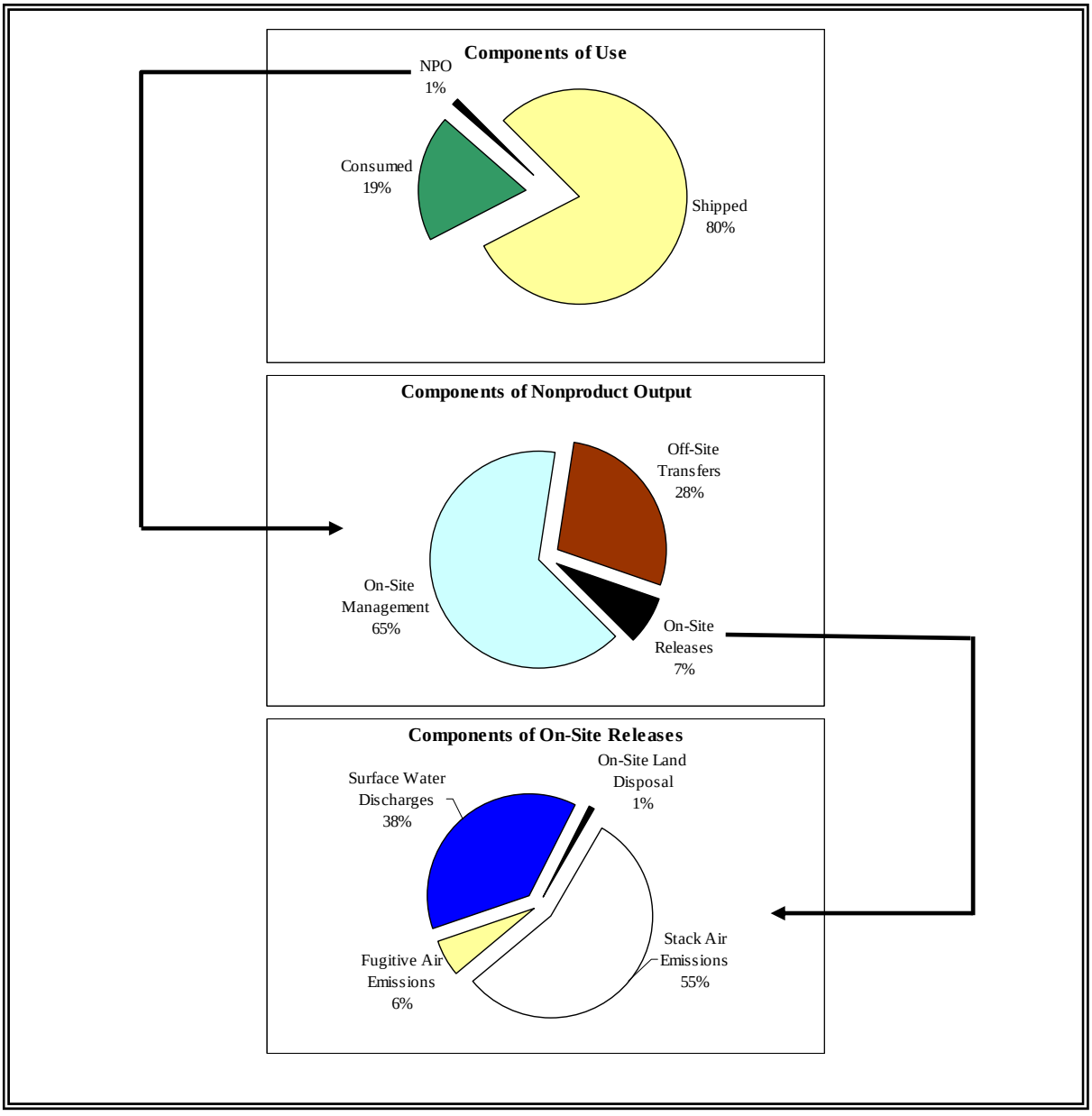


Figure 2. 2006 RPPR – Statewide Percentages of Hazardous Substance Throughput

A2. Top 10 Substances and Facilities for Use, NPO and Releases

In 2005 and 2006, as in most years, substance Use was dominated by the petroleum refining industry and ancillary operations, e.g., bulk terminals, and the chemical substances that are incorporated into gasoline and other petroleum products. Tables 44 and 45 list the top 10 substances Used and the top 10 facilities for substance Use. The same top10 substances appear for both years though the individual rankings vary. The biggest change from 2005 to 2006 was

Table 44. 2005 RPPR – Hazardous Substances Used (pounds per year)

Top 10 Hazardous Substances Used in 2005

CAS Number	SUBSTANCE NAME	USE (pounds)	Percentage
1330-20-7	XYLENE (MIXED ISOMERS)	4,856,545,367	19.20 %
108-88-3	TOLUENE	4,177,446,228	16.52 %
1634-04-4	METHYL TERT-BUTYL ETHER	3,210,441,428	12.69 %
115-07-1	PROPYLENE [PROPENE]	1,776,619,481	7.02 %
110-54-3	N-HEXANE	1,682,063,239	6.65 %
100-41-4	ETHYLBENZENE	1,324,465,702	5.24 %
95-63-6	1,2,4-TRIMETHYLBENZENE	1,230,048,669	4.86 %
71-43-2	BENZENE	1,116,074,960	4.41 %
110-82-7	CYCLOHEXANE	912,144,407	3.61 %
98-82-8	CUMENE	672,929,777	2.66 %
	Sum of Top 10:	**20,958,779,258**	**82.86 %**
	Sum Other:	**4,334,944,817**	**17.14 %**
	Sum All:	**25,293,724,075**	**100.00 %**

Top 10 Facilities for Substances Used in 2005

FACILITY NAME (CITY)	COUNTY	USE (pounds)	Percentage
CONOCOPHILLIPS CO (LINDEN)	UNION	6,286,786,712	24.86 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	GLOUCESTER	4,856,607,253	19.20 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	GLOUCESTER	2,495,068,832	9.86 %
HESS CORPORATION (PORT READING)	MIDDLESEX	1,881,913,818	7.44 %
MOTIVA ENTERPRISES LLC (SEWAREN)	MIDDLESEX	1,153,788,657	4.56 %
GULF OIL LIMITED PARTNERSHIP (THOROFARE)	GLOUCESTER	1,095,725,548	4.33 %
CITGO PETROLEUM CORPORATION (LINDEN)	UNION	953,005,342	3.77 %
GULF OIL LIMITED PARTNERSHIP (LINDEN)	UNION	814,428,307	3.22 %
BP PRODUCTS NORTH AMERICA INC (CARTERET)	MIDDLESEX	734,705,784	2.90 %
HESS CORPORATION (PENNSAUKEN)	CAMDEN	514,249,852	2.03 %
	Sum of Top 10:	**20,786,280,104**	**82.18 %**
	Sum Other:	**4,507,443,971**	**17.82 %**
	Sum All:	**25,293,724,075**	**100.00 %**

noted for methyl tert-butyl ether (MTBE) which dropped from 12.7% of total Use in 2005 to about 4.6% of Use in 2006. MTBE Use in gasoline increased beginning around 1995 due to federal Clean Air Act requirements for cities and regions with the worst levels of air pollution, especially ozone. MTBE fulfilled an oxygenate requirement for fuels which helps gasoline burn cleaner. However, a growing number of studies have detected MTBE in ground water throughout the country and in some cases these ground waters are sources of drinking water.[3] MTBE has found its way into water bodies through leaking underground storage tanks and spills

[3] US Environmental Protection Agency, Methyl Tertiary Butyl Ether (MTBE), http://www.epa.gov/mtbe/water.htm

onto the ground that then make their way into surface waters or permeate the soil. In 2005 New Jersey became the 25th state to enact an MTBE ban. The ban on the sale of gasoline with the MTBE additive is effective in 2009. Many in the refining industry moved away from MTBE use in gasoline before the 2006 summer driving season. MTBE was reported by 18 facilities in 2005 and 15 facilities in 2006 with a Use reduction of 70% reported.

RY 2006 was the first year that NAICS codes became applicable to facilities subject to TRI and RPPR reporting. ConocoPhillips Company, which has a refinery and a bulk terminal facility in

Table 45. 2006 RPPR – Hazardous Substances Used (pounds per year)

Top 10 Hazardous Substances Used in 2006

CAS Number	SUBSTANCE NAME	USE (pounds)	Percentage
1330-20-7	XYLENE (MIXED ISOMERS)	4,534,285,154	21.51 %
108-88-3	TOLUENE	3,788,840,136	17.97 %
110-54-3	N-HEXANE	1,660,066,369	7.87 %
115-07-1	PROPYLENE [PROPENE]	1,378,002,028	6.54 %
100-41-4	ETHYLBENZENE	1,271,050,859	6.03 %
95-63-6	1,2,4-TRIMETHYLBENZENE	1,189,882,325	5.64 %
71-43-2	BENZENE	1,065,294,429	5.05 %
1634-04-4	METHYL TERT-BUTYL ETHER	962,256,250	4.56 %
110-82-7	CYCLOHEXANE	917,071,356	4.35 %
98-82-8	CUMENE	659,515,341	3.13 %
	Sum of Top 10:	**17,426,264,247**	**82.66 %**
	Sum Other:	**3,656,830,245**	**17.34 %**
	Sum All:	**21,083,094,492**	**100.00 %**

Top 10 Facilities for Substances Used in 2006

FACILITY NAME (CITY)	COUNTY	USE (pounds)	Percentage
CONOCOPHILLIPS CO (LINDEN)	UNION	5,627,085,093	26.69 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	GLOUCESTER	4,317,211,708	20.48 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	GLOUCESTER	1,804,811,815	8.56 %
HESS CORPORATION (PORT READING)	MIDDLESEX	1,108,364,411	5.26 %
CONOCO PHILLIPS (LINDEN)	UNION	800,082,058	3.79 %
CITGO PETROLEUM CORPORATION (LINDEN)	UNION	692,510,329	3.28 %
GULF OIL LIMITED PARTNERSHIP (THOROFARE)	GLOUCESTER	597,457,822	2.83 %
HESS CORPORATION (PENNSAUKEN)	CAMDEN	596,524,384	2.83 %
GULF OIL LIMITED PARTNERSHIP (LINDEN)	UNION	571,850,311	2.71 %
MOTIVA ENTERPRISES LLC (SEWAREN)	MIDDLESEX	568,771,115	2.70 %
	Sum of Top 10:	**16,684,669,045**	**79.14 %**
	Sum Other:	**4,398,425,447**	**20.86 %**
	Sum All:	**21,083,094,492**	**100.00 %**

Linden, reported for RY 2005 and prior for both operations under SIC 2911 – Petroleum Refineries. For RY 2006 the two were split according to reporting guidelines and reported individually under two different NAICS codes (324 and 424). The combined facility operation is listed #1 for 2005 (Table 44) with nearly 6.3 billion pounds of Use. In Table 45, the ConocoPhillips refinery is listed #1 with over 5.6 billion pounds of Use and the bulk terminal is listed #5 with about 800 million pounds of Use. These two combined in 2006 accounted for about 6.4 billion pounds of Use.

Table 46. 2005 RPPR – Nonproduct Output (pounds per year)

Top 10 Hazardous Substances for Nonproduct Output in 2005

CAS Number	SUBSTANCE NAME	NPO (pounds)	Percentage
7647-01-0	HYDROCHLORIC ACID	68,281,933	24.91 %
7440-66-6 & N982	ZINC & COMPOUNDS	44,608,339	16.27 %
7439-92-1 & N420	LEAD & COMPOUNDS	21,145,403	7.71 %
67-56-1	METHANOL	20,019,214	7.30 %
7440-50-8 & N100	COPPER & COMPOUNDS	19,488,077	7.11 %
N511	NITRATE COMPOUNDS (WATER DISSOCIABLE)	14,329,750	5.23 %
7439-96-5 & N450	MANGANESE & COMPOUNDS	7,718,578	2.82 %
7664-41-7	AMMONIA	6,452,013	2.35 %
1330-20-7	XYLENE (MIXED ISOMERS)	5,772,525	2.11 %
N230	GLYCOL ETHERS (EXCEPT SURFACTANTS)	5,620,500	2.05 %
	Sum of Top 10:	**213,436,332**	**77.86 %**
	Sum Other:	**60,695,190**	**22.14 %**
	Sum All:	**274,131,522**	**100.00 %**

Top 10 Facilities for Nonproduct Output in 2005

FACILITY NAME (CITY)	COUNTY	NPO (pounds)	Percentage
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	SALEM	56,860,591	20.74 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	MIDDLESEX	45,243,483	16.50 %
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	14,351,371	5.24 %
AMROD CORP (NEWARK)	ESSEX	14,207,298	5.18 %
INFINEUM USA (LINDEN)	UNION	10,627,262	3.88 %
FERRO CORP (SOUTH PLAINFIELD)	MIDDLESEX	9,569,365	3.49 %
CONOCOPHILLIPS CO (LINDEN)	UNION	7,431,269	2.71 %
PSEG FOSSIL LLC (JERSEY CITY)	HUDSON	6,207,840	2.26 %
AGC CHEMICALS AMERICAS, INC (BAYONNE)	HUDSON	5,730,996	2.09 %
FERRO CORP (LOGAN TWP)	GLOUCESTER	5,314,157	1.94 %
	Sum of Top 10:	**175,543,631**	**64.04 %**
	Sum Other:	**98,587,891**	**35.96 %**
	Sum All:	**274,131,522**	**100.00 %**

Nonproduct output (NPO) represents all forms of the reported substances that were generated as wastes prior to treatment or control and, therefore, need to be managed or disposed. Tables 46 and 47 list the top 10 substances and the top 10 facilities for NPO generation in 2005 and 2006. Nine of the substances were identical but appear by different rankings. Glycol ethers was #10 on the 2005 list and was ranked #21 for 2006. Toluene was #10 for 2006 while it was ranked #12 for 2005. Hydrochloric acid (HCl), which was ranked #1 for both years, has a specific condition for reporting - "aerosol forms only." A facility may manufacture the aerosol and then consume it in processes, convert or treat the aerosol form, or release it to the environment. Hydrochloric acid was reported by 25 facilities for both RY 2005 and 2006. DuPont Chambersworks (E. I. DuPont, Pennsville), which was ranked #1 for NPO in both years, accounted for approximately half of all HCl NPO in both years.

Table 47. 2006 RPPR – Nonproduct Output (pounds per year)

Top 10 Hazardous Substances for Nonproduct Output in 2006

CAS Number	SUBSTANCE NAME	NPO (pounds)	Percentage
7647-01-0	HYDROCHLORIC ACID	69,902,389	27.30 %
7440-66-6 & N982	ZINC & COMPOUNDS	35,095,799	13.71 %
7440-50-8 & N100	COPPER & COMPOUNDS	19,038,616	7.44 %
67-56-1	METHANOL	18,976,119	7.41 %
N511	NITRATE COMPOUNDS (WATER DISSOCIABLE)	15,408,263	6.02 %
7439-92-1 & N420	LEAD & COMPOUNDS	13,802,822	5.39 %
7664-41-7	AMMONIA	7,625,571	2.98 %
7439-96-5 & N450	MANGANESE & COMPOUNDS	6,189,749	2.42 %
1330-20-7	XYLENE (MIXED ISOMERS)	5,564,134	2.17 %
108-88-3	TOLUENE	5,499,542	2.15 %
	Sum of Top 10:	**197,103,004**	**76.97 %**
	Sum Other:	**58,958,847**	**23.03 %**
	Sum All:	**256,061,851**	**100.00 %**

Top 10 Facilities for Nonproduct Output in 2006

FACILITY NAME (CITY)	COUNTY	NPO (pounds)	Percentage
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	SALEM	59,734,226	23.33 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	MIDDLESEX	34,488,745	13.47 %
AMROD CORP (NEWARK)	ESSEX	13,202,369	5.16 %
INFINEUM USA (LINDEN)	UNION	10,161,896	3.97 %
FERRO CORP (SOUTH PLAINFIELD)	MIDDLESEX	8,211,008	3.21 %
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	7,891,424	3.08 %
AGC CHEMICALS AMERICAS, INC (BAYONNE)	HUDSON	7,878,223	3.08 %
CONOCOPHILLIPS CO (LINDEN)	UNION	7,732,851	3.02 %
HERCULES INCORPORATED (PARLIN)	MIDDLESEX	5,807,559	2.27 %
FERRO CORP (LOGAN TWP)	GLOUCESTER	5,313,836	2.08 %
	Sum of Top 10:	**160,422,137**	**62.65 %**
	Sum Other:	**95,639,714**	**37.35 %**
	Sum All:	**256,061,851**	**100.00 %**

There appears to be little correlation between the top 10 substances for Use versus the top 10 substances generated as NPO. Only xylene in 2005 and toluene and xylene in 2006 made the top 10 lists for both Use and NPO (see Tables 44 and 45 for chemical Use summaries). The top 10 substances accounted for 77-78% of all NPO for these two years. Nine of the top 10 facilities were the same for 2005 and 2006. PSE&G's Hudson Generating (Jersey City), an electricity-generating facility, was #8 for 2005; it was ranked #12 for 2006. Hercules Inc. (Parlin) was #9 for 2006; it was #11 for NPO in 2005. The top 10 facilities accounted for about 63-64% of NPO in each year.

B. Chemicals of Concern – Cancer-Causing Substances (Carcinogens)

There are at least 172 chemicals and compound categories on the TRI Toxic Chemical list that have potential links to causing cancer. These chemicals have been identified through the Hazard Communication Standard (29 CFR 1910.1200) of the Occupational Safety and Health Administration (OSHA). Other substances on the TRI list have also been identified as carcinogens through reviews of toxicology research conducted by various federal and state agencies but are not identified as such on the TRI list. The NJDEP assesses potential cancer

Table 48. 2005 RPPR – Carcinogens Used (pounds per year)

Top 10 Carcinogens Used in 2005

CAS Number	SUBSTANCE NAME	USE (pounds)	Percentage
1634-04-4	METHYL TERT-BUTYL ETHER	3,210,441,428	42.80 %
100-41-4	ETHYLBENZENE	1,324,465,702	17.66 %
71-43-2	BENZENE	1,116,074,960	14.88 %
91-20-3	NAPHTHALENE	631,781,513	8.42 %
75-01-4	VINYL CHLORIDE	535,540,441	7.14 %
7439-92-1 & N420	LEAD & COMPOUNDS	105,294,725	1.40 %
100-42-5	STYRENE	101,592,245	1.35 %
108-05-4	VINYL ACETATE	71,926,218	0.96 %
75-21-8	ETHYLENE OXIDE	65,261,195	0.87 %
100-44-7	BENZYL CHLORIDE	61,412,716	0.82 %
	Sum of Top 10:	**7,223,791,143**	**96.30 %**
	Sum Other:	**277,797,308**	**3.70 %**
	Sum All:	**7,501,588,451**	**100.00 %**

Top 10 Facilities for Carcinogens Used in 2005

FACILITY NAME (CITY)	COUNTY	USE (pounds)	Percentage
CONOCOPHILLIPS CO (LINDEN)	UNION	1,666,915,458	22.22 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	GLOUCESTER	1,095,212,575	14.60 %
HESS CORPORATION (PORT READING)	MIDDLESEX	590,569,182	7.87 %
MOTIVA ENTERPRISES LLC (SEWAREN)	MIDDLESEX	503,545,024	6.71 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	GLOUCESTER	488,358,939	6.51 %
BP PRODUCTS NORTH AMERICA INC (CARTERET)	MIDDLESEX	381,145,561	5.08 %
OXY VINYLS LP (PEDRICKTOWN)	SALEM	363,049,968	4.84 %
GULF OIL LIMITED PARTNERSHIP (THOROFARE)	GLOUCESTER	330,428,044	4.40 %
CITGO PETROLEUM CORPORATION (LINDEN)	UNION	314,856,192	4.20 %
HESS CORPORATION (PENNSAUKEN)	CAMDEN	260,701,123	3.48 %
	Sum of Top 10:	**5,994,782,065**	**79.91 %**
	Sum Other:	**1,506,806,385**	**20.09 %**
	Sum All:	**7,501,588,451**	**100.00 %**

risks from releases of these chemicals to the environment in its regulatory decisions, such as developing air and water permit limits for sources that release such substances.

There were 326 facilities that submitted 674 reports on 68 of these carcinogens for RY 2005 and 302 facilities that submitted 629 reports on 66 carcinogens for 2006. Appendix C lists the cancer-causing chemicals that were reported for each year. There were 64 substances common to both years; four substances were unique to 2005; and two substances were unique to 2006. Tables 48 and 49 list the top 10 carcinogens Used and the top 10 facilities for carcinogens Used

in 2005 and 2006. Use of carcinogenic substances exceeded 7.5 billion pounds for 2005 and was almost 5 billion pounds for 2006 (a 33% drop in Use from 2005). MTBE, mentioned earlier in the section on all substances, was #1 in 2005 and dropped to #3 in 2006 due to its declining use. Nine of the top 10 carcinogens appear on both years' lists. Styrene was ranked #7 for 2005; it was ranked #12 for 2006. Polycyclic aromatic compounds (PACs) was ranked #10 for 2006; PACs was #11 in 2005. The top 10 substances accounted for 95-96% of total carcinogen Use for these two years. Use of carcinogens was largely dominated by facilities in the petroleum refining and marketing industry groups (see the Top 10 Facilities listed in Tables 48 and 49).

Table 49. 2006 RPPR – Carcinogens Used (pounds per year)

Top 10 Carcinogens Used in 2006

CAS Number	SUBSTANCE NAME	USE (pounds)	Percentage
100-41-4	ETHYLBENZENE	1,271,050,859	25.44 %
71-43-2	BENZENE	1,065,294,429	21.32 %
1634-04-4	METHYL TERT-BUTYL ETHER	962,256,250	19.26 %
91-20-3	NAPHTHALENE	657,374,259	13.16 %
75-01-4	VINYL CHLORIDE	458,077,512	9.17 %
108-05-4	VINYL ACETATE	84,269,512	1.69 %
7439-92-1 & N420	LEAD & COMPOUNDS	76,948,487	1.54 %
75-21-8	ETHYLENE OXIDE	73,710,686	1.48 %
100-44-7	BENZYL CHLORIDE	57,239,107	1.15 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	50,634,999	1.01 %
	Sum of Top 10:	**4,756,856,100**	**95.22 %**
	Sum Other:	**239,002,786**	**4.78 %**
	Sum All:	**4,995,858,886**	**100.00 %**

Top 10 Facilities for Carcinogens Used in 2006

FACILITY NAME (CITY)	COUNTY	USE (pounds)	Percentage
CONOCOPHILLIPS CO (LINDEN)	UNION	1,267,220,875	25.37 %
SUNOCO, INC. (R&M) EAGLE POINT FACILITY (WEST DEPTFORD TWP)	GLOUCESTER	930,131,843	18.62 %
HESS CORPORATION (PENNSAUKEN)	CAMDEN	302,619,327	6.06 %
OXY VINYLS LP (PEDRICKTOWN)	SALEM	300,231,398	6.01 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	GLOUCESTER	242,216,605	4.85 %
CONOCO PHILLIPS (LINDEN)	UNION	225,296,206	4.51 %
HESS CORPORATION (PORT READING)	MIDDLESEX	213,908,178	4.28 %
CITGO PETROLEUM CORPORATION (LINDEN)	UNION	166,448,147	3.33 %
MOTIVA ENTERPRISES LLC (SEWAREN)	MIDDLESEX	126,659,285	2.54 %
BP PRODUCTS NORTH AMERICA INC (CARTERET)	MIDDLESEX	97,206,719	1.95 %
	Sum of Top 10:	**3,871,938,583**	**77.50 %**
	Sum Other:	**1,123,920,303**	**22.50 %**
	Sum All:	**4,995,858,886**	**100.00 %**

Nine of the top 10 facilities appear on both lists. Conoco Phillips oil refinery (Linden) was ranked #1 for both years. Gulf Oil (Thorofare) bulk terminal was ranked #8 for 2005; Gulf was ranked #12 for 2006. Conoco Phillips (Linden) bulk terminal was a new (separately listed) facility for 2006 as a result of the NAICS industry classification rule as discussed earlier in this report. The top 10 facilities accounted for more than 96% of carcinogen Use in 2005 and more than 95% of Use in 2006.

Table 50. 2005 RPPR – Nonproduct Output for Carcinogens (pounds per year)

Top 10 Carcinogens for Nonproduct Output in 2005

CAS Number	SUBSTANCE NAME	NPO (pounds)	Percentage
7439-92-1 & N420	LEAD & COMPOUNDS	21,145,403	64.18 %
7440-02-0 & N495	NICKEL & COMPOUNDS	2,266,884	6.88 %
7440-47-3 & N090	CHROMIUM & COMPOUNDS	2,094,530	6.36 %
7440-48-4 & N096	COBALT & COMPOUNDS	1,229,438	3.73 %
75-01-4	VINYL CHLORIDE	1,007,474	3.06 %
100-41-4	ETHYLBENZENE	858,525	2.61 %
75-09-2	DICHLOROMETHANE	702,049	2.13 %
100-44-7	BENZYL CHLORIDE	643,856	1.95 %
1634-04-4	METHYL TERT-BUTYL ETHER	484,589	1.47 %
91-20-3	NAPHTHALENE	455,237	1.38 %
	Sum of Top 10:	**30,887,985**	**93.76 %**
	Sum Other:	**2,057,390**	**6.24 %**
	Sum All:	**32,945,375**	**100.00 %**

Top 10 Facilities for Nonproduct Output of Carcinogens in 2005

FACILITY NAME (CITY)	COUNTY	NPO (pounds)	Percentage
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	14,253,783	43.26 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	MIDDLESEX	2,969,021	9.01 %
FRY'S METALS INC. (JERSEY CITY)	HUDSON	1,499,261	4.55 %
HOWMET CASTINGS (ROCKAWAY TWP)	MORRIS	1,468,904	4.46 %
COLORITE SPECIALTY RESINS (BURLINGTON)	BURLINGTON	1,068,513	3.24 %
THYSSEN KRUPP VDM USA, INC. (EAST HANOVER TWP)	MORRIS	958,062	2.91 %
STRYKER ORTHOPAEDICS (MAHWAH TWP)	BERGEN	765,035	2.32 %
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	SALEM	695,141	2.11 %
FERRO CORP (LOGAN TWP)	GLOUCESTER	661,623	2.01 %
GERDAU AMERISTEEL SAYREVILLE INC (SAYREVILLE)	MIDDLESEX	660,205	2.00 %
	Sum of Top 10:	**24,999,548**	**75.88 %**
	Sum Other:	**7,945,827**	**24.12 %**
	Sum All:	**32,945,375**	**100.00 %**

Environmental releases of carcinogens are of particular concern due to the nature of their potential impacts on human health. Human exposure to carcinogens may also occur at facilities during the handling and processing of these substances as raw materials and products, as well as during waste management operations both on site and off site. The data show that of the Use quantity for carcinogens, 0.4% was generated as NPO for 2005 and 0.6% for 2006.

Of the carcinogen NPO for 2005, 3% was released to the environment from on-site sources, 22.3% was managed on site, and the remainder, 74.7% was transferred off site for further waste management. Of all 2005 carcinogen NPO, 80.3% (almost 26.5 million pounds) was reported as on-site or off-site recycling. Of the carcinogen NPO for 2006, 2.6% was released to the environment from on-site sources, 27.1% was managed on site, and 70.3% was transferred off site for further waste management. Of all 2006 carcinogen NPO, 76% (almost 21 million pounds) was reported as on-site or off-site recycling.

Table 51. 2006 RPPR – Nonproduct Output for Carcinogens (pounds per year)

Top 10 Carcinogens for Nonproduct Output in 2006

CAS Number	SUBSTANCE NAME	NPO (pounds)	Percentage
7439-92-1 & N420	LEAD & COMPOUNDS	13,802,822	49.99 %
7440-02-0 & N495	NICKEL & COMPOUNDS	3,427,573	12.41 %
7440-47-3 & N090	CHROMIUM & COMPOUNDS	2,362,033	8.55 %
7440-48-4 & N096	COBALT & COMPOUNDS	1,544,880	5.59 %
100-41-4	ETHYLBENZENE	1,016,730	3.68 %
75-09-2	DICHLOROMETHANE	998,944	3.62 %
75-01-4	VINYL CHLORIDE	788,948	2.86 %
100-44-7	BENZYL CHLORIDE	773,446	2.80 %
71-43-2	BENZENE	594,258	2.15 %
91-20-3	NAPHTHALENE	539,878	1.96 %
	Sum of Top 10:	**25,849,512**	**93.61 %**
	Sum Other:	**1,763,073**	**6.39 %**
	Sum All:	**27,612,585**	**100.00 %**

Top 10 Facilities for Nonproduct Output of Carcinogens in 2006

FACILITY NAME (CITY)	COUNTY	NPO (pounds)	Percentage
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	7,839,490	28.39 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	MIDDLESEX	2,731,910	9.89 %
THYSSEN KRUPP VDM USA, INC. (EAST HANOVER TWP)	MORRIS	1,974,278	7.15 %
HOWMET CASTINGS (ROCKAWAY TWP)	MORRIS	1,496,569	5.42 %
FRY'S METALS INC. (JERSEY CITY)	HUDSON	1,354,272	4.90 %
E I DUPONT DE NEMOURS & CO INC (PENNSVILLE)	SALEM	1,121,429	4.06 %
STRYKER ORTHOPAEDICS (MAHWAH TWP)	BERGEN	998,780	3.62 %
COLORITE SPECIALTY RESINS (BURLINGTON)	BURLINGTON	821,985	2.98 %
FERRO CORP (LOGAN TWP)	GLOUCESTER	785,822	2.85 %
RATHGIBSON (NORTH BRANCH)	SOMERSET	696,823	2.52 %
	Sum of Top 10:	**19,821,358**	**71.78 %**
	Sum Other:	**7,791,227**	**28.22 %**
	Sum All:	**27,612,585**	**100.00 %**

Tables 50 and 51 list the top 10 carcinogens and the top 10 facilities for NPO of carcinogens for 2005 and 2006. Nine of the substances are identical for both years but appear with different rankings. MTBE was ranked #9 for 2005 but fell to #47 for 2006. Benzene was ranked #9 for 2006 while it was ranked #46 for 2005. The top 10 carcinogens accounted for more than 93.6% of NPO for both years.

Johnson Controls Battery Group (New Brunswick) was the #1-ranked facility in both years exclusively due to its use of lead in the manufacture of lead-acid batteries. Johnson Controls NPO went down 45% from 2005 to 2006, mirroring its lower production of batteries in 2006. Almost all of the lead from this facility was shipped off site for recycling. The top 10 facilities accounted for nearly 76% of carcinogen NPO for 2005 and almost 72% for 2006. Nine of the top 10 facilities are the same for both years. Gerdau Ameristeel (Sayreville) was ranked #10 for 2005 and #13 for 2006. RathGibson (North Branch) was ranked #10 for 2006 and #13 for 2005.

C. Chemicals of Concern – Persistent, Bioaccumulative, Toxic (PBT) Substances

Chemicals that are persistent, bioaccumulative and toxic (PBT) are of particular concern not only because they are toxic, but also because they remain in the environment for long periods of time, are not readily destroyed, and build up or accumulate in body tissue. Through a series of rule changes for RY 2000 and RY 2001, the U. S. Environmental Protection Agency (USEPA) established a list of 20 chemicals and compound categories that are considered PBTs for TRI reporting purposes and lowered the reporting threshold for these chemicals. Appendix D lists all PBTs, including dioxins, along with the reporting thresholds for each substance or chemical compound category.

Data summarized and presented on the following pages include all reports submitted by facilities for chemicals classified as PBTs except for dioxins. As noted earlier, dioxins are a unique category of PBT that are considered highly toxic and, therefore, reported in grams per year and not in pounds as are all other reportable substances. Therefore, those data are addressed separately in the last section dedicated to dioxin and dioxin-like compounds only.

Table 52. 2005 RPPR – PBTs Used (pounds per year)

All PBTs Used in 2005

CAS Number	SUBSTANCE NAME	USE (pounds)	Percentage
7439-92-1 & N420	LEAD & COMPOUNDS	105,294,725	62.41 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	61,222,395	36.29 %
191-24-2	BENZO(G,H,I)PERYLENE	2,180,326	1.29 %
7439-97-6 & N458	MERCURY & COMPOUNDS	14,092	0.01 %
118-74-1	HEXACHLOROBENZENE	10,073	0.01 %
40487-42-1	PENDIMETHALIN	2,328	0.00 %
79-94-7	TETRABROMOBISPHENOL A	1,069	0.00 %
1582-09-8	TRIFLURALIN	1,058	0.00 %
608-93-5	PENTACHLOROBENZENE	74	0.00 %
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)	37	0.00 %
57-74-9	CHLORDANE	20	0.00 %
76-44-8	HEPTACHLOR	12	0.00 %
	Sum of All PBTs:	**168,726,208**	**100.00 %**

Top 10 Facilities for PBTs Used in 2005

FACILITY NAME (CITY)	COUNTY	USE (pounds)	Percentage
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	76,056,533	45.08 %
LOGAN GENERATING COMPANY, L.P. (LOGAN TWP)	GLOUCESTER	14,645,513	8.68 %
PSEG FOSSIL LLC (SEWAREN)	MIDDLESEX	12,374,809	7.33 %
HESS CORPORATION (PORT READING)	MIDDLESEX	9,362,564	5.55 %
HESS CORPORATION (BAYONNE)	HUDSON	8,983,571	5.32 %
POWER BATTERY CO INC (PATERSON)	PASSAIC	6,854,640	4.06 %
ATLANTIC BATTERY CORP. (PATERSON)	PASSAIC	6,151,007	3.65 %
HESS CORPORATION (PENNSAUKEN)	CAMDEN	5,513,987	3.27 %
THE OKONITE COMPANY, INC (PATERSON)	PASSAIC	3,883,371	2.30 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	GLOUCESTER	3,832,434	2.27 %
	Sum of Top 10:	**147,658,428**	**87.51 %**
	Sum Other:	**21,067,780**	**12.49 %**
	Sum All:	**168,726,208**	**100.00 %**

There were 193 facilities that submitted 301 reports on 14 PBT listings for RY 2005 and 174 facilities that submitted 270 reports on 11 PBTs listings for 2006. For the purposes of this section, lead and lead compounds were combined as a group as was mercury and mercury compounds. Tables 52 and 53 list the details for all PBTs Used and the top 10 facilities for PBTs Used in 2005 and 2006. Lead and compounds are PBTs as well as carcinogens, as are most of the PBTs, and top the list for PBT Use for 2005 and 2006. (Mercury and mercury compounds, pendimethalin, pentachlorobenzene, and trifluralin are listed as PBTs but not as carcinogens.) For RY 2005 and 2006 lead and compounds and PACs accounted for more than 98% of all PBT Use. All 12 PBT substance listings for 2005 are presented in Table 52. Combining the lead and compounds and mercury and compounds into groups resulted in only 9 PBT substance listings for 2006 (Table 53).

Johnson Controls Battery Group (New Brunswick) was the #1-ranked facility for PBT Use in both years. Nine of the top 10 facilities appear for both years. PSE&G Generating (Sewaren) was ranked #3 for 2005 and #15 for 2006. Franklin Burlington Plastics (Kearny) was ranked #3 for 2006 largely due to increased use of lead and; it was #29 in 2005.

Table 53. 2006 RPPR – PBTs Used (pounds per year)

All PBTs Used in 2006

CAS Number	SUBSTANCE NAME	USE (pounds)	Percentage
7439-92-1 & N420	LEAD & COMPOUNDS	76,948,487	59.31 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	50,634,999	39.03 %
191-24-2	BENZO(G,H,I)PERYLENE	2,130,261	1.64 %
7439-97-6 & N458	MERCURY & COMPOUNDS	16,662	0.01 %
118-74-1	HEXACHLOROBENZENE	12,262	0.01 %
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)	3,279	0.00 %
40487-42-1	PENDIMETHALIN	998	0.00 %
1582-09-8	TRIFLURALIN	497	0.00 %
608-93-5	PENTACHLOROBENZENE	68	0.00 %
	Sum of All PBTs:	**129,747,513**	**100.00 %**

Top 10 Facilities for PBTs Used in 2006

FACILITY NAME (CITY)	COUNTY	USE (pounds)	Percentage
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	39,870,012	30.73 %
LOGAN GENERATING COMPANY, L.P. (LOGAN TWP)	GLOUCESTER	14,093,454	10.86 %
FRANKLIN BURLINGTON PLASTICS, INC. (KEARNY)	HUDSON	14,003,752	10.79 %
HESS CORPORATION (PORT READING)	MIDDLESEX	9,448,505	7.28 %
HESS CORPORATION (BAYONNE)	HUDSON	8,823,611	6.80 %
POWER BATTERY CO INC (PATERSON)	PASSAIC	6,078,925	4.69 %
HESS CORPORATION (PENNSAUKEN)	CAMDEN	5,651,061	4.36 %
ATLANTIC BATTERY CORP. (PATERSON)	PASSAIC	5,570,380	4.29 %
VALERO REFINING COMPANY NEW JERSEY (GREENWICH TWP)	GLOUCESTER	3,808,409	2.94 %
THE OKONITE COMPANY, INC (PATERSON)	PASSAIC	3,718,970	2.87 %
	Sum of Top 10:	**111,067,078**	**85.60 %**
	Sum Other:	**18,680,434**	**14.40 %**
	Sum All:	**129,747,513**	**100.00 %**

Environmental releases of PBTs are of special concern due to the nature of their potential to bioaccumulate in fish and other species and their potential impacts on human health. When humans consume fish and other food sources contaminated with PBTs the possibility of adverse health effects, especially for the young, elderly and sensitive individuals in the population becomes an issue. Even small quantities of environmental releases are, therefore, a matter of concern. The NJDEP has established work groups, as necessary, to study such special cases of concern and to issues advisories, e.g., for fishing, to alert citizens about identified problem areas.

Table 54. 2005 RPPR – Nonproduct Output for PBTs (pounds per year)

All PBTs for Nonproduct Output in 2005

CAS Number	SUBSTANCE NAME	NPO (pounds)	Percentage
7439-92-1 & N420	LEAD & COMPOUNDS	21,145,403	99.89 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	13,208	0.06 %
118-74-1	HEXACHLOROBENZENE	3,601	0.02 %
7439-97-6 & N458	MERCURY & COMPOUNDS	2,737	0.01 %
40487-42-1	PENDIMETHALIN	2,328	0.01 %
1582-09-8	TRIFLURALIN	1,058	0.00 %
191-24-2	BENZO(G,H,I)PERYLENE	218	0.00 %
608-93-5	PENTACHLOROBENZENE	74	0.00 %
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)	37	0.00 %
57-74-9	CHLORDANE	20	0.00 %
76-44-8	HEPTACHLOR	12	0.00 %
79-94-7	TETRABROMOBISPHENOL A	0	0.00 %
	Sum of All PBTs:	**21,168,696**	**100.00 %**

Top 10 Facilities for Nonproduct Output of PBTs in 2005

FACILITY NAME (CITY)	COUNTY	NPO (pounds)	Percentage
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	14,253,783	67.33 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	MIDDLESEX	2,375,117	11.22 %
FRY'S METALS INC. (JERSEY CITY)	HUDSON	1,499,261	7.08 %
GERDAU AMERISTEEL SAYREVILLE INC (SAYREVILLE)	MIDDLESEX	660,869	3.12 %
ATLANTIC BATTERY CORP. (PATERSON)	PASSAIC	570,043	2.69 %
ELECTRUM RECOVERY WORKS INC (RAHWAY)	UNION	537,766	2.54 %
THE OKONITE COMPANY, INC (PATERSON)	PASSAIC	246,033	1.16 %
GRIFFIN PIPE PRODUCTS CO. (FLORENCE)	BURLINGTON	128,223	0.61 %
CLEAN EARTH OF NORTH JERSEY (KEARNY)	HUDSON	109,719	0.52 %
PRUDENT PUBLISHING CO INC (LANDING)	MORRIS	100,167	0.47 %
	Sum of Top 10:	**20,480,981**	**96.75 %**
	Sum Other:	**687,715**	**3.25 %**
	Sum All:	**21,168,696**	**100.00 %**

About 0.1% of the 2005 PBT NPO was released to the environment from on-site sources, 17.1% was managed on site, and 82.7% was transferred off site for further waste management. Of all 2005 PBT NPO, 96.8% (almost 20.5 million pounds) was reported as on-site or off-site recycling. About 0.1% of the 2006 PBT NPO was released to the environment, 24.5% was managed on site, and 75.4% was transferred off site for further waste management. Of all 2006 PBT NPO, 95.8% (more than 13.2 million pounds) was reported as on-site or off-site recycling. On-site and off-site recycling of lead and lead compounds was the single dominant management activity for NPO of all PBT substances and accounted for the largest quantities.

Tables 54 and 55 list the details for NPO of all PBT substances and the top 10 facilities for NPO of PBTs in 2005 and 2006. Being a small group of reportable substances, Tables 54 and 55 present a summary of NPO for all substances by name for 2005 and 2006. As stated earlier, lead and lead compounds and mercury and mercury compounds were combined as two groups since only the metal component is to be quantified for metal compound categories. There are 12 PBT substance groups listed for 2005 in Table 54. Tetrabromobisphenol A was reported in 2005, is listed in Table 54, but there was no NPO reported for the substance. As a result of the lead and

Table 55. 2006 RPPR – Nonproduct Output for PBTs (pounds per year)

All PBTs for Nonproduct Output in 2006

CAS Number	SUBSTANCE NAME	NPO (pounds)	Percentage
7439-92-1 & N420	LEAD & COMPOUNDS	13,802,822	99.82 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	13,257	0.10 %
7439-97-6 & N458	MERCURY & COMPOUNDS	3,929	0.03 %
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)	3,279	0.02 %
118-74-1	HEXACHLOROBENZENE	3,189	0.02 %
40487-42-1	PENDIMETHALIN	998	0.01 %
1582-09-8	TRIFLURALIN	497	0.00 %
191-24-2	BENZO(G,H,I)PERYLENE	363	0.00 %
608-93-5	PENTACHLOROBENZENE	68	0.00 %
	Sum of All PBTs:	**13,828,401**	**100.00 %**

Top 10 Facilities for Nonproduct Output of PBTs in 2006

FACILITY NAME (CITY)	COUNTY	NPO (pounds)	Percentage
JOHNSON CONTROLS BATTERY GROUP INC (NEW BRUNSWICK)	MIDDLESEX	7,839,490	56.69 %
GERDAU AMERISTEEL PERTH AMBOY (PERTH AMBOY)	MIDDLESEX	2,270,756	16.42 %
FRY'S METALS INC. (JERSEY CITY)	HUDSON	1,354,272	9.79 %
ATLANTIC BATTERY CORP. (PATERSON)	PASSAIC	586,914	4.24 %
GERDAU AMERISTEEL SAYREVILLE INC (SAYREVILLE)	MIDDLESEX	464,924	3.36 %
ELECTRUM RECOVERY WORKS INC (RAHWAY)	UNION	339,451	2.45 %
PRUDENT PUBLISHING CO INC (LANDING)	MORRIS	121,534	0.88 %
THE OKONITE COMPANY, INC (PATERSON)	PASSAIC	120,841	0.87 %
GRIFFIN PIPE PRODUCTS CO. (FLORENCE)	BURLINGTON	112,366	0.81 %
POWER BATTERY CO INC (PATERSON)	PASSAIC	106,458	0.77 %
	Sum of Top 10:	**13,317,006**	**96.30 %**
	Sum Other:	**511,395**	**3.70 %**
	Sum All:	**13,828,401**	**100.00 %**

mercury groupings, there are only nine PBT substances listed for 2006 in Table 55. Lead and compounds accounted for nearly 100% of NPO for PBTs for both years.

Johnson Controls Battery Group (New Brunswick) appears once again as the #1-ranked facility, this time for PBT NPO in both years due to its use of Lead. Nine of the top 10 facilities are listed for both years. Clean Earth of North Jersey (Kearny) was ranked #9 for 2005 and #12 for 2006. Power Battery Co. (Paterson) was ranked #10 for 2006 and was #11 in 2005. The top 10 facilities accounted for 96-97% of all PBT NPO for 2005 and 2006.

D. Chemicals of Concern - TCPA Extraordinarily Hazardous Substances

The Toxic Catastrophe Prevention Act (TCPA) N.J.S.A. 13:1K-19 et seq. was signed into law in 1985 and became effective in January 1986. The goal of the TCPA program is to protect the public from catastrophic accidental releases of extraordinarily hazardous substances (ExHS for the purposes of this report) into the environment. TCPA requires owners or operators of facilities having ExHSs at certain threshold quantities to anticipate the circumstances that could result in accidental ExHS releases and to take precautionary or preemptive actions and, where appropriate, to implement preventive measures to avert such releases. TCPA specifies the key elements of a risk management program needed to minimize the threat of an accidental ExHS release at a regulated facility.

The Toxic Catastrophe Prevention Act identified 13 specific chemicals and the NJDEP added 93 additional chemicals to the ExHS list when it adopted the original TCPA rules in 1988. The ExHS list was further expanded in 1998 when the NJDEP incorporated into its rules (by reference) most of the flammable substances regulated by USEPA and again in 2003 with the addition of reactive hazard substances.

Facilities do not report materials accounting data directly to the TCPA program. Instead, this report presents a summary of those substances covered by both the RPPR reporting requirements and the TCPA program. Substances covered under both programs are listed in Appendix A. Even when a facility reports a TCPA-covered substance on the RPPR, it does not mean the facility is regulated by the TCPA program.

For reporting year 2005, 135 unique facilities in 17 major (3-digit) NAICS codes submitted 241 RPPR reports for 40 different Extraordinarily Hazardous Substances. For reporting year (RY) 2006, 132 unique facilities in 15 major (3-digit) NAICS codes submitted 241 RPPR reports

Table 56. Materials Accounting Data for TCPA Extraordinarily Hazardous Substances (in pounds)

	2005	2006
Number of Facilities	135	132
Number of Substance Reports	241	241
Starting Inventory	33,318,998	33,714,557
Starting Inventory as NPO	193,993	244,714
Manufactured	710,857,048	566,348,503
Brought on Site	1,136,978,700	962,852,709
Brought on Site as Recycled	16,595	15,352
Consumed	1,359,309,463	1,227,682,102
Shipped	401,301,762	223,021,309
Ending Inventory	34,275,365	26,750,000
Ending Inventory as NPO	243,121	212,343
NPO	91,787,446	94,068,780
On-Site Releases	9,193,835	7,535,896
Stack Air Emissions	8,911,607	7,289,253
Fugitive Air Emissions	124,076	90,507
Surface Water Discharge	150,884	154,717
Ground Water Discharge	0	0
Land Disposal on-site	7,268	1,419
On-Site Management	82,121,867	86,119,539
Recycled & Reused on-site	558,664	542,272
Energy Recovered on-site	1,523,934	5,991,397
Destroyed on-site	80,039,269	79,585,870
EI(as NPO) - SI(as NPO)	49,128	32371
Off-Site Transfers	422,616	445,716
POTW Discharge	109,246	103,897
Waste Transfer - Recycling	25,669	21,635
Waste Transfer - Energy Recovery	39,029	50,611
Waste Transfer - Treatment	173,317	179,443
Waste Transfer - Disposal	75,355	90,130
Total Substance USE or Throughput	1,852,398,671	1,544,772,191

for 41 different Extraordinarily Hazardous Substances. Table 56 summarizes the chemical throughput data as reported on the 2005 and 2006 RPPRs. In RY 2005 these facilities used more than 1.85 billion pounds of ExHSs. In RY 2006 these facilities used more than 1.54 billion pounds of ExHSs. The NPO for RY 2005 (about 91.8 million pounds) amounted to about 5% of the total Use quantity. For RY 2006 the NPO went up (over 94 million pounds) and the Use went down resulting in the NPO being about 6.1% of total Use of ExHSs.

E. Chemicals of Concern - Dioxin and Dioxin-like Compounds

Polychlorinated dibenzo-para(p)-dioxins (CDDs) and polychlorinated dibenzofurans (CDFs) constitute a group of PBTs that are termed "dioxin-like." The term "dioxin-like" refers to the fact that these compounds have similar chemical structures, similar physical-chemical properties, and invoke a common array of toxic responses. An important aspect of this definition is that the CDDs and CDFs must have chlorine substitution of hydrogen atoms at the 2, 3, 7, and 8 positions on the benzene rings.[4]

The term "dioxin" refers to a large family of compounds that for regulatory purposes includes 17 compounds (7 CDDs and 10 CDFs) of particular interest because it is thought that these compounds have similar mechanisms of toxicity. Nevertheless, the toxicity of dioxins varies greatly, with the most toxic compound estimated to be 10,000 times more potent than the least toxic. Dioxins occur as complex mixtures of these 17 family member compounds. See Appendix E for a list of the 17 chemicals that the phrase "dioxin and dioxin-like compounds" refers to in this report. "Dioxin" is a shortened version of the technical chemical name given to some of the family member compounds. These compounds contain two oxygen atoms in their chemical structure, hence "di" refers to two and "ox" refers to oxygen. Figure 3 shows the structure of the most toxic form of dioxin, 2,3,7,8-tetrachlorodibenzo-*p*-dioxin (the numbers indicate the locations of chlorine atoms in the molecule).

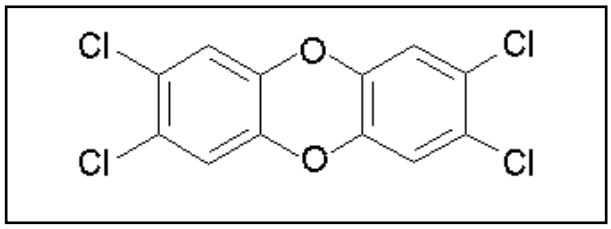


Figure 3. Chemical structure of 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD)

Dioxin is an unwanted by-product of incineration, uncontrolled burning and certain industrial processes. As dioxin emissions from industry decline, unregulated sources such as backyard barrel burning of garbage and residential wood burning rise in significance as contributors to dioxin emissions. Currently, the uncontrolled burning of residential waste is thought to be the largest source of dioxins to the environment in the United States. [5]

[4] USEPA, Emergency Planning and Community Right-To-Know Act – Section 313: Guidance for Reporting Toxic Chemicals within the Dioxin and Dioxin-like Compounds Category; EPA-745-B00-021, December 2000.

[5] http://www.cfsan.fda.gov/~lrd/dioxinqa.html#g8

New Jersey's air pollution regulations do not permit backyard burning of residential waste.

Table 57. Materials Accounting Data for Dioxins and Dioxin-like Compounds (in grams)

	2005	2006
Number of Facilities	16	13
Number of Substance Reports	16	13
Starting Inventory	27.5126	93.7771
Starting Inventory as NPO	1.1478	3.5730
Manufactured	331.5691	274.2503
Brought on Site	4.2314	0.6922
Brought on Site as Recycled	4.0900	0.0000
Consumed	0.0000	0.0000
Shipped	214.1700	278.3400
Ending Inventory	93.7771	40.9212
Ending Inventory as NPO	3.5730	1.9200
NPO	57.7906	47.8054
On-Site Releases	17.3643	14.0881
Stack Air Emissions	16.9793	13.4449
Fugitive Air Emissions	0.1929	0.2124
Surface Water Discharge	0.0900	0.0001
Ground Water Discharge	0.0000	0.0000
Land Disposal on-site	0.1021	0.4307
On-Site Management	0.0428	0.1803
Recycled & Reused on-site	0.0000	0.0000
Energy Recovered on-site	0.0000	0.0000
Destroyed on-site	0.0428	0.1803
EI(as NPO) - SI(as NPO)	2.4252	-1.6530
Off-Site Transfers	37.9583	35.1900
POTW Discharge	0.0000	0.0000
Waste Transfer - Recycling	0.0000	0.0000
Waste Transfer - Energy Recovery	0.0000	0.0000
Waste Transfer - Treatment	13.1280	28.3400
Waste Transfer - Disposal	24.8303	6.8500
Total Substance USE or Throughput	271.9606	326.1454

The dioxin compounds category is the one unique group on the substance list that is reported in grams, or fractions of a gram, per year. As with the other PBTs, dioxins may be reported to four significant figures to the right of the decimal place. Table 57 presents a summary of the 2005 and 2006 materials accounting data for the dioxin compounds category. The data are presented with four significant figures to the right of the decimal place since there were facilities that felt that their estimation techniques and the underlying data could support such data accuracy. There were 16 facilities that reported dioxins for RY 2005 and 13 facilities reporting for 2006. Most dioxins were reported as manufactured at the facilities as opposed to being brought on site in raw materials, mixtures, etc. Dioxins were not reported as consumed in processes; however, a large amount was reported each year as shipped as (or in) product. These quantities were predominantly shipped as impurities in the reporting facilities' products.

The materials accounting data show that 2005 NPO was about 21.2% of dioxin Use while 2006 NPO was about 14.7% of Use. The largest amount of dioxin NPO for 2005 was sent off site for disposal (44.8%), followed by stack air emissions (30.7%), and then off-site transfers for treatment (23.7%). The other 0.8% of NPO for 2005 was fugitive air emissions, surface water discharges, on-site land disposal and on-site destruction. The largest amount of dioxin NPO for 2006 was sent off site for treatment (57.3%), followed by stack air emissions (27.2%), and then off-site transfers for disposal (13.8%). The remaining 1.7% of NPO for 2006, similar to 2005, was fugitive air emissions, surface water discharges, on-site land disposal and on-site destruction.

Dioxins, like other PBTs, are of particular concern due to their ability to bioaccumulate in body tissue and the potential health impacts on humans. People's risk from dioxin may actually be declining, because environmental levels of dioxin are going down. The potential health effects associated with dioxin – as with any chemical – are directly related to the level of exposure: the

lower the exposure, the less the likelihood of adverse effects. 2,3,7,8- TCDD may be a carcinogen in humans since it causes lymphomas in humans and it has been shown to cause liver, lung, mouth, tongue and skin cancers in animals. [6] Many scientists believe there is no safe level of exposure to a carcinogen. Government agencies, like the USEPA and NJDEP that are charged with protection of human health and the environment tend to take a cautious approach where evaluations of toxic and hazardous substances and their potential effects on human health are concerned.

Detailed Summary and Tables of the RY 2005 and 2006 RPPR Data

This report was not intended to be a comprehensive review and presentation of the RPPR data for 2005 and 2006. A large collection of tables that summarize the 2005 and 2006 data may be found on the Internet. They include summaries by substance, by county and by NAICS code. In addition to the tables in this report, summaries by individual materials accounting data elements are listed. You may find listings of the top substances, facilities and individual highest reports for categories including, but not limited to:

Inputs and Outputs
Produced
Brought on site
Consumed
Shipped as (or in) Product

On-Site Releases
Total Air Emissions
Stack Air Emissions
Fugitive Air Emissions
Surface Water Discharges
On-Site Land Disposal

Off-Site Transfers
POTW Discharges
Off-Site Recycling
Off-Site Energy Recovery
Off-Site Treatment
Off-Site Disposal

On-Site Management
On-Site Recycling
On-Site Energy Recovery
On-Site Treatment

You will also find additional appendices with a sample RPPR form, definitions for materials accounting data elements, and more. To view or download any tables of your choice, visit the Office of Pollution Prevention and Right to Know website at www.nj.state.us/dep/opppc. Your comments on the use and value of CRTK and RPPR data are always welcome.

[6] http://nj.gov/health/eoh/rtkweb/documents/fs/1806.pdf, p. 2.

Glossary of Acronyms and Terms found in this Report

CAS	Chemical Abstracts Service
CDD	Chlorinated dibenzo-para(p)-dioxin
CDF	Chlorinated dibenzofuran
CFR	Code of Federal Regulations
CRTK	Community Right To Know
EHS	Environmental Hazardous Substance pursuant to CRTK
EI	Ending Inventory – a quantity reported on the RPPR
EPCRA	Emergency Planning and Community Right To Know Act of 1986 (also known as Title III of SARA)
eRPPR	Electronic Release and Pollution Prevention Report
ExHS	Extraordinarily Hazardous Substance pursuant to NJ TCPA
ExmHS	Extremely Hazardous Substance pursuant to EPCRA Section 302
Form A	Toxic Chemical Release Inventory Certification Statement
Form R	Toxic Chemical Release Inventory Reporting Form
HCl	Hydrochloric Acid
NAICS	North American Industry Classification System
NJDEP	New Jersey Department of Environmental Protection
NJAC	New Jersey Administrative Code (also N.J.A.C.)
NJSA	New Jersey Statutes Annotated (also N.J.S.A.)
NPO	Nonproduct Output – the quantity of a reported substance that was generated prior to storage, out-of-process recycling, treatment, control or disposal, and that was not intended for use as a product
OSHA	Occupational Safety and Health Administration
P2	Pollution Prevention
P2-115	Pollution Prevention Process-Level Data Worksheet

(continued)

Glossary (continued)

PAC	Polycyclic Aromatic Compound
PBT	Persistent, Bioaccumulative, Toxic Substance
POTW	Publicly Owned Treatment Works
RCRA	Resource Conservation and Recovery Act
RPPR	Release and Pollution Prevention Report
RPPR Section B	Release and Pollution Prevention Report Section B for reporting facility-level, substance-specific throughput data, etc.
RY	Report Year
SARA	Superfund Amendments and Reauthorization Act of 1986
SI	Starting Inventory - a quantity reported on the RPPR
SIC	Standard Industrial Classification
TCDD	Tetrachlorodibenzodioxin
TCPA	Toxic Catastrophe Prevention Act
Title III	Emergency Planning and Community Right To Know Act of 1986
TPQ	Threshold Planning Quantity
TRI	Toxic Chemical Release Inventory
USC	United States Codes (also U.S.C.)
USE	The quantity of a hazardous substance used at an industrial facility determined by adding the quantity consumed in process, the quantity shipped as (or in) product and the quantity of NPO
USEPA	United States Environmental Protection Agency
W&CRTK	Worker & Community Right To Know

Appendix A

Chemicals that are both TCPA Extraordinarily Hazardous Substances and RPPR Reportable Substances [1]

CAS NUMBER	SUBSTANCE NAME
75-07-0	ACETALDEHYDE
107-02-8	ACROLEIN
107-13-1	ACRYLONITRILE
107-18-6	ALLYL ALCOHOL
107-11-9	ALLYLAMINE
107-05-1	ALLYL CHLORIDE
7664-41-7	AMMONIA
542-88-1	BIS(CHLOROMETHYL) ETHER
10294-34-5	BORON TRICHLORIDE
7637-07-2	BORON TRIFLUORIDE
7726-95-6	BROMINE
74-83-9	BROMOMETHANE
106-99-0	1,3-BUTADIENE
75-15-0	CARBON DISULFIDE
463-58-1	CARBONYL SULFIDE [CARBON OXYSULFIDE]
7782-50-5	CHLORINE
10049-04-4	CHLORINE DIOXIDE
67-66-3	CHLOROFORM
74-87-3	CHLOROMETHANE
107-30-2	CHLOROMETHYL METHYL ETHER
76-06-2	CHLOROPICRIN
126-99-8	CHLOROPRENE
4170-30-3	CROTONALDEHYDE
334-88-3	DIAZOMETHANE
124-40-3	DIMETHYLAMINE
57-14-7	1,1-DIMETHYL HYDRAZINE
106-89-8	EPICHLOROHYDRIN
75-00-3	CHLOROETHANE
74-85-1	ETHYLENE
107-15-3	ETHYLENEDIAMINE
151-56-4	ETHYLENEIMINE
75-21-8	ETHYLENE OXIDE
7782-41-4	FLUORINE
50-00-0	FORMALDEHYDE
302-01-2	HYDRAZINE
7647-01-0	HYDROCHLORIC ACID
74-90-8	HYDROGEN CYANIDE [HYDROCYANIC ACID]
7664-39-3	HYDROGEN FLUORIDE
13463-40-6	IRON PENTACARBONYL

CAS NUMBER	SUBSTANCE NAME
126-98-7	METHACRYLONITRILE
79-22-1	METHYL CHLOROCARBONATE
60-34-4	METHYL HYDRAZINE
74-88-4	METHYL IODIDE
624-83-9	METHYL ISOCYANATE
7697-37-2	NITRIC ACID
20816-12-0	OSMIUM TETROXIDE
10028-15-6	OZONE
594-42-3	PERCHLOROMETHYL MERCAPTAN
79-21-0	PERACETIC ACID
75-44-5	PHOSGENE
7803-51-2	PHOSPHINE
75-55-8	PROPYLENEIMINE
75-56-9	PROPYLENE OXIDE
2699-79-8	SULFURYL FLUORIDE [VIKANE]
7550-45-0	TITANIUM TETRACHLORIDE
584-84-9	TOLUENE-2,4-DIISOCYANATE
91-08-7	TOLUENE-2,6-DIISOCYANATE
26471-62-5	TOLUENE DIISOCYANATE (MIXED ISOMERS)
108-05-4	VINYL ACETATE
75-01-4	VINYL CHLORIDE
75-35-4	VINYLIDENE CHLORIDE

1. A form, condition or physical state qualifier may differentiate the substance as it is reportable under the TCPA program versus the RPPR requirements. For example, on the RPPR hydrochloric acid is reportable if it is an “aerosol form only” while TCPA regulates hydrochloric acid at “36% by weight or more HCl.” The analyses in this report did not attempt to distinguish among the various forms or conditions of the reportable substances.

Appendix B

CRTK Covered North American Industry Classification System (NAICS) Codes

The complete list of NAICS codes and sub-categories can be found on the Department's web site:
http://www.nj.gov/dep/opppc/forms/naicslimex.pdf

SUBSECTOR CODE OR INDUSTRY CODE	DESCRIPTION
11	**Agriculture, Forestry, Fishing and Hunting**
111998	All Other Miscellaneous Crop Farming
113310	Logging
21	**Mining**
211112	Natural Gas Liquid Extraction
212324	Kaolin and Ball Clay Mining
212325	Clay and Ceramic and Refractory Minerals Mining
212393	Other Chemical and Fertilizer Mineral Mining
212399	All Other Nonmetallic Mineral Mining
22	**Utilities**
31-33	**Manufacturing**
42	**Wholesale Trade**
423830	Industrial Machinery and Equipment Merchant Wholesalers
423840	Industrial Supplies Merchant Wholesalers
423850	Service Establishment Equipment and Supplies Merchant Wholesalers
423930	Recyclable Material Merchant Wholesalers
4242	Drugs and Druggists' Sundries Merchant Wholesalers
424310	Piece Goods, Notions and Other Dry Goods Merchant Wholesalers
424340	Footwear Merchant Wholesalers
4246	Chemical and Allied Products Wholesalers
4247	Petroleum and Petroleum Merchant Wholesalers
424810	Beers and Ale Merchant Wholesalers
424820	Wine and Distilled Alcoholic Beverage Merchants Wholesalers
4249	Miscellaneous Nondurable Goods Merchants Wholesalers
425110	Business to Business Electronic Markets
425120	Wholesale Trade Agents and Brokers
44 – 45	**Retail Trade**
441110	New Car Dealers
441120	Used Car Dealers
444220	Nurseries, Garden Centers and Farm Supply Stores
445310	Beer, Wine and Liquor Stores
446110	Pharmacies and Drug Stores
446120	Cosmetics, Beauty Supplies and Perfume Stores
446191	Food (Health) Supplement Stores
4471	Gasoline Stations

SUBSECTOR CODE OR INDUSTRY CODE	DESCRIPTION
451211	Book Stores
453220	Gift, Novelty and Souvenir Stores
453910	Pet and Pet Supplies Stores
453991	Tobacco Stores
453998	All Other Miscellaneous Store Retailers (Except Tobacco Stores)
454311	Heating Oil Dealers
454312	Liquid Petroleum Gas (Bottled Gas) Dealers
48 – 49	**Transportation and Warehousing**
4811	Scheduled Air Transportation
486	Pipeline Transportation Industry
487110	Scenic and Sightseeing Transportation, Land
488111	Air Traffic Control
488119	Other Airport Operations
488190	Other Support Activities for Air Transportation
488210	Support Activities for Rail Transportation
488390	Other Support Activities for Water Transportation
488490	Other Support Activities for Road Transportation
488510	Freight Transportation Arrangement
488991	Packing and Crating
488999	All Other Support Activities for Transportation
492110	Couriers
51	**Information**
51111	Newspaper Publishers
51112	Periodical Publishers
51113	Book Publishers
51114	Directory and Mailing List publishers
511191	Greeting Card Publishers
511199	All Other Publishers
512220	Integrated Record Production/Distribution
512230	Music Publishers
517110	***Wired Telecommunication Carriers***
517210 (517211*) (517212*)	***Wireless Telecommunications Carriers (except Satellite)*** (Paging*) (Cellular and Other Wireless Telecommunications*)
517911 (517310*)	***Telecommunications Resellers*** (Telecommunication Resellers*)

SUBSECTOR CODE OR INDUSTRY CODE	DESCRIPTION
519130	***Internet Publishing and Broadcasting and Web Search Portals***
(516110*)	(Internet Publishing and Broadcasting*)
53	**Real Estate and Rental and Leasing**
532411	Commercial Air, Rail and Water Transportation Equipment Rental and Leasing
54	**Professional, Scientific and Technical Services**
541380	Testing Laboratories
541614	Process, Physical Distribution and Logistics Consulting Services
541712	***Research and Development in the Physical, Engineering, and Life Sciences: except biotechnology research and development***
(541710*)	(Research and Development in the Physical, Engineering and Life Sciences*)
541890	Other Services Related to Advertising
541940	Veterinary Services
56	**Administrative and Support and Waste Management and Remediation Services**
5617	Services to Buildings and Dwellings
56221	Hazardous Waste Treatment and Disposal
562910	Remediation Services
562920	Materials Recovery Facilities
562998	All Other Miscellaneous Waste Management Services

SUBSECTOR CODE OR INDUSTRY CODE	DESCRIPTION
61	**Educational Services**
611110	Elementary and Secondary Schools
611210	Junior Colleges
611310	Colleges, Universities and Professional Schools
611512	Flight Training
611513	Apprenticeship Training
611519	Other Technical and Trade Schools
62	**Health Care and Social Assistance**
622	Hospitals
72	**Accommodation and Food Services**
722310	Food Service Contractors
81	**Other Services (Except Public Administration)**
81111	Automotive, Mechanical and Electrical Repair and Maintenance
811121	Automotive Body, Paint and Interior Repair and Maintenance and Glass Repair
811122	Automotive Glass Replacement Shops
811198	All Other Automotive Repair and Maintenance
8113	Commercial and Industrial Machinery and Equipment (Except Automotive and Electronic) Repair and Maintenance
811420	Reupholstery and Furniture Repair
811490	Other Personal and Household Goods Repair and Maintenance
812320	Drycleaning and Laundry Services (Except Coin-operated)
812332	Industrial Launderers

Notes:

Activity as currently described, "North American Industry Classification System, United States 2007," (PB2007-100002), Springfield, VA: National Technical Information Service, 2007.

***** = Previous North American Industry Classification System code, prior to 2007

Appendix C

List of Carcinogens Reported on the 2005 and/or 2006 RPPR

CAS NUMBER	CHEMICAL NAME
106-88-7	1,2-BUTYLENE OXIDE
106-93-4	1,2-DIBROMOETHANE [2]
107-06-2	1,2-DICHLOROETHANE
78-87-5	1,2-DICHLOROPROPANE
106-99-0	1,3-BUTADIENE
106-46-7	1,4-DICHLOROBENZENE
88-06-2	2,4,6-TRICHLOROPHENOL [1]
612-83-9	3,3-DICHLOROBENZIDINE DIHYDROCHLORIDE
101-14-4	4,4-METHYLENEBIS(2-CHLOROANILINE)
75-07-0	ACETALDEHYDE
79-06-1	ACRYLAMIDE
107-13-1	ACRYLONITRILE
107-05-1	ALLYL CHLORIDE [2]
62-53-3	ANILINE (AND SALTS)
N020	ARSENIC COMPOUNDS
71-43-2	BENZENE
191-24-2	BENZO(G,H,I)PERYLENE
98-07-7	BENZOIC TRICHLORIDE
100-44-7	BENZYL CHLORIDE
7440-43-9	CADMIUM
N078	CADMIUM COMPOUNDS
120-80-9	CATECHOL
57-74-9	CHLORDANE [1]
67-66-3	CHLOROFORM
74-87-3	CHLOROMETHANE
7440-47-3	CHROMIUM
N090	CHROMIUM COMPOUNDS
7440-48-4	COBALT
N096	COBALT COMPOUNDS
8001-58-9	CREOSOTE
117-81-7	DI(2-ETHYLHEXYL) PHTHALATE [DEHP]
25376-45-8	DIAMINOTOLUENE (MIXED ISOMERS)
25321-22-6	DICHLOROBENZENE (MIXED ISOMERS)
75-09-2	DICHLOROMETHANE
64-67-5	DIETHYL SULFATE
101-90-6	DIGLYCIDYL RESORCINOL ETHER
77-78-1	DIMETHYL SULFATE
106-89-8	EPICHLOROHYDRIN
140-88-5	ETHYL ACRYLATE
100-41-4	ETHYLBENZENE
75-21-8	ETHYLENE OXIDE
96-45-7	ETHYLENE THIOUREA

CAS NUMBER	CHEMICAL NAME
50-00-0	FORMALDEHYDE
76-44-8	HEPTACHLOR [1]
118-74-1	HEXACHLOROBENZENE
67-72-1	HEXACHLOROETHANE
302-01-2	HYDRAZINE
7439-92-1	LEAD
N420	LEAD COMPOUNDS
1634-04-4	METHYL TERT-BUTYL ETHER
91-20-3	NAPHTHALENE
7440-02-0	NICKEL
N495	NICKEL COMPOUNDS
98-95-3	NITROBENZENE
90-04-0	O-ANISIDINE
N583	POLYCHLORINATED ALKANES
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)
N590	POLYCYCLIC AROMATIC COMPOUNDS
75-55-8	PROPYLENEIMINE
75-56-9	PROPYLENE OXIDE
132-27-4	SODIUM O-PHENYLPHENOXIDE
100-42-5	STYRENE
127-18-4	TETRACHLOROETHYLENE [PERCHLOROETHYLENE]
584-84-9	TOLUENE-2,4-DIISOCYANATE
26471-62-5	TOLUENE DIISOCYANATE (MIXED ISOMERS)
79-01-6	TRICHLOROETHYLENE
1582-09-8	TRIFLURALIN
51-79-6	URETHANE [1]
108-05-4	VINYL ACETATE
75-01-4	VINYL CHLORIDE

1 - carcinogen unique to RY 2005 in this Report

2 - carcinogen unique to RY 2006 in this Report

Appendix D

List of Persistent, Bioaccumulative, Toxic Substances

Persistent, Bioaccumulative, and Toxic Chemicals covered by the USEPA October 29, 1999 PBT Rule and the January 17, 2001 Lead Rule and reportable on the Toxic Chemical Release Inventory (TRI) Forms R and A and the NJ Release and Pollution Prevention Report (RPPR)

Chemical Name or Chemical Category	CAS Number (Group #)	Section 313 Reporting Threshold (in pounds unless noted otherwise)
Aldrin	309-00-2	100
Benzo(g,h,i)perylene	191-24-2	10
Chlordane	57-74-9	10
Dioxin and dioxin-like compounds category [1, 3]	N150	0.1 gram
Heptachlor	76-44-8	10
Hexachlorobenzene	118-74-1	10
Isodrin	465-73-6	10
Lead [2]	7439-92-1	100
Lead compounds category [2]	N420	100
Mercury	7439-97-6	10
Mercury compounds	N458	10
Methoxychlor	72-43-5	100
Octachlorostyrene	29082-74-4	10
Pendimethalin	40487-42-1	100
Pentachlorobenzene	608-93-5	10
Polychorinated biphenyls (PCBs)	1336-36-3	10
Polycyclic aromatic compounds category [3,4]	N590	100
Tetrabromobisphenol A	79-94-7	100
Toxaphene	8001-35-2	10
Trifluralin	1582-09-8	100

1. Qualifier: "manufacturing; and the processing or otherwise use of dioxin and dioxin-like compounds if the dioxin and dioxin-like compounds are present as contaminants in a chemical and if they were created during the manufacturing of that chemical."
2. The lower reporting thresholds apply to lead and all lead compounds, except for lead contained in stainless steel, brass, and bronze alloys. For the federal TRI, lead contained in stainless steel, brass, and bronze alloys remains reportable under the 25,000-pound manufacture and process reporting threshold and the 10,000-pound otherwise use reporting threshold. For the state RPPR, lead contained in stainless steel, brass, and bronze alloys remains reportable under the 10,000-pound manufacture, process and otherwise use reporting threshold.
3. See *Appendix C of the RPPR instructions* for the specific substances reportable under this category.
4. Two chemicals, benzo(j,k)fluorene (CAS # 206-44-0) and 3-methylcholanthrene (CAS # 56-49-5), were added to this category effective RY 2000.

Appendix E

Members of the Dioxin and Dioxin-like Compounds Category [1]

CAS Number	Chemical Name	Abbreviated Name
CDDs		
1746-01-6	2,3,7,8- tetrachlorodibenzo-p-dioxin	2,3,7,8-TCDD
40321-76-4	1,2,3,7,8-pentachlorodibenzo-p-dioxin	1,2,3,7,8-PeCDD
39227-28-6	1,2,3,4,7,8-hexachlorodibenzo-p-dioxin	1,2,3,4,7,8-HxCDD
57653-85-7	1,2,3,6,7,8-hexachlorodibenzo-p-dioxin	1,2,3,6,7,8- HxCDD
19408-74-3	1,2,3,7,8,9-hexachlorodibenzo-p-dioxin	1,2,3,7,8,9- HxCDD
35822-46-9	1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin	1,2,3,4,6,7,8- HpCDD
3268-87-9	1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin	1,2,3,4,6,7,8,9-OCDD
CDFs		
51207-31-9	2,3,7,8- tetrachlorodibenzofuran	2,3,7,8-TCDF
57117-41-6	1,2,3,7,8-pentachlorodibenzofuran	1,2,3,7,8-PeCDF
57117-31-4	2,3,4,7,8-pentachlorodibenzofuran	2,3,4,7,8-PeCDF
70648-26-9	1,2,3,4,7,8-hexachlorodibenzofuran	1,2,3,4,7,8-HxCDF
57117-44-9	1,2,3,6,7,8-hexachlorodibenzofuran	1,2,3,6,7,8- HxCDF
72918-21-9	1,2,3,7,8,9-hexachlorodibenzofuran	1,2,3,7,8,9- HxCDF
60851-34-5	2,3,4,6,7,8-hexachlorodibenzofuran	2,3,4,6,7,8- HxCDF
67562-39-4	1,2,3,4,6,7,8-heptachlorodibenzofuran	1,2,3,4,6,7,8- HpCDF
55673-89-7	1,2,3,4,7,8,9-heptachlorodibenzofuran	1,2,3,4,7,8,9- HpCDF
39001-02-0	1,2,3,4,6,7,8,9-octachlorodibenzofuran	1,2,3,4,6,7,8,9-OCDF

1. Reportable pursuant to the requirements of the federal Toxic Chemical Release Inventory (TRI) and the NJ Release and Pollution Prevention Report (RPPR).