

APPENDICES 2013

APPENDIX A - WHAT IS EPCRA?

APPENDIX B – FACILITY CONTACTS

APPENDIX C – ON-SITE RELEASES BY FACILITY AND CHEMICAL

APPENDIX D – OFF-SITE TRANSFERS AND ON-SITE MANAGEMENT BY FACILITY AND CHEMICAL

APPENDIX E – ON-SITE RELEASE SUMMARY BY FACILITY

APPENDIX F – ON-SITE RELEASES BY CHEMICAL AND FACILITY

APPENDIX G – OFF-SITE TRANSFERS AND ON-SITE MANAGEMENT BY CHEMICAL AND FACILITY

APPENDIX H - ON-SITE RELEASE SUMMARY BY CHEMICAL

APPENDIX I – PBT REEASE AND TRANSFER DETAIL

APPENDIX J – CARCINOGEN RELEASE AND TRANSFER DETAIL

APPENDIX K – GLOSSARY & ACRONYMS

APPENDIX L – N TRI REPORTING FORMS



APPENDICES

2013





APPENDIX A

WHAT IS COMMUNITY RIGHT-TO-KNOW?

EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT

A dramatic and fatal accident involving the release of a large quantity of methyl isocyanate gas occurred in Bhopal, India on December 3, 1984. As a result of this release and similar, although less tragic, accidents that occurred in the United States, Congress enacted the Emergency Planning and Community Right to Know Act (EPCRA), as Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986. EPCRA requires certain facilities to report information about hazardous chemicals and substances at their facilities to Federal, state, and local authorities. The objective is to improve the ability of the facility and of local emergency response agencies to plan for and respond to chemical emergencies, and to give citizens information about chemicals present in their communities. Presidents have also issued Executive Orders to Federal agencies, which mandate their compliance with certain EPCRA requirements. In 1991, Delaware established its own EPCRA legislation that enhanced the Federal requirements.

EMERGENCY PLANNING

Each state was required to establish a State Emergency Response Commission (SERC) to oversee planning efforts. The SERC must appoint Local Emergency Planning Committees (LEPC), which in turn develop emergency response plans for their respective districts. In Delaware, the SERC is chaired by the Secretary of the Department of Public Safety. Emergency planning districts have been established in each county and for the City of Wilmington. Facilities having specifically identified Extremely Hazardous Substances above established threshold quantities are required to notify their LEPC. These facilities are the primary focus of planning activities.

EMERGENCY RELEASE NOTIFICATION

In the event of an accidental chemical release above an established amount, a facility is required to provide immediate notification of the release. A follow up written report is also required to provide details about the sequence of events, the actual response actions, and to identify any known or anticipated health risks associated with the release. The public may receive notification through the Environmental Release Notification System.

In response to Senate Bill 33, which became law in July 2001, the Department of Natural Resources and Environmental Control (DNREC) developed a system to allow Delawareans to learn promptly of releases or discharges of contaminants or pollutants that meet or exceed certain thresholds in their neighborhoods or throughout the state. When you register, you choose to be notified in one of three ways: By phone, by e-mail or by fax. You also can choose to be notified about releases from specific facilities or about all releases that occur in one or more zip codes throughout the state. Interested individuals may register for notification at: <http://www.dnrec.state.de.us/dnrec2000/notification/pub/>.

HAZARDOUS CHEMICAL REPORTING

Under U.S. Occupational Safety and Health Administration (OSHA) regulations, facilities are required to maintain a Material Safety Data Sheet (MSDS) for each chemical on site. Under EPCRA, facilities are required to submit a list of their MSDSs for hazardous chemicals on site above specific threshold amounts. This list must be updated as new chemicals are brought on site. In addition, facilities having such chemicals are required to file Hazardous Chemical Inventory Reports annually. These reports, also known as Tier II forms, can be filed on-line

WHAT IS COMMUNITY RIGHT-TO-KNOW?



using Tier II Manager™ and data is available immediately for use by the EPCRA Reporting Program and emergency planning and response agencies. The data provides information on the identity, hazards, amounts, and locations of reportable chemicals at the facility, as well as emergency contacts, and a site plan.

Fees are also collected based on the number and type of chemicals reported. The fees are primarily used to support operations of the LEPCs.

TOXICS RELEASE INVENTORY (TRI) REPORTING

Facilities covered under TRI are required to file annual reports contain on-site releases, off-site transfers, and on-site waste management activities related to their use of certain toxic chemicals. These reports can be filed electronically at the same time to EPA and DNREC using EPA's TRI-ME (TRI Made Easy) program. This data is compiled and made available to the public through this report and other means. For more information regarding TRI, please refer to the [Introduction](#) and [For Further Information](#) sections contained in this report.

RISK MANAGEMENT PLANS

Additional information regarding hazardous chemicals is available to the public due to the requirements contained in Title I, Section 112(r) of the Federal Clean Air Act Amendments of 1990. Section 112(r) requires that facilities handling substances with catastrophic potential submit a Risk Management Plan (RMP) that contains an executive summary, registration, off-site consequence analysis (OCA), five-year accident history, and a summary of their prevention and emergency response programs. The OCA consists of a "worst case" release scenario and an "alternative" release scenario. The "worst case" scenario estimates the area and populations affected by a catastrophic release. The "worst case" scenario is a hypothetical, conservative modeling exercise. Emergency planners use the toxic "alternative" scenario as a more realistic modeling exercise.

The information contained in the RMP builds upon the right-to-know principles of EPCRA by making all of the information including the OCA and five-year accident history available to local communities, emergency planners, and other stakeholders. Concerned citizens or the media may ask facilities to explain the risk management programs that they use to prevent or minimize the consequence of a catastrophic release. EPA encourages this communication to reduce the risk. This is similar to the way public knowledge of chemical releases to the environment through the availability of TRI data has led reporting facilities to reduce their toxic releases. Because of security concerns, the RMP information is restricted. However, this information is available for Delaware facilities by contacting the Accidental Release Prevention Program (ARP) <http://www.awm.delaware.gov/EPR/Pages/AccidentalReleasePrevention.aspx> or by contacting the EPA Region 3 reading room at: <http://www.epa.gov/libraries/region3.html>.

In Delaware, the Extremely Hazardous Substances Risk Management Act first passed in 1988, and amended in 1998, adopted new federal guidelines that enhance the community right-to-know information. The Delaware Accidental Release Program (ARP) has been granted full authority by the US EPA to administer the program within DNREC, reviews the facility RMPs for accuracy and completeness and inspects facilities to ensure that appropriate accidental release prevention programs have been implemented. For more information on accidental release prevention in Delaware, please refer to the DNREC ARP website above.



APPENDIX B

FACILITY CONTACT INFORMATION

AEARO TECHNOLOGIES

650 DAWSON DR
NEWARK, DE 19713
TOM FLAHERTY
(302) 286-2415

AGILENT TECHNOLOGIES

538 FIRST STATE BLVD.
NEWPORT, DE 19804
RENEE LEWANDOWSKI
(302) 636-3668

AIR LIQUIDE - MEDAL

305 WATER ST
NEWPORT, DE 19804
STEVE POORMAN
(302) 225-2137

AIR LIQUIDE INDUSTRIAL

4442 WRANGLE HILL RD
DELAWARE CITY, DE 19706
WENDY D'ATTILIO
(713) 624-8131

ALLEN HARIM FARMS - SEAFORD

20799 ALLEN ROAD
SEAFORD, DE 19973
JIM QUINTON
(410) 820-2100

ALLEN HARIM FOODS - HARBESON

18752 HARBESON ROAD
HARBESON, DE 19951
JIM QUINTON
(410) 820-2100

AMICK FARMS

10281 AMICK DRIVE
DELMAR, DE 19940
JAY WALL
(302) 846-9511

ARLON

1100 GOVERNOR LEA RD
BEAR, DE 19701
ROBERT CARINI
(302) 834-2100

BALTIMORE AIRCOIL

1162 HOLLY HILL RD
MILFORD, DE 19963
DALE WAGNER
(910) 391-7933

BASF NEWPORT

205 S JAMES ST
NEWPORT, DE 19804
MAUREEN PAUKERT
(973) 245-6077

BASF SEAFORD

100 INDUSTRIAL BLVD
SEAFORD, DE 19973
MAUREEN PAUKERT
(973) 245-6077

CARL KING

1400 E LEBANON RD
DOVER, DE 19901
CHARLIE RAINES
(301) 322-6691

COLOR WORKS

251 EDWARDS AVE
NEW CASTLE, DE 19720
SEAN O. HISTED
(302) 324-8411

CRODA

315 CHERRY LN
NEW CASTLE, DE 19720
ROBERT J. TOUHEY
(302) 429-5269

APPENDIX B

FACILITY CONTACT INFORMATION



DELAWARE CITY REFINERY

4550 WRANGLE HILL RD
DELAWARE CITY, DE 19706
LISA LINDSEY
(302) 834-6033

EDGE MOOR/HAY ROAD ENERGY CENTERS

200 HAY RD
WILMINGTON, DE 19809
NORMA DUNN
(713) 830-8833

DENTSPLY LAKE VIEW

38 W CLARKE AVE
MILFORD, DE 19963-0359
JESSE BAUTISTA
(302) 422-4511

EVRAZ CLAYMONT STEEL

4001 PHILADELPHIA PIKE
CLAYMONT, DE 19703-2794
TOMASZ WESOLOWSKI
(302) 792-5400

DENTSPLY WEST PLANT

779 E MASTEN CIR
MILFORD, DE 19963-0359
JESSE BAUTISTA
(302) 422-4511

FORMOSA PLASTICS

780 SCHOOLHOUSE RD
DELAWARE CITY, DE 19706-0320
KIMBERLY BENNETT
(302) 836-2256

DOVER AFB

436 CES/CC 600 CHEVRON AVE
DOVER AFB, DE 19902
JENNIFER VALLEE
(302) 677-3370

FUJIFILM

233 CHERRY LN
NEW CASTLE, DE 19720
MAUREEN CONCORDIA
(302) 472-1257

DUHADAWAY TOOL AND DIE SHOP

801 DAWSON DRIVE
NEWARK, DE 19713
JOHN O'DONNELL
(302) 366-0113

GAC SEAFORD

25938 NANTICOKE ST
SEAFORD, DE 19973
MICHAEL THRASHER
(813) 248-2101

DUPONT EDGE MOOR

104 HAY RD
EDGEMOOR, DE 19809
PETER J. CIOTTA
(716) 879-1846

HANDY TUBE

124 VEPCO BOULEVARD
CAMDEN, DE 19934
JOHN P. COATES
(302) 697-9521

DUPONT RED LION PLANT

766 GOVERNOR LEA RD
DELAWARE CITY, DE 19706
KRISTIN D. CECIL
(302) 999-6493

HANESBRANDS

631 RIDGELY ST - SUITE #1
DOVER, DE 19904-2772
TOMMY THOMPSON
(336) 519-2715



APPENDIX B

FACILITY CONTACT INFORMATION

HERITAGE CONCRETE - BEAR

1250 PORTER ROAD
BEAR, DE 19701
JOHN RICE
(717) 236-7023

INDIAN RIVER GENERATING STATION

29416 POWER PLANT RD
DAGSBORO, DE 19939
DAVID GAIER
(609) 524-4529

HERITAGE CONCRETE - CHESWOLD

376 HOLLY OAK LANE
CHESWOLD, DE 19936
JOHN RICE
(717) 236-7023

INTERVET

29160 INTERVET LN
MILLSBORO, DE 19966
TOM BASTIAN
(302) 934-4265

HERITAGE CONCRETE - FRANKFORD

29610 LAZY LAGOON ROAD
FRANKFORD, DE 19945
JOHN RICE
(717) 236-7023

JOHNSON CONTROLS BATTERY PLANT

700 N BROAD ST
MIDDLETOWN, DE 19709
CORY HULSING
(302) 376-4052

HERITAGE CONCRETE - WILMINGTON

1100 HEALD STREET
WILMINGTON, DE 19801
JOHN RICE
(717) 236-7023

JOHNSON CONTROLS DISTRIBUTION CENTER

50 PATRIOT DR
MIDDLETOWN, DE 19709
RICK THOMPSON
(302) 696-3209

HIRSH INDUSTRIES

1525 MCKEE RD
DOVER, DE 19904
KEN MURR
(302) 678-3454

JUSTIN TANKS

21413 CEDAR CREEK AVE
GEORGETOWN, DE 19947-6306
EDWARD M. SHORT, PRESIDENT
(302) 856-3521

HONEYWELL

6100 PHILADELPHIA PIKE
CLAYMONT, DE 19703
RUSSELL W. DAVIS, CHMM, CSP
(302) 791-6748

KUEHNE

1645 RIVER RD
DELAWARE CITY, DE 19706
ALAN ROGERS
(302) 834-4557

IKO

120 HAY RD
WILMINGTON, DE 19809
MICHAEL R. PETERSON
(302) 764-3100

MACDERMID

701 INDUSTRIAL DR
MIDDLETOWN, DE 19709-1085
KEN MCCULLOUGH
(302) 378-3100

APPENDIX B

FACILITY CONTACT INFORMATION

**METAL MASTERS**

100 INDUSTRIAL BLVD
CLAYTON, DE 19938
RICHARD J. MURPHY
(302) 653-3000

METAL MASTERS

100 INDUSTRIAL BLVD
CLAYTON, DE 19938
RICHARD J. MURPHY
(302) 653-3000

MOTECH AMERICAS

231 LAKE DR PENCADER CORPORATE
NEWARK, DE 19702
DAVE HOLLERAN
(302) 323-1061

MOUNTAIRE FARMS - FRANKFORD

11 DAISEY ST
FRANKFORD, DE 19945
ROGER MARINO
(302) 934-3123

MOUNTAIRE FARMS OF DELAWARE

29106 JOHN J WILLIAMS HWY
MILLSBORO, DE 19966
ROGER MARINO
(302) 934-3123

NORAMCO

500 SWEDES LANDING RD
WILMINGTON, DE 19801
JOHN DALY
(302) 888-4477

ORIENT CORP

111 PARK AVE
SEAFORD, DE 19973
DAVE CURRY
(302) 628-1300

PERDUE BRIDGEVILLE

16447 ADAMS RD
BRIDGEVILLE, DE 19933
JULIE DEYOUNG
(410) 543-3166

PERDUE GEORGETOWN

20621 SAVANNAH RD
GEORGETOWN, DE 19947
JULIE DEYOUNG
(410) 543-3166

PERDUE MILFORD

255 N REHOBOTH BLVD
MILFORD, DE 19963
JULIE DEYOUNG
(410) 543-3166

PICTSWEET BRIDGEVILLE

18215 WESLEY CHURCH RD
BRIDGEVILLE, DE 19933
ALLEN WATTS
(731) 663-7600

PPG INDUSTRIES

1886 LYNNBURY WOODS RD
DOVER, DE 19904
NEAL NICASTRO
(302) 678-9800

PRINCE MINERALS

301 PIGEON POINT RD
NEW CASTLE, DE 19720
MARY SIMPLER
(646) 747-4176

ROHM & HAAS B2, B3, B8

451 BELLEVUE RD
NEWARK, DE 19713
KELLY BLOCK
(302) 366-0500



APPENDIX B

FACILITY CONTACT INFORMATION

ROHM & HAAS B5, B6

351 BELLEVUE RD
NEWARK, DE 19713
KELLY BLOCK
(302) 366-0500

ROHM & HAAS B7, B15

50 BELLEVUE RD
NEWARK, DE 19713
KELLY BLOCK
(302) 366-0500

SERVICE ENERGY DOVER

3799 N DUPONT HWY
DOVER, DE 19901
DON STEINER
(302) 734-7433

SPI PHARMA

40 CAPE HENLOPEN DR
LEWES, DE 19958-1196
PAUL LOPRESTO
(302) 576-8532

V&S DELAWARE GALVANIZING

511 CARROLL DRIVE
NEW CASTLE, DE 19720
JOHNNY ROIBU
(302) 322-1420

VP RACING FUELS

16 BROOKHILL DR
NEWARK, DE 19714
JIM KELLY
(302) 368-1500

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
AEARO TECHNOLOGIES							
DIISOCYANATES	0	2	0	0	2	9,367	0
TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	5	0	0	5	14,050	0
AEARO TECHNOLOGIES Total	0	7	0	0	7	23,417	0
AGILENT TECHNOLOGIES							
ACETONITRILE	0	36	0	0	36	15,558	0
METHANOL	0	1,139	0	0	1,139	37,273	0
TOLUENE	0	19	0	0	19	188,565	0
AGILENT TECHNOLOGIES Total	0	1,194	0	0	1,194	241,396	0
AIR LIQUIDE - MEDAL							
CYCLOHEXANE	0	954	0	0	954	17,234	0
METHANOL	0	505	0	0	505	86,496	3,016,630
N,N-DIMETHYLFORMAMIDE	0	25	0	0	25	25,230	0
N-HEXANE	0	1,925	0	0	1,925	0	2,506,103
N-METHYL-2-PYRROLIDONE	0	1,285	0	0	1,285	151,089	0
AIR LIQUIDE - MEDAL Total	0	4,694	0	0	4,694	280,049	5,522,733
AIR LIQUIDE INDUSTRIAL							
AMMONIA	0	17,792	0	0	17,792	0	0
AIR LIQUIDE INDUSTRIAL Total	0	17,792	0	0	17,792	0	0
ALLEN HARIM FARMS - SEAFORD							
MANGANESE COMPOUNDS	1	0	0	0	0	0	0
ZINC COMPOUNDS	1	0	0	0	0	0	0
ALLEN HARIM FARMS - SEAFORD Total	2	0	0	0	0	0	0
ALLEN HARIM FOODS - HARBESON							
NITRATE COMPOUNDS	1	0	0	0	0	0	0
ALLEN HARIM FOODS - HARBESON Total	1	0	0	0	0	0	0

APPENDIX C

APPENDIX C

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FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
AMICK FARMS							
COPPER COMPOUNDS	1	0	0	0	0	0	0
MANGANESE COMPOUNDS	1	0	0	0	0	0	0
ZINC COMPOUNDS	1	0	0	0	0	0	0
AMICK FARMS Total	3	0	0	0	0	0	0
ARLON							
COPPER	0	5	0	0	5	2,200	0
ETHYLBENZENE	0	590	0	0	590	750	27,000
XYLENE (MIXED ISOMERS)	0	2,400	0	0	2,400	3,000	108,000
ARLON Total	0	2,995	0	0	2,995	5,950	135,000
BALTIMORE AIRCOIL							
CHROMIUM COMPOUNDS	0	0	0	0	0	211,618	0
MANGANESE COMPOUNDS	0	5	0	0	5	125,000	0
NICKEL COMPOUNDS	0	5	0	0	5	241,000	0
BALTIMORE AIRCOIL Total	0	10	0	0	10	577,618	0
BASF NEWPORT							
ANILINE	0	30	0	0	30	44,116	1,211
BIPHENYL	0	97	0	0	97	105,037	2,321
CYCLOHEXANE	0	52	0	0	52	23,836	3,459
METHANOL	0	21,996	0	0	21,996	586,255	1,190,551
NITRATE COMPOUNDS	0	0	0	0	0	28,822	0
NITRIC ACID	0	0	0	0	0	0	29,286
N-METHYL-2-PYRROLIDONE	0	0	0	0	0	49,782	0
P-CHLOROANILINE	0	10	0	0	10	5,160	390
XYLENE (MIXED ISOMERS)	0	1,094	0	0	1,094	661	5,093
BASF NEWPORT Total	0	23,279	0	0	23,279	843,669	1,232,311

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
BASF SEAFORD							
AMMONIA	0	1,948	0	0	1,948	288	2,301
BUTYL ACRYLATE	0	146	0	0	146	61	58
CERTAIN GLYCOL ETHERS	0	5	0	0	5	271	0
METHYL METHACRYLATE	0	197	0	0	197	61	381
STYRENE	0	210	0	0	210	78	523
BASF SEAFORD Total	0	2,506	0	0	2,506	759	3,263
CARL KING							
1,2,4-TRIMETHYLBENZENE	1	0	0	0	0	0	0
NAPHTHALENE	1	0	0	0	0	0	0
XYLENE (MIXED ISOMERS)	1	0	0	0	0	0	0
CARL KING Total	3	0	0	0	0	0	0
COLOR WORKS							
MANGANESE	0	0	0	0	0	1,094	0
COLOR WORKS Total	0	0	0	0	0	1,094	0
CRODA							
CERTAIN GLYCOL ETHERS	0	3	0	0	3	3,141	0
DIETHANOLAMINE	0	6	0	0	6	41	0
ETHYLENE OXIDE	0	2,432	0	0	2,432	0	0
METHANOL	0	652	0	0	652	16,019	0
NAPHTHALENE	0	2	0	0	2	420	0
PROPYLENE OXIDE	0	578	0	0	578	0	0
CRODA Total	0	3,673	0	0	3,673	19,621	0

APPENDIX C

APPENDIX C

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FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
DELAWARE CITY REFINERY								
1,2,4-TRIMETHYLBENZENE	0	1,203	5	0	1,208	0	63,921	
1,3-BUTADIENE	0	396	0	0	396	0	0	
2,4-DIMETHYLPHENOL	0	0	179	0	179	0	251,805	
AMMONIA	0	29,968	6,071	0	36,039	0	15,158,543	
ANTHRACENE	0	10	5	0	15	0	0	
ASBESTOS (FRIABLE)	0	0	0	0	0	125,560	0	
BENZENE	0	9,102	11	0	9,113	8	432,029	
BENZO(G,H,I)PERYLENE	0	0	5	0	5	0	492	
CARBON DISULFIDE	0	1,169	0	0	1,169	0	2,880,233	
CARBONYL SULFIDE	0	668	0	0	668	0	13,667,098	
CREOSOTE	0	467	0	2,646	3,113	17,061	0	
CRESOL (MIXED ISOMERS)	0	0	359	0	359	0	331,741	
CUMENE	0	3,192	5	0	3,197	0	3,318	
CYANIDE COMPOUNDS	0	0	158	0	158	0	15,645	
CYCLOHEXANE	0	1,840	5	0	1,845	0	7,379	
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0	
ETHYLBENZENE	0	2,082	5	0	2,087	0	51,655	
ETHYLENE	0	1,920	0	0	1,920	0	341,214	
HYDROCHLORIC ACID	0	192	0	0	192	0	123,871	
HYDROGEN CYANIDE	0	1,280	220	0	1,500	0	281,878	
HYDROGEN SULFIDE	0	20,891	0	0	20,891	0	336,299,859	
LEAD COMPOUNDS	0	99	3	0	102	59	0	
MERCURY COMPOUNDS	0	75	2	0	77	2	0	
METHANOL	0	5,462	5	0	5,467	0	38,261	
MOLYBDENUM TRIOXIDE	0	14	0	0	14	0	0	
NAPHTHALENE	0	2,146	147	0	2,293	0	10,493	
N-HEXANE	0	30,085	5	0	30,090	0	62,251	
NICKEL	0	1,342	1,709	0	3,051	36,762	0	
NITRATE COMPOUNDS	0	0	2,631,359	0	2,631,359	0	0	
PHENANTHRENE	0	1	5	0	6	0	43	
PHENOL	0	129	179	0	308	0	302,605	
POLYCYCLIC AROMATIC COMPOUNDS	0	224	4	0	228	0	405	
PROPYLENE	0	8,602	0	0	8,602	0	511,882	
STYRENE	0	13	5	0	18	0	1,366	
SULFURIC ACID	0	257,679	0	0	257,679	0	0	
TETRACHLOROETHYLENE	0	6	0	0	6	0	0	
TOLUENE	0	14,178	5	0	14,183	0	199,695	
XYLENE (MIXED ISOMERS)	0	6,007	5	0	6,012	2	210,448	
DELAWARE CITY REFINERY Total	0	400,441	2,640,461	2,646	3,043,548	179,454	371,248,130	

APPENDIX C

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FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
DENTSPLY LAKE VIEW								
MERCURY	0	0	0	0	0	1,086	0	
DENTSPLY LAKE VIEW Total	0	0	0	0	0	1,086	0	
DENTSPLY WEST PLANT								
METHANOL	0	3,700	0	0	3,700	7,932	0	
METHYL METHACRYLATE	0	1,607	0	0	1,607	68	0	
TOLUENE	0	278	0	0	278	15,244	0	
DENTSPLY WEST PLANT Total	0	5,584	0	0	5,584	23,245	0	
DOVER AFB								
1,2,4-TRIMETHYLBENZENE	0	57	0	0	57	0	0	
CUMENE	0	57	0	0	57	0	0	
ETHYLBENZENE	0	59	0	0	59	0	0	
NAPHTHALENE	0	63	0	0	63	0	0	
XYLENE (MIXED ISOMERS)	0	62	0	0	62	0	0	
DOVER AFB Total	0	298	0	0	298	0	0	
DUHADAWAY TOOL AND DIE SHOP								
CHROMIUM	0	0	0	0	0	10,303	0	
NICKEL	0	0	0	0	0	7,349	0	
DUHADAWAY TOOL AND DIE SHOP Total	0	0	0	0	0	17,652	0	

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
DUPONT EDGE MOOR							
ARSENIC COMPOUNDS	0	0	131	0	131	1,025	0
BARIUM COMPOUNDS	0	1	7,001	0	7,003	8,758	0
CARBONYL SULFIDE	0	231,040	0	0	231,040	0	0
CHLORINE	0	1,961	0	0	1,961	0	969,939
CHROMIUM COMPOUNDS	0	0	18	0	19	179,148	0
COBALT COMPOUNDS	0	0	4	0	4	3,099	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	1	0
HEXACHLOROBENZENE	0	0	1	0	1	197	0
HYDROCHLORIC ACID	0	4,026	0	0	4,026	0	11,027,384
LEAD COMPOUNDS	0	0	84	0	84	8,594	0
MANGANESE COMPOUNDS	0	1	14,349	0	14,350	759,187	0
MERCURY COMPOUNDS	0	1	0	0	1	1	0
NICKEL COMPOUNDS	0	1	246	0	247	9,156	0
OCTACHLOROSTYRENE	0	0	0	0	0	4	0
PENTACHLOROBENZENE	0	0	0	0	0	8	0
PHOSGENE	0	301	0	0	301	0	165,815
POLYCHLORINATED BIPHENYLS	0	0	0	0	0	4	0
POLYCYCLIC AROMATIC COMPOUNDS	0	69	0	616	685	0	0
TITANIUM TETRACHLORIDE	0	39	0	0	39	0	1,104,310
TOLUENE	0	78	0	0	78	0	0
VANADIUM COMPOUNDS	0	1	110	0	111	135,665	0
ZINC COMPOUNDS	0	9	86	0	95	14,374	0
DUPONT EDGE MOOR Total	0	237,528	22,030	616	260,174	1,119,221	13,267,448
DUPONT RED LION PLANT							
HYDRAZINE	0	0	0	0	0	0	0
HYDRAZINE SULFATE	0	0	0	0	0	0	0
HYDROGEN SULFIDE	0	160	0	0	160	0	0
SULFURIC ACID	0	9,165	0	0	9,165	0	0
DUPONT RED LION PLANT Total	0	9,325	0	0	9,325	0	0

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
EDGE MOOR/HAY ROAD ENERGY CENTERS							
AMMONIA	0	743	0	0	743	30	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0
MERCURY	0	17	0	0	17	0	0
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS Total	0	760	0	0	760	30	0
EVRAZ CLAYMONT STEEL							
CHROMIUM COMPOUNDS	0	76	3	147	226	20,170	0
COPPER COMPOUNDS	0	93	53	369	515	24,038	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0
LEAD COMPOUNDS	0	250	54	53	357	112,603	0
MANGANESE COMPOUNDS	0	293	15	9,853	10,161	192,775	0
MERCURY COMPOUNDS	0	93	0	0	93	2	0
NICKEL COMPOUNDS	0	20	20	264	304	3,448	0
ZINC COMPOUNDS	0	1,545	161	219	1,925	1,489,573	0
EVRAZ CLAYMONT STEEL Total	0	2,370	306	10,905	13,581	1,842,609	0
FORMOSA PLASTICS							
AMMONIA	0	1,485	0	0	1,485	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0
VINYL ACETATE	0	40,740	0	0	40,740	0	0
VINYL CHLORIDE	0	47,277	0	0	47,277	147	263,480
FORMOSA PLASTICS Total	0	89,502	0	0	89,502	147	263,480
FUJIFILM							
NITRATE COMPOUNDS	1	0	0	0	0	0	0
FUJIFILM Total	1	0	0	0	0	0	0
GAC SEAFORD							
1,2,4-TRIMETHYLBENZENE	1	0	0	0	0	0	0
GAC SEAFORD Total	1	0	0	0	0	0	0

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
HANDY TUBE							
CHROMIUM	0	0	0	0	0	45,133	0
MANGANESE	0	0	0	0	0	4,767	0
NICKEL	0	0	0	0	0	44,727	0
TRICHLOROETHYLENE	0	6,046	0	0	6,046	12,766	0
HANDY TUBE Total	0	6,046	0	0	6,046	107,393	0
HANESBRANDS							
NITRATE COMPOUNDS	0	0	0	0	0	44,740	0
HANESBRANDS Total	0	0	0	0	0	44,740	0
HERITAGE CONCRETE BEAR							
LEAD	0	0	0	18	18	0	0
HERITAGE CONCRETE BEAR Total	0	0	0	18	18	0	0
HERITAGE CONCRETE CHESWOLD							
LEAD	0	0	0	14	14	0	0
HERITAGE CONCRETE CHESWOLD Total	0	0	0	14	14	0	0
HERITAGE CONCRETE FRANKFORD							
LEAD	0	0	0	5	5	0	0
HERITAGE CONCRETE FRANKFORD Total	0	0	0	5	5	0	0
HERITAGE CONCRETE WILMINGTON							
LEAD	0	0	0	38	38	0	0
HERITAGE CONCRETE WILMINGTON Total	0	0	0	38	38	0	0
HIRSH INDUSTRIES							
CERTAIN GLYCOL ETHERS	0	5,717	0	0	5,717	0	0
HIRSH INDUSTRIES Total	0	5,717	0	0	5,717	0	0
HONEYWELL							
BORON TRIFLUORIDE	0	416	0	0	416	4	0
HYDROGEN FLUORIDE	0	543	0	0	543	0	84
METHANOL	0	4	0	0	4	1,080	0
POLYCYCLIC AROMATIC COMPOUNDS	0	445	0	0	445	0	0
HONEYWELL Total	0	1,408	0	0	1,408	1,084	84

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
IKO							
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	83	551
IKO Total	0	0	0	0	0	83	551
INDIAN RIVER GENERATING STATION							
AMMONIA	0	5,823	0	0	5,823	0	268,538
BARIUM COMPOUNDS	0	386	0	100,040	100,426	1	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0
HYDROCHLORIC ACID	0	114,394	0	0	114,394	0	1,246,982
HYDROGEN FLUORIDE	0	10,160	0	0	10,160	0	93,825
LEAD COMPOUNDS	0	74	0	6,217	6,291	0	0
MANGANESE COMPOUNDS	0	136	0	16,761	16,897	0	0
MERCURY COMPOUNDS	0	4	0	113	117	0	0
NAPHTHALENE	1	0	0	0	0	0	0
SULFURIC ACID	0	10,910	0	0	10,910	0	1,763,045
VANADIUM COMPOUNDS	0	83	0	14,253	14,336	0	0
INDIAN RIVER GENERATING STATION Total	1	141,970	0	137,384	279,354	1	3,372,390
INTERVET							
MERCURY COMPOUNDS	0	0	0	0	0	5	0
INTERVET Total	0	0	0	0	0	5	0
JOHNSON CONTROLS BATTERY PLANT							
ANTIMONY COMPOUNDS	0	0	0	0	0	11,943	0
LEAD COMPOUNDS	0	141	14	0	156	3,127,571	0
JOHNSON CONTROLS BATTERY PLANT Total	0	141	14	0	156	3,139,514	0
JOHNSON CONTROLS DIST. CENTER							
LEAD COMPOUNDS	0	0	0	0	0	1,293,566	0
JOHNSON CONTROLS DIST. CENTER Total	0	0	0	0	0	1,293,566	0
JUSTIN TANKS							
STYRENE	0	9,688	0	331	10,019	331	19,880
JUSTIN TANKS Total	0	9,688	0	331	10,019	331	19,880

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
KUEHNE							
CHLORINE	0	683	0	0	683	0	0
KUEHNE Total	0	683	0	0	683	0	0
MACDERMID							
DIISOCYANATES	1	0	0	0	0	0	0
TOLUENE DIISOCYANATE (MIXED ISOMERS)	1	0	0	0	0	0	0
MACDERMID Total	2	0	0	0	0	0	0
METAL MASTERS							
CHROMIUM	0	1	0	0	1	170,893	0
NICKEL	0	1	0	0	1	55,802	0
METAL MASTERS Total	0	1	0	0	1	226,695	0
MOTECH AMERICAS							
LEAD	0	0	0	0	0	212	0
MOTECH AMERICAS Total	0	0	0	0	0	212	0
MOUNTAIRE FARMS - FRANKFORD							
COPPER COMPOUNDS	1	0	0	0	0	0	0
MANGANESE COMPOUNDS	1	0	0	0	0	0	0
ZINC COMPOUNDS	1	0	0	0	0	0	0
MOUNTAIRE FARMS - FRANKFORD Total	3	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE							
COPPER COMPOUNDS	1	0	0	0	0	0	0
HYDROGEN SULFIDE	0	2,417	0	0	2,417	0	58,265
MANGANESE COMPOUNDS	1	0	0	0	0	0	0
ZINC COMPOUNDS	1	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE Total	3	2,417	0	0	2,417	0	58,265

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
NORAMCO							
DICHLOROMETHANE	0	1,874	0	0	1,874	58,083	58,083
ETHYLENE GLYCOL	0	10	0	0	10	11,316	0
FORMIC ACID	0	17	0	0	17	0	0
METHANOL	0	179	0	0	179	121,161	121,161
N-BUTYL ALCOHOL	0	111	0	0	111	834,212	834,212
PERACETIC ACID	0	10	0	0	10	9,960	0
TOLUENE	0	113	0	0	113	548,386	548,385
NORAMCO Total	0	2,314	0	0	2,314	1,583,118	1,561,841
ORIENT CORP							
ANILINE	0	74	0	0	74	1,689	1,630,000
CHROMIUM COMPOUNDS	0	0	0	0	0	0	0
NITROBENZENE	0	3	0	0	3	1	0
ZINC COMPOUNDS	0	0	0	0	0	0	0
ORIENT CORP Total	0	77	0	0	77	1,690	1,630,000
PERDUE BRIDGEVILLE							
COPPER COMPOUNDS	1	0	0	0	0	0	0
MANGANESE COMPOUNDS	1	0	0	0	0	0	0
ZINC COMPOUNDS	1	0	0	0	0	0	0
PERDUE BRIDGEVILLE Total	3	0	0	0	0	0	0
PERDUE GEORGETOWN							
HYDROGEN SULFIDE	0	18,000	0	0	18,000	0	143,000
NITRATE COMPOUNDS	0	0	219,000	0	219,000	0	0
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	0
PERDUE GEORGETOWN Total	0	18,000	219,000	0	237,000	0	143,000
PERDUE MILFORD							
PERACETIC ACID	0	0	0	0	0	0	35,000
PERDUE MILFORD Total	0	0	0	0	0	0	35,000
PICTSWEET BRIDGEVILLE							
AMMONIA	0	900	0	0	900	0	0
PICTSWEET BRIDGEVILLE Total	0	900	0	0	900	0	0

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
PPG INDUSTRIES							
CERTAIN GLYCOL ETHERS	0	5	0	0	5	5,139	0
ETHYLENE GLYCOL	0	10	0	0	10	1,932	0
ZINC COMPOUNDS	0	40	0	0	40	4,724	0
PPG INDUSTRIES Total	0	55	0	0	55	11,795	0
PRINCE MINERALS							
BARIUM COMPOUNDS	1	0	0	0	0	0	0
LEAD COMPOUNDS	0	0	0	0	0	0	0
MANGANESE COMPOUNDS	0	168	0	0	168	0	0
NICKEL COMPOUNDS	1	0	0	0	0	0	0
PRINCE MINERALS Total	2	168	0	0	168	0	0
ROHM & HAAS B2, B3, B8							
DIISOCYANATES	0	0	0	0	0	6,910	0
N,N-DIMETHYLFORMAMIDE	0	4,157	0	0	4,157	1,695,946	4,036,715
ROHM & HAAS B2, B3, B8 Total	0	4,157	0	0	4,157	1,702,856	4,036,715
ROHM & HAAS B5, B6							
4,4'-METHYLENEBIS(2-CHLOROANILINE)	0	0	0	0	0	1,507	0
DIISOCYANATES	0	2	0	0	2	22,612	0
N-METHYL-2-PYRROLIDONE	0	2,180	0	0	2,180	81,405	0
TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	2	0	0	2	825	4,599
ROHM & HAAS B5, B6 Total	0	2,184	0	0	2,184	106,349	4,599
ROHM & HAAS B7, B15							
4,4'-METHYLENEBIS(2-CHLOROANILINE)	1	0	0	0	0	0	0
N-METHYL-2-PYRROLIDONE	0	788	0	0	788	11,747	0
ROHM & HAAS B7, B15 Total	1	788	0	0	788	11,747	0
SERVICE ENERGY DOVER							
1,2,4-TRIMETHYLBENZENE	1	0	0	0	0	0	0
TOLUENE	1	0	0	0	0	0	0
SERVICE ENERGY DOVER Total	2	0	0	0	0	0	0

APPENDIX C

APPENDIX C

2013 ON-SITE RELEASES BY FACILITY AND CHEMICAL

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND	TOTAL		
SPI PHARMA							
CHLORINE	1	0	0	0	0	0	0
NITRIC ACID	1	0	0	0	0	0	0
SPI PHARMA Total	2	0	0	0	0	0	0
V&S DELAWARE GALVANIZING							
LEAD	0	6	7	0	12	4,660	1,669
ZINC COMPOUNDS	0	255	83	0	338	165,044	195,847
V&S DELAWARE GALVANIZING Total	0	261	90	0	351	169,704	197,516
VP RACING FUELS							
LEAD COMPOUNDS	0	1	0	0	1	1	0
METHANOL	1	0	0	0	0	0	0
TOLUENE	1	0	0	0	0	0	0
XYLENE (MIXED ISOMERS)	1	0	0	0	0	0	0
VP RACING FUELS Total	3	1	0	0	1	1	0
STATE TOTALS	33	998,934	2,881,902	151,956	4,032,792	13,577,900	402,732,206

APPENDIX C

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
AEARO TECHNOLOGIES										
DIISOCYANATES	0	0	0	9,367	0	9,367	0	0	0	0
TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	0	0	14,050	0	14,050	0	0	0	0
AEARO TECHNOLOGIES Total	0	0	0	23,417	0	23,417	0	0	0	0
AGILENT TECHNOLOGIES										
ACETONITRILE	0	0	15,558	0	0	15,558	0	0	0	0
METHANOL	0	0	37,215	58	0	37,273	0	0	0	0
TOLUENE	0	0	188,479	86	0	188,565	0	0	0	0
AGILENT TECHNOLOGIES Total	0	0	241,252	144	0	241,396	0	0	0	0
AIR LIQUIDE - MEDAL										
CYCLOHEXANE	0	0	17,234	0	0	17,234	0	0	0	0
METHANOL	0	0	0	86,496	0	86,496	3,016,630	0	0	3,016,630
N,N-DIMETHYLFORMAMIDE	23,501	0	1,729	0	0	25,230	0	0	0	0
N-HEXANE	0	0	0	0	0	0	2,506,103	0	0	2,506,103
N-METHYL-2-PYRROLIDONE	138,369	0	12,720	0	0	151,089	0	0	0	0
AIR LIQUIDE - MEDAL Total	161,870	0	31,683	86,496	0	280,049	5,522,733	0	0	5,522,733
AIR LIQUIDE INDUSTRIAL										
AMMONIA	0	0	0	0	0	0	0	0	0	0
AIR LIQUIDE INDUSTRIAL Total	0	0	0	0	0	0	0	0	0	0
ALLEN HARIM FARMS - SEAFORD										
MANGANESE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ZINC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ALLEN HARIM FARMS - SEAFORD Total	0	0	0	0	0	0	0	0	0	0
ALLEN HARIM FOODS - HARBESON										
NITRATE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ALLEN HARIM FOODS - HARBESON Total	0	0	0	0	0	0	0	0	0	0
AMICK FARMS										
COPPER COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MANGANESE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ZINC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
AMICK FARMS Total	0	0	0	0	0	0	0	0	0	0
ARLON										
COPPER	0	2,000	0	0	200	2,200	0	0	0	0
ETHYLBENZENE	0	0	0	750	0	750	0	0	27,000	27,000
XYLENE (MIXED ISOMERS)	0	0	0	3,000	0	3,000	0	0	108,000	108,000
ARLON Total	0	2,000	0	3,750	200	5,950	0	0	135,000	135,000

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
BALTIMORE AIRCOIL										
CHROMIUM COMPOUNDS	0	211,618	0	0	0	211,618	0	0	0	0
MANGANESE COMPOUNDS	0	125,000	0	0	0	125,000	0	0	0	0
NICKEL COMPOUNDS	0	241,000	0	0	0	241,000	0	0	0	0
BALTIMORE AIRCOIL Total	0	577,618	0	0	0	577,618	0	0	0	0
BASF NEWPORT										
ANILINE	25,543	0	7,784	10,789	0	44,116	0	0	1,211	1,211
BIPHENYL	9,802	0	40,443	54,792	0	105,037	0	0	2,321	2,321
CYCLOHEXANE	0	23,836	0	0	0	23,836	0	0	3,459	3,459
METHANOL	408,944	166,853	9,111	1,347	0	586,255	365,250	0	825,301	1,190,551
NITRATE COMPOUNDS	28,822	0	0	0	0	28,822	0	0	0	0
NITRIC ACID	0	0	0	0	0	0	0	0	29,286	29,286
N-METHYL-2-PYRROLIDONE	9,764	40,018	0	0	0	49,782	0	0	0	0
P-CHLOROANILINE	2,507	0	1,216	1,437	0	5,160	0	0	390	390
XYLENE (MIXED ISOMERS)	252	0	409	0	0	661	0	0	5,093	5,093
BASF NEWPORT Total	485,634	230,707	58,963	68,365	0	843,669	365,250	0	867,061	1,232,311
BASF SEAFORD										
AMMONIA	256	0	0	9	23	288	0	0	2,301	2,301
BUTYL ACRYLATE	0	0	0	61	0	61	0	0	58	58
CERTAIN GLYCOL ETHERS	0	0	0	0	271	271	0	0	0	0
METHYL METHACRYLATE	0	0	0	61	0	61	0	0	381	381
STYRENE	0	0	0	78	0	78	0	0	523	523
BASF SEAFORD Total	256	0	0	209	294	759	0	0	3,263	3,263
CARL KING										
1,2,4-TRIMETHYLBENZENE	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	0	0	0	0	0	0	0	0	0	0
XYLENE (MIXED ISOMERS)	0	0	0	0	0	0	0	0	0	0
CARL KING Total	0	0	0	0	0	0	0	0	0	0
COLOR WORKS										
MANGANESE	0	1,094	0	0	0	1,094	0	0	0	0
COLOR WORKS Total	0	1,094	0	0	0	1,094	0	0	0	0
CRODA										
CERTAIN GLYCOL ETHERS	3,141	0	0	0	0	3,141	0	0	0	0
DIETHANOLAMINE	41	0	0	0	0	41	0	0	0	0
ETHYLENE OXIDE	0	0	0	0	0	0	0	0	0	0
METHANOL	6,019	0	10,000	0	0	16,019	0	0	0	0
NAPHTHALENE	0	0	0	420	0	420	0	0	0	0
PROPYLENE OXIDE	0	0	0	0	0	0	0	0	0	0
CRODA Total	9,201	0	10,000	420	0	19,621	0	0	0	0

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
DELAWARE CITY REFINERY										
1,2,4-TRIMETHYLBENZENE	0	0	0	0	0	0	0	0	63,921	63,921
1,3-BUTADIENE	0	0	0	0	0	0	0	0	0	0
2,4-DIMETHYLPHENOL	0	0	0	0	0	0	0	0	251,805	251,805
AMMONIA	0	0	0	0	0	0	0	15,103,696	54,847	15,158,543
ANTHRACENE	0	0	0	0	0	0	0	0	0	0
ASBESTOS (FRIABLE)	0	0	0	0	125,560	125,560	0	0	0	0
BENZENE	0	0	0	8	0	8	0	227,059	204,970	432,029
BENZO(G,H,I)PERYLENE	0	0	0	0	0	0	0	0	492	492
CARBON DISULFIDE	0	0	0	0	0	0	0	115,731	2,764,502	2,880,233
CARBONYL SULFIDE	0	0	0	0	0	0	0	69,429	13,597,669	13,667,098
CREOSOTE	0	0	0	0	17,061	17,061	0	0	0	0
CRESOL (MIXED ISOMERS)	0	0	0	0	0	0	0	18,465	313,276	331,741
CUMENE	0	0	0	0	0	0	0	0	3,318	3,318
CYANIDE COMPOUNDS	0	0	0	0	0	0	0	0	15,645	15,645
CYCLOHEXANE	0	0	0	0	0	0	0	0	7,379	7,379
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ETHYLBENZENE	0	0	0	0	0	0	0	0	51,655	51,655
ETHYLENE	0	0	0	0	0	0	0	0	341,214	341,214
HYDROCHLORIC ACID	0	0	0	0	0	0	0	0	123,871	123,871
HYDROGEN CYANIDE	0	0	0	0	0	0	0	0	281,878	281,878
HYDROGEN SULFIDE	0	0	0	0	0	0	0	84,518	336,215,341	336,299,859
LEAD COMPOUNDS	0	44	0	0	15	59	0	0	0	0
MERCURY COMPOUNDS	0	2	0	0	0	2	0	0	0	0
METHANOL	0	0	0	0	0	0	0	0	38,261	38,261
MOLYBDENUM TRIOXIDE	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	0	0	0	0	0	0	0	0	10,493	10,493
N-HEXANE	0	0	0	0	0	0	0	0	62,251	62,251
NICKEL	0	36,711	0	0	51	36,762	0	0	0	0
NITRATE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
PHENANTHRENE	0	0	0	0	0	0	0	0	43	43
PHENOL	0	0	0	0	0	0	0	41,004	261,601	302,605
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	0	0	405	405
PROPYLENE	0	0	0	0	0	0	0	0	511,882	511,882
STYRENE	0	0	0	0	0	0	0	0	1,366	1,366
SULFURIC ACID	0	0	0	0	0	0	0	0	0	0
TETRACHLOROETHYLENE	0	0	0	0	0	0	0	0	0	0
TOLUENE	0	0	0	0	0	0	0	0	199,695	199,695
XYLENE (MIXED ISOMERS)	0	2	0	0	0	2	0	0	210,448	210,448
DELAWARE CITY REFINERY Total	0	36,759	0	8	142,687	179,454	0	15,659,902	355,588,228	371,248,130
DENTSPLY LAKE VIEW										
MERCURY	0	1,086	0	0	0	1,086	0	0	0	0
DENTSPLY LAKE VIEW Total	0	1,086	0	0	0	1,086	0	0	0	0

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
DENTSPLY WEST PLANT										
METHANOL	94	0	7,838	0	0	7,932	0	0	0	0
METHYL METHACRYLATE	68	0	0	0	0	68	0	0	0	0
TOLUENE	0	0	15,244	0	0	15,244	0	0	0	0
DENTSPLY WEST PLANT Total	163	0	23,082	0	0	23,245	0	0	0	0
DOVER AFB										
1,2,4-TRIMETHYLBENZENE	0	0	0	0	0	0	0	0	0	0
CUMENE	0	0	0	0	0	0	0	0	0	0
ETHYLBENZENE	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	0	0	0	0	0	0	0	0	0	0
XYLENE (MIXED ISOMERS)	0	0	0	0	0	0	0	0	0	0
DOVER AFB Total	0	0	0	0	0	0	0	0	0	0
DUHADAWAY TOOL AND DIE SHOP										
CHROMIUM	0	9,966	0	0	337	10,303	0	0	0	0
NICKEL	0	7,123	0	0	226	7,349	0	0	0	0
DUHADAWAY TOOL AND DIE SHOP Total	0	17,089	0	0	563	17,652	0	0	0	0
DUPONT EDGE MOOR										
ARSENIC COMPOUNDS	0	0	0	0	1,025	1,025	0	0	0	0
BARIUM COMPOUNDS	0	0	0	0	8,758	8,758	0	0	0	0
CARBONYL SULFIDE	0	0	0	0	0	0	0	0	0	0
CHLORINE	0	0	0	0	0	0	0	0	969,939	969,939
CHROMIUM COMPOUNDS	0	0	0	0	179,148	179,148	0	0	0	0
COBALT COMPOUNDS	0	0	0	0	3,099	3,099	0	0	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	1	1	0	0	0	0
HEXACHLOROBENZENE	0	0	0	0	197	197	0	0	0	0
HYDROCHLORIC ACID	0	0	0	0	0	0	0	0	11,027,384	11,027,384
LEAD COMPOUNDS	0	53	0	0	8,541	8,594	0	0	0	0
MANGANESE COMPOUNDS	0	0	0	0	759,187	759,187	0	0	0	0
MERCURY COMPOUNDS	0	0	0	0	1	1	0	0	0	0
NICKEL COMPOUNDS	0	0	0	0	9,156	9,156	0	0	0	0
OCTACHLOROSTYRENE	0	0	0	0	4	4	0	0	0	0
PENTACHLOROBENZENE	0	0	0	0	8	8	0	0	0	0
PHOSGENE	0	0	0	0	0	0	0	0	165,815	165,815
POLYCHLORINATED BIPHENYLS	0	0	0	0	4	4	0	0	0	0
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
TITANIUM TETRACHLORIDE	0	0	0	0	0	0	0	0	1,104,310	1,104,310
TOLUENE	0	0	0	0	0	0	0	0	0	0
VANADIUM COMPOUNDS	0	0	0	0	135,665	135,665	0	0	0	0
ZINC COMPOUNDS	0	48	0	0	14,326	14,374	0	0	0	0
DUPONT EDGE MOOR Total	0	101	0	0	1,119,120	1,119,221	0	0	13,267,448	13,267,448

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
DUPONT RED LION PLANT										
HYDRAZINE	0	0	0	0	0	0	0	0	0	0
HYDRAZINE SULFATE	0	0	0	0	0	0	0	0	0	0
HYDROGEN SULFIDE	0	0	0	0	0	0	0	0	0	0
SULFURIC ACID	0	0	0	0	0	0	0	0	0	0
DUPONT RED LION PLANT Total	0	0	0	0	0	0	0	0	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS										
AMMONIA	30	0	0	0	0	30	0	0	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MERCURY	0	0	0	0	0	0	0	0	0	0
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS Total	30	0	0	0	0	30	0	0	0	0
EVRAZ CLAYMONT STEEL										
CHROMIUM COMPOUNDS	0	18,860	0	0	1,310	20,170	0	0	0	0
COPPER COMPOUNDS	0	22,298	0	0	1,740	24,038	0	0	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
LEAD COMPOUNDS	0	112,546	0	0	57	112,603	0	0	0	0
MANGANESE COMPOUNDS	0	185,960	0	0	6,815	192,775	0	0	0	0
MERCURY COMPOUNDS	0	0	0	0	2	2	0	0	0	0
NICKEL COMPOUNDS	0	2,679	0	0	769	3,448	0	0	0	0
ZINC COMPOUNDS	0	1,489,444	0	0	129	1,489,573	0	0	0	0
EVRAZ CLAYMONT STEEL Total	0	1,831,787	0	0	10,822	1,842,609	0	0	0	0
FORMOSA PLASTICS										
AMMONIA	0	0	0	0	0	0	0	0	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
VINYL ACETATE	0	0	0	0	0	0	0	0	0	0
VINYL CHLORIDE	0	120	0	0	27	147	0	0	263,480	263,480
FORMOSA PLASTICS Total	0	120	0	0	27	147	0	0	263,480	263,480
FUJIFILM										
NITRATE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
FUJIFILM Total	0	0	0	0	0	0	0	0	0	0
GAC SEAFORD										
1,2,4-TRIMETHYLBENZENE	0	0	0	0	0	0	0	0	0	0
GAC SEAFORD Total	0	0	0	0	0	0	0	0	0	0

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
HANDY TUBE										
CHROMIUM	0	45,044	0	0	89	45,133	0	0	0	0
MANGANESE	0	4,759	0	0	8	4,767	0	0	0	0
NICKEL	0	44,589	0	0	138	44,727	0	0	0	0
TRICHLOROETHYLENE	0	0	0	12,755	11	12,766	0	0	0	0
HANDY TUBE Total	0	94,392	0	12,755	246	107,393	0	0	0	0
HANESBRANDS										
NITRATE COMPOUNDS	44,740	0	0	0	0	44,740	0	0	0	0
HANESBRANDS Total	44,740	0	0	0	0	44,740	0	0	0	0
HERITAGE CONCRETE BEAR										
LEAD	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE BEAR Total	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE CHESWOLD										
LEAD	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE CHESWOLD Total	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE FRANKFORD										
LEAD	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE FRANKFORD Total	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE WILMINGTON										
LEAD	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE WILMINGTON Total	0	0	0	0	0	0	0	0	0	0
HIRSH INDUSTRIES										
CERTAIN GLYCOL ETHERS	0	0	0	0	0	0	0	0	0	0
HIRSH INDUSTRIES Total	0	0	0	0	0	0	0	0	0	0
HONEYWELL										
BORON TRIFLUORIDE	0	0	0	4	0	4	0	0	0	0
HYDROGEN FLUORIDE	0	0	0	0	0	0	0	0	84	84
METHANOL	0	0	1,080	0	0	1,080	0	0	0	0
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
HONEYWELL Total	0	0	1,080	4	0	1,084	0	0	84	84
IKO										
POLYCYCLIC AROMATIC COMPOUNDS	0	82	0	0	1	83	551	0	0	551
IKO Total	0	82	0	0	1	83	551	0	0	551

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
INDIAN RIVER GENERATING STATION										
AMMONIA	0	0	0	0	0	0	0	0	268,538	268,538
BARIUM COMPOUNDS	0	0	0	0	1	1	0	0	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
HYDROCHLORIC ACID	0	0	0	0	0	0	0	0	1,246,982	1,246,982
HYDROGEN FLUORIDE	0	0	0	0	0	0	0	0	93,825	93,825
LEAD COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MANGANESE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MERCURY COMPOUNDS	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE	0	0	0	0	0	0	0	0	0	0
SULFURIC ACID	0	0	0	0	0	0	0	0	1,763,045	1,763,045
VANADIUM COMPOUNDS	0	0	0	0	0	0	0	0	0	0
INDIAN RIVER GENERATING STATION Total	0	0	0	0	1	1	0	0	3,372,390	3,372,390
INTERVET										
MERCURY COMPOUNDS	0	3	0	0	2	5	0	0	0	0
INTERVET Total	0	3	0	0	2	5	0	0	0	0
JOHNSON CONTROLS BATTERY PLANT										
ANTIMONY COMPOUNDS	0	11,943	0	0	0	11,943	0	0	0	0
LEAD COMPOUNDS	2	3,113,057	0	0	14,512	3,127,571	0	0	0	0
JOHNSON CONTROLS BATTERY PLANT Total	2	3,125,000	0	0	14,512	3,139,514	0	0	0	0
JOHNSON CONTROLS DIST. CENTER										
LEAD COMPOUNDS	0	1,293,566	0	0	0	1,293,566	0	0	0	0
JOHNSON CONTROLS DIST. CENTER Total	0	1,293,566	0	0	0	1,293,566	0	0	0	0
JUSTIN TANKS										
STYRENE	0	0	0	331	0	331	19,880	0	0	19,880
JUSTIN TANKS Total	0	0	0	331	0	331	19,880	0	0	19,880
KUEHNE										
CHLORINE	0	0	0	0	0	0	0	0	0	0
KUEHNE Total	0	0	0	0	0	0	0	0	0	0
MACDERMID										
DIISOCYANATES	0	0	0	0	0	0	0	0	0	0
TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	0	0	0	0	0	0	0	0	0
MACDERMID Total	0	0	0	0	0	0	0	0	0	0
METAL MASTERS										
CHROMIUM	0	170,202	0	0	691	170,893	0	0	0	0
NICKEL	0	55,592	0	0	210	55,802	0	0	0	0
METAL MASTERS Total	0	225,794	0	0	901	226,695	0	0	0	0

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
MOTECH AMERICAS										
LEAD	0	210	0	0	2	212	0	0	0	0
MOTECH AMERICAS Total	0	210	0	0	2	212	0	0	0	0
MOUNTAIRE FARMS - FRANKFORD										
COPPER COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MANGANESE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ZINC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS - FRANKFORD Total	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE										
COPPER COMPOUNDS	0	0	0	0	0	0	0	0	0	0
HYDROGEN SULFIDE	0	0	0	0	0	0	0	0	58,265	58,265
MANGANESE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ZINC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE Total	0	0	0	0	0	0	0	0	58,265	58,265
NORAMCO										
DICHLOROMETHANE	581	0	57,502	0	0	58,083	0	0	58,083	58,083
ETHYLENE GLYCOL	0	0	0	11,316	0	11,316	0	0	0	0
FORMIC ACID	0	0	0	0	0	0	0	0	0	0
METHANOL	6,058	0	115,103	0	0	121,161	0	0	121,161	121,161
N-BUTYL ALCOHOL	41,711	0	792,501	0	0	834,212	0	0	834,212	834,212
PERACETIC ACID	0	0	0	9,960	0	9,960	0	0	0	0
TOLUENE	5,484	0	542,902	0	0	548,386	0	0	548,385	548,385
NORAMCO Total	53,834	0	1,508,008	21,276	0	1,583,118	0	0	1,561,841	1,561,841
ORIENT CORP										
ANILINE	1,600	0	0	0	89	1,689	1,500,000	0	130,000	1,630,000
CHROMIUM COMPOUNDS	0	0	0	0	0	0	0	0	0	0
NITROBENZENE	0	0	0	0	1	1	0	0	0	0
ZINC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ORIENT CORP Total	1,600	0	0	0	90	1,690	1,500,000	0	130,000	1,630,000
PERDUE BRIDGEVILLE										
COPPER COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MANGANESE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
ZINC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
PERDUE BRIDGEVILLE Total	0	0	0	0	0	0	0	0	0	0

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
PERDUE GEORGETOWN										
HYDROGEN SULFIDE	0	0	0	0	0	0	0	0	143,000	143,000
NITRATE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	0	0	0	0
PERDUE GEORGETOWN Total	0	0	0	0	0	0	0	0	143,000	143,000
PERDUE MILFORD										
PERACETIC ACID	0	0	0	0	0	0	0	0	35,000	35,000
PERDUE MILFORD Total	0	0	0	0	0	0	0	0	35,000	35,000
PICTSWEET BRIDGEVILLE										
AMMONIA	0	0	0	0	0	0	0	0	0	0
PICTSWEET BRIDGEVILLE Total	0	0	0	0	0	0	0	0	0	0
PPG INDUSTRIES										
CERTAIN GLYCOL ETHERS	5,010	0	0	124	5	5,139	0	0	0	0
ETHYLENE GLYCOL	1,232	0	0	700	0	1,932	0	0	0	0
ZINC COMPOUNDS	4,313	0	0	0	411	4,724	0	0	0	0
PPG INDUSTRIES Total	10,555	0	0	824	416	11,795	0	0	0	0
PRINCE MINERALS										
BARIUM COMPOUNDS	0	0	0	0	0	0	0	0	0	0
LEAD COMPOUNDS	0	0	0	0	0	0	0	0	0	0
MANGANESE COMPOUNDS	0	0	0	0	0	0	0	0	0	0
NICKEL COMPOUNDS	0	0	0	0	0	0	0	0	0	0
PRINCE MINERALS Total	0	0	0	0	0	0	0	0	0	0
ROHM & HAAS B2, B3, B8										
DIISOCYANATES	0	0	0	6,910	0	6,910	0	0	0	0
N,N-DIMETHYLFORMAMIDE	167,956	1,335,801	0	0	192,189	1,695,946	4,036,191	0	524	4,036,715
ROHM & HAAS B2, B3, B8 Total	167,956	1,335,801	0	6,910	192,189	1,702,856	4,036,191	0	524	4,036,715
ROHM & HAAS B5, B6										
4,4'-METHYLENEBIS(2-CHLOROANILINE)	0	0	0	0	1,507	1,507	0	0	0	0
DIISOCYANATES	0	0	0	22,592	20	22,612	0	0	0	0
N-METHYL-2-PYRROLIDONE	0	78,319	0	3,086	0	81,405	0	0	0	0
TOLUENE DIISOCYANATE (MIXED ISOMERS)	0	0	0	819	6	825	0	0	4,599	4,599
ROHM & HAAS B5, B6 Total	0	78,319	0	26,497	1,533	106,349	0	0	4,599	4,599
ROHM & HAAS B7, B15										
4,4'-METHYLENEBIS(2-CHLOROANILINE)	0	0	0	0	0	0	0	0	0	0
N-METHYL-2-PYRROLIDONE	0	11,319	0	428	0	11,747	0	0	0	0
ROHM & HAAS B7, B15 Total	0	11,319	0	428	0	11,747	0	0	0	0

APPENDIX D

APPENDIX D

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY FACILITY

	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY RECOVERY	TREATMENT	DISPOSAL	TOTAL	RECYCLE	ENERGY RECOVERY	TREATMENT	TOTAL
SERVICE ENERGY DOVER										
1,2,4-TRIMETHYLBENZENE	0	0	0	0	0	0	0	0	0	0
TOLUENE	0	0	0	0	0	0	0	0	0	0
SERVICE ENERGY DOVER Total	0	0	0	0	0	0	0	0	0	0
SPI PHARMA										
CHLORINE	0	0	0	0	0	0	0	0	0	0
NITRIC ACID	0	0	0	0	0	0	0	0	0	0
SPI PHARMA Total	0	0	0	0	0	0	0	0	0	0
V&S DELAWARE GALVANIZING										
LEAD	0	4,495	0	0	165	4,660	1,669	0	0	1,669
ZINC COMPOUNDS	0	142,024	0	0	23,020	165,044	195,847	0	0	195,847
V&S DELAWARE GALVANIZING Total	0	146,519	0	0	23,185	169,704	197,516	0	0	197,516
VP RACING FUELS										
LEAD COMPOUNDS	0	0	0	0	1	1	0	0	0	0
METHANOL	0	0	0	0	0	0	0	0	0	0
TOLUENE	0	0	0	0	0	0	0	0	0	0
XYLENE (MIXED ISOMERS)	0	0	0	0	0	0	0	0	0	0
VP RACING FUELS Total	0	0	0	0	1	1	0	0	0	0
STATE TOTALS	935,842	9,009,366	1,874,068	251,834	1,506,791	13,577,900	11,642,121	15,659,902	375,430,183	402,732,206

APPENDIX D

APPENDIX E

2013 ON-SITE RELEASE SUMMARY BY FACILITY

FACILITY - RANKED BY TOTAL ON-SITE RELEASE	ON-SITE RELEASES				TRANSFERS	ON-SITE
	TO AIR	TO WATER	TO LAND	TOTAL	OFF-SITE	WASTE MGMT.
DELAWARE CITY REFINERY	400,441	2,640,461	2,646	3,043,548	179,454	371,248,130
INDIAN RIVER GENERATING STATION	141,970	0	137,384	279,354	1	3,372,390
DUPONT EDGE MOOR	237,528	22,030	616	260,174	1,119,221	13,267,448
PERDUE GEORGETOWN	18,000	219,000	0	237,000	0	143,000
FORMOSA PLASTICS	89,502	0	0	89,502	147	263,480
BASF NEWPORT	23,279	0	0	23,279	843,669	1,232,311
AIR LIQUIDE INDUSTRIAL	17,792	0	0	17,792	0	0
EVRAZ CLAYMONT STEEL	2,370	306	10,905	13,581	1,842,609	0
JUSTIN TANKS	9,688	0	331	10,019	331	19,880
DUPONT RED LION PLANT	9,325	0	0	9,325	0	0
HANDY TUBE	6,046	0	0	6,046	107,393	0
HIRSH INDUSTRIES	5,717	0	0	5,717	0	0
DENTSPLY WEST PLANT	5,584	0	0	5,584	23,245	0
AIR LIQUIDE - MEDAL	4,694	0	0	4,694	280,049	5,522,733
ROHM & HAAS B2, B3, B8	4,157	0	0	4,157	1,702,856	4,036,715
CRODA	3,673	0	0	3,673	19,621	0
ARLON	2,995	0	0	2,995	5,950	135,000
BASF SEAFORD	2,506	0	0	2,506	759	3,263
MOUNTAIRE FARMS OF DELAWARE	2,417	0	0	2,417	0	58,265
NORAMCO	2,314	0	0	2,314	1,583,118	1,561,841
ROHM & HAAS B5, B6	2,184	0	0	2,184	106,349	4,599
HONEYWELL	1,408	0	0	1,408	1,084	84
AGILENT TECHNOLOGIES	1,194	0	0	1,194	241,396	0
PICTSWEET BRIDGEVILLE	900	0	0	900	0	0
ROHM & HAAS B7, B15	788	0	0	788	11,747	0
EDGE MOOR/HAY ROAD ENERGY CENTERS	760	0	0	760	30	0
KUEHNE	683	0	0	683	0	0
V&S DELAWARE GALVANIZING	261	90	0	351	169,704	197,516
DOVER AFB	298	0	0	298	0	0
PRINCE MINERALS	168	0	0	168	0	0
JOHNSON CONTROLS BATTERY PLANT	141	14	0	156	3,139,514	0
ORIENT CORP	77	0	0	77	1,690	1,630,000
PPG INDUSTRIES	55	0	0	55	11,795	0
HERITAGE CONCRETE WILMINGTON	0	0	38	38	0	0
HERITAGE CONCRETE BEAR	0	0	18	18	0	0
HERITAGE CONCRETE CHESWOLD	0	0	14	14	0	0

APPENDIX E

2013 ON-SITE RELEASE SUMMARY BY FACILITY

FACILITY - RANKED BY TOTAL ON-SITE RELEASE	ON-SITE RELEASES				TRANSFERS	ON-SITE
	TO AIR	TO WATER	TO LAND	TOTAL	OFF-SITE	WASTE MGMT.
BALTIMORE AIRCOIL	10	0	0	10	577,618	0
AEARO TECHNOLOGIES	7	0	0	7	23,417	0
HERITAGE CONCRETE FRANKFORD	0	0	5	5	0	0
VP RACING FUELS	1	0	0	1	1	0
METAL MASTERS	1	0	0	1	226,695	0
DENTSPLY LAKE VIEW	0	0	0	0	1,086	0
ALLEN HARIM FARMS - SEAFORD	0	0	0	0	0	0
ALLEN HARIM FOODS - HARBESON	0	0	0	0	0	0
AMICK FARMS	0	0	0	0	0	0
CARL KING	0	0	0	0	0	0
COLOR WORKS	0	0	0	0	1,094	0
DUHADAWAY TOOL AND DIE SHOP	0	0	0	0	17,652	0
FUJIFILM	0	0	0	0	0	0
GAC SEAFORD	0	0	0	0	0	0
HANESBRANDS	0	0	0	0	44,740	0
IKO	0	0	0	0	83	551
INTERVET	0	0	0	0	5	0
JOHNSON CONTROLS DIST. CENTER	0	0	0	0	1,293,566	0
MACDERMID	0	0	0	0	0	0
MOTECH AMERICAS	0	0	0	0	212	0
MOUNTAIRE FARMS - FRANKFORD	0	0	0	0	0	0
PERDUE MILFORD	0	0	0	0	0	35,000
PERDUE BRIDGEVILLE	0	0	0	0	0	0
SERVICE ENERGY DOVER	0	0	0	0	0	0
SPI PHARMA	0	0	0	0	0	0
FACILITY TOTALS	998,934	2,881,902	151,956	4,032,792	13,577,900	402,732,206

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
1,2,4-TRIMETHYLBENZENE								
CARL KING	1	0	0	0	0	0	0	
DELAWARE CITY REFINERY	0	1,203	5	0	1,208	0	63,921	
DOVER AFB	0	57	0	0	57	0	0	
GAC SEAFORD	1	0	0	0	0	0	0	
SERVICE ENERGY DOVER	1	0	0	0	0	0	0	
1,2,4-TRIMETHYLBENZENE Total	3	1,260	5	0	1,265	0	63,921	
1,3-BUTADIENE								
DELAWARE CITY REFINERY	0	396	0	0	396	0	0	
1,3-BUTADIENE Total	0	396	0	0	396	0	0	
2,4-DIMETHYLPHENOL								
DELAWARE CITY REFINERY	0	0	179	0	179	0	251,805	
2,4-DIMETHYLPHENOL Total	0	0	179	0	179	0	251,805	
4,4'-METHYLENEBIS(2-CHLOROANILINE)								
ROHM & HAAS B5, B6	0	0	0	0	0	1,507	0	
ROHM & HAAS B7, B15	1	0	0	0	0	0	0	
4,4'-METHYLENEBIS(2-CHLOROANILINE) Total	1	0	0	0	0	1,507	0	
ACETONITRILE								
AGILENT TECHNOLOGIES	0	36	0	0	36	15,558	0	
ACETONITRILE Total	0	36	0	0	36	15,558	0	
AMMONIA								
AIR LIQUIDE INDUSTRIAL	0	17,792	0	0	17,792	0	0	
BASF SEAFORD	0	1,948	0	0	1,948	288	2,301	
DELAWARE CITY REFINERY	0	29,968	6,071	0	36,039	0	15,158,543	
EDGE MOOR/HAY ROAD ENERGY CENTERS	0	743	0	0	743	30	0	
FORMOSA PLASTICS	0	1,485	0	0	1,485	0	0	
INDIAN RIVER GENERATING STATION	0	5,823	0	0	5,823	0	268,538	
PICTSWEET BRIDGEVILLE	0	900	0	0	900	0	0	
AMMONIA Total	0	58,659	6,071	0	64,730	318	15,429,382	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
ANILINE								
BASF NEWPORT	0	30	0	0	30	44,116	1,211	
ORIENT CORP	0	74	0	0	74	1,689	1,630,000	
ANILINE Total	0	104	0	0	104	45,805	1,631,211	
ANTHRACENE								
DELAWARE CITY REFINERY	0	10	5	0	15	0	0	
ANTHRACENE Total	0	10	5	0	15	0	0	
ANTIMONY COMPOUNDS								
JOHNSON CONTROLS BATTERY PLANT	0	0	0	0	0	11,943	0	
ANTIMONY COMPOUNDS Total	0	0	0	0	0	11,943	0	
ARSENIC COMPOUNDS								
DUPONT EDGE MOOR	0	0	131	0	131	1,025	0	
ARSENIC COMPOUNDS Total	0	0	131	0	131	1,025	0	
ASBESTOS (FRIABLE)								
DELAWARE CITY REFINERY	0	0	0	0	0	125,560	0	
ASBESTOS (FRIABLE) Total	0	0	0	0	0	125,560	0	
BARIUM COMPOUNDS								
DUPONT EDGE MOOR	0	1	7,001	0	7,003	8,758	0	
INDIAN RIVER GENERATING STATION	0	386	0	100,040	100,426	1	0	
PRINCE MINERALS	1	0	0	0	0	0	0	
BARIUM COMPOUNDS Total	1	387	7,001	100,040	107,429	8,759	0	
BENZENE								
DELAWARE CITY REFINERY	0	9,102	11	0	9,113	8	432,029	
BENZENE Total	0	9,102	11	0	9,113	8	432,029	
BENZO(G,H,I)PERYLENE								
DELAWARE CITY REFINERY	0	0	5	0	5	0	492	
BENZO(G,H,I)PERYLENE Total	0	0	5	0	5	0	492	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
BIPHENYL								
BASF NEWPORT	0	97	0	0	97	105,037	2,321	
BIPHENYL Total	0	97	0	0	97	105,037	2,321	
BORON TRIFLUORIDE								
HONEYWELL	0	416	0	0	416	4	0	
BORON TRIFLUORIDE Total	0	416	0	0	416	4	0	
BUTYL ACRYLATE								
BASF SEAFORD	0	146	0	0	146	61	58	
BUTYL ACRYLATE Total	0	146	0	0	146	61	58	
CARBON DISULFIDE								
DELAWARE CITY REFINERY	0	1,169	0	0	1,169	0	2,880,233	
CARBON DISULFIDE Total	0	1,169	0	0	1,169	0	2,880,233	
CARBONYL SULFIDE								
DELAWARE CITY REFINERY	0	668	0	0	668	0	13,667,098	
DUPONT EDGE MOOR	0	231,040	0	0	231,040	0	0	
CARBONYL SULFIDE Total	0	231,708	0	0	231,708	0	13,667,098	
CERTAIN GLYCOL ETHERS								
BASF SEAFORD	0	5	0	0	5	271	0	
CRODA	0	3	0	0	3	3,141	0	
HIRSH INDUSTRIES	0	5,717	0	0	5,717	0	0	
PPG INDUSTRIES	0	5	0	0	5	5,139	0	
CERTAIN GLYCOL ETHERS Total	0	5,730	0	0	5,730	8,551	0	
CHLORINE								
DUPONT EDGE MOOR	0	1,961	0	0	1,961	0	969,939	
KUEHNE	0	683	0	0	683	0	0	
SPI PHARMA	1	0	0	0	0	0	0	
CHLORINE Total	1	2,644	0	0	2,644	0	969,939	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
CHROMIUM								
DUHADAWAY TOOL AND DIE SHOP	0	0	0	0	0	10,303	0	
HANDY TUBE	0	0	0	0	0	45,133	0	
METAL MASTERS	0	1	0	0	1	170,893	0	
CHROMIUM Total	0	1	0	0	1	226,329	0	
CHROMIUM COMPOUNDS								
BALTIMORE AIRCOIL	0	0	0	0	0	211,618	0	
DUPONT EDGE MOOR	0	0	18	0	19	179,148	0	
EVRAZ CLAYMONT STEEL	0	76	3	147	226	20,170	0	
ORIENT CORP	0	0	0	0	0	0	0	
CHROMIUM COMPOUNDS Total	0	76	21	147	245	410,936	0	
COBALT COMPOUNDS								
DUPONT EDGE MOOR	0	0	4	0	4	3,099	0	
COBALT COMPOUNDS Total	0	0	4	0	4	3,099	0	
COPPER								
ARLON	0	5	0	0	5	2,200	0	
COPPER Total	0	5	0	0	5	2,200	0	
COPPER COMPOUNDS								
AMICK FARMS	1	0	0	0	0	0	0	
EVRAZ CLAYMONT STEEL	0	93	53	369	515	24,038	0	
MOUNTAIRE FARMS - FRANKFORD	1	0	0	0	0	0	0	
MOUNTAIRE FARMS OF DELAWARE	1	0	0	0	0	0	0	
PERDUE BRIDGEVILLE	1	0	0	0	0	0	0	
COPPER COMPOUNDS Total	4	93	53	369	515	24,038	0	
CREOSOTE								
DELAWARE CITY REFINERY	0	467	0	2,646	3,113	17,061	0	
CREOSOTE Total	0	467	0	2,646	3,113	17,061	0	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
CRESOL (MIXED ISOMERS)								
DELAWARE CITY REFINERY	0	0	359	0	359	0	331,741	
CRESOL (MIXED ISOMERS) Total	0	0	359	0	359	0	331,741	
CUMENE								
DELAWARE CITY REFINERY	0	3,192	5	0	3,197	0	3,318	
DOVER AFB	0	57	0	0	57	0	0	
CUMENE Total	0	3,249	5	0	3,254	0	3,318	
CYANIDE COMPOUNDS								
DELAWARE CITY REFINERY	0	0	158	0	158	0	15,645	
CYANIDE COMPOUNDS Total	0	0	158	0	158	0	15,645	
CYCLOHEXANE								
AIR LIQUIDE - MEDAL	0	954	0	0	954	17,234	0	
BASF NEWPORT	0	52	0	0	52	23,836	3,459	
DELAWARE CITY REFINERY	0	1,840	5	0	1,845	0	7,379	
CYCLOHEXANE Total	0	2,846	5	0	2,851	41,070	10,838	
DICHLOROMETHANE								
NORAMCO	0	1,874	0	0	1,874	58,083	58,083	
DICHLOROMETHANE Total	0	1,874	0	0	1,874	58,083	58,083	
DIETHANOLAMINE								
CRODA	0	6	0	0	6	41	0	
DIETHANOLAMINE Total	0	6	0	0	6	41	0	
DIISOCYANATES								
AEARO TECHNOLOGIES	0	2	0	0	2	9,367	0	
MACDERMID	1	0	0	0	0	0	0	
ROHM & HAAS B2, B3, B8	0	0	0	0	0	6,910	0	
ROHM & HAAS B5, B6	0	2	0	0	2	22,612	0	
DIISOCYANATES Total	1	4	0	0	4	38,889	0	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
DIOXIN AND DIOXIN-LIKE COMPOUNDS								
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0
DUPONT EDGE MOOR	0	0	0	0	0	1	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS	0	0	0	0	0	0	0	0
EVRAZ CLAYMONT STEEL	0	0	0	0	0	0	0	0
FORMOSA PLASTICS	0	0	0	0	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS Total	0	0	0	0	0	1	0	0
ETHYLBENZENE								
ARLON	0	590	0	0	590	750	27,000	0
DELAWARE CITY REFINERY	0	2,082	5	0	2,087	0	51,655	0
DOVER AFB	0	59	0	0	59	0	0	0
ETHYLBENZENE Total	0	2,731	5	0	2,736	750	78,655	0
ETHYLENE								
DELAWARE CITY REFINERY	0	1,920	0	0	1,920	0	341,214	0
ETHYLENE Total	0	1,920	0	0	1,920	0	341,214	0
ETHYLENE GLYCOL								
NORAMCO	0	10	0	0	10	11,316	0	0
PPG INDUSTRIES	0	10	0	0	10	1,932	0	0
ETHYLENE GLYCOL Total	0	20	0	0	20	13,248	0	0
ETHYLENE OXIDE								
CRODA	0	2,432	0	0	2,432	0	0	0
ETHYLENE OXIDE Total	0	2,432	0	0	2,432	0	0	0
FORMIC ACID								
NORAMCO	0	17	0	0	17	0	0	0
FORMIC ACID Total	0	17	0	0	17	0	0	0
HEXACHLOROENZENE								
DUPONT EDGE MOOR	0	0	1	0	1	197	0	0
HEXACHLOROENZENE Total	0	0	1	0	1	197	0	0

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
HYDRAZINE								
DUPONT RED LION PLANT	0	0	0	0	0	0	0	0
HYDRAZINE Total	0	0	0	0	0	0	0	0
HYDRAZINE SULFATE								
DUPONT RED LION PLANT	0	0	0	0	0	0	0	0
HYDRAZINE SULFATE Total	0	0	0	0	0	0	0	0
HYDROCHLORIC ACID								
DELAWARE CITY REFINERY	0	192	0	0	192	0	123,871	
DUPONT EDGE MOOR	0	4,026	0	0	4,026	0	11,027,384	
INDIAN RIVER GENERATING STATION	0	114,394	0	0	114,394	0	1,246,982	
HYDROCHLORIC ACID Total	0	118,612	0	0	118,612	0	12,398,237	
HYDROGEN CYANIDE								
DELAWARE CITY REFINERY	0	1,280	220	0	1,500	0	281,878	
HYDROGEN CYANIDE Total	0	1,280	220	0	1,500	0	281,878	
HYDROGEN FLUORIDE								
HONEYWELL	0	543	0	0	543	0	84	
INDIAN RIVER GENERATING STATION	0	10,160	0	0	10,160	0	93,825	
HYDROGEN FLUORIDE Total	0	10,703	0	0	10,703	0	93,909	
HYDROGEN SULFIDE								
DELAWARE CITY REFINERY	0	20,891	0	0	20,891	0	336,299,859	
DUPONT RED LION PLANT	0	160	0	0	160	0	0	
MOUNTAIRE FARMS OF DELAWARE	0	2,417	0	0	2,417	0	58,265	
PERDUE GEORGETOWN	0	18,000	0	0	18,000	0	143,000	
HYDROGEN SULFIDE Total	0	41,468	0	0	41,468	0	336,501,124	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
LEAD								
HERITAGE CONCRETE BEAR	0	0	0	18	18	0	0	
HERITAGE CONCRETE CHESWOLD	0	0	0	14	14	0	0	
HERITAGE CONCRETE FRANKFORD	0	0	0	5	5	0	0	
HERITAGE CONCRETE WILMINGTON	0	0	0	38	38	0	0	
MOTECH AMERICAS	0	0	0	0	0	212	0	
V&S DELAWARE GALVANIZING	0	6	7	0	12	4,660	1,669	
LEAD Total	0	6	7	75	87	4,872	1,669	
LEAD COMPOUNDS								
DELAWARE CITY REFINERY	0	99	3	0	102	59	0	
DUPONT EDGE MOOR	0	0	84	0	84	8,594	0	
EVRAZ CLAYMONT STEEL	0	250	54	53	357	112,603	0	
INDIAN RIVER GENERATING STATION	0	74	0	6,217	6,291	0	0	
JOHNSON CONTROLS BATTERY PLANT	0	141	14	0	156	3,127,571	0	
JOHNSON CONTROLS DIST. CENTER	0	0	0	0	0	1,293,566	0	
PRINCE MINERALS	0	0	0	0	0	0	0	
VP RACING FUELS	0	1	0	0	1	1	0	
LEAD COMPOUNDS Total	0	565	156	6,270	6,990	4,542,394	0	
MANGANESE								
COLOR WORKS	0	0	0	0	0	1,094	0	
HANDY TUBE	0	0	0	0	0	4,767	0	
MANGANESE Total	0	0	0	0	0	5,861	0	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
MANGANESE COMPOUNDS								
ALLEN HARIM FARMS - SEAFORD	1	0	0	0	0	0	0	0
AMICK FARMS	1	0	0	0	0	0	0	0
BALTIMORE AIRCOIL	0	5	0	0	5	125,000	0	0
DUPONT EDGE MOOR	0	1	14,349	0	14,350	759,187	0	0
EVRAZ CLAYMONT STEEL	0	293	15	9,853	10,161	192,775	0	0
INDIAN RIVER GENERATING STATION	0	136	0	16,761	16,897	0	0	0
MOUNTAIRE FARMS - FRANKFORD	1	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE	1	0	0	0	0	0	0	0
PERDUE BRIDGEVILLE	1	0	0	0	0	0	0	0
PRINCE MINERALS	0	168	0	0	168	0	0	0
MANGANESE COMPOUNDS Total	5	603	14,364	26,614	41,581	1,076,962		0
MERCURY								
DENTSPLY LAKE VIEW	0	0	0	0	0	1,086	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS	0	17	0	0	17	0	0	0
MERCURY Total	0	17	0	0	17	1,086		0
MERCURY COMPOUNDS								
DELAWARE CITY REFINERY	0	75	2	0	77	2	0	0
DUPONT EDGE MOOR	0	1	0	0	1	1	0	0
EVRAZ CLAYMONT STEEL	0	93	0	0	93	2	0	0
INDIAN RIVER GENERATING STATION	0	4	0	113	117	0	0	0
INTERVET	0	0	0	0	0	5	0	0
MERCURY COMPOUNDS Total	0	173	2	113	288	10		0

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
METHANOL								
AGILENT TECHNOLOGIES	0	1,139	0	0	1,139	37,273	0	
AIR LIQUIDE - MEDAL	0	505	0	0	505	86,496	3,016,630	
BASF NEWPORT	0	21,996	0	0	21,996	586,255	1,190,551	
CRODA	0	652	0	0	652	16,019	0	
DELAWARE CITY REFINERY	0	5,462	5	0	5,467	0	38,261	
DENTSPLY WEST PLANT	0	3,700	0	0	3,700	7,932	0	
HONEYWELL	0	4	0	0	4	1,080	0	
NORAMCO	0	179	0	0	179	121,161	121,161	
VP RACING FUELS	1	0	0	0	0	0	0	
METHANOL Total	1	33,636	5	0	33,641	856,216	4,366,603	
METHYL METHACRYLATE								
BASF SEAFORD	0	197	0	0	197	61	381	
DENTSPLY WEST PLANT	0	1,607	0	0	1,607	68	0	
METHYL METHACRYLATE Total	0	1,804	0	0	1,804	129	381	
MOLYBDENUM TRIOXIDE								
DELAWARE CITY REFINERY	0	14	0	0	14	0	0	
MOLYBDENUM TRIOXIDE Total	0	14	0	0	14	0	0	
N,N-DIMETHYLFORMAMIDE								
AIR LIQUIDE - MEDAL	0	25	0	0	25	25,230	0	
ROHM & HAAS B2, B3, B8	0	4,157	0	0	4,157	1,695,946	4,036,715	
N,N-DIMETHYLFORMAMIDE Total	0	4,182	0	0	4,182	1,721,176	4,036,715	
NAPHTHALENE								
CARL KING	1	0	0	0	0	0	0	
CRODA	0	2	0	0	2	420	0	
DELAWARE CITY REFINERY	0	2,146	147	0	2,293	0	10,493	
DOVER AFB	0	63	0	0	63	0	0	
INDIAN RIVER GENERATING STATION	1	0	0	0	0	0	0	
NAPHTHALENE Total	2	2,211	147	0	2,358	420	10,493	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
N-BUTYL ALCOHOL								
NORAMCO	0	111	0	0	111	834,212	834,212	
N-BUTYL ALCOHOL Total	0	111	0	0	111	834,212	834,212	
N-HEXANE								
AIR LIQUIDE - MEDAL	0	1,925	0	0	1,925	0	2,506,103	
DELAWARE CITY REFINERY	0	30,085	5	0	30,090	0	62,251	
N-HEXANE Total	0	32,010	5	0	32,015	0	2,568,354	
NICKEL								
DELAWARE CITY REFINERY	0	1,342	1,709	0	3,051	36,762	0	
DUHADAWAY TOOL AND DIE SHOP	0	0	0	0	0	7,349	0	
HANDY TUBE	0	0	0	0	0	44,727	0	
METAL MASTERS	0	1	0	0	1	55,802	0	
NICKEL Total	0	1,343	1,709	0	3,052	144,640	0	
NICKEL COMPOUNDS								
BALTIMORE AIRCOIL	0	5	0	0	5	241,000	0	
DUPONT EDGE MOOR	0	1	246	0	247	9,156	0	
EVRAZ CLAYMONT STEEL	0	20	20	264	304	3,448	0	
PRINCE MINERALS	1	0	0	0	0	0	0	
NICKEL COMPOUNDS Total	1	26	266	264	556	253,604	0	
NITRATE COMPOUNDS								
ALLEN HARIM FOODS - HARBESON	1	0	0	0	0	0	0	
BASF NEWPORT	0	0	0	0	0	28,822	0	
DELAWARE CITY REFINERY	0	0	2,631,359	0	2,631,359	0	0	
FUJIFILM	1	0	0	0	0	0	0	
HANESBRANDS	0	0	0	0	0	44,740	0	
PERDUE GEORGETOWN	0	0	219,000	0	219,000	0	0	
NITRATE COMPOUNDS Total	2	0	2,850,359	0	2,850,359	73,562	0	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
NITRIC ACID								
BASF NEWPORT	0	0	0	0	0	0	29,286	
SPI PHARMA	1	0	0	0	0	0	0	
NITRIC ACID Total	1	0	0	0	0	0	29,286	
NITROBENZENE								
ORIENT CORP	0	3	0	0	3	1	0	
NITROBENZENE Total	0	3	0	0	3	1	0	
N-METHYL-2-PYRROLIDONE								
AIR LIQUIDE - MEDAL	0	1,285	0	0	1,285	151,089	0	
BASF NEWPORT	0	0	0	0	0	49,782	0	
ROHM & HAAS B5, B6	0	2,180	0	0	2,180	81,405	0	
ROHM & HAAS B7, B15	0	788	0	0	788	11,747	0	
N-METHYL-2-PYRROLIDONE Total	0	4,253	0	0	4,253	294,023	0	
OCTACHLOROSTYRENE								
DUPONT EDGE MOOR	0	0	0	0	0	4	0	
OCTACHLOROSTYRENE Total	0	0	0	0	0	4	0	
P-CHLOROANILINE								
BASF NEWPORT	0	10	0	0	10	5,160	390	
P-CHLOROANILINE Total	0	10	0	0	10	5,160	390	
PENTACHLOROBENZENE								
DUPONT EDGE MOOR	0	0	0	0	0	8	0	
PENTACHLOROBENZENE Total	0	0	0	0	0	8	0	
PERACETIC ACID								
NORAMCO	0	10	0	0	10	9,960	0	
PERDUE MILFORD	0	0	0	0	0	0	35,000	
PERACETIC ACID Total	0	10	0	0	10	9,960	35,000	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
PHENANTHRENE								
DELAWARE CITY REFINERY	0	1	5	0	6	0	43	
PHENANTHRENE Total	0	1	5	0	6	0	43	
PHENOL								
DELAWARE CITY REFINERY	0	129	179	0	308	0	302,605	
PHENOL Total	0	129	179	0	308	0	302,605	
PHOSGENE								
DUPONT EDGE MOOR	0	301	0	0	301	0	165,815	
PHOSGENE Total	0	301	0	0	301	0	165,815	
POLYCHLORINATED BIPHENYLS								
DUPONT EDGE MOOR	0	0	0	0	0	4	0	
POLYCHLORINATED BIPHENYLS Total	0	0	0	0	0	4	0	
POLYCYCLIC AROMATIC COMPOUNDS								
DELAWARE CITY REFINERY	0	224	4	0	228	0	405	
DUPONT EDGE MOOR	0	69	0	616	685	0	0	
EDGE MOOR/HAY ROAD ENERGY CENTERS	0	0	0	0	0	0	0	
HONEYWELL	0	445	0	0	445	0	0	
IKO	0	0	0	0	0	83	551	
PERDUE GEORGETOWN	0	0	0	0	0	0	0	
POLYCYCLIC AROMATIC COMPOUNDS Total	0	738	4	616	1,358	83	956	
PROPYLENE								
DELAWARE CITY REFINERY	0	8,602	0	0	8,602	0	511,882	
PROPYLENE Total	0	8,602	0	0	8,602	0	511,882	
PROPYLENE OXIDE								
CRODA	0	578	0	0	578	0	0	
PROPYLENE OXIDE Total	0	578	0	0	578	0	0	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
STYRENE								
BASF SEAFORD	0	210	0	0	210	78	523	
DELAWARE CITY REFINERY	0	13	5	0	18	0	1,366	
JUSTIN TANKS	0	9,688	0	331	10,019	331	19,880	
STYRENE Total	0	9,911	5	331	10,247	409	21,769	
SULFURIC ACID								
DELAWARE CITY REFINERY	0	257,679	0	0	257,679	0	0	
DUPONT RED LION PLANT	0	9,165	0	0	9,165	0	0	
INDIAN RIVER GENERATING STATION	0	10,910	0	0	10,910	0	1,763,045	
SULFURIC ACID Total	0	277,754	0	0	277,754	0	1,763,045	
TETRACHLOROETHYLENE								
DELAWARE CITY REFINERY	0	6	0	0	6	0	0	
TETRACHLOROETHYLENE Total	0	6	0	0	6	0	0	
TITANIUM TETRACHLORIDE								
DUPONT EDGE MOOR	0	39	0	0	39	0	1,104,310	
TITANIUM TETRACHLORIDE Total	0	39	0	0	39	0	1,104,310	
TOLUENE								
AGILENT TECHNOLOGIES	0	19	0	0	19	188,565	0	
DELAWARE CITY REFINERY	0	14,178	5	0	14,183	0	199,695	
DENTSPLY WEST PLANT	0	278	0	0	278	15,244	0	
DUPONT EDGE MOOR	0	78	0	0	78	0	0	
NORAMCO	0	113	0	0	113	548,386	548,385	
SERVICE ENERGY DOVER	1	0	0	0	0	0	0	
VP RACING FUELS	1	0	0	0	0	0	0	
TOLUENE Total	2	14,666	5	0	14,671	752,195	748,080	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
TOLUENE DIISOCYANATE (MIXED ISOMERS)								
AEARO TECHNOLOGIES	0	5	0	0	5	14,050	0	
MACDERMID	1	0	0	0	0	0	0	
ROHM & HAAS B5, B6	0	2	0	0	2	825	4,599	
TOLUENE DIISOCYANATE (MIXED ISOMERS) Total	1	7	0	0	7	14,875	4,599	
TRICHLOROETHYLENE								
HANDY TUBE	0	6,046	0	0	6,046	12,766	0	
TRICHLOROETHYLENE Total	0	6,046	0	0	6,046	12,766	0	
VANADIUM COMPOUNDS								
DUPONT EDGE MOOR	0	1	110	0	111	135,665	0	
INDIAN RIVER GENERATING STATION	0	83	0	14,253	14,336	0	0	
VANADIUM COMPOUNDS Total	0	84	110	14,253	14,447	135,665	0	
VINYL ACETATE								
FORMOSA PLASTICS	0	40,740	0	0	40,740	0	0	
VINYL ACETATE Total	0	40,740	0	0	40,740	0	0	
VINYL CHLORIDE								
FORMOSA PLASTICS	0	47,277	0	0	47,277	147	263,480	
VINYL CHLORIDE Total	0	47,277	0	0	47,277	147	263,480	
XYLENE (MIXED ISOMERS)								
ARLON	0	2,400	0	0	2,400	3,000	108,000	
BASF NEWPORT	0	1,094	0	0	1,094	661	5,093	
CARL KING	1	0	0	0	0	0	0	
DELAWARE CITY REFINERY	0	6,007	5	0	6,012	2	210,448	
DOVER AFB	0	62	0	0	62	0	0	
VP RACING FUELS	1	0	0	0	0	0	0	
XYLENE (MIXED ISOMERS) Total	2	9,563	5	0	9,568	3,663	323,541	

APPENDIX F

APPENDIX F

2013 ON-SITE RELEASES BY CHEMICAL AND FACILITY

FACILITY/CHEMICAL	FORM A	ON-SITE RELEASES				TOTAL	OFF-SITE TRANSFERS	ON-SITE WASTE MANAGEMENT
		TO AIR	TO WATER	TO LAND				
ZINC COMPOUNDS								
ALLEN HARIM FARMS - SEAFORD	1	0	0	0	0	0	0	0
AMICK FARMS	1	0	0	0	0	0	0	0
DUPONT EDGE MOOR	0	9	86	0	95	14,374	0	0
EVRAZ CLAYMONT STEEL	0	1,545	161	219	1,925	1,489,573	0	0
MOUNTAIRE FARMS - FRANKFORD	1	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE	1	0	0	0	0	0	0	0
ORIENT CORP	0	0	0	0	0	0	0	0
PERDUE BRIDGEVILLE	1	0	0	0	0	0	0	0
PPG INDUSTRIES	0	40	0	0	40	4,724	0	0
V&S DELAWARE GALVANIZING	0	255	83	0	338	165,044	195,847	0
ZINC COMPOUNDS Total	5	1,849	330	219	2,399	1,673,715	195,847	0
STATE TOTALS	33	998,934	2,881,902	151,956	4,032,792	13,577,900	402,732,206	0

APPENDIX F

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT				
	POTW	RECYCLE	ENERGY TREATMEN		DISPOSAL	TOTAL	ENERGY			TOTAL	
			RECOVERY	T			RECYCLE	RECOVERY	TREATMENT		
1,2,4-TRIMETHYLBENZENE											
CARL KING	0	0	0	0	0	0	0	0	0	0	0
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	63,921	63,921	0
DOVER AFB	0	0	0	0	0	0	0	0	0	0	0
GAC SEAFORD	0	0	0	0	0	0	0	0	0	0	0
SERVICE ENERGY DOVER	0	0	0	0	0	0	0	0	0	0	0
1,2,4-TRIMETHYLBENZENE Total	0	0	0	0	0	0	0	0	63,921	63,921	0
1,3-BUTADIENE											
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	0	0	0
1,3-BUTADIENE Total	0	0	0	0	0	0	0	0	0	0	0
2,4-DIMETHYLPHENOL											
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	251,805	251,805	0
2,4-DIMETHYLPHENOL Total	0	0	0	0	0	0	0	0	251,805	251,805	0
4,4'-METHYLENEBIS(2-CHLOROANILINE)											
ROHM & HAAS B5, B6	0	0	0	0	1,507	1,507	0	0	0	0	0
ROHM & HAAS B7, B15	0	0	0	0	0	0	0	0	0	0	0
4,4'-METHYLENEBIS(2-CHLOROANILINE) Total	0	0	0	0	1,507	1,507	0	0	0	0	0
ACETONITRILE											
AGILENT TECHNOLOGIES	0	0	15,558	0	0	15,558	0	0	0	0	0
ACETONITRILE Total	0	0	15,558	0	0	15,558	0	0	0	0	0
AMMONIA											
AIR LIQUIDE INDUSTRIAL	0	0	0	0	0	0	0	0	0	0	0
BASF SEAFORD	256	0	0	9	23	288	0	0	2,301	2,301	0
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	15,103,696	54,847	15,158,543	0
EDGE MOOR/HAY ROAD ENERGY CENTERS	30	0	0	0	0	30	0	0	0	0	0
FORMOSA PLASTICS	0	0	0	0	0	0	0	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	268,538	268,538	0
PICTSWEET BRIDGEVILLE	0	0	0	0	0	0	0	0	0	0	0
AMMONIA Total	286	0	0	9	23	318	0	15,103,696	325,686	15,429,382	0
ANILINE											
BASF NEWPORT	25,543	0	7,784	10,789	0	44,116	0	0	1,211	1,211	0
ORIENT CORP	1,600	0	0	0	89	1,689	1,500,000	0	130,000	1,630,000	0
ANILINE Total	27,143	0	7,784	10,789	89	45,805	1,500,000	0	131,211	1,631,211	0
ANTHRACENE											
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	0	0	0
ANTHRACENE Total	0	0	0	0	0	0	0	0	0	0	0
ANTIMONY COMPOUNDS											
JOHNSON CONTROLS BATTERY PLANT	0	11,943	0	0	0	11,943	0	0	0	0	0
ANTIMONY COMPOUNDS Total	0	11,943	0	0	0	11,943	0	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT				
	POTW	RECYCLE	ENERGY TREATMENT		DISPOSAL	TOTAL	RECYCLE	ENERGY TREATMENT		TOTAL	
			RECOVERY	T				RECOVERY	T		
ARSENIC COMPOUNDS											
DUPONT EDGE MOOR	0	0	0	0	1,025	1,025	0	0	0	0	0
ARSENIC COMPOUNDS Total	0	0	0	0	1,025	1,025	0	0	0	0	0
ASBESTOS (FRIABLE)											
DELAWARE CITY REFINERY	0	0	0	0	125,560	125,560	0	0	0	0	0
ASBESTOS (FRIABLE) Total	0	0	0	0	125,560	125,560	0	0	0	0	0
BARIUM COMPOUNDS											
DUPONT EDGE MOOR	0	0	0	0	8,758	8,758	0	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	1	1	0	0	0	0	0
PRINCE MINERALS	0	0	0	0	0	0	0	0	0	0	0
BARIUM COMPOUNDS Total	0	0	0	0	8,759	8,759	0	0	0	0	0
BENZENE											
DELAWARE CITY REFINERY	0	0	0	8	0	8	0	227,059	204,970	432,029	432,029
BENZENE Total	0	0	0	8	0	8	0	227,059	204,970	432,029	432,029
BENZO(G,H,I)PERYLENE											
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	492	492	492
BENZO(G,H,I)PERYLENE Total	0	0	0	0	0	0	0	0	492	492	492
BIPHENYL											
BASF NEWPORT	9,802	0	40,443	54,792	0	105,037	0	0	2,321	2,321	2,321
BIPHENYL Total	9,802	0	40,443	54,792	0	105,037	0	0	2,321	2,321	2,321
BORON TRIFLUORIDE											
HONEYWELL	0	0	0	4	0	4	0	0	0	0	0
BORON TRIFLUORIDE Total	0	0	0	4	0	4	0	0	0	0	0
BUTYL ACRYLATE											
BASF SEAFORD	0	0	0	61	0	61	0	0	58	58	58
BUTYL ACRYLATE Total	0	0	0	61	0	61	0	0	58	58	58
CARBON DISULFIDE											
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	115,731	2,764,502	2,880,233	2,880,233
CARBON DISULFIDE Total	0	0	0	0	0	0	0	115,731	2,764,502	2,880,233	2,880,233
CARBONYL SULFIDE											
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	69,429	13,597,669	13,667,098	13,667,098
DUPONT EDGE MOOR	0	0	0	0	0	0	0	0	0	0	0
CARBONYL SULFIDE Total	0	0	0	0	0	0	0	69,429	13,597,669	13,667,098	13,667,098

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMEN		DISPOSAL	TOTAL	RECYCLE	ENERGY		TOTAL
			RECOVERY	T				RECOVERY	TREATMENT	
CERTAIN GLYCOL ETHERS										
BASF SEAFORD	0	0	0	0	271	271	0	0	0	0
CRODA	3,141	0	0	0	0	3,141	0	0	0	0
HIRSH INDUSTRIES	0	0	0	0	0	0	0	0	0	0
PPG INDUSTRIES	5,010	0	0	124	5	5,139	0	0	0	0
CERTAIN GLYCOL ETHERS Total	8,151	0	0	124	276	8,551	0	0	0	0
CHLORINE										
DUPONT EDGE MOOR	0	0	0	0	0	0	0	0	969,939	969,939
KUEHNE	0	0	0	0	0	0	0	0	0	0
SPI PHARMA	0	0	0	0	0	0	0	0	0	0
CHLORINE Total	0	0	0	0	0	0	0	0	969,939	969,939
CHROMIUM										
DUHADAWAY TOOL AND DIE SHOP	0	9,966	0	0	337	10,303	0	0	0	0
HANDY TUBE	0	45,044	0	0	89	45,133	0	0	0	0
METAL MASTERS	0	170,202	0	0	691	170,893	0	0	0	0
CHROMIUM Total	0	225,212	0	0	1,117	226,329	0	0	0	0
CHROMIUM COMPOUNDS										
BALTIMORE AIRCOIL	0	211,618	0	0	0	211,618	0	0	0	0
DUPONT EDGE MOOR	0	0	0	0	179,148	179,148	0	0	0	0
EVRAZ CLAYMONT STEEL	0	18,860	0	0	1,310	20,170	0	0	0	0
ORIENT CORP	0	0	0	0	0	0	0	0	0	0
CHROMIUM COMPOUNDS Total	0	230,478	0	0	180,458	410,936	0	0	0	0
COBALT COMPOUNDS										
DUPONT EDGE MOOR	0	0	0	0	3,099	3,099	0	0	0	0
COBALT COMPOUNDS Total	0	0	0	0	3,099	3,099	0	0	0	0
COPPER										
ARLON	0	2,000	0	0	200	2,200	0	0	0	0
COPPER Total	0	2,000	0	0	200	2,200	0	0	0	0
COPPER COMPOUNDS										
AMICK FARMS	0	0	0	0	0	0	0	0	0	0
EVRAZ CLAYMONT STEEL	0	22,298	0	0	1,740	24,038	0	0	0	0
MOUNTAIRE FARMS - FRANKFORD	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE	0	0	0	0	0	0	0	0	0	0
PERDUE BRIDGEVILLE	0	0	0	0	0	0	0	0	0	0
COPPER COMPOUNDS Total	0	22,298	0	0	1,740	24,038	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMENT		DISPOSAL	TOTAL	RECYCLE	ENERGY TREATMENT		TOTAL
			RECOVERY	T				RECOVERY	T	
CREOSOTE										
DELAWARE CITY REFINERY	0	0	0	0	17,061	17,061	0	0	0	0
CREOSOTE Total	0	0	0	0	17,061	17,061	0	0	0	0
CRESOL (MIXED ISOMERS)										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	18,465	313,276	331,741
CRESOL (MIXED ISOMERS) Total	0	0	0	0	0	0	0	18,465	313,276	331,741
CUMENE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	3,318	3,318
DOVER AFB	0	0	0	0	0	0	0	0	0	0
CUMENE Total	0	0	0	0	0	0	0	0	3,318	3,318
CYANIDE COMPOUNDS										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	15,645	15,645
CYANIDE COMPOUNDS Total	0	0	0	0	0	0	0	0	15,645	15,645
CYCLOHEXANE										
AIR LIQUIDE - MEDAL	0	0	17,234	0	0	17,234	0	0	0	0
BASF NEWPORT	0	23,836	0	0	0	23,836	0	0	3,459	3,459
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	7,379	7,379
CYCLOHEXANE Total	0	23,836	17,234	0	0	41,070	0	0	10,838	10,838
DICHLOROMETHANE										
NORAMCO	581	0	57,502	0	0	58,083	0	0	58,083	58,083
DICHLOROMETHANE Total	581	0	57,502	0	0	58,083	0	0	58,083	58,083
DIETHANOLAMINE										
CRODA	41	0	0	0	0	41	0	0	0	0
DIETHANOLAMINE Total	41	0	0	0	0	41	0	0	0	0
DIISOCYANATES										
AEARO TECHNOLOGIES	0	0	0	9,367	0	9,367	0	0	0	0
MACDERMID	0	0	0	0	0	0	0	0	0	0
ROHM & HAAS B2, B3, B8	0	0	0	6,910	0	6,910	0	0	0	0
ROHM & HAAS B5, B6	0	0	0	22,592	20	22,612	0	0	0	0
DIISOCYANATES Total	0	0	0	38,869	20	38,889	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMENT		DISPOSAL	TOTAL	RECYCLE	ENERGY TREATMENT		TOTAL
			RECOVERY	T				RECOVERY	T	
DIOXIN AND DIOXIN-LIKE COMPOUNDS										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	0	0
DUPONT EDGE MOOR	0	0	0	0	1	1	0	0	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS	0	0	0	0	0	0	0	0	0	0
EVRAZ CLAYMONT STEEL	0	0	0	0	0	0	0	0	0	0
FORMOSA PLASTICS	0	0	0	0	0	0	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	0	0
DIOXIN AND DIOXIN-LIKE COMPOUNDS Total	0	0	0	0	1	1	0	0	0	0
ETHYLBENZENE										
ARLON	0	0	0	750	0	750	0	0	27,000	27,000
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	51,655	51,655
DOVER AFB	0	0	0	0	0	0	0	0	0	0
ETHYLBENZENE Total	0	0	0	750	0	750	0	0	78,655	78,655
ETHYLENE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	341,214	341,214
ETHYLENE Total	0	0	0	0	0	0	0	0	341,214	341,214
ETHYLENE GLYCOL										
NORAMCO	0	0	0	11,316	0	11,316	0	0	0	0
PPG INDUSTRIES	1,232	0	0	700	0	1,932	0	0	0	0
ETHYLENE GLYCOL Total	1,232	0	0	12,016	0	13,248	0	0	0	0
ETHYLENE OXIDE										
CRODA	0	0	0	0	0	0	0	0	0	0
ETHYLENE OXIDE Total	0	0	0	0	0	0	0	0	0	0
FORMIC ACID										
NORAMCO	0	0	0	0	0	0	0	0	0	0
FORMIC ACID Total	0	0	0	0	0	0	0	0	0	0
HEXACHLOROBENZENE										
DUPONT EDGE MOOR	0	0	0	0	197	197	0	0	0	0
HEXACHLOROBENZENE Total	0	0	0	0	197	197	0	0	0	0
HYDRAZINE										
DUPONT RED LION PLANT	0	0	0	0	0	0	0	0	0	0
HYDRAZINE Total	0	0	0	0	0	0	0	0	0	0
HYDRAZINE SULFATE										
DUPONT RED LION PLANT	0	0	0	0	0	0	0	0	0	0
HYDRAZINE SULFATE Total	0	0	0	0	0	0	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMEN		DISPOSAL	TOTAL	ENERGY			TOTAL
			RECOVERY	T			RECYCLE	RECOVERY	TREATMENT	
HYDROCHLORIC ACID										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	123,871	123,871
DUPONT EDGE MOOR	0	0	0	0	0	0	0	0	11,027,384	11,027,384
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	1,246,982	1,246,982
HYDROCHLORIC ACID Total	0	0	0	0	0	0	0	0	12,398,237	12,398,237
HYDROGEN CYANIDE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	281,878	281,878
HYDROGEN CYANIDE Total	0	0	0	0	0	0	0	0	281,878	281,878
HYDROGEN FLUORIDE										
HONEYWELL	0	0	0	0	0	0	0	0	84	84
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	93,825	93,825
HYDROGEN FLUORIDE Total	0	0	0	0	0	0	0	0	93,909	93,909
HYDROGEN SULFIDE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	84,518	336,215,341	336,299,859
DUPONT RED LION PLANT	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE	0	0	0	0	0	0	0	0	58,265	58,265
PERDUE GEORGETOWN	0	0	0	0	0	0	0	0	143,000	143,000
HYDROGEN SULFIDE Total	0	0	0	0	0	0	0	84,518	336,416,606	336,501,124
LEAD										
HERITAGE CONCRETE BEAR	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE CHESWOLD	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE FRANKFORD	0	0	0	0	0	0	0	0	0	0
HERITAGE CONCRETE WILMINGTON	0	0	0	0	0	0	0	0	0	0
MOTECH AMERICAS	0	210	0	0	2	212	0	0	0	0
V&S DELAWARE GALVANIZING	0	4,495	0	0	165	4,660	1,669	0	0	1,669
LEAD Total	0	4,705	0	0	166	4,872	1,669	0	0	1,669
LEAD COMPOUNDS										
DELAWARE CITY REFINERY	0	44	0	0	15	59	0	0	0	0
DUPONT EDGE MOOR	0	53	0	0	8,541	8,594	0	0	0	0
EVRAZ CLAYMONT STEEL	0	112,546	0	0	57	112,603	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	0	0
JOHNSON CONTROLS BATTERY PLANT	2	3,113,057	0	0	14,512	3,127,571	0	0	0	0
JOHNSON CONTROLS DIST. CENTER	0	1,293,566	0	0	0	1,293,566	0	0	0	0
PRINCE MINERALS	0	0	0	0	0	0	0	0	0	0
VP RACING FUELS	0	0	0	0	1	1	0	0	0	0
LEAD COMPOUNDS Total	3	4,519,266	0	0	23,125	4,542,394	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMEN		DISPOSAL	TOTAL	RECYCLE	ENERGY		TOTAL
			RECOVERY	T				RECOVERY	TREATMENT	
MANGANESE										
COLOR WORKS	0	1,094	0	0	0	1,094	0	0	0	0
HANDY TUBE	0	4,759	0	0	8	4,767	0	0	0	0
MANGANESE Total	0	5,853	0	0	8	5,861	0	0	0	0
MANGANESE COMPOUNDS										
ALLEN HARIM FARMS - SEAFORD	0	0	0	0	0	0	0	0	0	0
AMICK FARMS	0	0	0	0	0	0	0	0	0	0
BALTIMORE AIRCOIL	0	125,000	0	0	0	125,000	0	0	0	0
DUPONT EDGE MOOR	0	0	0	0	759,187	759,187	0	0	0	0
EVRAZ CLAYMONT STEEL	0	185,960	0	0	6,815	192,775	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS - FRANKFORD	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE	0	0	0	0	0	0	0	0	0	0
PERDUE BRIDGEVILLE	0	0	0	0	0	0	0	0	0	0
PRINCE MINERALS	0	0	0	0	0	0	0	0	0	0
MANGANESE COMPOUNDS Total	0	310,960	0	0	766,002	1,076,962	0	0	0	0
MERCURY										
DENTSPLY LAKE VIEW	0	1,086	0	0	0	1,086	0	0	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS	0	0	0	0	0	0	0	0	0	0
MERCURY Total	0	1,086	0	0	0	1,086	0	0	0	0
MERCURY COMPOUNDS										
DELAWARE CITY REFINERY	0	2	0	0	0	2	0	0	0	0
DUPONT EDGE MOOR	0	0	0	0	1	1	0	0	0	0
EVRAZ CLAYMONT STEEL	0	0	0	0	2	2	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	0	0
INTERVET	0	3	0	0	2	5	0	0	0	0
MERCURY COMPOUNDS Total	0	5	0	0	5	10	0	0	0	0
METHANOL										
AGILENT TECHNOLOGIES	0	0	37,215	58	0	37,273	0	0	0	0
AIR LIQUIDE - MEDAL	0	0	0	86,496	0	86,496	3,016,630	0	0	3,016,630
BASF NEWPORT	408,944	166,853	9,111	1,347	0	586,255	365,250	0	825,301	1,190,551
CRODA	6,019	0	10,000	0	0	16,019	0	0	0	0
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	38,261	38,261
DENTSPLY WEST PLANT	94	0	7,838	0	0	7,932	0	0	0	0
HONEYWELL	0	0	1,080	0	0	1,080	0	0	0	0
NORAMCO	6,058	0	115,103	0	0	121,161	0	0	121,161	121,161
VP RACING FUELS	0	0	0	0	0	0	0	0	0	0
METHANOL Total	421,115	166,853	180,347	87,901	0	856,216	3,381,880	0	984,723	4,366,603

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMENT		DISPOSAL	TOTAL	RECYCLE	ENERGY TREATMENT		TOTAL
			RECOVERY	T				RECOVERY	T	
METHYL METHACRYLATE										
BASF SEAFORD	0	0	0	61	0	61	0	0	381	381
DENTSPLY WEST PLANT	68	0	0	0	0	68	0	0	0	0
METHYL METHACRYLATE Total	68	0	0	61	0	129	0	0	381	381
MOLYBDENUM TRIOXIDE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	0	0
MOLYBDENUM TRIOXIDE Total	0	0	0	0	0	0	0	0	0	0
N,N-DIMETHYLFORMAMIDE										
AIR LIQUIDE - MEDAL	23,501	0	1,729	0	0	25,230	0	0	0	0
ROHM & HAAS B2, B3, B8	167,956	1,335,801	0	0	192,189	1,695,946	4,036,191	0	524	4,036,715
N,N-DIMETHYLFORMAMIDE Total	191,457	1,335,801	1,729	0	192,189	1,721,176	4,036,191	0	524	4,036,715
NAPHTHALENE										
CARL KING	0	0	0	0	0	0	0	0	0	0
CRODA	0	0	0	420	0	420	0	0	0	0
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	10,493	10,493
DOVER AFB	0	0	0	0	0	0	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	0	0
NAPHTHALENE Total	0	0	0	420	0	420	0	0	10,493	10,493
N-BUTYL ALCOHOL										
NORAMCO	41,711	0	792,501	0	0	834,212	0	0	834,212	834,212
N-BUTYL ALCOHOL Total	41,711	0	792,501	0	0	834,212	0	0	834,212	834,212
N-HEXANE										
AIR LIQUIDE - MEDAL	0	0	0	0	0	0	2,506,103	0	0	2,506,103
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	62,251	62,251
N-HEXANE Total	0	0	0	0	0	0	2,506,103	0	62,251	2,568,354
NICKEL										
DELAWARE CITY REFINERY	0	36,711	0	0	51	36,762	0	0	0	0
DUHADAWAY TOOL AND DIE SHOP	0	7,123	0	0	226	7,349	0	0	0	0
HANDY TUBE	0	44,589	0	0	138	44,727	0	0	0	0
METAL MASTERS	0	55,592	0	0	210	55,802	0	0	0	0
NICKEL Total	0	144,015	0	0	625	144,640	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMENT		DISPOSAL	TOTAL	RECYCLE	ENERGY TREATMENT		TOTAL
			RECOVERY	T				RECOVERY	T	
NICKEL COMPOUNDS										
BALTIMORE AIRCOIL	0	241,000	0	0	0	241,000	0	0	0	0
DUPONT EDGE MOOR	0	0	0	0	9,156	9,156	0	0	0	0
EVRAZ CLAYMONT STEEL	0	2,679	0	0	769	3,448	0	0	0	0
PRINCE MINERALS	0	0	0	0	0	0	0	0	0	0
NICKEL COMPOUNDS Total	0	243,679	0	0	9,925	253,604	0	0	0	0
NITRATE COMPOUNDS										
ALLEN HARIM FOODS - HARBESON	0	0	0	0	0	0	0	0	0	0
BASF NEWPORT	28,822	0	0	0	0	28,822	0	0	0	0
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	0	0
FUJIFILM	0	0	0	0	0	0	0	0	0	0
HANESBRANDS	44,740	0	0	0	0	44,740	0	0	0	0
PERDUE GEORGETOWN	0	0	0	0	0	0	0	0	0	0
NITRATE COMPOUNDS Total	73,562	0	0	0	0	73,562	0	0	0	0
NITRIC ACID										
BASF NEWPORT	0	0	0	0	0	0	0	0	29,286	29,286
SPI PHARMA	0	0	0	0	0	0	0	0	0	0
NITRIC ACID Total	0	0	0	0	0	0	0	0	29,286	29,286
NITROBENZENE										
ORIENT CORP	0	0	0	0	1	1	0	0	0	0
NITROBENZENE Total	0	0	0	0	1	1	0	0	0	0
N-METHYL-2-PYRROLIDONE										
AIR LIQUIDE - MEDAL	138,369	0	12,720	0	0	151,089	0	0	0	0
BASF NEWPORT	9,764	40,018	0	0	0	49,782	0	0	0	0
ROHM & HAAS B5, B6	0	78,319	0	3,086	0	81,405	0	0	0	0
ROHM & HAAS B7, B15	0	11,319	0	428	0	11,747	0	0	0	0
N-METHYL-2-PYRROLIDONE Total	148,133	129,656	12,720	3,514	0	294,023	0	0	0	0
OCTACHLOROSTYRENE										
DUPONT EDGE MOOR	0	0	0	0	4	4	0	0	0	0
OCTACHLOROSTYRENE Total	0	0	0	0	4	4	0	0	0	0
P-CHLOROANILINE										
BASF NEWPORT	2,507	0	1,216	1,437	0	5,160	0	0	390	390
P-CHLOROANILINE Total	2,507	0	1,216	1,437	0	5,160	0	0	390	390

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMENT		DISPOSAL	TOTAL	RECYCLE	ENERGY TREATMENT		TOTAL
			RECOVERY	T				RECOVERY	T	
PENTACHLOROBENZENE										
DUPONT EDGE MOOR	0	0	0	0	8	8	0	0	0	0
PENTACHLOROBENZENE Total	0	0	0	0	8	8	0	0	0	0
PERACETIC ACID										
NORAMCO	0	0	0	9,960	0	9,960	0	0	0	0
PERDUE MILFORD	0	0	0	0	0	0	0	0	35,000	35,000
PERACETIC ACID Total	0	0	0	9,960	0	9,960	0	0	35,000	35,000
PHENANTHRENE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	43	43
PHENANTHRENE Total	0	0	0	0	0	0	0	0	43	43
PHENOL										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	41,004	261,601	302,605
PHENOL Total	0	0	0	0	0	0	0	41,004	261,601	302,605
PHOSGENE										
DUPONT EDGE MOOR	0	0	0	0	0	0	0	0	165,815	165,815
PHOSGENE Total	0	0	0	0	0	0	0	0	165,815	165,815
POLYCHLORINATED BIPHENYLS										
DUPONT EDGE MOOR	0	0	0	0	4	4	0	0	0	0
POLYCHLORINATED BIPHENYLS Total	0	0	0	0	4	4	0	0	0	0
POLYCYCLIC AROMATIC COMPOUNDS										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	405	405
DUPONT EDGE MOOR	0	0	0	0	0	0	0	0	0	0
EDGE MOOR/HAY ROAD ENERGY CENTERS	0	0	0	0	0	0	0	0	0	0
HONEYWELL	0	0	0	0	0	0	0	0	0	0
IKO	0	82	0	0	1	83	551	0	0	551
PERDUE GEORGETOWN	0	0	0	0	0	0	0	0	0	0
POLYCYCLIC AROMATIC COMPOUNDS Total	0	82	0	0	1	83	551	0	405	956
PROPYLENE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	511,882	511,882
PROPYLENE Total	0	0	0	0	0	0	0	0	511,882	511,882
PROPYLENE OXIDE										
CRODA	0	0	0	0	0	0	0	0	0	0
PROPYLENE OXIDE Total	0	0	0	0	0	0	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMEN		DISPOSAL	TOTAL	ENERGY			TOTAL
			RECOVERY	T			RECYCLE	RECOVERY	TREATMENT	
STYRENE										
BASF SEAFORD	0	0	0	78	0	78	0	0	523	523
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	1,366	1,366
JUSTIN TANKS	0	0	0	331	0	331	19,880	0	0	19,880
STYRENE Total	0	0	0	409	0	409	19,880	0	1,889	21,769
SULFURIC ACID										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	0	0
DUPONT RED LION PLANT	0	0	0	0	0	0	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	1,763,045	1,763,045
SULFURIC ACID Total	0	0	0	0	0	0	0	0	1,763,045	1,763,045
TETRACHLOROETHYLENE										
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	0	0
TETRACHLOROETHYLENE Total	0	0	0	0	0	0	0	0	0	0
TITANIUM TETRACHLORIDE										
DUPONT EDGE MOOR	0	0	0	0	0	0	0	0	1,104,310	1,104,310
TITANIUM TETRACHLORIDE Total	0	0	0	0	0	0	0	0	1,104,310	1,104,310
TOLUENE										
AGILENT TECHNOLOGIES	0	0	188,479	86	0	188,565	0	0	0	0
DELAWARE CITY REFINERY	0	0	0	0	0	0	0	0	199,695	199,695
DENTSPLY WEST PLANT	0	0	15,244	0	0	15,244	0	0	0	0
DUPONT EDGE MOOR	0	0	0	0	0	0	0	0	0	0
NORAMCO	5,484	0	542,902	0	0	548,386	0	0	548,385	548,385
SERVICE ENERGY DOVER	0	0	0	0	0	0	0	0	0	0
VP RACING FUELS	0	0	0	0	0	0	0	0	0	0
TOLUENE Total	5,484	0	746,625	86	0	752,195	0	0	748,080	748,080
TOLUENE DIISOCYANATE (MIXED ISOMERS)										
AEARO TECHNOLOGIES	0	0	0	14,050	0	14,050	0	0	0	0
MACDERMID	0	0	0	0	0	0	0	0	0	0
ROHM & HAAS B5, B6	0	0	0	819	6	825	0	0	4,599	4,599
TOLUENE DIISOCYANATE (MIXED ISOMERS) Total	0	0	0	14,869	6	14,875	0	0	4,599	4,599
TRICHLOROETHYLENE										
HANDY TUBE	0	0	0	12,755	11	12,766	0	0	0	0
TRICHLOROETHYLENE Total	0	0	0	12,755	11	12,766	0	0	0	0

APPENDIX G

APPENDIX G

2013 OFF-SITE TRANSFERS AND WASTE MANAGED ON-SITE BY CHEMICAL

CHEMICAL/FACILITY	OFF SITE TRANSFERS						ON SITE WASTE MANAGEMENT			
	POTW	RECYCLE	ENERGY TREATMENT		DISPOSAL	TOTAL	RECYCLE	ENERGY		TOTAL
			RECOVERY	T				RECOVERY	TREATMENT	
VANADIUM COMPOUNDS										
DUPONT EDGE MOOR	0	0	0	0	135,665	135,665	0	0	0	0
INDIAN RIVER GENERATING STATION	0	0	0	0	0	0	0	0	0	0
VANADIUM COMPOUNDS Total	0	0	0	0	135,665	135,665	0	0	0	0
VINYL ACETATE										
FORMOSA PLASTICS	0	0	0	0	0	0	0	0	0	0
VINYL ACETATE Total	0	0	0	0	0	0	0	0	0	0
VINYL CHLORIDE										
FORMOSA PLASTICS	0	120	0	0	27	147	0	0	263,480	263,480
VINYL CHLORIDE Total	0	120	0	0	27	147	0	0	263,480	263,480
XYLENE (MIXED ISOMERS)										
ARLON	0	0	0	3,000	0	3,000	0	0	108,000	108,000
BASF NEWPORT	252	0	409	0	0	661	0	0	5,093	5,093
CARL KING	0	0	0	0	0	0	0	0	0	0
DELAWARE CITY REFINERY	0	2	0	0	0	2	0	0	210,448	210,448
DOVER AFB	0	0	0	0	0	0	0	0	0	0
VP RACING FUELS	0	0	0	0	0	0	0	0	0	0
XYLENE (MIXED ISOMERS) Total	252	2	409	3,000	0	3,663	0	0	323,541	323,541
ZINC COMPOUNDS										
ALLEN HARIM FARMS - SEAFORD	0	0	0	0	0	0	0	0	0	0
AMICK FARMS	0	0	0	0	0	0	0	0	0	0
DUPONT EDGE MOOR	0	48	0	0	14,326	14,374	0	0	0	0
EVRAZ CLAYMONT STEEL	0	1,489,444	0	0	129	1,489,573	0	0	0	0
MOUNTAIRE FARMS - FRANKFORD	0	0	0	0	0	0	0	0	0	0
MOUNTAIRE FARMS OF DELAWARE	0	0	0	0	0	0	0	0	0	0
ORIENT CORP	0	0	0	0	0	0	0	0	0	0
PERDUE BRIDGEVILLE	0	0	0	0	0	0	0	0	0	0
PPG INDUSTRIES	4,313	0	0	0	411	4,724	0	0	0	0
V&S DELAWARE GALVANIZING	0	142,024	0	0	23,020	165,044	195,847	0	0	195,847
ZINC COMPOUNDS Total	4,313	1,631,516	0	0	37,886	1,673,715	195,847	0	0	195,847
STATE TOTALS	935,842	9,009,366	1,874,068	251,834	1,506,791	13,577,900	11,642,121	15,659,902	375,430,183	402,732,206

APPENDIX G

APPENDIX H

2013 ON-SITE RELEASE SUMMARY BY CHEMICAL

CHEMICAL - RANKED BY TOTAL ON-SITE RELEASE	ON-SITE RELEASES			TOTAL	TRANSFERS OFF-SITE	ON-SITE WASTE MGMT.
	TO AIR	TO WATER	TO LAND			
NITRATE COMPOUNDS	0	2,850,359	0	2,850,359	73,562	0
SULFURIC ACID	277,754	0	0	277,754	0	1,763,045
CARBONYL SULFIDE	231,708	0	0	231,708	0	13,667,098
HYDROCHLORIC ACID	118,612	0	0	118,612	0	12,398,237
BARIUM COMPOUNDS	387	7,001	100,040	107,429	8,759	0
AMMONIA	58,659	6,071	0	64,730	318	15,429,382
VINYL CHLORIDE	47,277	0	0	47,277	147	263,480
MANGANESE COMPOUNDS	603	14,364	26,614	41,581	1,076,962	0
HYDROGEN SULFIDE	41,468	0	0	41,468	0	336,501,124
VINYL ACETATE	40,740	0	0	40,740	0	0
METHANOL	33,636	5	0	33,641	856,216	4,366,603
N-HEXANE	32,010	5	0	32,015	0	2,568,354
TOLUENE	14,666	5	0	14,671	752,195	748,080
VANADIUM COMPOUNDS	84	110	14,253	14,447	135,665	0
HYDROGEN FLUORIDE	10,703	0	0	10,703	0	93,909
STYRENE	9,911	5	331	10,247	409	21,769
XYLENE (MIXED ISOMERS)	9,563	5	0	9,568	3,663	323,541
BENZENE	9,102	11	0	9,113	8	432,029
PROPYLENE	8,602	0	0	8,602	0	511,882
LEAD COMPOUNDS	565	156	6,270	6,990	4,542,394	0
TRICHLOROETHYLENE	6,046	0	0	6,046	12,766	0
CERTAIN GLYCOL ETHERS	5,730	0	0	5,730	8,551	0
N-METHYL-2-PYRROLIDONE	4,253	0	0	4,253	294,023	0
N,N-DIMETHYLFORMAMIDE	4,182	0	0	4,182	1,721,176	4,036,715
CUMENE	3,249	5	0	3,254	0	3,318
CREOSOTE	467	0	2,646	3,113	17,061	0
NICKEL	1,343	1,709	0	3,052	144,640	0
CYCLOHEXANE	2,846	5	0	2,851	41,070	10,838
ETHYLBENZENE	2,731	5	0	2,736	750	78,655
CHLORINE	2,644	0	0	2,644	0	969,939
ETHYLENE OXIDE	2,432	0	0	2,432	0	0
ZINC COMPOUNDS	1,849	330	219	2,399	1,673,715	195,847
NAPHTHALENE	2,211	147	0	2,358	420	10,493
ETHYLENE	1,920	0	0	1,920	0	341,214
DICHLOROMETHANE	1,874	0	0	1,874	58,083	58,083
METHYL METHACRYLATE	1,804	0	0	1,804	129	381
HYDROGEN CYANIDE	1,280	220	0	1,500	0	281,878
POLYCYCLIC AROMATIC COMPOUNDS	738	4	616	1,358	83	956
1,2,4-TRIMETHYLBENZENE	1,260	5	0	1,265	0	63,921
CARBON DISULFIDE	1,169	0	0	1,169	0	2,880,233
PROPYLENE OXIDE	578	0	0	578	0	0
NICKEL COMPOUNDS	26	266	264	556	253,604	0
COPPER COMPOUNDS	93	53	369	515	24,038	0
BORON TRIFLUORIDE	416	0	0	416	4	0
1,3-BUTADIENE	396	0	0	396	0	0
CRESOL (MIXED ISOMERS)	0	359	0	359	0	331,741
PHENOL	129	179	0	308	0	302,605
PHOSGENE	301	0	0	301	0	165,815
MERCURY COMPOUNDS	173	2	113	288	10	0

APPENDIX H

2013 ON-SITE RELEASE SUMMARY BY CHEMICAL

CHEMICAL - RANKED BY TOTAL ON-SITE RELEASE	ON-SITE RELEASES				TOTAL	TRANSFERS OFF-SITE	ON-SITE WASTE MGMT.
	TO AIR	TO WATER	TO LAND				
CHROMIUM COMPOUNDS	76	21	147	245	410,936	0	
2,4-DIMETHYLPHENOL	0	179	0	179	0	251,805	
CYANIDE COMPOUNDS	0	158	0	158	0	15,645	
BUTYL ACRYLATE	146	0	0	146	61	58	
ARSENIC COMPOUNDS	0	131	0	131	1,025	0	
N-BUTYL ALCOHOL	111	0	0	111	834,212	834,212	
ANILINE	104	0	0	104	45,805	1,631,211	
BIPHENYL	97	0	0	97	105,037	2,321	
LEAD	6	7	75	87	4,872	1,669	
TITANIUM TETRACHLORIDE	39	0	0	39	0	1,104,310	
ACETONITRILE	36	0	0	36	15,558	0	
ETHYLENE GLYCOL	20	0	0	20	13,248	0	
MERCURY	17	0	0	17.11	1,086	0	
FORMIC ACID	17	0	0	17	0	0	
ANTHRACENE	10	5	0	15	0	0	
MOLYBDENUM TRIOXIDE	14	0	0	14	0	0	
PERACETIC ACID	10	0	0	10	9,960	35,000	
P-CHLOROANILINE	10	0	0	10	5,160	390	
TOLUENE DIISOCYANATE (MIXED ISOMERS)	7	0	0	7	14,875	4,599	
PHENANTHRENE	1	5	0	6	0	43	
TETRACHLOROETHYLENE	6	0	0	6	0	0	
DIETHANOLAMINE	6	0	0	6	41	0	
COPPER	5	0	0	5	2,200	0	
BENZO(G,H,I)PERYLENE	0	5	0	5	0	492	
DIISOCYANATES	4	0	0	4	38,889	0	
COBALT COMPOUNDS	0	4	0	4	3,099	0	
NITROBENZENE	3	0	0	3	1	0	
HEXACHLOROBENZENE	0.08	0.55	0.00	0.63	197	0	
CHROMIUM	0.50	0.00	0.00	0.50	226,329	0	
OCTACHLOROSTYRENE	0.00	0.35	0.00	0.35	4.3	0	
PENTACHLOROBENZENE	0.09	0.09	0.00	0.18	8.0	0	
4,4'-METHYLENEBIS(2-CHLOROANILINE)	0.04	0.00	0.00	0.04	1,507	0	
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0.02	0.01	0.00	0.03	1.2	0	
HYDRAZINE	0	0	0	0	0	0	
ASBESTOS (FRIABLE)	0	0	0	0	125,560	0	
MANGANESE	0	0	0	0	5,861	0	
POLYCHLORINATED BIPHENYLS	0	0	0	0	4.3	0	
HYDRAZINE SULFATE	0	0	0	0	0	0	
NITRIC ACID	0	0	0	0	0	29,286	
ANTIMONY COMPOUNDS	0	0	0	0	11,943	0	
STATE TOTALS	998,934	2,881,902	151,956	4,032,792	13,577,900	402,732,206	

APPENDIX I

2013 PBT RELEASE AND TRANSFER DETAIL

PBT CHEMICAL / FACILITY	ON-SITE RELEASES				TRANSFERS	ON-SITE
	AIR	WATER	LAND	TOTAL	OFF SITE	WASTE MGMT.
BENZO(G,H,I)PERYLENE						
DELAWARE CITY REFINERY	0.00	5.00	0.00	5.00	0.00	492.00
BENZO(G,H,I)PERYLENE Total	0.00	5.00	0.00	5.00	0.00	492.00
DIOXIN AND DIOXIN-LIKE COMPOUNDS						
DELAWARE CITY REFINERY	0.000000	0.000000	0.000000	0.00	0.00	0.00
DUPONT EDGE MOOR	0.000082	0.011796	0.000000	0.01	1.16	0.00
EDGE MOOR/HAY ROAD ENERGY CENTERS	0.006811	0.000000	0.000000	0.01	0.00	0.00
EVRAZ CLAYMONT STEEL	0.010087	0.000000	0.000000	0.01	0.00	0.00
FORMOSA PLASTICS	0.000011	0.000000	0.000000	0.00	0.00	0.00
INDIAN RIVER GENERATING STATION	0.000312	0.000000	0.000000	0.00	0.00	0.00
DIOXIN AND DIOXIN-LIKE COMPOUNDS Total	0.017302	0.011796	0.000000	0.029098	1.158411	0.001168
HEXACHLOROBENZENE						
DUPONT EDGE MOOR	0.08	0.55	0.00	0.63	196.78	0.00
HEXACHLOROBENZENE Total	0.08	0.55	0.00	0.63	196.78	0.00
LEAD						
HERITAGE CONCRETE BEAR	0.00	0.00	17.61	17.61	0.00	0.00
HERITAGE CONCRETE CHESWOLD	0.00	0.00	13.75	13.75	0.00	0.00
HERITAGE CONCRETE FRANKFORD	0.00	0.00	5.27	5.27	0.00	0.00
HERITAGE CONCRETE WILMINGTON	0.01	0.00	38.18	38.19	0.00	0.00
MOTECH AMERICAS	0.00	0.00	0.00	0.00	211.90	0.00
V&S DELAWARE GALVANIZING	5.60	6.80	0.00	12.40	4,659.70	1,669.00
LEAD Total	5.61	6.80	74.81	87.22	4,871.60	1,669.00
LEAD COMPOUNDS						
DELAWARE CITY REFINERY	98.50	3.00	0.00	101.50	58.60	0.00
DUPONT EDGE MOOR	0.00	84.40	0.00	84.40	8,593.84	0.00
EVRAZ CLAYMONT STEEL	250.00	53.99	53.00	356.99	112,603.00	0.00
INDIAN RIVER GENERATING STATION	74.32	0.01	6,216.70	6,291.03	0.01	0.00
JOHNSON CONTROLS BATTERY PLANT	141.20	14.30	0.00	155.50	3,127,571.30	0.00
JOHNSON CONTROLS DIST. CENTER	0.00	0.00	0.00	0.00	1,293,566.35	0.00
PRINCE MINERALS	0.02	0.00	0.00	0.02	0.00	0.00
VP RACING FUELS	1.00	0.00	0.00	1.00	1.00	0.00
LEAD COMPOUNDS Total	565.04	155.70	6,269.70	6,990.44	4,542,394.10	0.00
MERCURY						
DENTSPLY LAKE VIEW	0.31	0.00	0.00	0.31	1,086.00	0.00
EDGE MOOR/HAY ROAD ENERGY CENTERS	16.80	0.00	0.00	16.80	0.10	0.00
MERCURY Total	17.11	0.00	0.00	17.11	1,086.10	0.00

APPENDIX I

2013 PBT RELEASE AND TRANSFER DETAIL

PBT CHEMICAL / FACILITY	ON-SITE RELEASES				TRANSFERS	ON-SITE
	AIR	WATER	LAND	TOTAL	OFF SITE	WASTE MGMT.
MERCURY COMPOUNDS						
DELAWARE CITY REFINERY	74.60	2.00	0.00	76.60	2.40	0.00
DUPONT EDGE MOOR	1.04	0.01	0.00	1.05	0.84	0.00
EVRAZ CLAYMONT STEEL	93.25	0.00	0.00	93.25	2.20	0.00
INDIAN RIVER GENERATING STATION	3.79	0.00	113.20	116.99	0.01	0.00
INTERVET	0.00	0.00	0.00	0.00	4.59	0.00
MERCURY COMPOUNDS Total	172.68	2.01	113.20	287.89	10.04	0.00
OCTACHLOROSTYRENE						
DUPONT EDGE MOOR	0.00	0.35	0.00	0.35	4.25	0.00
OCTACHLOROSTYRENE Total	0.00	0.35	0.00	0.35	4.25	0.00
PENTACHLOROBENZENE						
DUPONT EDGE MOOR	0.09	0.09	0.00	0.18	8.04	0.00
PENTACHLOROBENZENE Total	0.09	0.09	0.00	0.18	8.04	0.00
POLYCHLORINATED BIPHENYLS						
DUPONT EDGE MOOR	0.00	0.00	0.00	0.00	4.31	0.00
POLYCHLORINATED BIPHENYLS Total	0.00	0.00	0.00	0.00	4.31	0.00
POLYCYCLIC AROMATIC COMPOUNDS						
DELAWARE CITY REFINERY	224.00	4.00	0.00	228.00	0.00	405.00
DUPONT EDGE MOOR	69.04	0.00	615.67	684.71	0.00	0.00
EDGE MOOR/HAY ROAD ENERGY CENTERS	0.20	0.05	0.00	0.25	0.00	0.00
HONEYWELL	445.00	0.00	0.00	445.00	0.00	0.00
IKO	0.00	0.00	0.00	0.00	82.60	551.00
PERDUE GEORGETOWN	0.00	0.00	0.00	0.00	0.00	0.00
POLYCYCLIC AROMATIC COMPOUNDS Total	738.24	4.05	615.67	1,357.96	82.60	956.00
STATE PBT TOTALS	1,498.87	174.56	7,073.38	8,746.81	4,548,658.98	3,117.00

APPENDIX J

2013 CARCINOGEN RELEASE AND TRANSFER DETAIL

CARCINOGEN / FACILITY	TOTAL ON-SITE RELEASES				TRANSFERS	ON-SITE
	AIR	WATER	LAND	TOTAL	OFF SITE	WASTE MGMT.
2,4-DIMETHYLPHENOL						
DELAWARE CITY REFINERY	0.00	179.00	0.00	179.00	0.00	251,805.00
2,4-DIMETHYLPHENOL Total	0.00	179.00	0.00	179.00	0.00	251,805.00
4,4'-METHYLENEBIS(2-CHLOROANILINE)						
ROHM & HAAS B5, B6	0.04	0.00	0.00	0.04	1,507.00	0.00
ROHM & HAAS B7, B15	0.00	0.00	0.00	0.00	0.00	0.00
4,4'-METHYLENEBIS(2-CHLOROANILINE) Total	0.04	0.00	0.00	0.04	1,507.00	0.00
ARSENIC COMPOUNDS						
DUPONT EDGE MOOR	0.07	131.15	0.00	131.22	1,024.86	0.00
ARSENIC COMPOUNDS Total	0.07	131.15	0.00	131.22	1,024.86	0.00
ASBESTOS (FRIABLE)						
DELAWARE CITY REFINERY	0.00	0.00	0.00	0.00	125,560.00	0.00
ASBESTOS (FRIABLE) Total	0.00	0.00	0.00	0.00	125,560.00	0.00
BENZENE						
DELAWARE CITY REFINERY	9,102.00	11.00	0.00	9,113.00	8.00	432,029.00
BENZENE Total	9,102.00	11.00	0.00	9,113.00	8.00	432,029.00
CHROMIUM COMPOUNDS						
BALTIMORE AIRCOIL	0.00	0.00	0.00	0.00	211,618.00	0.00
DUPONT EDGE MOOR	0.45	18.08	0.00	18.53	179,148.04	0.00
EVRAZ CLAYMONT STEEL	76.00	3.00	147.00	226.00	20,170.00	0.00
ORIENT CORP	0.00	0.00	0.00	0.00	0.00	0.00
CHROMIUM COMPOUNDS Total	76.45	21.08	147.00	244.53	410,936.04	0.00
COBALT COMPOUNDS						
DUPONT EDGE MOOR	0.04	3.88	0.00	3.92	3,098.59	0.00
COBALT COMPOUNDS Total	0.04	3.88	0.00	3.92	3,098.59	0.00
DICHLOROMETHANE						
NORAMCO	1,874.00	0.00	0.00	1,874.00	58,083.00	58,083.00
DICHLOROMETHANE Total	1,874.00	0.00	0.00	1,874.00	58,083.00	58,083.00
ETHYLBENZENE						
ARLON	590.00	0.00	0.00	590.00	750.00	27,000.00
DELAWARE CITY REFINERY	2,082.00	5.00	0.00	2,087.00	0.00	51,655.00
DOVER AFB	59.00	0.00	0.00	59.00	0.00	0.00
ETHYLBENZENE Total	2,731.00	5.00	0.00	2,736.00	750.00	78,655.00
ETHYLENE OXIDE						
CRODA	2,432.10	0.00	0.00	2,432.10	0.00	0.00
ETHYLENE OXIDE Total	2,432.10	0.00	0.00	2,432.10	0.00	0.00
HEXACHLOROENZENE						
DUPONT EDGE MOOR	0.08	0.55	0.00	0.63	196.78	0.00
HEXACHLOROENZENE Total	0.08	0.55	0.00	0.63	196.78	0.00
LEAD						
HERITAGE CONCRETE BEAR	0.00	0.00	17.61	17.61	0.00	0.00
HERITAGE CONCRETE CHESWOLD	0.00	0.00	13.75	13.75	0.00	0.00
HERITAGE CONCRETE FRANKFORD	0.00	0.00	5.27	5.27	0.00	0.00
HERITAGE CONCRETE WILMINGTON	0.01	0.00	38.18	38.19	0.00	0.00
MOTECH AMERICAS	0.00	0.00	0.00	0.00	211.90	0.00
V&S DELAWARE GALVANIZING	5.60	6.80	0.00	12.40	4,659.70	1,669.00
LEAD Total	5.61	6.80	74.81	87.22	4,871.60	1,669.00

APPENDIX J

2013 CARCINOGEN RELEASE AND TRANSFER DETAIL

CARCINOGEN / FACILITY	TOTAL ON-SITE RELEASES				TRANSFERS	ON-SITE
	AIR	WATER	LAND	TOTAL	OFF SITE	WASTE MGMT.
LEAD COMPOUNDS						
DELAWARE CITY REFINERY	98.50	3.00	0.00	101.50	58.60	0.00
DUPONT EDGE MOOR	0.00	84.40	0.00	84.40	8,593.84	0.00
EVRAZ CLAYMONT STEEL	250.00	53.99	53.00	356.99	112,603.00	0.00
INDIAN RIVER GENERATING STATION	74.32	0.01	6,216.70	6,291.03	0.01	0.00
JOHNSON CONTROLS BATTERY PLANT	141.20	14.30	0.00	155.50	3,127,571.30	0.00
JOHNSON CONTROLS DIST. CENTER	0.00	0.00	0.00	0.00	1,293,566.35	0.00
PRINCE MINERALS	0.02	0.00	0.00	0.02	0.00	0.00
VP RACING FUELS	1.00	0.00	0.00	1.00	1.00	0.00
LEAD COMPOUNDS Total	565.04	155.70	6,269.70	6,990.44	4,542,394.10	0.00
NAPHTHALENE						
CARL KING	0.00	0.00	0.00	0.00	0.00	0.00
CRODA	2.00	0.00	0.00	2.00	420.00	0.00
DELAWARE CITY REFINERY	2,146.00	147.00	0.00	2,293.00	0.00	10,493.00
DOVER AFB	63.00	0.00	0.00	63.00	0.00	0.00
INDIAN RIVER GENERATING STATION	0.00	0.00	0.00	0.00	0.00	0.00
NAPHTHALENE Total	2,211.00	147.00	0.00	2,358.00	420.00	10,493.00
NICKEL						
DELAWARE CITY REFINERY	1,342.00	1,709.00	0.00	3,051.00	36,762.00	0.00
DUHADAWAY TOOL AND DIE SHOP	0.00	0.00	0.00	0.00	7,349.00	0.00
HANDY TUBE	0.00	0.00	0.00	0.00	44,727.00	0.00
METAL MASTERS	0.50	0.00	0.00	0.50	55,802.00	0.00
NICKEL Total	1,342.50	1,709.00	0.00	3,051.50	144,640.00	0.00
NICKEL COMPOUNDS						
BALTIMORE AIRCOIL	5.00	0.00	0.00	5.00	241,000.00	0.00
DUPONT EDGE MOOR	0.89	245.66	0.00	246.55	9,155.96	0.00
EVRAZ CLAYMONT STEEL	20.00	20.00	264.00	304.00	3,448.00	0.00
PRINCE MINERALS	0.00	0.00	0.00	0.00	0.00	0.00
NICKEL COMPOUNDS Total	25.89	265.66	264.00	555.55	253,603.96	0.00
NITROBENZENE						
ORIENT CORP	3.00	0.00	0.00	3.00	1.00	0.00
NITROBENZENE Total	3.00	0.00	0.00	3.00	1.00	0.00
P-CHLOROANILINE						
BASF NEWPORT	10.00	0.00	0.00	10.00	5,160.00	390.00
P-CHLOROANILINE Total	10.00	0.00	0.00	10.00	5,160.00	390.00
POLYCHLORINATED BIPHENYLS						
DUPONT EDGE MOOR	0.00	0.00	0.00	0.00	4.31	0.00
POLYCHLORINATED BIPHENYLS Total	0.00	0.00	0.00	0.00	4.31	0.00
POLYCYCLIC AROMATIC COMPOUNDS						
DELAWARE CITY REFINERY	224.00	4.00	0.00	228.00	0.00	405.00
DUPONT EDGE MOOR	69.04	0.00	615.67	684.71	0.00	0.00
EDGE MOOR/HAY ROAD ENERGY CENTERS	0.20	0.05	0.00	0.25	0.00	0.00
HONEYWELL	445.00	0.00	0.00	445.00	0.00	0.00
IKO	0.00	0.00	0.00	0.00	82.60	551.00
PERDUE GEORGETOWN	0.00	0.00	0.00	0.00	0.00	0.00
POLYCYCLIC AROMATIC COMPOUNDS Total	738.24	4.05	615.67	1,357.96	82.60	956.00
PROPYLENE OXIDE						
CRODA	578.20	0.00	0.00	578.20	0.00	0.00
PROPYLENE OXIDE Total	578.20	0.00	0.00	578.20	0.00	0.00

APPENDIX J

2013 CARCINOGEN RELEASE AND TRANSFER DETAIL

CARCINOGEN / FACILITY	TOTAL ON-SITE RELEASES				TRANSFERS	ON-SITE
	AIR	WATER	LAND	TOTAL	OFF SITE	WASTE MGMT.
STYRENE						
BASF SEAFORD	210.00	0.00	0.00	210.00	78.00	523.00
DELAWARE CITY REFINERY	13.00	5.00	0.00	18.00	0.00	1,366.00
JUSTIN TANKS	9,688.00	0.00	331.00	10,019.00	331.00	19,880.00
STYRENE Total	9,911.00	5.00	331.00	10,247.00	409.00	21,769.00
TOLUENE DIISOCYANATE (MIXED ISOMERS)						
AEARO TECHNOLOGIES	4.95	0.00	0.00	4.95	14,050.00	0.00
MACDERMID	0.00	0.00	0.00	0.00	0.00	0.00
ROHM & HAAS B5, B6	1.80	0.00	0.00	1.80	825.00	4,599.00
TOLUENE DIISOCYANATE (MIXED ISOMERS) Total	6.75	0.00	0.00	6.75	14,875.00	4,599.00
TRICHLOROETHYLENE						
HANDY TUBE	6,046.00	0.00	0.00	6,046.00	12,766.00	0.00
TRICHLOROETHYLENE Total	6,046.00	0.00	0.00	6,046.00	12,766.00	0.00
VINYL ACETATE						
FORMOSA PLASTICS	40,740.00	0.00	0.00	40,740.00	0.00	0.00
VINYL ACETATE Total	40,740.00	0.00	0.00	40,740.00	0.00	0.00
VINYL CHLORIDE						
FORMOSA PLASTICS	47,277.00	0.00	0.00	47,277.00	146.85	263,480.00
VINYL CHLORIDE Total	47,277.00	0.00	0.00	47,277.00	146.85	263,480.00
1,3-BUTADIENE						
DELAWARE CITY REFINERY	396.00	0.00	0.00	396.00	0.00	0.00
1,3-BUTADIENE Total	396.00	0.00	0.00	396.00	0.00	0.00
TETRACHLOROETHYLENE						
DELAWARE CITY REFINERY	6.00	0.00	0.00	6.00	0.00	0.00
TETRACHLOROETHYLENE Total	6.00	0.00	0.00	6.00	0.00	0.00
CREOSOTE						
DELAWARE CITY REFINERY	467.00	0.00	2,646.00	3,113.00	17,061.00	0.00
CREOSOTE Total	467.00	0.00	2,646.00	3,113.00	17,061.00	0.00
HYDRAZINE						
DUPONT RED LION PLANT	0.00	0.00	0.00	0.00	0.00	0.00
HYDRAZINE Total	0.00	0.00	0.00	0.00	0.00	0.00
HYDRAZINE SULFATE						
DUPONT RED LION PLANT	0.00	0.00	0.00	0.00	0.00	0.00
HYDRAZINE SULFATE Total	0.00	0.00	0.00	0.00	0.00	0.00
STATE TOTAL	126,545	2,645	10,348	139,538	5,597,600	1,123,928

GLOSSARY AND ACRONYMS

Accidental Release – The amount released to the environment as a result of catastrophic events, remedial actions, or one-time events not associated with production processes.

Aerosol - A gaseous form of a chemical, which includes mists, vapors, gases, and fogs, would be considered an aerosol. Hydrochloric and sulfuric acid aerosols are the reportable form of these two chemicals. These acids in aqueous solutions are no longer reportable under TRI, but an aerosol that is generated from a solution is reportable.

Air Releases - Point and non-point air emissions, or releases to air. Point releases are those chemicals released through **stacks**, vents, or other confined spaces and are usually regulated by permit. Non-point, or **fugitive**, releases include chemical leaks from valves, pump seals, etc., evaporative losses from surface impoundments (ponds) or spills, or releases from building ventilation systems.

ARP - DNREC's Accidental Release Program - Formerly known as the Industrial Disaster Prevention program, ARP provides protection for the lives and health of the citizens of Delaware by ensuring that companies with extremely hazardous substances have proper control plans and operations in place to prevent disasters.

Article - The term "Article" in 40 CFR Section 372.3, is defined as a manufactured item: (1) which is formed to a specific shape or design during manufacture; (2) which has end use functions dependent in whole or in part upon shape or design; and (3) which does not release an EPCRA section 313 chemical under normal conditions of processing or use of that item at the facility or establishment.

ATSDR - Agency for Toxic Substances and Disease Registry – A federal public health agency of the U.S. Department of Health and Human Services. ATSDR serves the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and diseases related to toxic substances.

Bioaccumulate - Bioaccumulate means to increase the concentration of a chemical in a biological organism such as humans over time, compared to the chemical's concentration in the environment. Compounds accumulate in living things any time they are taken up and stored faster than they are broken down or excreted.

Bottom Ash - Ash that falls to the bottom of the combustion chamber in a process burning fuels like coal and oil. Bottom ash is removed for disposal on a regular basis. Also see **Fly Ash**.

BTU – British Thermal Unit – A unit of heat; the amount of heat required to raise one pound of water one Fahrenheit degree (39°F to 40°F). TBTU = one trillion BTUs.

CAA - Clean Air Act - The Clean Air Act is the law that defines EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. The last major change in the law was enacted by Congress in 1990. Legislation passed since then has made several minor changes.

Carcinogen - A carcinogen is a substance that can cause cancer of some form.

CEM - Continuous Emissions Monitoring - A continuous emission monitoring system (CEMS) is the total equipment necessary for the determination of a gas or particulate matter



APPENDIX K

Glossary and Acronyms

concentration or emission rate using continuous pollutant analyzer measurements. CEMS are required under some of the EPA regulations for either continual compliance determinations or determination of when standards have been exceeded.

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act- The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. The Superfund Amendments and Reauthorization Act (SARA) amended CERCLA on October 17, 1986. SARA made several important changes and additions to the program, including provision for the TRI Program in the Emergency Planning and Community Right-to-Know Act. (See **EPCRA** and **SARA** below).

Chemical Abstracts Service (CAS) Registry Number - A numerical identification given to each unique chemical, which aids in the identification of a chemical with multiple synonyms (e.g., CAS 78-93-3 - methyl ethyl ketone, is also known as 2-butanone). Chemical categories under TRI do not possess a CAS numbers and are assigned category codes by the EPA. Lead compounds, for example, is category code N420.

DeMinimis Concentration – The concentration below which a chemical does not need to be considered when it is present in mixtures. The deminimis concentration is 1.0%, or 0.1% if the chemical meets the OSHA carcinogen standard.

Disposal - Any underground injection, placement in landfills/surface impoundments, land treatment, or other intentional land disposal.

DNREC - Delaware Department of Natural Resources and Environmental Control – The State agency in Delaware that is responsible for environmental concerns. It has seven divisions, and the Cabinet Secretary reports to the Governor. The Division of Waste and Hazardous Substances is responsible for this report, and the Divisions of Air Quality, Watershed Stewardship, Parks and Recreation, Water, Fish and Wildlife, and the Office of the Secretary complete the Department.

Emission Factors – An Emission factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. Emission factors are published emission rates of chemicals in particular processes, which are based on averaging a large sampling of representative processes.

Energy Recovery - The use of a waste product to create and utilize energy to generate steam, electricity, etc. A TRI chemical in waste must contain enough heating value to sustain the combustion process; otherwise it is considered only treatment or incineration of the waste.

Environmental Fate - The disposition, over time, of a chemical in the environment. The bioaccumulation of a chemical in fish and the decomposition of a chemical when exposed to sunlight are examples of environmental fate.

EPA - United States Environmental Protection Agency.

EPCRA - Emergency Planning and Community Right-to-Know Act. Congress enacted the Emergency Planning and Community Right to Know Act as Title III of the Superfund Amendments and Reauthorization Act (**SARA**) of 1986. This act includes the TRI program, and more information can be found in Appendix A of this report.

APPENDIX K

Glossary and Acronyms



EPCRA Section 313 Chemical - A chemical or chemical category listed in 40 CFR Section 372.65 (40 CFR Section 372.3) - see **Toxic Chemical and Modified Chemicals** below.

Facility - All buildings, equipment, structures, and other stationary items that are located on a single site or on contiguous or adjacent sites and are owned or operated by the same person (or by any person that controls, is controlled by, or under common control with such person). A facility may contain more than one establishment, or distinct business unit.

Fluid Bed - A fluid bed process uses a gas introduced under a bed of fine solid material to separate and fluidize the material, creating a condition of rapid mixing. The bed has the appearance of a vigorously boiling liquid, and the bed of material takes on many of the properties of a fluid. It exerts pressure and the material will flow through a hole in the vessel and over or under a weir within the bed. The fluid bed process is used to improve reaction time, heat transfer, processing uniformity, and process yield or conversions.

Fluid Catalytic Cracker - In petroleum chemistry, cracking is the process whereby complex organic molecules are converted to simpler molecules (light hydrocarbons) by the breaking of carbon-carbon bonds. Fluid Catalytic Cracking (FCC) produces a high yield of gasoline and LPG from heavier crude oil distillation fractions and residues. FCC uses a very active hot catalyst where it contacts the heavy feed material in a reactor, vaporizes it, and the cracking reactions break down the high molecular weight oil into lighter components including LPG, gasoline, and diesel fuel.

Fluid Coker - Used in refineries, fluid coking is a continuous fluid bed technology that thermally converts heavy hydrocarbons to lighter products.

Fly Ash - Ash that becomes airborne and escapes in the exhaust air from a combustion process that burns fuels like coal or oil. Fly ash can be controlled with air pollution control devices like precipitators and filters. Also see **Bottom Ash**.

FOIA - Freedom of Information Act – Originally signed into law on July 4, 1966 and amended in 1996, 2002 and 2007. This act allows for the full or partial disclosure of previously unreleased information and documents controlled by the United States Government. The Act defines agency records subject to disclosure, outlines disclosure procedures and grants some exemptions to the statute. Many states, including Delaware, have their own FOIA statutes.

Form A - A two-page report that a facility may use when certain criteria are met for a given chemical that must be reported. Refer to page 2 in this report for general reporting requirements, and pages 3-4 for details on eligibility and a description of the Form A data elements. The Form A provides basic facility information and the chemical identity, but does not provide other data that is given on the Form R. The Form A form is shown in Appendix N.

Form R- A five-page report that a facility must use (except when Form A eligibility applies) for reporting on each TRI chemical that the facility exceeds an applicable threshold. The Form R form is shown in Appendix M.

Fugitive Emissions - See **Air Releases**.

Hazardous Air Pollutants (HAPs) - Air pollutants that are not covered by ambient air quality standards but which, as defined in the Clean Air Act, may present a threat of adverse human health effects or adverse environmental effects. Such pollutants include asbestos, beryllium, mercury, benzene, coke oven emissions, radionuclides, and vinyl chloride.

IARC - International Agency for Research on Cancer (IARC) – IARC is part of the World Health Organization. IARC coordinates and conducts research on the causes of human cancer, the mechanisms of carcinogenesis, and develops scientific strategies for cancer control.



APPENDIX K

Glossary and Acronyms

Import - To cause a chemical to be imported into the customs territory of the United States. For purposes of the definition, "to cause" means to intend that the chemical be imported and to control the identity of the imported chemical and the location and amount of the imported chemical. For TRI reporting purposes, "import" is the same as "manufacture", as in either case the facility has caused the chemical to become present at the facility.

LEPC - Local Emergency Planning Committee (LEPC). Each LEPC has specific duties to fulfill, and the State Emergency Response Commission (SERC) supervises and coordinates those activities. The LEPC's are required to have broad representation from many groups including state and local officials, media, law enforcement, fire service, EMS and health care, environmental, community groups and citizens and industrial facilities that use hazardous materials. The SERC also receives various reports from businesses that use or store hazardous chemicals, or that experience an emergency release of a hazardous substance, and must establish procedures for receiving and processing requests for information from the public. See **SERC** for more information.

Manufacture - To produce, prepare, compound or import a TRI chemical, including the coincidental production of the chemical as an intermediate, a by-product, or an impurity.

Mass Balance Calculation - A method of calculating amounts and concentrations at a point in a process based on known amounts and concentrations at other points in the process. The basic Mass Balance equation is: Input + Generation = Output + Consumption.

MSDS - Material Safety Data Sheet - A Material Safety Data Sheet (MSDS) is prepared by the manufacturer of a product. The purpose of the form is to provide information on the safe use, handling and potential hazards of a product. The form is required to be developed under 29 CFR Section 1910.1200(g). This form lists important attributes, including toxicity and safety information that a user or handler of the chemical is required to know about.

NAAQS - National Ambient Air Quality Standards - The Clean Air Act required EPA to set National Ambient Air Quality Standards (40 CFR Part 50) for pollutants considered harmful to public health and the environment. The EPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. They are: Carbon monoxide, lead, nitrogen dioxide, particulate matter (10 and 2.5 microns), ozone, and sulfur dioxide. Primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

NAICS - North American Industrial Classification System - This is a systematic classification system, which assigns a six-digit number to each commercial and industrial facility. It expands the four-digit classification categories used by the **Standard Industrial Classification (SIC)** codes. It is used by government, industry, and sales organizations to reach targeted industries for data collection, enforcement, and sales. The TRI program converted to NAICS starting with the 2006 reporting year. The covered SIC codes were codes 10 (except 1011, 1081, and 1094), 12 (except 1241), or 20-39; industry codes 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce); or 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C, or 5169, or 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis). The NAICS codes

are not directly translatable from the SIC codes, so a reference document is usually required to translate or compare the codes. The intent in converting to the NAICS codes was to more precisely define the TRI reporting universe without adding to or subtracting from it. Also see **SIC – Standard Industrial Classification**.

NESHAP - National Emissions Standards for Hazardous Air Pollutants - The Clean Air Act (CAA) requires the U. S. Environmental Protection Agency (EPA) to develop and enforce regulations to protect the general public from exposure to hazardous air pollutants (HAPs).

NPDES - National Pollutant Discharge Elimination System - The Clean Water Act (CWA) requires that all discharges of pollutants to surface waters (streams, rivers, lakes, bays, and oceans) must be authorized by a permit issued under the National Pollutant Discharge Elimination System (NPDES) program.

Off-site Transfers - Waste that is transferred off-site to another facility for the purpose of treatment, recycling, energy recovery, or disposal.

On-site Releases - Emissions from a facility to the environment as a result of normal operations or accidents. This includes emissions to the air, discharges to surface waters, disposal onto or in the ground, and underground injection. Underground injection is not an approved method of hazardous waste disposal in Delaware.

On-site Waste Management - Wastes that are treated, recycled, or recovered for energy at the facility. The disposal of a waste into an on-site landfill is considered a release by EPA, and thus is not included in this category.

OSHA - Occupational Safety and Health Administration - The Federal agency that has the responsibility to ensure a safe and healthful work environment.

Otherwise Use - Encompasses any activity involving a TRI chemical that does not fall under the definition of manufacture or process. A chemical that is not intentionally incorporated into a product, like a solvent used for cleaning, falls under the otherwise use category.

P2 - Pollution Prevention - Pollution Prevention (P2) means "source reduction," as defined under the Pollution Prevention Act and other practices that reduce or eliminate the creation of pollutants. This EPA program was created to encourage, assist and lead others to prevent pollution at the source. Improved operation and maintenance, material substitution, process and equipment modification, conservation practices, product modification, and in-process recycling are examples of pollution prevention. EPA provides incentives to businesses, including public recognition, tools, and technical assistance. Since reduction of waste at its source is emphasized, recycling, energy recovery, treatment, and disposal are not included within the definition of pollution prevention. Also see **Waste Management** below.

PAC - Polycyclic Aromatic Compounds - PACs are multi-numbered benzene-ring compounds. PACs contain polycyclic aromatic hydrocarbons (PAHs), substituted PAHs, and PAH derivatives.

PAH - Polynuclear Aromatic Hydrocarbon - Polynuclear aromatic hydrocarbons (PAHs) are hydrocarbon compounds with multiple benzene rings. PAHs are typical components of asphalts, fuels, oils, and greases. They are also called Polycyclic Aromatic Hydrocarbons. They are of concern because some of these compounds have been identified as carcinogens.



APPENDIX K

Glossary and Acronyms

PCB - Polychlorinated Biphenyls - A group of toxic, persistent chemicals used in electrical transformers and capacitors for insulating purposes, and in gas pipeline systems as lubricants. The sale and new use of these chemicals were banned by law in 1979.

PBT - Persistent Bioaccumulative Toxin - PBT pollutants are chemicals that are toxic, persist in the environment and bioaccumulate (are not broken down or excreted), and thus pose risks to human health and ecosystems. The biggest concerns about PBT's are that they transfer rather easily among air, water, and land, and span boundaries of geography and generations.

PEL - Permissible Exposure Limit - OSHA sets permissible exposure limits (PELs) to protect workers against the health effects of exposure to hazardous substances. PELs are regulatory limits on the amount or concentration of a substance in the air. PELs are enforceable. OSHA PELs are based on an 8-hour time weighted average (TWA) exposure.

pH - pH is a measure of the acidity in a liquid and is based on the concentration of hydrogen ions in a water solution. High acid content will be indicated by a pH of less than 7.0, and low acidity, called alkalinity, is indicated by a pH higher than 7.0. Although the pH scale is 0-14, it is a logarithmic scale and the range is based on powers of 10. In the case of pH, the range is 1×10^{-7} to 1×10^7 (0.0000001 to 10,000,000).

PM - Particulate Matter - Tiny particles of solid or liquid suspended in a gas or liquid. Sources of particulate matter can be man-made or natural. Some particulates occur naturally, originating from volcanoes, dust storms, forest and grassland fires, living vegetation, and sea spray. Human activities, such as the burning of fossil fuels in vehicles, power plants and various industrial processes also generate significant amounts of particulates. Increased levels of fine particles in the air are linked to health hazards such as heart disease, altered lung function and lung cancer. The notation PM_{10} is used to describe particles of 10 micrometers or less and $PM_{2.5}$ represents particles less than 2.5 micrometers in diameter. One micrometer is one millionth of a meter, or about 0.00004 inches.

POTW - Publicly Owned Treatment Works - Usually a municipal wastewater treatment facility.

PPA - Pollution Prevention Act of 1990 - Pollution prevention became a national policy with the Pollution Prevention Act of 1990. The Act established the waste management hierarchy whereby wastes should be prevented or reduced at the source whenever feasible, and safe disposal is the option of last resort.

Process - To prepare a TRI chemical, after its manufacture, for distribution into commerce. Processing includes intentionally incorporating the chemical into a product or the reaction of the chemical to form another chemical or product.

RCRA - Resource Conservation and Recovery Act - The Resource Conservation and Recovery Act - commonly referred to as RCRA - is our nation's primary law governing the disposal of solid and hazardous waste. Congress passed RCRA on October 21, 1976 to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for:

- Protecting human health and the environment from the hazards of waste disposal.
- Conserving energy and natural resources.
- Reducing the amount of waste generated.
- Ensuring that wastes are managed in an environmentally-sound manner.

Recycle - The process of capturing a useful product from a waste stream. Solvent recovery, metals recovery, and acid regeneration are examples of recycling.

Regulation 1146 (7 DE Admin Code 1146) - This Delaware regulation establishes Nitrogen Oxides (NO_x), Sulfur Dioxide (SO₂), and mercury emissions limits to achieve reductions of those pollutants from Delaware's large electric generation units. The reduction in NO_x, SO₂, and mercury emissions will: 1) reduce the impact of those emissions on public health; 2) aid in Delaware's attainment of the State and National Ambient Air Quality Standard (NAAQS) for ground level ozone and fine particulate matter; 3) help address local scale fine particulate and mercury problems attributable to coal and residual oil-fired electric generating units, 4) satisfy Delaware's obligations under the Clean Air Mercury Rule (CAMR), and 5) improve visibility and help satisfy Delaware's EGU-related regional haze obligations.

Release - Any spilling, leaking, pumping, pouring, emitting, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, including the abandonment or discarding of barrels, containers, and other closed receptacles of any EPCRA Section 313 chemicals.

SARA - Superfund Amendments and Reauthorization Act of 1986 (SARA Title III), also known as The Emergency Planning and Community Right-to-Know Act (EPCRA), was enacted in 1986. This law provides an infrastructure at the state and local levels to plan for chemical emergencies. Facilities that store, use, or release certain chemicals, may be subject to various reporting requirements. Reported information is then made publicly available through the **Toxics Release Inventory** and other programs so that interested parties may become informed about potentially dangerous chemicals in their community.

Selective Catalytic Reduction (SCR) - Nitrogen oxides (NO_x) emissions in boiler exhaust gas are converted into elemental nitrogen and water by injecting a nitrogen-based chemical reagent, most commonly ammonia, into the gas and then passing the gas through a catalyst bed where the NO_x and ammonia react to form nitrogen and water vapor. Also see **SNCR** below.

Selective Non-Catalytic Reduction (SNCR) - Nitrogen oxides (NO_x) emissions in boiler exhaust gas are converted into elemental nitrogen and water by injecting a nitrogen-based chemical reagent, most commonly urea or ammonia into the gas in the furnace. The SNCR method does not require a catalyst, but has lower conversion efficiency than the SCR method. Also see **SCR** above.

SERC - State Emergency Response Commission – The SERC's were created in response to the federal Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986, and are comprised of representatives from various state and local government organizations and industry. The primary focus of a SERC is to enhance state and local emergency response and preparedness capabilities through better coordination and planning. See **LEPC (Local Emergency Planning committee)** for more information.

Standard Industrial Classification (SIC) Code - A four-digit code established by the Federal Office of Management and Budget used to describe the type of activity(s) at a facility. Facilities that engage in a variety of activities may possess multiple codes. Also see **North American Industrial Classification System (NAICS)**. The TRI program converted to NAICS starting with the 2006 reporting year.

Stack Test - A process of sampling an exhaust stack to determine the contents, usually in percent concentration and cubic feet per hour. Sampling is usually done through a port or series of ports at an elevated point on the stack.



APPENDIX K

Glossary and Acronyms

Teratogen - Any agent that can disturb the development of an embryo or fetus. Teratogens may cause a birth defect in the child. Or a teratogen may halt the pregnancy outright. The classes of teratogens include radiation, maternal infections, chemicals, and drugs.

TSCA - Toxic Substance Control Act – TSCA was enacted to provide information about all chemicals and to control the production of new chemicals that might present an unreasonable risk of injury to health or the environment. TSCA authorizes the Environmental Protection Agency to require testing of chemical substances. TSCA also provides authority to regulate the manufacturing, processing, import and use of chemicals. The manufacture use, and/or disposal of chemicals are covered in virtually every environmental law and in OSHA and DOT regulations, and TSCA fills the gaps in other laws and supplements sections of existing laws. EPA maintains and publishes the TSCA Inventory, which includes a list of chemicals manufactured, imported, or processed for commercial purposes in the United States. The TSCA Inventory is voluminous, with more than 75,000 chemical substances.

Toxic Chemical - A chemical or chemical category listed in 40 CFR Section 372.65 (40 CFR Section 372.3); causing acute human health risks, cancer or chronic (non-cancer) human health effects, and/or environmental effects.

Treatment - The removal, destruction, alteration, or stabilization of the waste. Biological treatment, incineration, and neutralization are examples of waste treatment. Wastewater treatment plants and hazardous waste incinerators are examples of treatment facilities.

TRI - The Toxics Release Inventory (TRI) is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) and expanded by the Pollution Prevention Act of 1990.

TSDF - Treatment, Storage, and Disposal Facility - A site where a hazardous substance is treated, stored or disposed of. TSDF facilities are regulated by EPA and states under the **Resource Conservation and Recovery Act (RCRA)**.

VOC - Volatile Organic Compounds - Chemical compounds containing carbon and hydrogen that readily evaporate at room temperature.

Waste Management - EPA interprets waste management to include the following activities: recycling, combustion for energy recovery, treatment for destruction, waste stabilization, and release, including disposal. Waste management does not include the storage, container transfer, or tank transfer if no recycling, combustion for energy, treatment for destruction, waste stabilization, or release of the chemical occurs at the facility.

More terms and acronyms can be found at: <http://www.epa.gov/OCEPAt/terms/intro.htm> .

APPENDIX L

TRI REPORTING FORMS – FORM R



Sample Form R
For Reporting year 2013

Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t Page 1 of 6

<p>EPA United States Environmental Protection Agency</p>		<p>FORM R Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, also Known as Title III of the Superfund Amendments and Reauthorization Act</p>		<p>TRI Facility ID Number</p>	
<p>WHERE TO SEND COMPLETED FORMS:</p>		<p>1. TRI Data Processing Center P. O. Box 10163 Fairfax, VA 22038</p>		<p>2. APPROPRIATE STATE OR TRIBAL OFFICE (See instructions in Appendix E)</p>	
<p>This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank.</p>		<p>Revision (Enter up to two code(s))</p>		<p>Withdrawal (Enter up to two code(s))</p>	
<p>IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.</p>					
<p>PART I. FACILITY IDENTIFICATION INFORMATION</p>					
<p>SECTION 1. REPORTING YEAR</p>					
<p>SECTION 2. TRADE SECRET INFORMATION</p>					
<p>2.1 Are you claiming the toxic chemical identified on page 2 as a trade secret? <input type="checkbox"/> Yes (Answer question 2.2; attach substantiation forms) <input type="checkbox"/> No (Do not answer 2.2; go to Section 3)</p>			<p>2.2 Is this copy <input type="checkbox"/> Sanitized <input type="checkbox"/> Unsanitized (Answer only if "Yes" in 2.1)</p>		
<p>SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.) I hereby certify that I have reviewed the attached documents and that, to the best of my knowledge and belief, the submitted information is true and complete and that the amounts and values in this report are accurate based on reasonable estimates using data available to the preparers of this report.</p>					
<p>Name and official title of owner/operator or senior management official:</p>		<p>Signature:</p>		<p>Date signed</p>	
<p>SECTION 4. FACILITY IDENTIFICATION</p>					
<p>4.1 Facility or Establishment Name</p>		<p>TRI Facility ID Number</p>			
<p>Physical Street Address</p>		<p>Mailing Address (if different from physical street address)</p>			
<p>City/County/Tribe/State/ZIP Code</p>		<p>City/State/ZIP Code</p>		<p>Country (Non-US)</p>	
<p>4.2 This report contains information for: (Important: Check a or b; check c or d if applicable) a. <input type="checkbox"/> An entire facility b. <input type="checkbox"/> Part of a facility c. <input type="checkbox"/> A federal facility d. <input type="checkbox"/> GOCO</p>					
<p>4.3 Technical Contact Name</p>			<p>Telephone Number (include area code)</p>		
<p>Email Address</p>			<p> </p>		
<p>4.4 Public Contact Name</p>			<p>Telephone Number (include area code)</p>		
<p>Email Address</p>			<p> </p>		
<p>4.5 NAICS Code(s) (6 digits)</p>		<p>Primary</p>	<p>a.</p>	<p>b.</p>	<p>c.</p>
<p>4.6 Dun & Bradstreet Number(s) (9 digits)</p>		<p>a.</p>	<p>b.</p>	<p>c.</p>	<p>d.</p>
<p>SECTION 5. Parent Company Information</p>					
<p>5.1 Name of U.S. Parent Company (for TRI Reporting purposes)</p>			<p>No U.S. Parent Company (for TRI Reporting purposes) <input type="checkbox"/></p>		
<p>5.2 Parent Company's Dun & Bradstreet Number</p>		<p>NA <input type="checkbox"/></p>			

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APPENDIX L

TRI REPORTING FORMS – FORM R

Sample Form R
For Reporting year 2013

Reporting form; type or use fill-and-print form)

Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t

Page 2 of 6

FORM R Part II. CHEMICAL-SPECIFIC INFORMATION	TRI Facility ID Number
	Toxic Chemical, Category, or Generic Name

SECTION 1. TOXIC CHEMICAL IDENTITY

(Important: DO NOT complete this section if you are reporting a mixture component in Section 2 below.)

1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)
1.3	Generic Chemical Name (Important: Complete only if Part I, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.)

SECTION 2. MIXTURE COMPONENT IDENTITY

(Important: DO NOT complete this section if you completed Section 1.)

2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)
------------	--

SECTION 3. ACTIVITIES AND USES OF THE TOXIC CHEMICAL AT THE FACILITY

(Important: Check all that apply.)

3.1 Manufacture the toxic chemical:	3.2 Process the toxic chemical:	3.3 Otherwise use the toxic chemical:
a. <input type="checkbox"/> Produce b. <input type="checkbox"/> Import If Produce or Import c. <input type="checkbox"/> For on-site use/processing d. <input type="checkbox"/> For sale/distribution e. <input type="checkbox"/> As a byproduct f. <input type="checkbox"/> As an impurity	a. <input type="checkbox"/> As a reactant b. <input type="checkbox"/> As a formulation component c. <input type="checkbox"/> As an article component d. <input type="checkbox"/> Repackaging e. <input type="checkbox"/> As an impurity	a. <input type="checkbox"/> As a chemical processing aid b. <input type="checkbox"/> As a manufacturing aid c. <input type="checkbox"/> Ancillary or other use

SECTION 4. MAXIMUM AMOUNT OF THE TOXIC CHEMICAL ON-SITE AT ANY TIME DURING THE CALENDAR YEAR

4.1	<input type="text"/> (Enter two digit code from instruction package.)
------------	---

SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ON-SITE

			A. Total Release (pounds/year*) (Enter a range code** or estimate)	B. Basis of Estimate (Enter code)	C. Percent from Stormwater
5.1	Fugitive or non-point air emissions	NA <input type="checkbox"/>			
5.2	Stack or point air emissions	NA <input type="checkbox"/>			
5.3	Discharges to receiving streams or water bodies (Enter one name per box)	NA <input type="checkbox"/>			
Stream or Water Body Name					
5.3.1					
5.3.2					
5.3.3					

If additional pages of Part II, Section 5.3 are attached, indicate the total number of pages in this box and indicate the Part II, Section 5.3 page number in this box. (Example: 1, 2, 3, etc.)

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*For Dioxin or Dioxin-like compounds, report in grams/year.
**Range Codes: A= 1-10 pounds; B= 11-499 pounds; C= 500-999 pounds.

APPENDIX L

TRI REPORTING FORMS – FORM R



Sample Form R
For Reporting year 2013

Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t
Page 3 of 6

FORM R		TRI Facility ID Number		
Part II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)		Toxic Chemical, Category, or Generic Name		
SECTION 5. QUANTITY OF THE TOXIC CHEMICAL ENTERING EACH ENVIRONMENTAL MEDIUM ON-SITE (continued)				
		NA	A. Total Release (pounds/year*) (Enter a range code** or estimate)	B. Basis of Estimate (Enter code)
5.4.1	Underground Injection on-site to Class I Wells	<input type="checkbox"/>		
5.4.2	Underground Injection on-site to Class II-V Wells	<input type="checkbox"/>		
5.5	Disposal to land on-site			
5.5.1A	RCRA Subtitle C landfills	<input type="checkbox"/>		
5.5.1B	Other landfills	<input type="checkbox"/>		
5.5.2	Land treatment/application farming	<input type="checkbox"/>		
5.5.3A	RCRA Subtitle C surface impoundments	<input type="checkbox"/>		
5.5.3B	Other surface impoundments	<input type="checkbox"/>		
5.5.4	Other disposal	<input type="checkbox"/>		
SECTION 6. TRANSFER(S) OF THE TOXIC CHEMICAL IN WASTES TO OFF-SITE LOCATIONS				
6.1 DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWs)		NA	<input type="checkbox"/>	
6.1. ___	POTW Name			
POTW Address				
City	County	State	ZIP	
A. Quantity Transferred to this POTW (pounds/year*) (Enter range code** or estimate)			B. Basis of Estimate (Enter code)	
If additional pages of Part II, Section 6.1 are attached, indicate the total number of pages in this box: <input type="text"/>				
and indicate the Part II, Section 6.1 page number in this box: <input type="text"/> (Example: 1, 2, 3, etc.)				
6.2 TRANSFERS TO OTHER OFF-SITE LOCATIONS		NA	<input type="checkbox"/>	
6.2. ___	Off-Site EPA Identification Number (RCRA ID No.)			
Off-Site Location Name:				
Off-Site Address:				
City	County	State	ZIP	Country (non-US)
Is this location under control of reporting facility or parent company? <input type="checkbox"/> Yes <input type="checkbox"/> No				

EPA form 9350 -1 (Rev. 10/2012) – Previous editions are obsolete. *For Dioxin or Dioxin-like compounds, report in grams/year. **Range Codes: A= 1-10 pounds; B= 11-499 pounds; C= 500-999 pounds.



APPENDIX L

TRI REPORTING FORMS - FORM R

Sample Form R
For Reporting year 2013

Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t

Page 4 of 6

FORM R						TRI Facility ID Number
Part II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)						Toxic Chemical, Category, or Generic Name
SECTION 6.2. TRANSFERS TO OTHER OFF-SITE LOCATION (CONTINUED)						
A. Total Transfer (pounds/year*) (Enter a range code** or estimate)	B. Basis of Estimate (Enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (Enter code)				
1.	1.	1. M				
2.	2.	2. M				
3.	3.	3. M				
4.	4.	4. M				
6.2 Off-Site EPA Identification Number (RCRA ID No.)						
Off-Site Location Name:						
Off-Site Address:						
City	County	State	ZIP	Country (non-US)		
Is this location under control of reporting facility or parent company? Yes <input type="checkbox"/> No <input type="checkbox"/>						
A. Total Transfer (pounds/year*) (Enter a range code** or estimate)	B. Basis of Estimate (Enter code)	C. Type of Waste Treatment/Disposal/ Recycling/Energy Recovery (Enter code)				
1.	1.	1. M				
2.	2.	2. M				
3.	3.	3. M				
4.	4.	4. M				
SECTION 7A. ON-SITE WASTE TREATMENT METHODS AND EFFICIENCY						
<input type="checkbox"/> Not Applicable (NA) - Check here if no on-site waste treatment method is applied to any waste stream containing the toxic chemical or chemical						
a. General Waste Stream (Enter code)	b. Waste Treatment Method(s) Sequence (Enter 3-or 4-character code(s))				c. Waste Treatment Efficiency (Enter 2 character code)	
7A.1a	7A.1b	1	2	7A.1c		
	3	4	5			
	6	7	8			
7A.2a	7A.2b	1	2	7A.2c		
	3	4	5			
	6	7	8			
7A.3a	7A.3b	1	2	7A.3c		
	3	4	5			
	6	7	8			
7A.4a	7A.4b	1	2	7A.4c		
	3	4	5			
	6	7	8			
7A.5a	7A.5b	1	2	7A.5c		
	3	4	5			
	6	7	8			
If additional pages of Part II, Section 6.2/7.A are attached, indicate the total number of pages in this box. <input style="width: 50px;" type="text"/>						
and indicate the Part II, Section 6.2/7.A page number in this box. <input style="width: 50px;" type="text"/> (Example: 1, 2, 3, etc.)						

EPA form 9350-1 (Rev. 10/2012) - Previous editions are obsolete.

*For Dioxin or Dioxin-like compounds, report in grams/year.
**Range Codes: A= 1-10 pounds; B= 11-499 pounds; C= 500-999 pounds.

APPENDIX L

TRI REPORTING FORMS – FORM R



Sample Form R
For Reporting year 2013

(Reporting form; type or use fill-and-print form)

Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t

Page 5 of 6

FORM R		TRI Facility ID Number		
Part II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)		Toxic Chemical, Category, or Generic Name		
SECTION 7B. ON-SITE ENERGY RECOVERY PROCESSES				
<input type="checkbox"/> NA Check here if no on-site energy recovery is applied to any waste stream containing the toxic chemical or chemical category.				
Energy Recovery Methods (Enter 3-character code(s))				
1.	2.	3.		
SECTION 7C. ON-SITE RECYCLING PROCESSES				
<input type="checkbox"/> NA Check here if no on-site recycling is applied to any waste stream containing the toxic chemical or chemical category.				
Recycling Methods (Enter 3-character code(s))				
1.	2.	3.		
SECTION 8. DISPOSAL OR OTHER RELEASES, SOURCE REDUCTION, AND RECYCLING ACTIVITIES				
	Column A Prior Year (pounds/year*)	Column B Current Reporting Year (pounds/year*)	Column C Following Year (pounds/year*)	Column D Second Following Year (pounds/year*)
8.1				
8.1a	Total on-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills			
8.1b	Total other on-site disposal or other releases			
8.1c	Total off-site disposal to Class I Underground Injection Wells, RCRA Subtitle C landfills, and other landfills			
8.1d	Total other off-site disposal or other releases			
8.2	Quantity used for energy recovery on-site			
8.3	Quantity used for energy recovery off-site			
8.4	Quantity recycled on-site			
8.5	Quantity recycled off-site			
8.6	Quantity treated on-site			
8.7	Quantity treated off-site			
8.8	Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes (pounds/year*)			
8.9	Production ratio or activity index			
8.10	Did your facility engage in any newly implemented source reduction activities for this chemical during the reporting year? If so, complete the following section; if not, check NA. NA <input type="checkbox"/>			
	Source Reduction Activities (Enter code(s))	Methods to Identify Activity (Enter code(s))		
8.10.1		a.	b.	c.
8.10.2		a.	b.	c.
8.10.3		a.	b.	c.
8.10.4		a.	b.	c.

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*For Dioxin or Dioxin-like compounds, report in grams/year.



APPENDIX L

TRI REPORTING FORMS – FORM R

Sample Form R
For Reporting year 2013

ing form; type or use fill-and-print form) Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t Page 6 of 6

FORM R Part II. CHEMICAL-SPECIFIC INFORMATION (CONTINUED)	TRI Facility ID Number
	Toxic Chemical, Category, or Generic Name

SECTION 8.11. DISPOSAL OR OTHER RELEASES, SOURCE REDUCTION, AND RECYCLING ACTIVITIES

8.11 If you wish to submit additional optional information on source reduction, recycling, or pollution control activities, provide it here.

SECTION 9. MISCELLANEOUS INFORMATION

9.1 If you wish to submit any miscellaneous, additional, or optional information regarding your Form R submission, provide it here.

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APPENDIX M

TRI REPORTING FORMS – FORM A



Sample Form A Page 1
For Reporting year 2013

Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t Page 1 of ___

 United States Environmental Protection Agency		TOXICS RELEASE INVENTORY FORM A			
WHERE TO SEND COMPLETED FORMS: 1. TRI Data Processing Center P. O. Box 10163 Fairfax, VA 22038			2. APPROPRIATE STATE OR TRIBAL OFFICE (See instructions in Appendix E)		TRI Facility ID Number
This section only applies if you are revising or withdrawing a previously submitted form, otherwise leave blank.		Revision (Enter up to two code(s)) <input type="text"/> <input type="text"/>		Withdrawal (Enter up to two code(s)) <input type="text"/> <input type="text"/>	
IMPORTANT: See instructions to determine when "Not Applicable (NA)" boxes should be checked.					
PART I. FACILITY IDENTIFICATION INFORMATION					
SECTION 1. REPORTING YEAR _____					
SECTION 2. TRADE SECRET INFORMATION					
2.1	Are you claiming the toxic chemical identified on page 2 as a trade secret? <input type="checkbox"/> Yes (Answer question 2.2; attach substantiation forms)		<input type="checkbox"/> No (Do not answer 2.2; go to Section 3)	2.2	Is this copy <input type="checkbox"/> Sanitized <input type="checkbox"/> Unsanitized (Answer only if "Yes" in 2.1)
SECTION 3. CERTIFICATION (Important: Read and sign after completing all form sections.)					
I hereby certify that to the best of my knowledge and belief, for each toxic chemical listed in this statement, the annual reportable amount as defined in 40 CFR 372.27(a), did not exceed 500 pounds for this reporting year and that the chemical was manufactured, processed, or otherwise used in an amount not exceeding 1 million pounds during this reporting year.					
Name and official title of owner/operator or senior management official:			Signature:		Date signed:
SECTION 4. FACILITY IDENTIFICATION					
4.1	Facility or Establishment Name		TRI Facility ID Number		
	Physical Street Address		Mailing Address (if different from physical street address)		
	City/County/Tribe/State/ZIP Code		City/State/ZIP Code		Country (Non-US)
4.2	This report contains information for: (Important: Check c or d if applicable)				c. <input type="checkbox"/> A Federal facility d. <input type="checkbox"/> GOCO
4.3	Technical Contact Name		Telephone Number (include area code)		
	Email Address				
4.4	Public Contact Name		Telephone Number (include area code)		
	Email Address				
4.5	NAICS Code(s) (6 digits)				
	Primary a.	b.	c.	d.	e. f.
4.6	Dun & Bradstreet Number(s) (9 digits)				
	a.		b.		
SECTION 5. PARENT COMPANY INFORMATION					
5.1	Name of U.S. Parent Company (for TRI Reporting purposes)		No U.S. Parent Company (for TRI Reporting purposes)		<input type="checkbox"/>
5.2	Parent Company's Dun & Bradstreet Number		NA <input type="checkbox"/>		

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TOXICS RELEASE INVENTORY

APPENDIX N

TRI REPORTING FORMS - FORM A

Sample Form A Page 2
For Reporting year 2013

(IMPORTANT: Read instructions before completing form; type or use fill-and-print form)

Form Approval

of

EPA FORM A		TRI Facility ID Number
PART II. CHEMICAL IDENTIFICATION		
Do not use this form for reporting PBT chemicals, including Dioxin and Dioxin-like Compounds*		
SECTION 1. TOXIC CHEMICAL IDENTITY		Report ___ of ___
1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)	
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)	
1.3	Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.)	
SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above)		
2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)	
SECTION 1. TOXIC CHEMICAL IDENTITY		Report ___ of ___
1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)	
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)	
1.3	Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.)	
SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above)		
2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)	
SECTION 1. TOXIC CHEMICAL IDENTITY		Report ___ of ___
1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)	
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)	
1.3	Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.)	
SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above)		
2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)	
SECTION 1. TOXIC CHEMICAL IDENTITY		Report ___ of ___
1.1	CAS Number (Important: Enter only one number exactly as it appears on the Section 313 list. Enter category code if reporting a chemical category.)	
1.2	Toxic Chemical or Chemical Category Name (Important: Enter only one name exactly as it appears on the Section 313 list.)	
1.3	Generic Chemical Name (Important: Complete only if Part 1, Section 2.1 is checked "Yes". Generic Name must be structurally descriptive.)	
SECTION 2. MIXTURE COMPONENT IDENTITY (Important: DO NOT complete this section if you completed Section 1 above)		
2.1	Generic Chemical Name Provided by Supplier (Important: Maximum of 70 characters, including numbers, letters, spaces, and punctuation.)	

*See the TRI Reporting Forms and Instructions manual for the list of PBT Chemicals (including Dioxin and Dioxin-like Compounds)

APPENDIX N TRI REPORTING FORMS DIOXIN SCHEDULE 1



Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014

(IMPORTANT: Read instructions before completing form; type or use fill-and-print form)

EPA United States Environmental Protection Agency		FORM R Schedule 1		TRI Facility ID Number			
PART II. CHEMICAL-SPECIFIC INFORMATION (continued)							
SECTION 5. QUANTITY OF DIOXIN AND DIOXIN-LIKE COMPOUNDS ENTERING EACH ENVIRONMENTAL MEDIUM ON-SITE							
	5.1	NA <input type="checkbox"/>	5.2	NA <input type="checkbox"/>	5.3	Discharges to receiving streams or water bodies (Enter data for one stream or water body per box) NA <input type="checkbox"/>	
		Fugitive or non-point air emissions		Stack or point air emissions	5.3.1	5.3.2	5.3.3
1	D. Mass (grams) of each compound in the category (1-17)						
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
If additional pages of Section 5.3 are attached, indicate the total number of pages in this box <input style="width: 50px;" type="text"/>							
and indicate the Section 5.3 page number in this box <input style="width: 50px;" type="text"/> (Example: 1, 2, 3, etc.)							



APPENDIX N TRI REPORTING FORMS DIOXIN SCHEDULE 1

Form Approved OMB Number: 2025-0009
Approval Expires: 10/31/2014t

(IMPORTANT: Read instructions before completing form; type or use fill-and-print form)

FORM R Schedule 1		TRI Facility ID Number																		
PART II. CHEMICAL-SPECIFIC INFORMATION (continued)																				
SECTION 5. QUANTITY OF DIOXIN AND DIOXIN-LIKE COMPOUNDS ENTERING EACH ENVIRONMENTAL MEDIUM ON-SITE																				
5.5 Disposal to land on-site																				
Underground Injection																				
5.5.1 Disposal to land on-site																				
5.4.1 NA <input type="checkbox"/> 5.4.2 NA <input type="checkbox"/> 5.5.1.A NA <input type="checkbox"/> 5.5.1.B NA <input type="checkbox"/> 5.5.2 NA <input type="checkbox"/> 5.5.3A NA <input type="checkbox"/> 5.5.3B NA <input type="checkbox"/> 5.5.4 NA <input type="checkbox"/>																				
Underground Injection on-site to Class I Wells			RCRA Subtitle C landfills			Other landfills			Land treatment/ application farming			RCRA Subtitle C surface impoundments			Other surface impoundments			Other disposal		
C Mass (grams) of each compound in the category (1-17)																				
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
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EPA Form 9350-3

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Page 3 of 4

TRI Facility ID Number

PART II. CHEMICAL -SPECIFIC INFORMATION (continued)

SECTION 6. TRANSFERS OF DIOXIN AND DIOXIN-LIKE COMPOUNDS IN WASTES TO OFF-SITE LOCATIONS

6.1. DISCHARGES TO PUBLICLY OWNED TREATMENT WORKS (POTWS) NA

6.1.---		C. Mass (grams) of Each Compound in the Category (1-17)								
1	2	3	4	5	6	7	8	9	10	11

6.2. TRANSFERS TO OTHER OFF -SITE LOCATIONS NA

6.2.---		D. Mass (grams) of each compound in the category (1-17)														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

6.2.--- D. Mass (grams) of each compound in the category (1-17)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

If additional pages of Section 6.1 or 6.2 are attached, indicate the total number of pages in this box
and indicate the Section 6.1 or 6.2 page number in this box (Example: 1, 2, 3, etc.)

