NJ MATERIALS ACCOUNTING & POLLUTION PREVENTION PLANNING

NJ DEPARTMENT OF ENVIRONMENTAL PROTECTION

OFFICE OF POLLUTION PREVENTION & RIGHT TO KNOW

www.state.nj.us/dep/opppc

JUNE 15, 2010

Purpose of the NJ RPPR

To collect materials accounting information on ...

- Chemical throughput data (materials accounting)
- Nonproduct Output: environmental release, on-site management, and off-site transfer data
- Pollution prevention data and pollution prevention progress data

RPPR Section B is a detailed summary of data for all activities and uses of the reported substance at the facility for the reporting year; i.e. it is facility-wide data, not process-level data.

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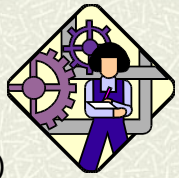
RPPR Data Elements for Materials Accounting



- Starting inventory of substance
  (at the beginning of the year)
- Quantity produced on site
- Quantity brought on site
- Quantity consumed on site
  (chemically reacted in processes)
  (NOT metals!)
- Quantity shipped off site as (or in) product
  (e.g. mixtures, metals, metal compounds)
- Ending inventory of substance
  (at the end of the year, in all forms)
- Total Nonproduct Output (NPO)
  - all releases, on-site waste management and all off-site transfers - that are not product

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Release and Pollution Prevention Report
Self Verification of Materials Accounting Data Worksheet

(All Quantities Must Be Reported In Pounds except for Dioxin and Dioxin-Like Compounds Reported in Grams)

FAC_ID: _____ **CAS#:** _____ **Substance:** _____

Inputs		**Outputs**	
5. Starting Inventory		8. Quantity Consumed (chemically altered)	
6. Quantity Produced On Site		9. Quantity Shipped Off Site as (or in) Product	
7. Quantity Brought On Site		10. Ending Inventory	
12. Quantity Recycled Out-of Process & Re-Used on Site		12. Quantity Recycled Out-of Process & Re-Used on Site	
		13. Quantity Destroyed through On-Site Treatment	
		14. Quantity Destroyed through On-Site Energy Recovery	
		15. Stack Air Emissions	
		16. Fugitive Air Emissions	
		17. Discharge to POTWs	
		18. Discharge to Surface Waters	
		19. Discharge to Groundwaters	
		20. On-Site Land Disposal	
		21. Other Off-Site Transfers	

Sum of Inputs: _____ ≈ **Sum of Outputs:** _____

NJ RPPR Data Calculations

USE = Consumed + Shipped + NPO

NPO = all production-related waste (on-site releases, on-site management, and all off-site transfers, including all sorts of recycling)

Total Air = Stack + Fugitive Emissions

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2008 RPPR Materials Accounting Data Summary

(all quantities in pounds, except Number of Facilities & Number of Substance Reports)

	2008
Number of Facilities	450
Number of Substance Reports	1,728
Starting Inventory	911,013,046
Starting Inventory as NPO	1,792,023
Produced On Site	9,546,711,309
Brought On Site	9,054,679,256
Brought on Site as Recycled	7,831,331
Consumed	3,594,285,220
Shipped as (or in) Product	14,909,914,241
Ending Inventory	857,428,088
Ending Inventory as NPO	2,356,966
Nonproduct Output	198,352,316
On-Site Releases	15,417,708
Stack Air Emissions	5,348,607
Fugitive Air Emissions	828,468
Surface Water Discharge	9,082,846
Ground Water Discharge	3
Land Disposal On Site	157,783
On-Site Management	134,741,879
Recycled & Re-Used On Site	30,756,254
Energy Recovered On Site	2,775,902
Destroyed On Site	101,209,723
End Inv. (as NPO) minus Start Inv. (as NPO)	564,943
Off-Site Transfers	47,627,787
POTW Discharge	15,432,258
Waste Transfer - Recycling	15,010,225
Waste Transfer - Energy Recovery	12,761,855
Waste Transfer - Treatment	1,925,816
Waste Transfer - Disposal	2,497,227
Total Substance USE or Throughput	18,702,551,778

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2008 RPPR Summary of USE, Shipped, & NPO for Top 10 NAICS (by 3-digit Code)

NAICS CODE	Description	Number of Facilities	Number of Reports	USE (pounds)	Shipped as (or in) Product (pounds)	Nonproduct Output (pounds)	On-Site Releases (pounds)	Total Air Emissions (pounds)	Surface Water Discharges (pounds)
324	Petroleum & Coal Products Mfg.	19	157	11,895,682,289	9,630,731,427	16,991,538	4,163,697	1,071,461	3,091,522
424	Merchants Wholesalers, Nondurable Goods	28	251	4,381,877,421	4,381,227,285	622,701	450,708	450,616	91
325	Chemical Mfg.	147	657	1,681,275,963	382,551,777	106,561,862	6,942,043	844,491	5,940,483
331	Primary Metal Mfg.	34	122	495,426,874	453,191,542	38,987,346	75,663	75,475	185
326	Plastics & Rubber Products Mfg.	21	45	153,880,233	15,351,815	1,625,371	184,539	148,145	36,394
332	Fabricated Metal Product Mfg.	40	109	25,919,236	8,723,103	11,902,197	150,754	150,740	14
221	Utilities	19	126	17,795,050	1,762,395	9,526,021	3,086,748	3,072,623	14,125
336	Transportation Equipment Mfg.	8	15	13,707,428	11,364,657	2,040,060	103,930	103,930	0
335	Electrical Equip, Appliances, and Component Mfg.	13	21	9,819,080	8,991,102	812,494	1,942	1,942	0
322	Paper Mfg.	17	40	8,184,563	4,627,185	2,646,776	50,826	50,825	1
	SUM:	346	1543	18,683,568,137	14,898,522,288	191,716,366	15,210,850	5,970,248	9,082,815

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Top 20 Substances by USE – 2008 RPPR

CAS Number	SUBSTANCE NAME	USE (pounds)	% of Total
1330-20-7	XYLENE (MIXED ISOMERS)	4,252,304,750	22.74 %
108-88-3	TOLUENE	3,562,166,548	19.05 %
110-54-3	N-HEXANE	1,450,682,506	7.76 %
115-07-1	PROPYLENE [PROPENE]	1,424,041,406	7.61 %
95-63-6	1,2,4-TRIMETHYLBENZENE	1,161,980,279	6.21 %
100-41-4	ETHYLBENZENE	1,130,866,615	6.05 %
71-43-2	BENZENE	1,060,781,548	5.67 %
110-82-7	CYCLOHEXANE	821,152,050	4.39 %
98-82-8	CUMENE	624,035,451	3.34 %
91-20-3	NAPHTHALENE	479,904,361	2.57 %
75-01-4	VINYL CHLORIDE	394,921,251	2.11 %
7440-50-8 & N100	COPPER & COMPOUNDS	378,595,304	2.02 %
74-85-1	ETHYLENE	323,312,776	1.73 %
7782-50-5	CHLORINE	134,176,866	0.72 %
107-21-1	ETHYLENE GLYCOL	118,069,038	0.63 %
7439-96-5 & N450	MANGANESE & COMPOUNDS	104,961,938	0.56 %
7647-01-0	HYDROCHLORIC ACID	104,715,568	0.56 %
75-44-5	PHOSGENE	73,591,511	0.39 %
75-21-8	ETHYLENE OXIDE	68,842,468	0.37 %
7697-37-2	NITRIC ACID	54,832,469	0.29 %
	Sum of Top 20:	**17,723,934,703**	**94.77 %**
	Sum Other:	**978,617,075**	**5.23 %**
	Sum All:	**18,702,551,778**	**100.00 %**

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Top 20 Substances Shipped in Product – 2008 RPPR

CAS Number	SUBSTANCE NAME	Shipped as (or in) Product (pounds)	% of Total
1330-20-7	XYLENE (MIXED ISOMERS)	4,249,645,730	28.50 %
108-88-3	TOLUENE	3,516,416,548	23.58 %
110-54-3	N-HEXANE	1,213,160,241	8.14 %
95-63-6	1,2,4-TRIMETHYLBENZENE	1,161,423,049	7.79 %
100-41-4	ETHYLBENZENE	1,057,499,096	7.09 %
71-43-2	BENZENE	749,134,474	5.02 %
98-82-8	CUMENE	621,079,748	4.17 %
110-82-7	CYCLOHEXANE	517,987,742	3.47 %
91-20-3	NAPHTHALENE	470,522,928	3.16 %
7440-50-8 & N100	COPPER & COMPOUNDS	352,566,726	2.36 %
115-07-1	PROPYLENE [PROPENE]	264,019,658	1.77 %
74-85-1	ETHYLENE	135,688,079	0.91 %
107-21-1	ETHYLENE GLYCOL	107,051,080	0.72 %
7439-96-5 & N450	MANGANESE & COMPOUNDS	99,244,429	0.67 %
7647-01-0	HYDROCHLORIC ACID	44,906,061	0.30 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	41,036,231	0.28 %
7440-02-0 & N495	NICKEL & COMPOUNDS	32,279,168	0.22 %
7440-66-6 & N982	ZINC & COMPOUNDS	30,436,966	0.20 %
67-56-1	METHANOL	28,951,140	0.19 %
N230	GLYCOL ETHERS (EXCEPT SURFACTANTS)	23,734,307	0.16 %
	Sum of Top 20:	**14,716,783,401**	**98.70 %**
	Sum Other:	**193,130,840**	**1.30 %**
	Sum All:	**14,909,914,241**	**100.00 %**

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Top 20 Substances for Nonproduct Output – 2008 RPPR

CAS Number	SUBSTANCE NAME	NPO (pounds)	% of Total
7647-01-0	HYDROCHLORIC ACID	55,046,195	27.75 %
7440-50-8 & N100	COPPER & COMPOUNDS	26,028,578	13.12 %
N511	NITRATE COMPOUNDS (WATER DISSOCIABLE)	21,590,541	10.88 %
67-56-1	METHANOL	16,147,636	8.14 %
7664-41-7	AMMONIA	8,161,783	4.11 %
115-07-1	PROPYLENE [PROPENE]	5,779,471	2.91 %
7439-96-5 & N450	MANGANESE & COMPOUNDS	5,717,509	2.88 %
7664-39-3	HYDROGEN FLUORIDE	5,085,416	2.56 %
108-88-3	TOLUENE	5,016,687	2.53 %
107-21-1	ETHYLENE GLYCOL	3,452,884	1.74 %
7697-37-2	NITRIC ACID	3,425,609	1.73 %
7440-66-6 & N982	ZINC & COMPOUNDS	3,275,346	1.65 %
74-85-1	ETHYLENE	2,715,900	1.37 %
1330-20-7	XYLENE (MIXED ISOMERS)	2,562,033	1.29 %
7664-93-9	SULFURIC ACID	2,364,836	1.19 %
7440-02-0 & N495	NICKEL & COMPOUNDS	2,337,898	1.18 %
108-10-1	METHYL ISOBUTYL KETONE	1,892,366	0.95 %
7439-92-1 & N420	LEAD & COMPOUNDS	1,750,436	0.88 %
99-65-0	M-DINITROBENZENE	1,615,143	0.81 %
71-36-3	N-BUTYL ALCOHOL	1,345,905	0.68 %
	Sum of Top 20:	**175,312,172**	**88.38 %**
	Sum Other:	**23,040,144**	**11.62 %**
	Sum All:	**198,352,316**	**100.00 %**

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Top 20 Carcinogens by USE – 2008 RPPR

CAS Number	SUBSTANCE NAME	USE (pounds)	% of Total
100-41-4	ETHYLBENZENE	1,130,866,615	32.18 %
71-43-2	BENZENE	1,060,781,548	30.18 %
91-20-3	NAPHTHALENE	479,904,361	13.66 %
75-01-4	VINYL CHLORIDE	394,921,251	11.24 %
75-21-8	ETHYLENE OXIDE	68,842,468	1.96 %
100-44-7	BENZYL CHLORIDE	53,743,003	1.53 %
108-05-4	VINYL ACETATE	53,182,332	1.51 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	41,819,942	1.19 %
98-95-3	NITROBENZENE	35,625,568	1.01 %
7440-02-0 & N495	NICKEL & COMPOUNDS	34,617,066	0.99 %
75-56-9	PROPYLENE OXIDE	28,799,201	0.82 %
140-88-5	ETHYL ACRYLATE	23,434,143	0.67 %
100-42-5	STYRENE	22,108,756	0.63 %
7440-47-3 & N090	CHROMIUM & COMPOUNDS	18,454,431	0.53 %
117-81-7	DI(2-ETHYLHEXYL) PHTHALATE [DEHP]	13,896,422	0.40 %
7439-92-1 & N420	LEAD & COMPOUNDS	11,589,291	0.33 %
26471-62-5	TOLUENE DIISOCYANATE (MIXED ISOMERS)	8,584,424	0.24 %
75-09-2	DICHLOROMETHANE	6,738,399	0.19 %
7440-48-4 & N096	COBALT & COMPOUNDS	4,969,289	0.14 %
106-89-8	EPICHLOROHYDRIN	4,142,572	0.12 %
	Sum of Top 20:	**3,497,021,082**	**99.51 %**
	Sum Other:	**17,338,647**	**0.49 %**
	Sum All:	**3,514,359,729**	**100.00 %**

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Top 20 Carcinogens Shipped in Product – 2008 RPPR

CAS Number	SUBSTANCE NAME	Shipped as (or in) Product (pounds)	% of Total
100-41-4	ETHYLBENZENE	1,057,499,096	43.48 %
71-43-2	BENZENE	749,134,474	30.80 %
91-20-3	NAPHTHALENE	470,522,928	19.35 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	41,036,231	1.69 %
7440-02-0 & N495	NICKEL & COMPOUNDS	32,279,168	1.33 %
100-44-7	BENZYL CHLORIDE	19,428,296	0.80 %
7440-47-3 & N090	CHROMIUM & COMPOUNDS	17,155,579	0.71 %
117-81-7	DI(2-ETHYLHEXYL) PHTHALATE [DEHP]	13,893,861	0.57 %
7439-92-1 & N420	LEAD & COMPOUNDS	9,838,856	0.40 %
100-42-5	STYRENE	7,859,193	0.32 %
75-09-2	DICHLOROMETHANE	6,019,083	0.25 %
7440-48-4 & N096	COBALT & COMPOUNDS	3,627,486	0.15 %
191-24-2	BENZO(G,H,I)PERYLENE	928,930	0.04 %
67-66-3	CHLOROFORM	535,916	0.02 %
8001-58-9	CREOSOTE	463,272	0.02 %
50-00-0	FORMALDEHYDE	301,501	0.01 %
1634-04-4	METHYL TERT-BUTYL ETHER	276,843	0.01 %
N583	POLYCHLORINATED ALKANES	229,544	0.01 %
108-05-4	VINYL ACETATE	162,023	0.01 %
106-99-0	1,3-BUTADIENE	127,505	0.01 %
	Sum of Top 20:	**2,431,319,785**	**99.97 %**
	Sum Other:	**653,197**	**0.03 %**
	Sum All:	**2,431,972,982**	**100.00 %**

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Top 20 Carcinogens for Nonproduct Output – 2008 RPPR

CAS Number	SUBSTANCE NAME	Nonproduct Output (pounds)	% of Total
7440-02-0 & N495	NICKEL & COMPOUNDS	2,337,898	20.50 %
7439-92-1 & N420	LEAD & COMPOUNDS	1,750,436	15.35 %
7440-48-4 & N096	COBALT & COMPOUNDS	1,341,803	11.76 %
7440-47-3 & N090	CHROMIUM & COMPOUNDS	1,298,852	11.39 %
75-09-2	DICHLOROMETHANE	719,316	6.31 %
75-01-4	VINYL CHLORIDE	658,068	5.77 %
100-44-7	BENZYL CHLORIDE	421,737	3.70 %
106-89-8	EPICHLOROHYDRIN	417,671	3.66 %
100-41-4	ETHYLBENZENE	417,329	3.66 %
71-43-2	BENZENE	298,873	2.62 %
91-20-3	NAPHTHALENE	248,669	2.18 %
8001-58-9	CREOSOTE	216,211	1.90 %
62-53-3	ANILINE (AND SALTS)	183,841	1.61 %
108-05-4	VINYL ACETATE	145,898	1.28 %
100-42-5	STYRENE	134,321	1.18 %
78-87-5	1,2-DICHLOROPROPANE	97,959	0.86 %
1332-21-4	ASBESTOS (FRIABLE)	90,194	0.79 %
79-01-6	TRICHLOROETHYLENE	84,395	0.74 %
74-87-3	CHLOROMETHANE	71,748	0.63 %
75-21-8	ETHYLENE OXIDE	67,004	0.59 %
	Sum of Top 10:	**11,002,223**	**96.46 %**
	Sum Other:	**404,353**	**3.54 %**
	Sum All:	**11,406,575**	**100.00 %**

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All PBTs[1] by USE – 2008 RPPR

CAS Number	SUBSTANCE NAME	USE (pounds)	% of Total
N590	POLYCYCLIC AROMATIC COMPOUNDS	41,819,941.54	76.91 %
N420	LEAD COMPOUNDS	7,921,696.62	14.57 %
7439-92-1	LEAD	3,667,594.69	6.74 %
191-24-2	BENZO(G,H,I)PERYLENE	931,546.08	1.71 %
118-74-1	HEXACHLOROBENZENE	16,539.00	0.03 %
7439-97-6	MERCURY	13,218.87	0.02 %
N458	MERCURY COMPOUNDS	3,553.54	0.01 %
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)	2,631.26	0.00 %
79-94-7	TETRABROMOBISPHENOL A	187.00	0.00 %
608-93-5	PENTACHLOROBENZENE	51.00	0.00 %
57-74-9	CHLORDANE	45.00	0.00 %
	Sum of All PBTs:	**54,377,004.58**	**100.00 %**

1. PBT = persistent, bioaccumulative, toxic substance; does not include "Dioxins & dioxin-like compounds)

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All PBTs[1] Shipped in Product – 2008 RPPR

CAS Number	SUBSTANCE NAME	Shipped as (or in) Product (pounds)	% of Total
N590	POLYCYCLIC AROMATIC COMPOUNDS	41,036,231.01	79.21 %
N420	LEAD COMPOUNDS	7,095,209.65	13.69 %
7439-92-1	LEAD	2,743,646.00	5.30 %
191-24-2	BENZO(G,H,I)PERYLENE	928,930.31	1.79 %
7439-97-6	MERCURY	2,554.94	0.00 %
N458	MERCURY COMPOUNDS	2,323.81	0.00 %
79-94-7	TETRABROMOBISPHENOL A	187.00	0.00 %
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)	2.66	0.00 %
	Sum of All PBTs:	**51,809,085.38**	**100.00 %**

1. PBT = persistent, bioaccumulative, toxic substance; does not include "Dioxins & dioxin-like compounds)

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All PBTs[1] for Nonproduct Output – 2008 RPPR

CAS Number	SUBSTANCE NAME	Nonproduct Output (pounds)	% of Total
7439-92-1	LEAD	923,948.69	50.83 %
N420	LEAD COMPOUNDS	826,486.97	45.47 %
N590	POLYCYCLIC AROMATIC COMPOUNDS	35,576.90	1.96 %
118-74-1	HEXACHLOROBENZENE	16,539.00	0.91 %
7439-97-6	MERCURY	10,663.93	0.59 %
1336-36-3	POLYCHLORINATED BIPHENYLS (PCBS)	2,628.61	0.14 %
N458	MERCURY COMPOUNDS	1,229.73	0.07 %
191-24-2	BENZO(G,H,I)PERYLENE	622.18	0.03 %
608-93-5	PENTACHLOROBENZENE	51.00	0.00 %
57-74-9	CHLORDANE	45.00	0.00 %
79-94-7	TETRABROMOBISPHENOL A	0.00	0.00 %
	Sum of All:	**1,817,791.99**	**100.00 %**

1. PBT = persistent, bioaccumulative, toxic substance; does not include "Dioxins & dioxin-like compounds)

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Big Five SIC Codes

SIC Code	
26	Paper and Allied Products
28	Chemicals and Allied Products
30	Rubber and Miscellaneous Plastics
33	Primary Metals
34	Fabricated Metals

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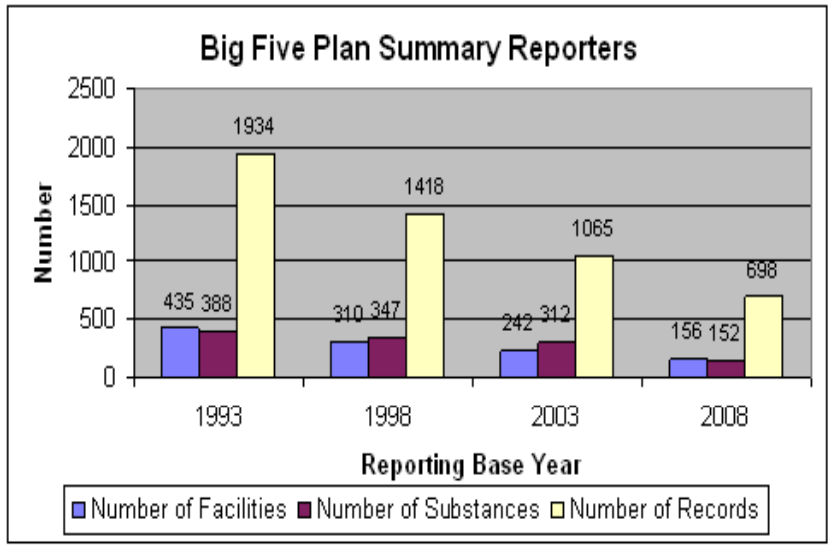

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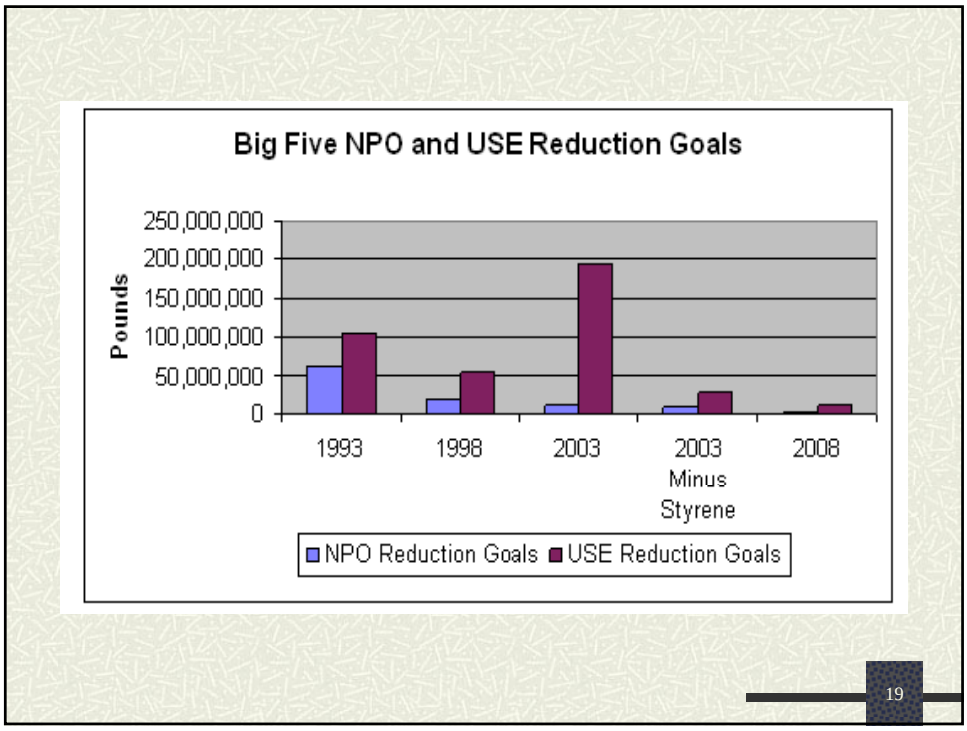
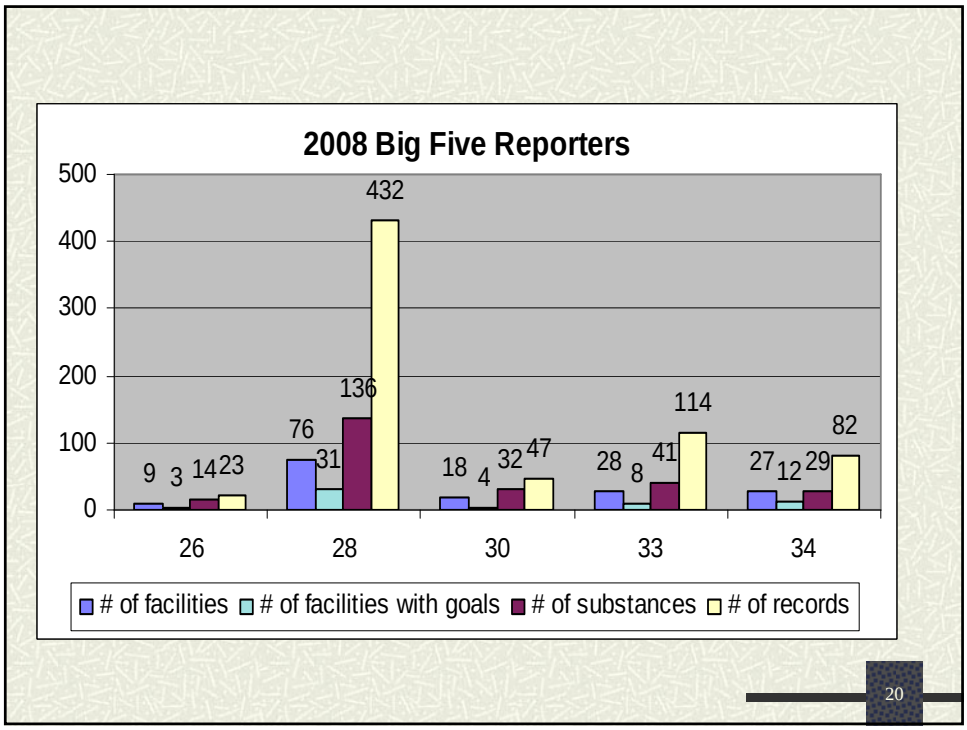

Big Five NPO and USE Reduction Goals
Pounds
250,000,000
200,000,000
150,000,000
100,000,000
50,000,000
0
1993
1998
2003
2003 Minus Styrene
2008
NPO Reduction Goals
USE Reduction Goals
19

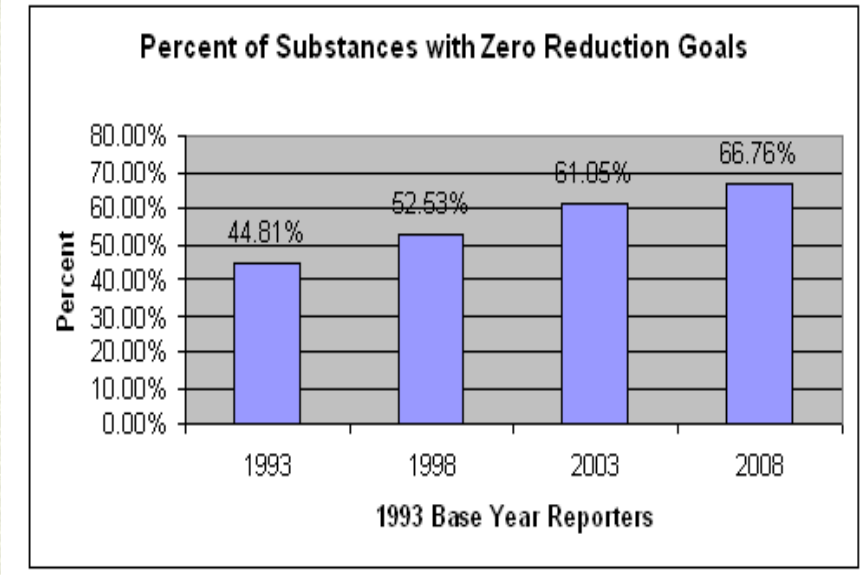

2008 Big Five Reporters
500
400
300
200
100
0
9 3 14 23
76 31 136 432
18 4 32 47
28 8 41 114
27 12 29 82
26
28
30
33
34
# of facilities
# of facilities with goals
# of substances
# of records
20

Big 5 Top 10 Substances for NPO Reduction Goals for 4 Planning Cycles

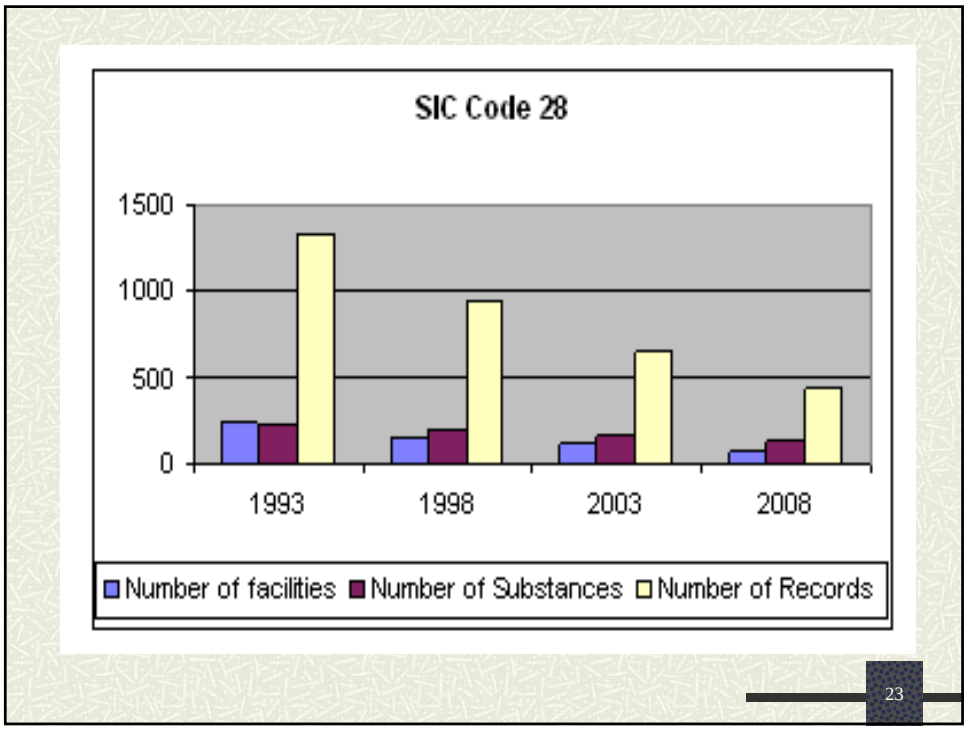
Table 1

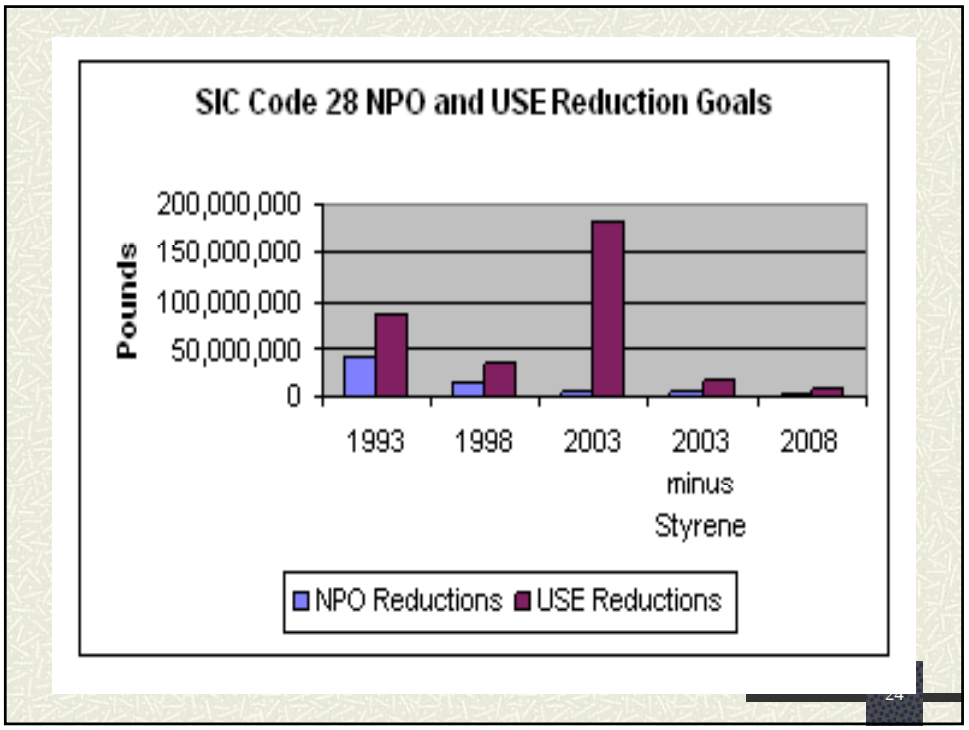
	Base Year 1993			Base Year 1998			Base Year 2003			Base Year 2008		
	Substance Name	NPO Reduction Goals (lbs)	Number of facilities	Substance Name	NPO Reduction Goals (lbs)	Number of facilities	Substance Name	NPO Reduction Goals (lbs)	Number of facilities	Substance Name	NPO Reduction Goals (lbs)	Number of facilities
1	Hydrochloric Acid	15,068,385	68	Hydrochloric Acid	5,272,090	19	Methanol	2,785,304	34	Nitrobenzene	667,056	2
2	Methanol	7,330,503	76	Methanol	2,367,362	68	Zinc Compounds	1,074,226	47	Methanol	539,514	21
3	Toluene	4,303,636	90	Hydrogen Fluoride	1,392,622	9	Titanium tetrachloride	1,034,553	2	Toluene	466,260	31
4	Methyl Ethyl Ketone	2,461,805	53	Nitrate Compounds	1,075,991	18	Xylene	943,270	43	Hydrochloric Acid	331,301	9
5	Methylene Chloride	2,366,991	35	Xylene	997,130	58	Hydrogen Fluoride	673,473	6	Xylene	241,396	30
6	Acetone	1,908,040	53	Toluene	894,528	73	Benzal Chloride	555,755	1	Chlorine	160,000	8
7	Copper Compounds	1,767,343	30	Nitric Acid	854,287	23	Hydrochloric Acid	379,889	13	Ethylene Glycol	89,599	16
8	Xylene	1,747,708	67	Methyl Ethyl Ketone	852,757	38	sec- Butyl Alcohol	377,200	3	Nitrate Compounds	61,331	18
9	Copper	1,225,279	36	1,3 Phenylenediamine	721,043	2	Toluene	352,787	45	Glycol Ethers	60,686	25
10	Nitroglycerin	1,162,108	2	Ethylene	400,000	3	Methyl Ethyl Ketone	313,804	28	Ethyl Benzene	51,621	16
	Sum	39,331,798		Sum	14,827,810		Sum	8,490,061		Sum	2,668,764	

21



22


SIC Code 28
1500
1000
500
0
1993
1998
2003
2008
Number of facilities
Number of Substances
Number of Records
23


SIC Code 28 NPO and USE Reduction Goals
Pounds
200,000,000
150,000,000
100,000,000
50,000,000
0
1993
1998
2003
2003 minus Styrene
2008
NPO Reductions
USE Reductions

Top 5 Hazardous Substances for SIC 28 for Four Planning Cycles

Table 4

	Base Year 1993			Base Year 1998			Base Year 2003			Base Year 2008	
CAS #	Top 5 Substance with Largest NPO Reduction Goals	Quantity in Pounds	CAS #	Top 5 Substance with Largest NPO Reduction Goals	Quantity in Pounds	CAS #	Top 5 Substance with Largest NPO Reduction Goals	Quantity in Pounds	CAS #	Top 5 Substance with Largest NPO Reduction Goals	Quantity in Pounds
7647-01-0	Hydrochloric acid	14,583,703	7647-01-0	Hydrochloric Acid	5,013,818	7550-46-8	Titaniumtetrachloride	1,034,553	98-87-3	Benzal chloride	667,056
67-56-1	Methanol	7,294,706	7664-39-3	Hydrogen Fluoride	1,273,092	1330-20-7	Xylene	872,730	108-88-3	Toluene	285,923
75-09-2	Methylene Chloride	2,305,788	N511	Nitrate Compounds	1,052,012	7664-39-3	Hydrogen Fluoride	661,953	1330-20-7	Xylene	219,224
67-64-1	Acetone	1,597,508	67-56-1	Methanol	949,545	7647-01-0	Hydrochloric Acid	242,301	67-56-1	Methanol	152,137
1330-20-7	Xylene	1,466,362	7697-37-2	Nitic Acid	716,078	108-88-3	Toluene	225,915	107-21-1	Ethylene Glycol	89,599
	Sum	27,238,067		Sum	9,104,546		Sum	3,027,452		Sum	1,413,939
	Percentage of Total	65%		Percentage of Total	66%		Percentage of Total	60%		Percentage of Total	78%

Top 5 Hazardous Substances Facilities Most Frequently set NPO Reduction Goals for SIC 28

Table 5

	Base Year 1993			**Base Year 1998**			**Base Year 2003**			**Base Year 2008**	
CAS #	**Top 5 Substances**	**# of Facilities with NPO Goals**	**CAS #**	**Top 5 Substances**	**# of Facilities with NPO Goals**	**CAS #**	**Top 5 Substances**	**# of Facilities with NPO Goals**	**CAS #**	**Top 5 Substances**	**# of Facilities with NPO Goals**
67-56-1	Methanol	67	67-56-1	Methanol	49	N230	Glycol Ethers	31	N982	Zinc Compounds	20
108-88-3	Toluene	62	1330-20-7	Xylene	40	1330-20-7	Xylene	30	N230	Glycol Ethers	18
7664-93-9	Sulfuric Acid	54	108-88-3	Toluene	37	67-66-3	Chloroform	28	1330-20-7	Xylene	18
7647-01-0	Hydrochloric Acid	52	N230	Glycol Ethers	32	108-88-3	Toluene	27	108-88-3	Toluene	18
107-21-1	Ethylene Glycol	48	71-36-3	n-Butyl Alcohol	31	N982	Zinc Compounds	26	107-21-1	Ethylene Glycol	16
	Total # of facilities	236		Total # of facilities	157		Total # of facilities	117		Total # of facilities	90

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Distribution of P2 Techniques for All Facilities

Report Year	Substitution	Housekeeping	Reformulation	Process Modification	In-Process Recycling
1994	15%	45%	3%	36%	0%
1995	12%	45%	5%	27%	10%
1996	16%	43%	6%	24%	11%
1997	13%	44%	5%	28%	10%
1998	16%	46%	5%	24%	9%
1999	14%	46%	6%	23%	11%
2000	14%	48%	7%	25%	7%
2001	12%	54%	4%	23%	7%
2002	12%	53%	4%	23%	8%
2003	10%	54%	3%	23%	9%
2004	14%	55%	3%	17%	10%
2005	12%	54%	4%	19%	12%
2006	11%	53%	6%	19%	11%
2007	12%	56%	4%	20%	8%
2008	8%	60%	4%	14%	13%

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RPPR NPO by 4-Digit Code - Chemicals & Allied Products

SIC	Description	2008	2007	2006		2001	2000	1999	Sum	% Δ
2869	Industrial Organic Chemicals, NEC	85,325,362	85,651,246	88,892,527		82,788,392	110,574,229	102,090,878	919,091,959	16.42
2816	Inorganic Pigments	5,385,373	4,474,609	1,589,641		5,647,862	12,730,101	12,529,595	53,449,323	57.02
2833	Medicinal Chemicals & Botanical Products	2,942,764	3,310,934	5,017,627		15,807,369	15,290,578	7,963,132	75,926,770	63.05
2819	Industrial Inorganic Chemicals, NEC	2,851,492	5,289,300	5,214,374		12,210,136	12,584,796	17,598,313	79,219,880	83.80
2843	Surface Active Agents, Finishing Agents, Sulfonated Oils, & Assistants	2,010,906	2,518,057	2,659,697		2,579,798	1,724,962	1,818,030	23,010,954	-10.61
2851	Paints, Varnishes, Lacquers, Enamels & Allied Products	1,926,039	1,586,362	1,904,435		3,859,745	4,735,097	4,389,629	28,768,211	56.12
2821	Plastics Materials, Synthetic Resins, & Nonvulcanized Elastomers	1,525,727	9,189,258	8,978,412		9,376,054	10,910,308	14,100,153	88,315,793	89.18
2899	Chemicals & Chemical Preparations, NEC	677,628	806,092	826,801		1,455,240	1,394,471	1,348,965	11,044,503	49.77
2893	Printing Inks	513,167	507,794	643,957		731,099	609,729	810,560	6,777,262	36.69
2891	Adhesives & Sealants	268,247	397,448	416,488		956,917	711,548	521,632	5,737,663	48.58
2865	Cyclic Org. Crudes & Intermediates, & Org. Dyes & Pigments	173,631	318,543	526,756		7,102,416	5,695,013	6,480,890	29,825,243	97.32
2835	In Vitro & In Vivo Diagnostic Substances	107,555	80,304	89,200		80,336	95,418	7,873	816,918	-1266.12
2834	Pharmaceutical Preparations	101,196	116,524	365,286		7,038,729	8,407,446	8,020,853	37,091,344	98.74
2844	Perfumes, Cosmetics, & Other Toilet Preparations	86,826	164,772	109,156		133,506	3,077,288	2,967,212	7,119,737	97.07
	Sum of 14 Groups:	103,895,913	114,411,243	117,234,357		149,767,599	188,540,984	180,647,715	1,366,909,686	42.49
	Sum of All (23 Groups):	103,968,213	114,468,576	117,291,181		149,900,615	188,689,614	180,836,784	1,366,999,950	42.51

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NPO Goals for Top 10 Substances in SIC 2869

Facility_ID	Facility_Name	Sic Code	Cas No	Substance Name	5 Yr. NPO Goal (lbs)
95958900000	FERRO CORP	2869	98-87-3	BENZAL CHLORIDE	667,056
33757700004	INFINEUM USA	2869	108-31-6	MALEIC ANHYDRIDE	61,000
33757700004	INFINEUM USA	2869	7664-41-7	AMMONIA	6,000
61466500000	CARDOLITE CORPOR	2869	1330-20-7	XYLENE (MIXED ISOME	5,000
95958900000	FERRO CORP	2869	100-44-7	BENZYL CHLORIDE	3,888
95958900000	FERRO CORP	2869	71-36-3	N-BUTYL ALCOHOL	3,061
84216800000	AKCROS CHEMICALS	2869	N511	NITRATE COMPOUND	1,762
95958900000	FERRO CORP	2869	85-44-9	PHTHALIC ANHYDRIDI	1,119
00850201001	E I DUPONT DE NEMC	2869	N420	LEAD COMPOUNDS	800
95958900000	FERRO CORP	2869	108-95-2	PHENOL	503
				SUM	750,189

- Total # of Facilities =13
- 24 Substances had Non-Zero NPO Goals
- 130 Substances had Zero as NPO Goals

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Top 20 Substances with Calculated NPO and NPO Goals for 2008

FAC ID	Facility Name	CAS Numbe	Chemical Name	2008 Calculated NPO	2008 NPO Goal
00850201001	E I DUPONT DE NEM	7647-01-0	HYDROCHLORIC ACID	30,642,532	0
00850201001	E I DUPONT DE NEM	N511	NITRATE COMPOUND	11,848,943	0
33757700004	INFINEUM USA	7647-01-0	HYDROCHLORIC ACID	7,909,540	0
95958900000	FERRO CORP	7647-01-0	HYDROCHLORIC ACID	3,984,054	0
76248000000	HERCULES INCORP	N511	NITRATE COMPOUND	3,948,053	0
00850201001	E I DUPONT DE NEM	7664-41-7	AMMONIA	3,218,449	0
00850201001	E I DUPONT DE NEM	7664-39-3	HYDROGEN FLUORIDI	2,388,828	0
76248000000	HERCULES INCORP	107-21-1	ETHYLENE GLYCOL	2,233,273	0
16335900001	CHEM-FLEUR INC	67-56-1	METHANOL	2,066,341	0
00850201001	E I DUPONT DE NEM	67-56-1	METHANOL	1,940,616	0
00850201001	E I DUPONT DE NEM	7697-37-2	NITRIC ACID	1,645,296	0
00850201001	E I DUPONT DE NEM	99-65-0	M-DINITROBENZENE	1,615,143	0
33757700004	INFINEUM USA	78-92-2	SEC-BUTYL ALCOHOL	1,222,166	Blank
95958900000	FERRO CORP	98-87-3	BENZAL CHLORIDE	934,028	667,056
00850201001	E I DUPONT DE NEM	108-45-2	1,3-PHENYLENEDIAMI	767,302	0
00850201001	E I DUPONT DE NEM	108-10-1	METHYL ISOBUTYL KE	736,624	0
00850201001	E I DUPONT DE NEM	75-65-0	TERT-BUTYL ALCOHO	657,388	0
33757700004	INFINEUM USA	115-07-1	PROPYLENE [PROPEN	463,166	0
00850201001	E I DUPONT DE NEM	872-50-4	N-METHYL-2-PYRROLI	452,043	0
33757700004	INFINEUM USA	108-31-6	MALEIC ANHYDRIDE	438,827	61,000

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☺ For additional information, visit the Office of Pollution Prevention & Right to Know website:

www.state.nj.us/dep/opppc

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