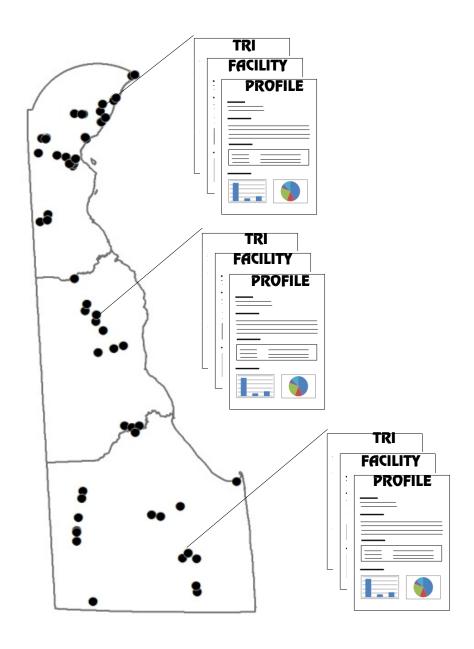


# 2017 DELAWARE TRI FACILITY PROFILES



Prepared by the EPCRA Reporting Program

Department of Natural Resources and Environmental Control

January 2019

# **John Carney**

Governor

# Shawn M. Garvin

Secretary, DNREC

# **Timothy Ratsep**

Acting Director, Division of Waste and Hazardous Substances

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Program Manager, Emergency Prevention and Response Section

This report was prepared with the assistance of numerous individuals in the Department of Natural Resources and Environmental Control. Any questions or comments regarding this report should be directed to the principal author:

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### DNREC MISSION STATEMENT

The mission of the Department of Natural Resources and Environmental Control is to ensure the wise management, conservation, and enhancement of the State's natural resources, protect public health and the environment, provide quality outdoor recreation, improve the quality of life, and educate the public on historic, cultural, and natural resource use, requirements and issues.



The Facility Profiles provide TRI information specific to each reporting facility in Delaware for 2017. The facility profiles can be accessed through the links that are provided on the *TRI Facility Maps* on pages 3 and 4 of this document. The following topics/categories are covered in the facility profiles:

### Location/Contact:

The address, phone number, and public contact are provided to encourage the public to contact the facility if they have any additional questions in regards to the facility operations and their TRI numbers. A map showing the approximate location of the site is also included.

### **Facility Overview:**

This section includes a description of the services and products the facility provides, as well as a description of how the predominant TRI chemicals reported are being used. Activities occurring at the facility that impact their TRI numbers are also discussed.

#### **2017 TRI Data:**

A table is provided listing the TRI information for each chemical reported at the facility. Chemical information provided includes pounds released on-site to air, water, and land, total pounds transferred off-site, and total pounds of the managed on-site for 2017. It is also noted if the chemical is a known *Persistent Bioaccumulative Toxic (PBT) Chemical* or if is listed as a *carcinogen*. PBTs are discussed in more detail on page 21 and *Appendix I* in the 2017 Delaware TRI Report and carcinogens are discussed in detail on page 27 and *Appendix J*.

#### **Graphical Information:**

Six graphs are provided in this section for visual comparisons, if applicable for the facility.

- On-site Releases by Media: Bar chart comparing on-site releases for 2017 among air, water, and land categories.
- On-site Releases by Chemical: Bar chart comparing total on-site releases for 2017 for the primary chemicals reported by the facility.
- Total On-site Releases per Year: Provides a trend graph over the last ten years for total on-site releases to air, water, land reported by the facility.
- **2017 Distribution of Total TRI Waste:** Pie chart showing the percent distribution of how the total TRI waste reported is managed (On-site Releases, Off-site Transfers, and On-site Management).
- 2017 Distribution of Total Off-site Transfers by Category: Pie chart showing the
  percent distribution of the total pounds transferred off-site. Off-site transfers include offsite disposal, energy recovery, recycling, public owned treatment works (POTW), and
  non POTW treatment.
- 2017 Distribution of Total On-site Waste Management by Category: Pie chart showing the percent distribution of the total pounds managed on-site. On-site management includes on-site treatment, recycling, and energy recovery.



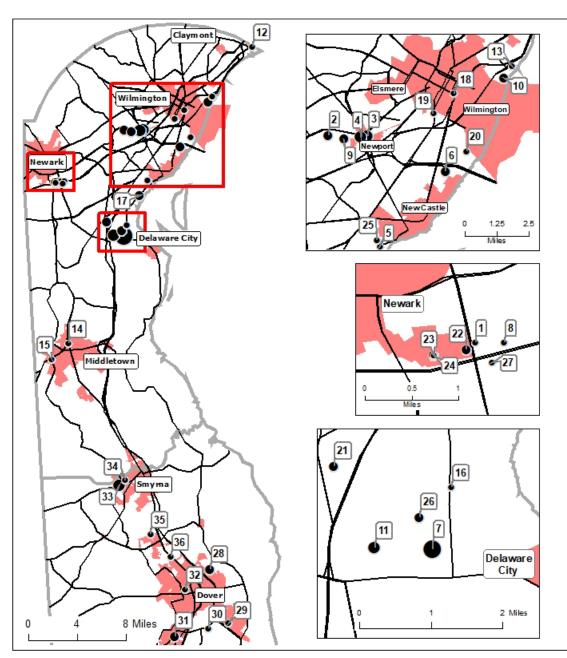
### **Comparison to Other Delaware TRI Facilities:**

This section provides two graphical comparisons for Delaware TRI facilities.

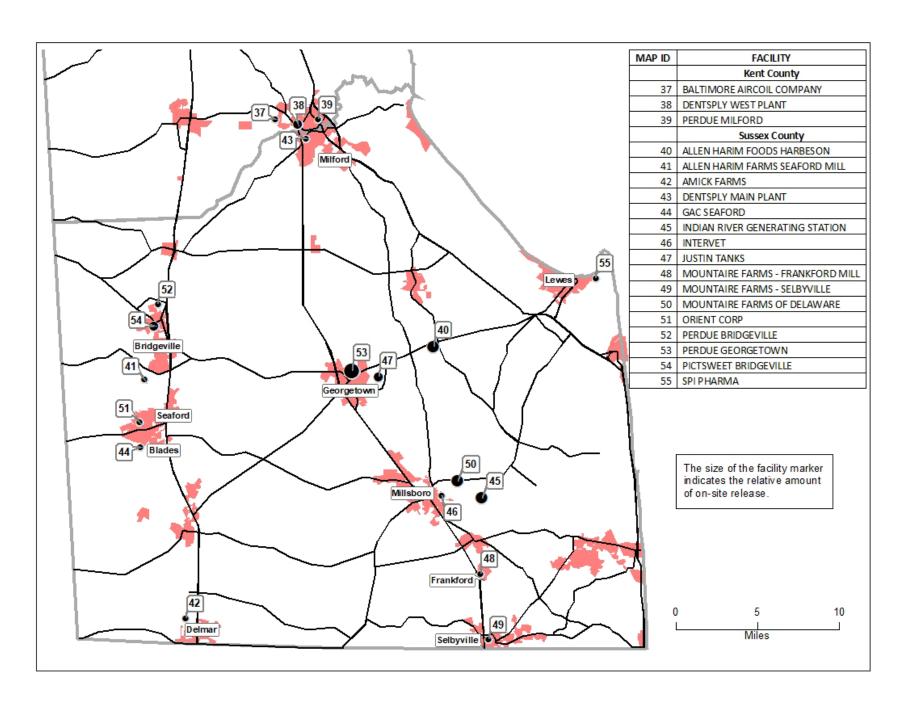
- 2017 On-site Releases: Top 15 Facilities: Bar chart showing the total on-site releases
  for the top 15 facilities and a group for all other facilities. The facility is highlighted in red
  and underlined on the graph. If the facility falls into the bottom third of all facilities for onsite releases in Delaware it is noted. See Appendices C, E, F in the 2017 Delaware
  TRI Report for further detail for on-site releases.
- 2017 Total TRI Waste Reported: Top 15 Facilities: Bar chart showing the total waste reported for the top 15 facilities and a grouping for all other facilities. Total waste reported includes waste released on-site, managed on-site, or transferred off-site. The facility is highlighted in red and underlined on the graph. If a facility falls into the bottom third in total waste reported by facilities in Delaware for 2017, it is noted. See Appendices D and G in the 2017 Delaware TRI Report for further detail on off-site transfers and on-site management.

#### **Notable National Rankings:**

Notable national rankings for the facility are listed based on a search of the preliminary EPA 2017 data set as of October 2017 using <u>EPA's TRI Explorer</u>. For applicable rankings, the North American Classification Industrial Classification System (NAICS) code for the facility is listed.



MAPID	FACILITY
	New Castle County
1	AEARO TECHNOLOGIES
2	AGILENT TECHNOLOGIES
3	AIR LIQUIDE ADVANCED SEPARATIONS
4	BASF COLORS AND EFFECTS USA LLC
5	COLOR WORKS PAINTING
6	CRODA
7	DELAWARE CITY REFINERY
8	DUHADAWAY TOOL & DIE SHOP INC
9	DYK AUTOMOTIVE LLC
10	EDGE MOOR/HAY ROAD ENERGY CENTERS
11	FORMOSA PLASTICS
12	HONEYWELL
13	IKO
14	JOHNSON CONTROLS BATTERY PLANT
15	JOHNSON CONTROLS DISTRIBUTION
16	KUEHNE
17	NATIONAL GUARD TRAINING SITE RANGE
18	NORAMCO INC
19	OWEN STEEL COMPANY
20	PRINCE MINERALS LLC
21	ROGERS CORP
22	ROHM & HAAS B2 B3 B8
23	ROHM & HAAS B5 B6
24	ROHM & HAAS B7 B15
25	V&S DELAWARE GALVANIZING
26	VEOLIA - RED LION PLANT
27	VP RACING FUELS
	Kent County
28	CALPINE CORP - GARRISON ENERGY CENTER
29	DOVER AFB
30	GRIFFITH ENERGY - CARL KING
31	HANDYTUBE
32	HANESBRANDS
33	HANOVER FOODS
34	METAL MASTERS
35	PPG INDUSTRIES
36	SERVICE ENERGY DOVER





### **AEARO TECHNOLOGIES LLC**

### LOCATION/CONTACT:

Address: 650 Dawson Drive

Newark, DE 19713

Phone: (302) 286-2415

Contact: Tom Flaherty



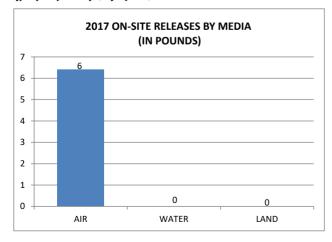
### **FACILITY OVERVIEW:**

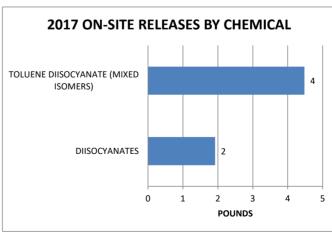
Aearo Technologies LLC manufactures and converts urethane foams and foam composites with a variety of facings for many industries and uses.

Aearo Technologies LLC has reported since 1987, previously as E.A.R. and Cabot Safety. The facility reported on two chemicals in 2017 (diisocyanates and toluene diisocyanates), with on-site releases only to air. These chemicals are utilized in the process of making of the urethane foam and foam composites. The converting operations do not utilize these chemicals. Virtually all of the waste is shipped off site, with less than 0.1% being released on-site to air.

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE RELEASES				ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	MANAGEMENT	PBT	CARCINOGEN
DIISOCYANATES	2	0	0	2	10,048	0	NO	NO
TOLUENE DIISOCYANATE (MIXED ISOMERS)	4	0	0	4	1,590	0	NO	YES
TOTAL	6	0	0	6	11,638	0	•	

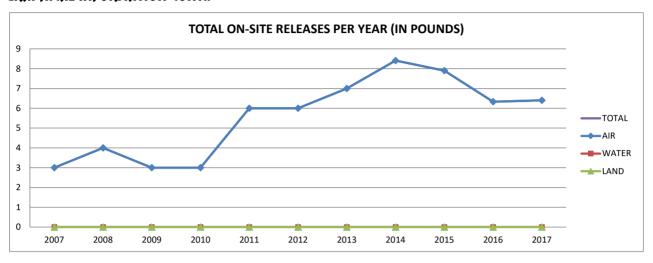


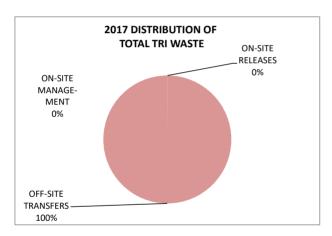


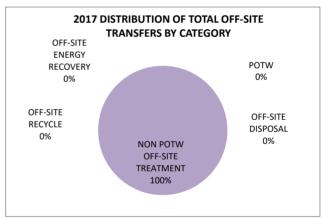


# **AEARO TECHNOLOGIES LLC, CONT.**

#### **GRAPHICAL INFORMATION CONT.:**







#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

Aearo Technologies ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.

### **NOTABLE 2017 NATIONAL RANKINGS:**

Aearo Technologies ranks 100th in the nation for off-site transfers of diisocyanates (out of 1,328 facilities).

Aearo Technologies ranks 26th in the nation for off-site transfers of toluene diisocyanate (mixed isomers) (out of 135 facilities).



### **AGILENT TECHNOLOGIES**

### LOCATION/CONTACT:

Address: 538 First State Blvd.

Newport, DE 19804

Phone: (302) 636-3668

Contact: Renee Lewandowski



### **FACILITY OVERVIEW:**

Agilent Technologies has two main production processes. The primary production process is the manufacturing of various columns (consumables) for liquid chromatography equipment. This process is further broken down into packing production and column production, in which the material within the column is produced and this material is then packed into the column. The second process is identified as Substrate Manufacturing. This operation is comprised of a highly specialized glass cleaning and coating operation that produces glass slides that are shipped to an Agilent facility in Santa Clara, CA where they become microarray scanner slides used for DNA testing. Both processes are complete independent of one another.

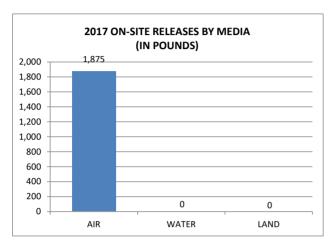
Facilities at the Newport site have reported since in 1990, previously as Rockland Technologies and Hewlett-Packard Company. Agilent Technologies has reported for the site since 2001. Agilent Technologies reported on three chemicals in 2017, toluene, methanol and acetonitrile. All three chemicals (solvents) are utilized as chemical processing aids and do not remain in the product. All on-site releases of these chemicals are to the air. The majority of waste is transferred offsite for treatment or energy recovery. Out of the three chemicals, methanol consists of approximately 94% of all onsite releases, while toluene consists of approximately 67% of all offsite transfers. Fluctuations in onsite releases and offsite transfers are directly related to production.

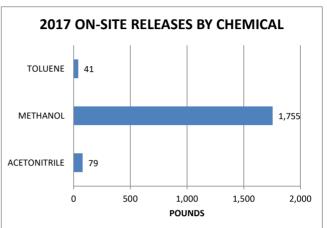
### 2017 TRI DATA (REPORTED IN POUNDS):

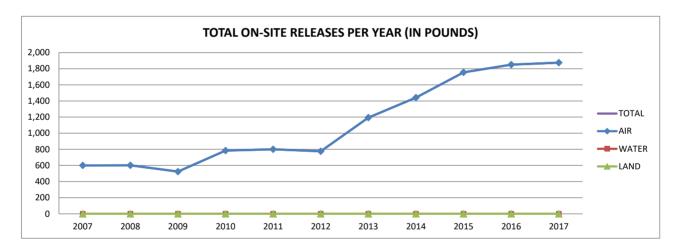
		ON-SITE	RELEASES		OFF CITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
ACETONITRILE	79	0	0	79	21,929	0	NO	NO
METHANOL	1,755	0	0	1,755	52,052	0	NO	NO
TOLUENE	41	0	0	41	151,103	0	NO	NO
TOTAL	1,875	0	0	1,875	225,084	0		

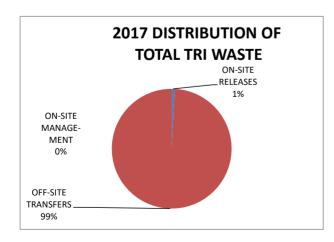


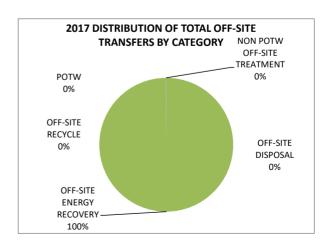
# AGILENT TECHNOLOGIES, CONT.







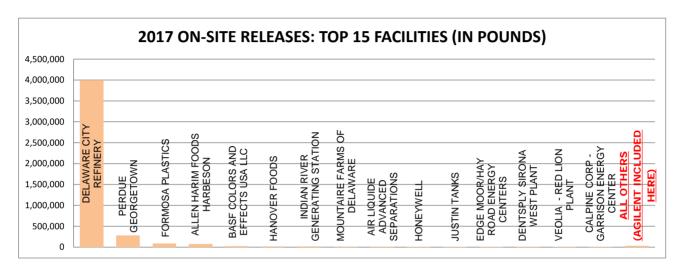


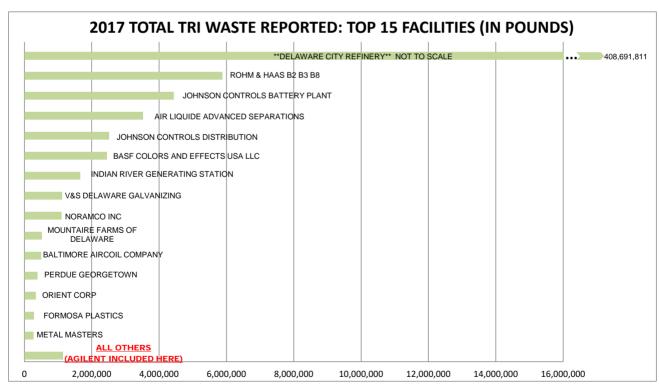




## AGILENT TECHNOLOGIES, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Agilent Technologies ranks 64th in the nation for off-site transfers of acetonitrile (out of 139 facilities).



### AIR LIQUIDE ADVANCED SEPARATIONS

### LOCATION/CONTACT:

Address: 305 Water Street

Newport, DE 19804

Phone: (302) 225-2126

**Contact**: Michael Bailey



### **FACILITY OVERVIEW:**

Air Liquide Advanced Separations provides methods to purify and produce gases for a wide range of applications and manufactures hollow fiber membrane systems for air separation/nitrogen generation, carbon dioxide removal and hydrogen purification.

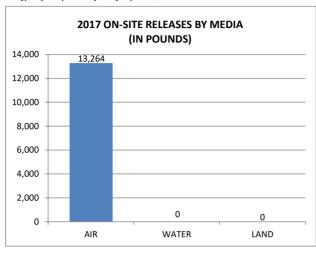
Air Liquide Advanced Separations has reported since 1992, previously as Air Liquide-Medal. The facility reported five TRI chemicals for 2017, cyclohexane, methanol, n,n-dimethylformamide, n-hexane, and n-methyl-2-pyrrolidone. These chemicals are used as solvents in the fiber production process. The majority of waste is managed on-site and off-site, with less than 0.4% being released on-site to air.

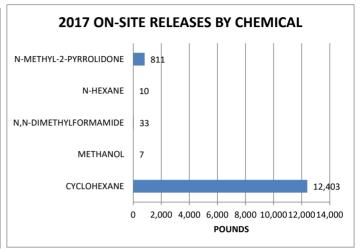
### 2017 TRI DATA (REPORTED IN POUNDS):

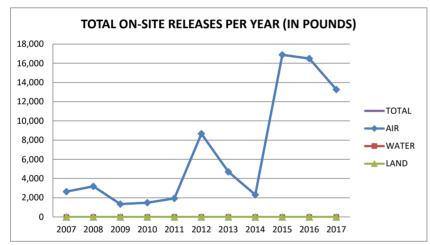
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
CYCLOHEXANE	12,403	0	0	12,403	13,985	0	NO	NO
METHANOL	7	0	0	7	56,335	1,827,349	NO	NO
N,N-DIMETHYLFORMAMIDE	33	0	0	33	29,560	0	NO	NO
N-HEXANE	10	0	0	10	0	1,521,163	NO	NO
N-METHYL-2-PYRROLIDONE	811	0	0	811	61,832	0	NO	NO
TOTAL	13,264	0	0	13,264	161,712	3,348,512		

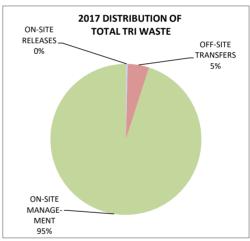


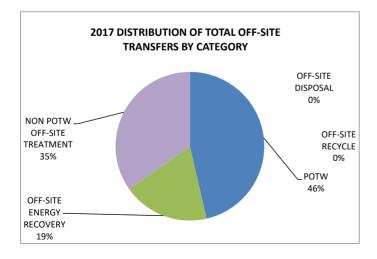
# AIR LIQUIDE ADVANCED SEPARATIONS, CONT.









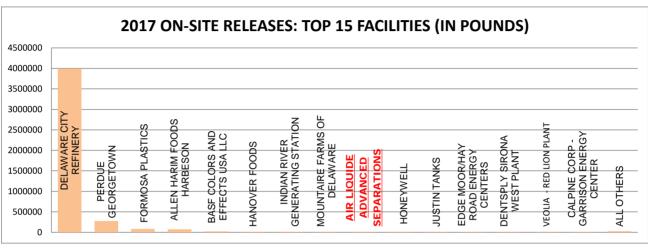


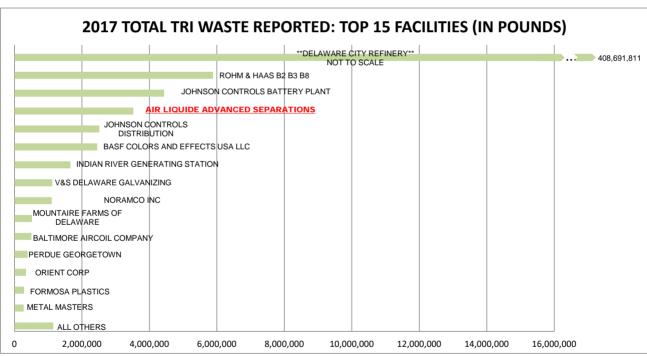




### AIR LIQUIDE ADVANCED SEPARATIONS, CONT.

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Air Liquide Advanced Separations ranks 31st in the nation for on-site recycling of methanol (out of 2,162 facilities).

Air Liquide Advanced Separations ranks 6th in the nation for on-site recycling of n-hexane (out of 1,222 facilities).

Air Liquide Advanced Separations ranks 73rd in the nation for off-site transfers of n-methyl-2-pyrrolidone (out of 380 facilities).

### **ALLEN HARIM FARMS - SEAFORD**

### LOCATION/CONTACT:

Address: 20799 Allen Road

Seaford, DE 19973

Phone: (302) 684-1640

**Contact**: Michael Sause



### **FACILITY OVERVIEW:**

Allen Harim Farms-Seaford operates as a mill facility. The primary function of the mill facility is to receive, process, and combine raw ingredients into a nutritional feed for poultry.

The facility has reported since 2008, previously as Allen Family Foods. Allen Harim Farms has reported since it purchased the facility in September 2011. The facility reported on five chemicals in 2017, copper, copper compounds, manganese, manganese compounds and zinc compounds. All chemicals are being reported on the short Form A. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.) The metal compounds reported are components of a trace mineral additive feed ingredients utilized at the mill.

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
COPPER*	0	0	0	0	0	0	NO	NO
COPPER COMPOUNDS*	0	0	0	0	0	0	NO	NO
MANGANESE*	0	0	0	0	0	0	NO	NO
MANGANESE COMPOUNDS*	0	0	0	0	0	0	NO	NO
ZINC COMPOUNDS*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.



### **ALLEN HARIM FOODS - HARBESON**

### LOCATION/CONTACT:

Address: 18752 Harbeson Road

Harbeson, DE 19951

Phone: (302) 684-1640

Contact: Michael Sause



#### **FACILITY OVERVIEW:**

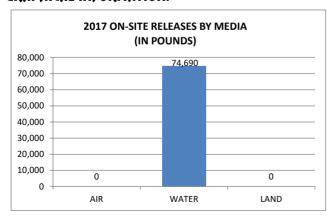
Allen Harim Foods-Harbeson, operates as poultry processing plant. The facility processes poultry for consumer use and utilizes an onsite wastewater system to treat plant water prior to discharging into a stream.

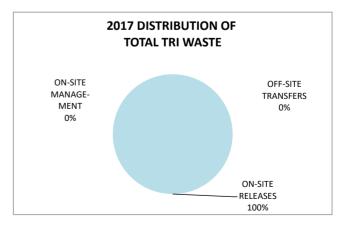
The facility has reported since 1987, previously as Allen Family Foods. Allen Harim Foods has reported since it purchased the facility in September 2011. For 2017, the facility reported on two chemicals, nitrate compounds, and peracetic acid. In the wastewater treatment process, water dissociable nitrate compounds are a by-product of the nitrification process. The second chemical, peracetic acid, was reported on the short Form A. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.)

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES	1	OFF-SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
NITRATE COMPOUNDS	0	74,690	0	74,690	0	0	NO	NO
PERACETIC ACID*	0	0	0	0	0	0	NO	NO
TOTAL	0	74,690	0	74,690	0	0		

<sup>\*</sup>Reported on Short Form A

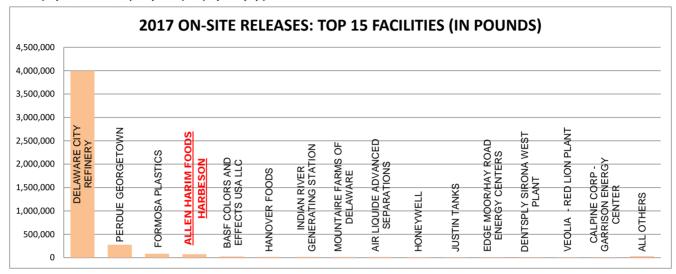






# ALLEN HARIM FOODS - HARBESON, CONT.

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





### **AMICK FARMS**

### LOCATION/CONTACT:

Address: 10281 Amick Drive

Delmar, DE 19940

Phone: (302) 846-9511

**Contact**: Richard Martinson



### **FACILITY OVERVIEW:**

Amick Farms reported under the North American Industrial Classification System (NAICS) as 311119, which covers other animal food manufacturing (except facilities primarily engaged in Custom Grain Grinding for Animal Feed).

Amick Farms has owned and operated this facility, and reported to TRI, since 2010. Previous owner/operators Allens Milling Company and Delmar Hatchery filed TRI reports for this facility from 1995-2010. Amick Farms reported on three chemicals in 2017, copper compounds, manganese compounds, and zinc compounds, all on short Form A. Form A reports do not include waste management activities. Form A reports can be used if the chemical being reported is not a PBT chemical; the chemical has not been manufactured, processed, or otherwise used in excess of 1,000,000 lbs.; and, the total annual waste management (i.e., recycling, energy recovery, treatment, and disposal or other releases) of the chemical does not exceed 500 lbs. The metal compounds reported are used in poultry feed.

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		ON-SITE MANAGEMENT	PBT	CARCINOGEN
COPPER COMPOUNDS*	0	0	0	0	0	0	NO	NO
MANGANESE COMPOUNDS*	0	0	0	0	0	0	NO	NO
ZINC COMPOUNDS*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.



# **BALTIMORE AIRCOIL COMPANY**

### LOCATION/CONTACT:

Address: 1162 Holly Hill Road

Milford, DE 19963

Phone: (302) 424-2566

**Contact**: Angela Sheppard



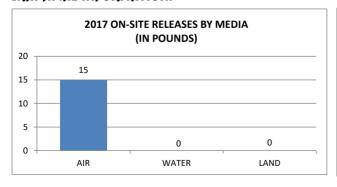
#### **FACILITY OVERVIEW:**

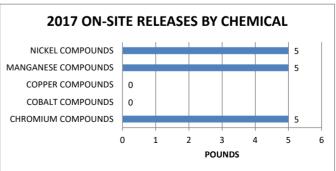
The Baltimore Aircoil Company reported under the North American Industrial Classification System (NAICS) as 333415, which covers air-conditioning and warm air heating equipment and commercial and industrial refrigeration equipment manufacturing.

The Baltimore Aircoil Company has reported since 2011. The facility reported on five chemicals in 2017, with on-site releases only to air due to welding and laser cutting of metal. The chemicals were chromium, cobalt, copper, manganese, and nickel compounds. The chemicals that are reported are from scrap metal that is shipped off-site for recycling. Virtually all of the waste is shipped off-site for recycling, with less than 0.01% being released on-site. In 2015, they reduced the amount of waste sent off-site for recycling by 7% by improving the process to utilize sheet metal.

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	TRANSFERS	MANAGEMENT	PBT	CARCINOGEN
CHROMIUM COMPOUNDS	5	0	0	5	171,026	0	NO	YES
COBALT COMPOUNDS	0	0	0	0	21,000	0	NO	YES
COPPER COMPOUNDS	0	0	0	0	28,565	0	NO	NO
MANGANESE COMPOUNDS	5	0	0	5	85,090	0	NO	NO
NICKEL COMPOUNDS	5	0	0	5	196,226	0	NO	YES
TOTAL	15	0	0	15	501,907	0		

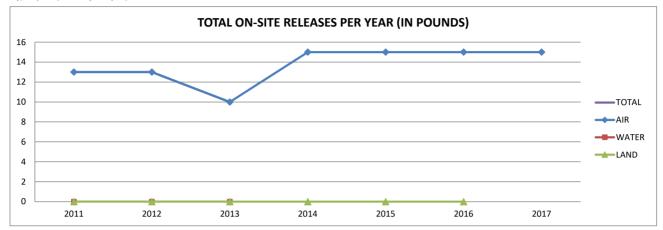


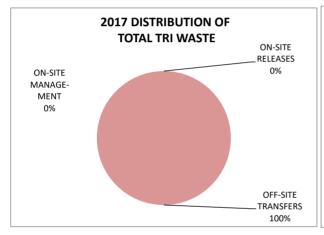


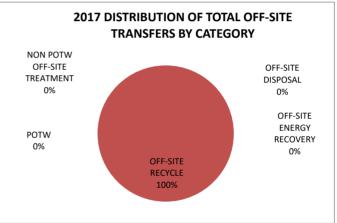


# **BALTIMORE AIRCOIL COMPANY, CONT.**

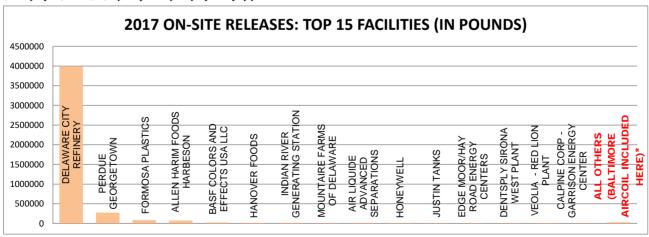
#### **GRAPHICAL INFORMATION CONT.:**







### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

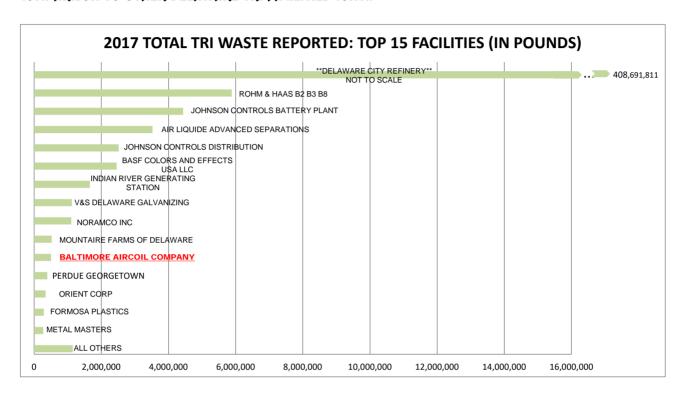


<sup>\*</sup>The Baltimore Aircoil Company ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.



# **BALTIMORE AIRCOIL COMPANY, CONT.**

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES CONT.:**



### **NOTABLE 2017 NATIONAL RANKINGS:**

The Baltimore Aircoil Company ranks 59th in the nation for off-site transfers of chromium compounds (out of 1,279 facilities).

The Baltimore Aircoil Company ranks 39th in the nation for off-site transfers of nickel compounds (out of 1,092 facilities).



# BASF COLORS AND EFFECTS USA LLC

### LOCATION/CONTACT:

Address: 205 South James Street

Newport, DE 19804

Phone: (973)-245-5230

**Contact**: Roberto Nelson



### **FACILITY OVERVIEW:**

BASF Colors and Effects USA LLC manufactures high performance and effect pigments for the paint, plastic, and printing industries. The Newport site has reported since 1998, previously as BASF Corp, and as CIBA Specialty Chemicals. The Newport Site became part of BASF Corporation in April 2010. For 2017, the facility reported on nine chemicals, with the majority either being treated or recycled on or off-site, with about 1% being released on-site.

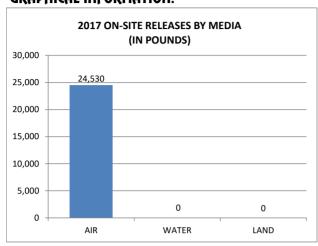
Methanol is the primary chemical released onsite after being processed through air pollution control devices. Methanol is utilized in pigment production while also being generated as a co/by-product in some of the same processes. Methanol is managed both on and off-site, with less than 1.1% being released on-site. The other TRI chemicals used on-site are either raw materials or process aids.

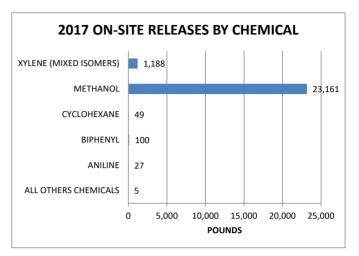
### 2017 TRI DATA (REPORTED IN POUNDS):

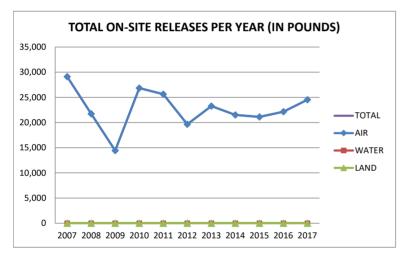
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	TRANSFERS	MANAGEMENT	PBT	CARCINOGEN
ANILINE	27	0	0	27	41,392	1,352	NO	NO
BIPHENYL	100	0	0	100	98,376	2,599	NO	NO
CYCLOHEXANE	49	0	0	49	30,434	0	NO	NO
METHANOL	23,161	0	0	23,161	818,744	1,319,295	NO	NO
NITRATE COMPOUNDS	0	0	0	0	22,656	0	NO	NO
NITRIC ACID	0	0	0	0	0	23,021	NO	NO
N-METHYL-2-PYRROLIDONE	0	0	0	0	53,105	0	NO	NO
P-CHLOROANILINE	5	0	0	5	18,028	474	NO	YES
XYLENE (MIXED ISOMERS)	1,188	0	0	1,188	994	0	NO	NO
TOTAL	24,530	0	0	24,530	1,083,729	1,346,741	<u> </u>	

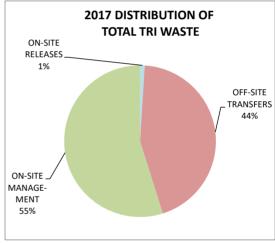


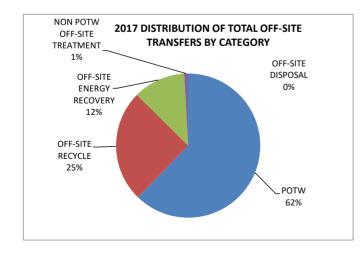
# BASF COLORS AND EFFECTS USA LLC, CONT.









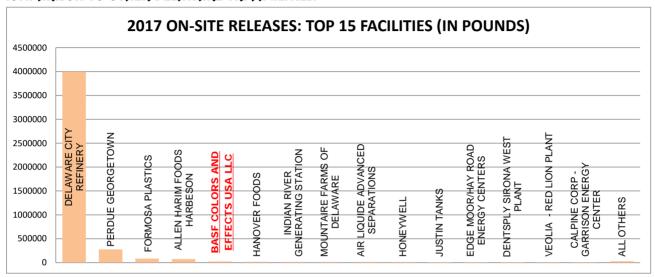


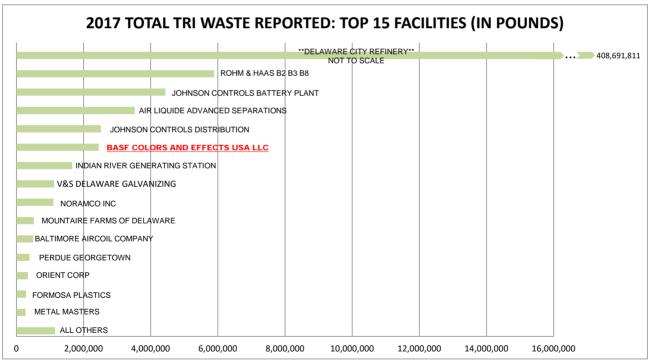




### BASF COLORS AND EFFECTS USA LLC, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

BASF Colors and Effects USA LLC ranks 52nd in the nation for off-site transfers of methanol (out of 2,162 facilities).

BASF Colors and Effects USA LLC ranks 45th in the nation for on-site recycling for methanol (out of 2,162 facilities).

BASF Colors and Effects USA LLC ranks 3rd in the nation for off-site transfers of biphenyl (out of 120 facilities).



### **CALPINE CORP-GARRISON ENERGY CENTER**

### LOCATION/CONTACT:

Address: 450 Garrison Oak Drive

Dover, DE 19901

Phone: (302)-257-3570

**Contact**: Gerald Kissel



### **FACILITY OVERVIEW:**

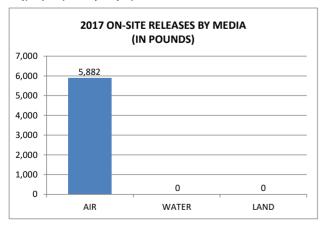
Calpine Corporation's Garrison Energy Center reported under the North American Industrial Classification System (NAICS) as 221112, which covers fossil fuel electric power generation.

The Garrison Energy Center reported to TRI for the first time for 2016. This 309-megawatt natural gas-fired, combined cycle electric generating facility is located in the Garrison Oak Technological Park in Dover. The plant employs highly efficient combined-cycle technology with advanced environmental controls.

The Garrison Energy Center reported on one chemical in 2017, ammonia, with only on-site releases to air.

### **2017 TRI DATA (REPORTED IN POUNDS):**

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
AMMONIA	5,882	0	0	5,882	0	0	NO	NO
TOTAL	5,882	0	0	5,882	0	0		

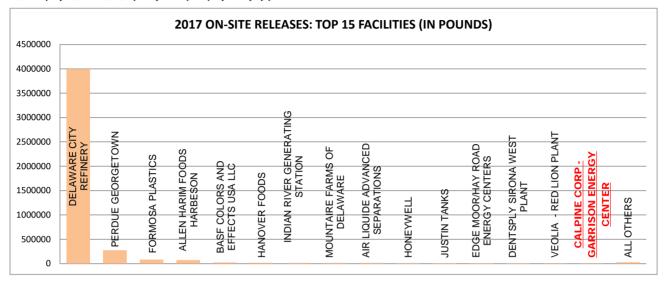






# **CALPINE CORP-GARRISON ENERGY CENTER, CONT.**

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



Calpine Corp-Garrison Energy Center ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.



### **COLOR WORKS PAINTING**

### LOCATION/CONTACT:

Address: 251 Edwards Ave

New Castle, DE 19720

Phone: (302)324-8411

Contact: Sean Histed

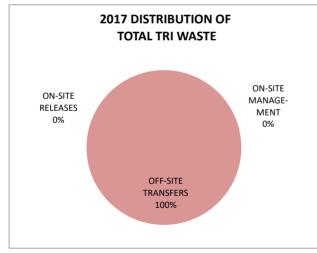


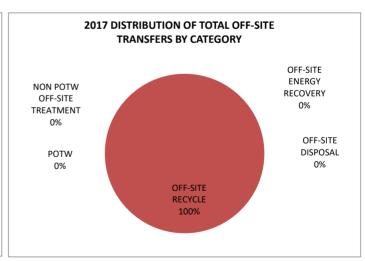
### **FACILITY OVERVIEW:**

Color Works Painting reported under the North American Industrial Classification System (NAICS) as 332812, which covers metal coating, engraving, and allied services to manufacturers. Color Works reported on one chemical in 2017, manganese. There were no reported on-site releases, with all waste being sent off-site for recycling.

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF CITE	ONICITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
MANGANESE	0	0	0	0	720	0	NO	NO
TOTAL	0	0	0	0	720	0		







# **COLOR WORKS PAINTING, CONT.**

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

Color Works Painting ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.

Color Works Painting ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.



# **CRODA**

### LOCATION/CONTACT:

Address: 315 Cherry Lane

New Castle, DE 19720

Phone: (302) 429-5320

**Contact**: Chris Barnett



### **FACILITY OVERVIEW:**

Croda manufactures products, known as surfactants, that promote the mixing of oil and water based ingredients in many consumer products, such as baby shampoo, shaving cream, mouthwash, pharmaceuticals, and many other personal care and industrial products.

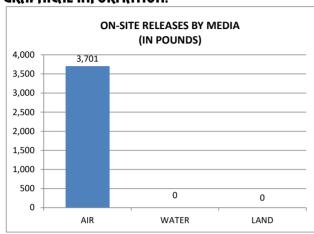
The facility has reported since 1987, previously as ICI Atlas Point and Uniquema, with Croda International acquiring Uniquema in 2006. Croda reported on nine chemicals for 2017. All on-site releases were to air, with the largest being ethylene oxide. The majority of chemicals reported are primarily utilized as ingredients in the facility's products.

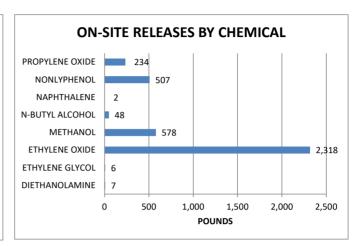
### 2017 TRI DATA (REPORTED IN POUNDS):

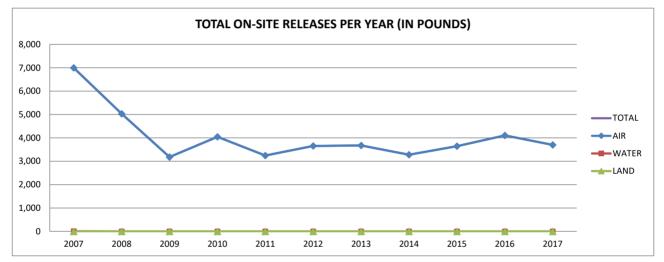
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
CERTAIN GLYCOL ETHERS	1	0	0	1	3,782	0	NO	NO
DIETHANOLAMINE	7	0	0	7	5,532	0	NO	NO
ETHYLENE GLYCOL	6	0	0	6	13,321	0	NO	NO
ETHYLENE OXIDE	2,318	0	0	2,318	0	415	NO	YES
METHANOL	578	0	0	578	10,550	0	NO	NO
N-BUTYL ALCOHOL	48	0	0	48	367	0	NO	NO
NAPHTHALENE	2	0	0	2	420	0	NO	YES
NONLYPHENOL	507	0	0	507	1,914	0	NO	NO
PROPYLENE OXIDE	234	0	0	234	0	765	NO	YES
TOTAL	3,701	0	0	3,701	35,886	1,180		

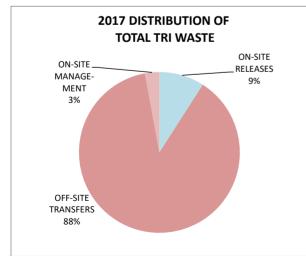


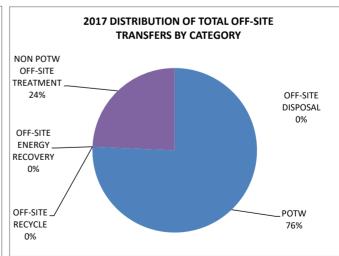
# CRODA, CONT.







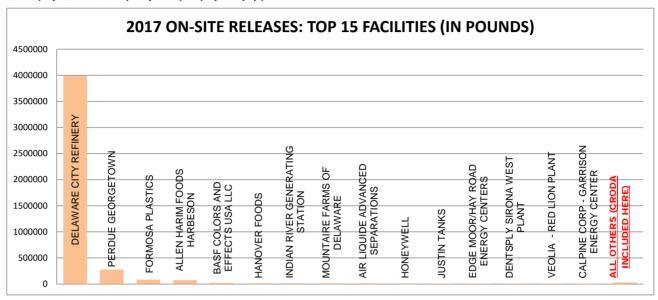




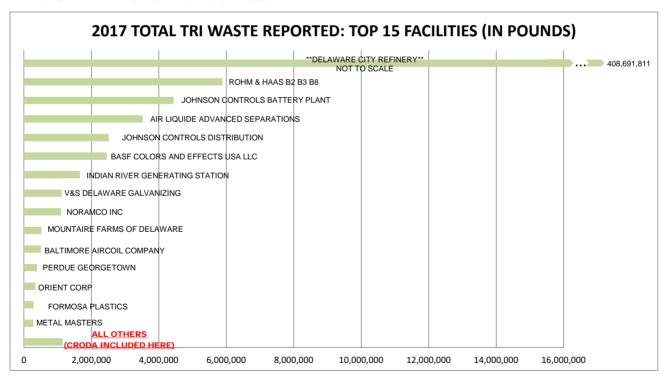


### CRODA, CONT.

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



## **NOTABLE 2017 NATIONAL RANKINGS:**

Croda ranks 25th in the nation for on-site releases of ethylene oxide (out of 106 facilities).

Croda ranks 50th in the nation for on-site releases of propylene oxide (out of 95 facilities).



### **DELAWARE CITY REFINERY**

### LOCATION/CONTACT:

Address: 4550 Wrangle Hill Road

Delaware City, DE 19706

Phone: (302)-834-6033

Contact: Lisa Lindsey



#### **FACILITY OVERVIEW:**

The Delaware City Refinery refines crude oil into automotive gasoline, ultra-low sulfur diesel (ULSD) fuel, ultra-low sulfur kerosene (ULSK), jet fuel, ultra-low sulfur home heating oil, and a variety of other petroleum and energy products. In June of 2010, the Delaware City Refining Company LLC purchased the facility from Valero after the refinery had been idled in November 2009. The refinery began restarting process unit operations in mid-2011 following extensive maintenance activity, and has been fully operational since.

For purposes of the 2017 reporting year, the refinery reported on 39 chemicals, with 4 million pounds being released on-site. On-site releases for the refinery are up 48% compared to 2016. This was primarily due to the increase of nitrate compounds being released to water, which are up 1,021,869 pounds compared to 2016. The largest two contributors to on-site releases were the 3.47 million pounds of nitrate compounds released to water and 360,895 pounds of sulfuric acid aerosol, accounting for 96% of all on-site releases. Nitrogen, a naturally occurring compound in all crude oil, is removed during the refining process creating ammonia (NH3), which is processed at the Sulfur Recovery Unit and residual quantities are treated at the refinery's wastewater treatment. This ammonia is treated via nitrification at the waste water treatment plant, creating the nitrate compounds that are released to water. Nitrate releases vary from year to year. About 12 million pounds of ammonia is treated on site, with 0.5 percent being released on-site to air and water.

Sulfuric acid mist emissions are released from combustion units at the refinery including process heaters, boilers and combustion turbines. When a sulfur-bearing fuel such as refinery fuel gas is burned, the sulfur is initially converted to Sulfur dioxide (SO2). Under certain conditions, a small portion of the SO2 converts to Sulfur Trioxide (SO3). A fraction of the SO3 can undergo a further reaction to form sulfuric acid aerosol. Sulfuric acid mist emissions vary from year to year.

The refinery reported 404.6 million pounds of chemicals managed on-site, via treatment and energy recovery. The largest of amount reported was hydrogen sulfide with over 373 million pounds treated on-site. Hydrogen sulfide is a gas that is produced during the petroleum refining treatment processes that remove sulfur compounds from fuel products. The Hydrogen sulfide that is produced from these processes is converted by sulfur recovery processes to elemental sulfur, a material that is sold for agricultural and chemical manufacturing uses.

Aqueous Ammonia is utilized as a reactant for several combustion treatment processes, such as the Selective Catalytic Reduction (SCR) and Selective Non-catalytic Reduction (SNCR) controls. These controls are utilized at the refinery to reduce NOx emissions from sources such as process heaters, package boilers and the Fluid Catalytic Cracking Unit (FCCU) CO Boiler and Fluid Coking Unit CO boiler. Very low levels of unreacted ammonia (ammonia slip) from these NOx reduction processes are released to the air.



# **DELAWARE CITY REFINERY, CONT.**

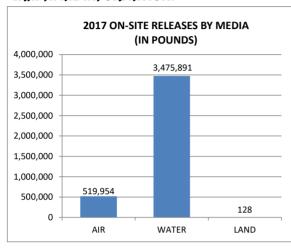
An off-site transfer of asbestos for disposal (80,505 pounds) was recorded in 2017 related to asbestos remediation and abatement activities performed by the refinery.

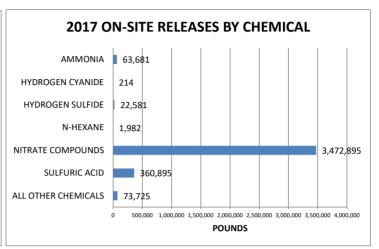
### 2017 TRI DATA (REPORTED IN POUNDS):

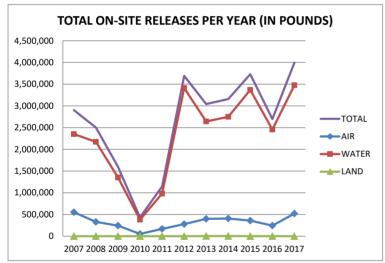
	ON-SITE RELEASES							
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
1,2,4-TRIMETHYLBENZENE	810	5	0	815	0	62,854	NO	NO
1,3-BUTADIENE	250	0	0	250	0	0	NO	YES
2,4-DIMETHYLPHENOL	0	165	0	165	0	231,421	NO	NO
AMMONIA	62,168	1,513	0	63,681	257	11,881,123	NO	NO
ANTHRACENE	0	5	0	5	0	0	NO	NO
ASBESTOS (FRIABLE)	0	0	0	0	80,505	0	NO	YES
BENZENE	7,072	10	0	7,082	478	487,057	NO	YES
BENZO(G,H,I)PERYLENE	1	5	0	5	0	453	YES	NO
CARBON DISULFIDE	1,223	0	0	1,223	0	3,517,860	NO	NO
CARBONYL SULFIDE	482	0	0	482	0	12,876,055	NO	NO
COBALT	40	210	0	250	70	0	NO	NO
CREOSOTE	23	0	128	151	2,277	0	NO	YES
CRESOL (MIXED ISOMERS)	0	330	0	330	0	336,901	NO	NO
CUMENE	350	5	0	355	0	3,724	NO	YES
CYANIDE COMPOUNDS	0	145	0	145	0	14,378	NO	NO
CYCLOHEXANE	1,868	5	0	1,873	475	7,045	NO	NO
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0.001263	0.000000	0.000000	0.001263	0.000000	0.001263	YES	NO
ETHYLBENZENE	1,904	5	0	1,909	589	50,418	NO	YES
ETHYLENE	2,962	0	0	2,962	0	0	NO	NO
ETHYLENE GLYCOL	0	183	0	183	300	18,097	NO	NO
HYDROCHLORIC ACID	214	0	0	214	0	114,926	NO	NO
HYDROGEN CYANIDE	22,379	202	0	22,581	0	432,005	NO	NO
HYDROGEN SULFIDE	11,845	1	0	11,846	0	373,728,611	NO	NO
LEAD COMPOUNDS	101	2	0	103	477	0	YES	YES
MERCURY COMPOUNDS	92.0700	1.5000	0.0000	93.5700	4.9020	0.0000	YES	NO
METHANOL	2,146	5	0	2,151	0	7,938	NO	NO
MOLYBDENUM TRIOXIDE	14	0	0	14	45	0	NO	NO
NAPHTHALENE	1,977	5	0	1,982	0.061	11,861	NO	YES
N-HEXANE	17,688	5	0	17,693	0	94,589	NO	NO
NITRATE COMPOUNDS	0	3,472,895	0	3,472,895	0	0	NO	NO
PHENANTHRENE	4	5	0	9	7	40	NO	NO
PHENOL	138	165	0	303	0.04	326,299	NO	NO
POLYCYCLIC AROMATIC COMPOUNDS	235	4	0	239	0	372	YES	YES
PROPYLENE	4,980	0	0	4,980	0	0	NO	NO
STYRENE	11	5	0	16	0	1,160	NO	YES
SULFURIC ACID	360,895	0	0	360,895	0	0	NO	NO
TETRACHLOROETHYLENE	8	0	0	8	0	0	NO	YES
TOLUENE	12,649	5	0	12,654	2,220	202,762	NO	NO
XYLENE (MIXED ISOMERS)	5,426	5	0	5,431	89	200,096	NO	NO
TOTAL	519,954	3,475,891	128	3,995,973	87,793	404,608,045		

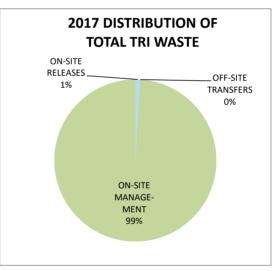


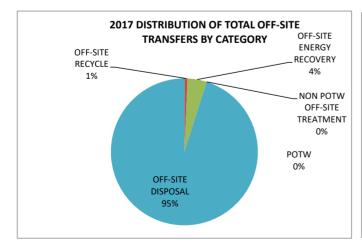
# **DELAWARE CITY REFINERY, CONT.**











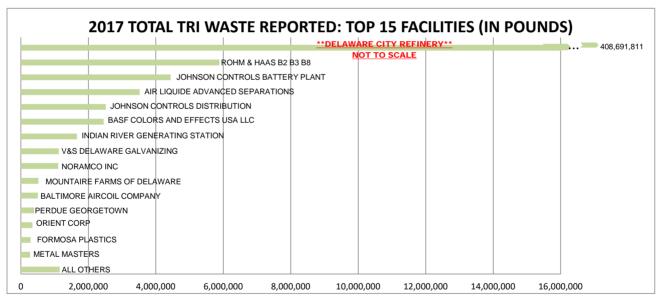




### **DELAWARE CITY REFINERY, CONT.**

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





### **NOTABLE 2017 NATIONAL RANKINGS:**

Delaware City Refinery ranks 6th in the nation for on-site releases of nitrate compounds (out of 2,258 facilities).

Delaware City Refinery ranks 1st in the nation for total waste managed and for total on-site treament of hydrogen sulfide (out of 509 facilities).

Delaware City Refinery ranks 40th in on-site releases of sulfuric acid aerosols (out of 642 facilities).

Delaware City Refinery ranks 5th in off-site transfers of asbestos (friable) (out of 36 facilities).



### **DENTSPLY SIRONA MAIN PLANT**

### LOCATION/CONTACT:

Address: 38 West Clarke Ave. Milford, DE 19963

Phone: (302) 422-4511

**Contact**: Jesse Bautista



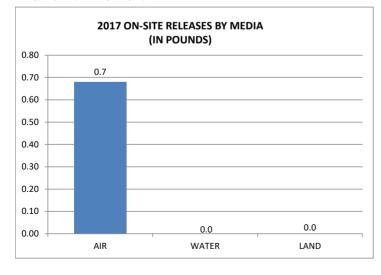
### **FACILITY OVERVIEW:**

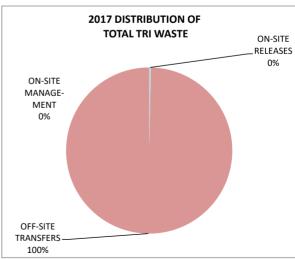
Dentsply Sirona produces a line of consumable products for the dental industry. These products include dental adhesives, dental impression materials, and restoratives. These products are used in dental maintenance and restoration applications.

The facility has reported since 1987, previously as Dentsply Main Plant, L. D. Caulk, and Dentsply Caulk Lakeview. For 2017, the Dentsply Sirona Main Plant reported on one chemical, mercury. Virtually all of their mercury is used in their products or recycled (193.59 pounds recycled), with reported on-site mercury releases to air of 0.68 pounds.

### 2017 TRI DATA (REPORTED IN POUNDS):

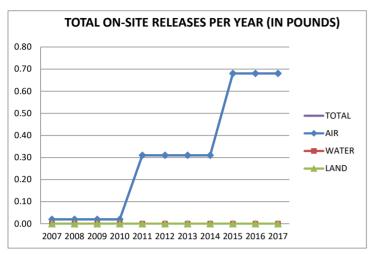
	ON-SITE RELEASES				OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
MERCURY	0.6800	0.0000	0.0000	0.6800	193.5900	0.0000	YES	NO
TOTAL	0.7	0.0	0.0	0.7	194	0		

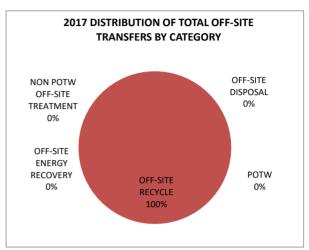






# **DENTSPLY SIRONA MAIN PLANT, CONT.**





#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

The Dentsply Sirona Main Plant ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.

The Dentsply Sirona Main Plant ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

#### **NOTABLE 2017 NATIONAL RANKINGS:**

The Dentsply Sirona Main Plant ranks 34th in the nation for off-site transfers of mercury (out of 381 facilities).

#### **DENTSPLY SIRONA WEST**

#### LOCATION/CONTACT:

Address: 779 E Masten Circle

Milford, DE 19963

Phone: (302) 422-4511

**Contact**: Jesse Bautista



#### **FACILITY OVERVIEW:**

Dentsply Sirona produces a line of consumable products for the dental industry. These products include dental adhesives, dental impression materials, and restoratives. These products are used in dental maintenance and restoration applications. Dentsply Sirona's East Masten Circle facility (Dentsply Sirona West) and the West Clarke Avenue facility (Dentsply Sirona Main) are located in Milford.

The facility has reported since 1987, previously as Dentsply West Plant, L. D. Caulk, and Dentsply Caulk West Milford. The Dentsply Sirona West Plant reported three TRI chemicals for 2017, methanol, methyl methacrylate (MMA), and toluene. Methanol is used as a processing aid in the manufacture of polymethacrylates. Methyl methacrylate (MMA) is also used in the manufacture of polymethacrylates. Toluene is used for cleaning. All onsite releases were reported as released to air.

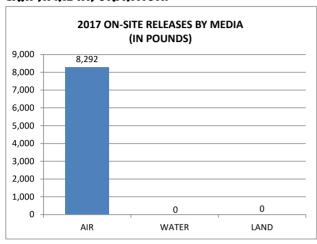
For 2017, on-site releases increased 88% over 2016 (see Total On-site Releases Per Year Graph on the next page).

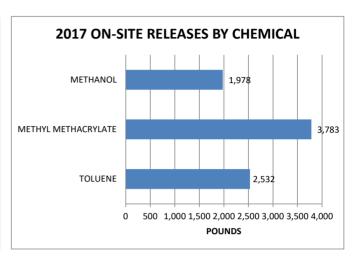
#### 2016 TRI DATA (REPORTED IN POUNDS):

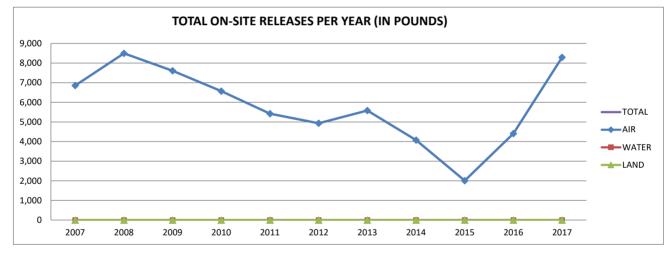
	ON-SITE RELEASES				OFF CITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
METHANOL	1,978	0	0	1,978	10,124	0	NO	NO
METHYL METHACRYLATE	3,783	0	0	3,783	90	0	NO	NO
TOLUENE	2,532	0	0	2,532	3,836	0	NO	NO
TOTAL	8,292	0	0	8,292	14,049	0		

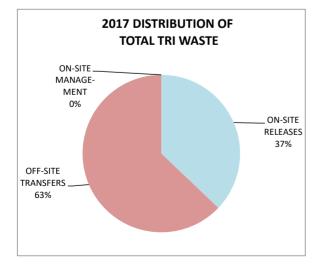


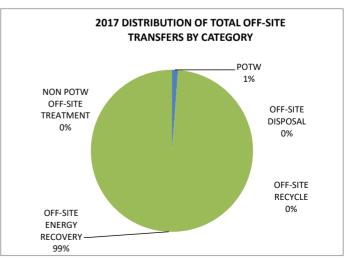
# **DENTSPLY SIRONA WEST, CONT.**







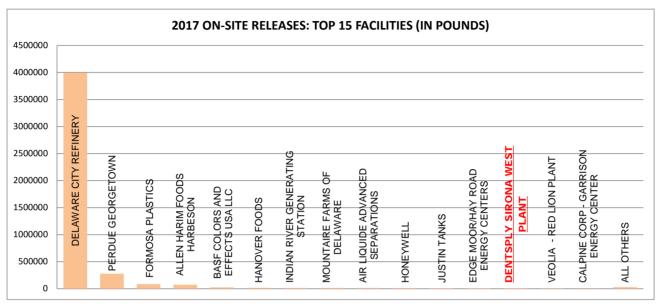






#### **DENTSPLY SIRONA WEST, CONT.**

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**







#### **DOVER AIR FORCE BASE**

#### LOCATION/CONTACT:

Address: 436 CES/CC 600 Chevron Ave.

Dover Air Force Base, DE 19902

Phone: (302) 677-3370

**Contact**: Jennifer Vallee



#### **FACILITY OVERVIEW:**

The Dover Air Force Base (DAFB) is a military installation that falls under the federal facility reporting requirements. DAFB is home to the 436th Airlift Wing, commonly known as the "Eagle Wing" and the 512th Airlift Wing, the Reserve associate, as the "Liberty Wing." Dover houses the C-5 Galaxy and C-17 Globemaster III, large transport military aircraft. Team Dover's mission focus is to safely fix and fly aircraft, prepare and deploy Airmen, move cargo, and return America's fallen heroes with dignity, honor and respect.

Dover Air Force Base (DAFB) has reported to TRI since 2001. For 2017, the facility reported on five chemicals (naphthalene; xylene; 1,2,4-Trimethylbenzene; cumene and ethylbenzene), with all on-site releases being made to air. These chemicals are the by-product of jet fuel being used on DAFB. The reported TRI data is from the fuel utilized by transient aircraft stopping at DAFB, and the depot level maintenance taking place at the Jet Engine Test Cell. Transient vehicles include only vehicles stopping at the installation for fuel or rest, and that have no assigned mission at the facility. Vehicles with an assigned mission at the base fall under the motor-vehicle reporting exemption. On-site releases to air are up 118% compared to 2016.

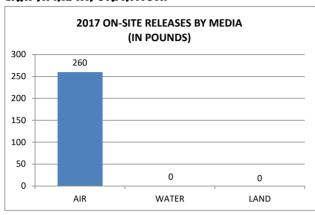
#### **2017 TRI DATA (REPORTED IN POUNDS):**

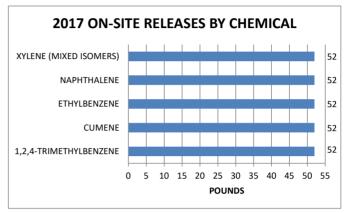
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
1,2,4-TRIMETHYLBENZENE	52	0	0	52	1	0	NO	NO
CUMENE	52	0	0	52	1	0	NO	YES
ETHYLBENZENE	52	0	0	52	1	0	NO	YES
NAPHTHALENE	52	0	0	52	1	0	NO	YES
XYLENE (MIXED ISOMERS)	52	0	0	52	1	0	NO	NO
TOTAL	260	0	0	260	5	0		

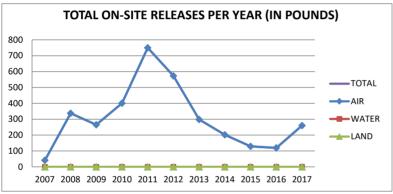


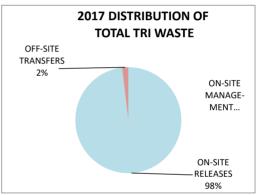
#### DOVER AIR FORCE BASE, CONT.

#### **GRAPHICAL INFORMATION:**

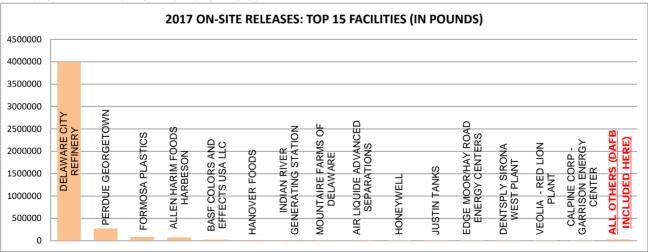








#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



Dover Air Force Base ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.



#### **DUHADAWAY TOOL AND DIE**

#### LOCATION/CONTACT:

Address: 801 Dawson Drive

Newark, DE 19713

Phone: (302) 366-0113

Contact: John O'Donnell



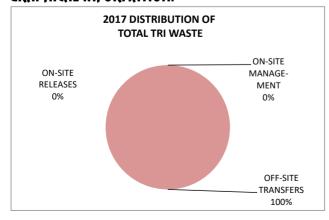
#### **FACILITY OVERVIEW:**

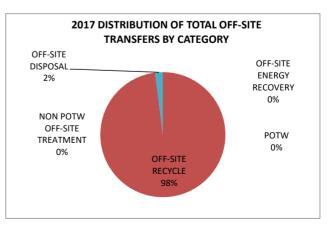
DuHadaway Tool and Die Shop produces precision crafted parts and assemblies for global power generation, automotive, military, and aerospace industries. The facility provides precision machining with the use of horizontal and vertical boring mills, machining centers, lathes, turning centers, electrical discharge machining (EDM), and welding stations.

DuHadaway Tool and Die first filed a TRI report for the 2009 reporting year. The facility was below the reporting thresholds in 2010 and 2011. For 2017, the facility reported on two chemicals, chromium and nickel, with all waste being transferred off-site. Chromium and nickel are present in varying levels in the metals that are used to manufacture parts. The scrap and metal shavings that are the result of the manufacturing process are shipped off-site for recycling. Volumes of scrap and metal shavings are determined by annual sales.

#### 2016 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		ON-SITE MANAGEMENT	PBT	CARCINOGEN
CHROMIUM	0	0	0	0	11,472	0	NO	NO
NICKEL	0	0	0	0	9,967	0	NO	YES
TOTAL	0	0	0	0	21,439	0		

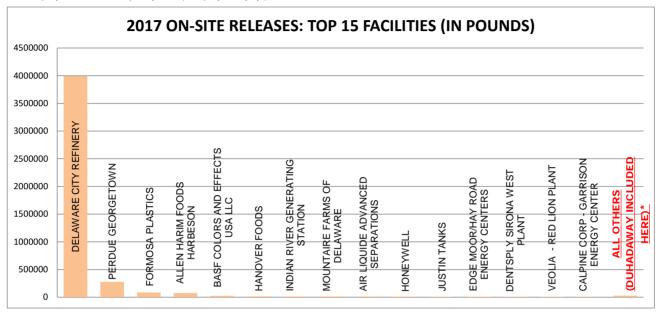






# **DUHADAWAY TOOL AND DIE, CONT.**

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



<sup>\*</sup>DuHadaway Tool and Die ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site. Comparisons only include facilities reporting on Form R.





#### DYK AUTOMOTIVE LLC

#### LOCATION/CONTACT:

Address: 1 Crowell Road

Wilmington, DE 19804

Phone: (302)-351-1147

**Contact**: Jerry Ivey



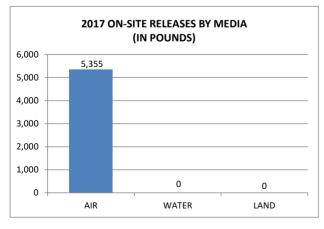
#### **FACILITY OVERVIEW:**

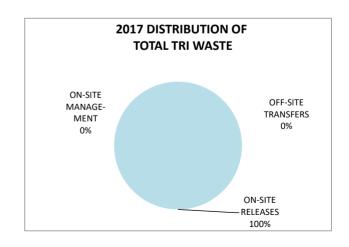
DYK Automotive LLC reported under the North American Industrial Classification System (NAICS) as 325998, which covers miscellaneous chemical product and preparation manufacturing. The facility mixes some products on-site: windshield washer fluid, RV antifreeze, and diesel exhaust fluid; and they also re-package other products for the automotive market.

DYK Automotive LLC, located in Wilmington, reported to TRI for the first time for 2015. The facility reported on one chemical in 2017, methanol, with on-site releases only to air. On-site releases of methanol increased 20% over 2016, and accounted for all of the facility's reportable waste.

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL			PBT	CARCINOGEN
METHANOL	5,355	0	0	5,355	0	0	NO	NO
TOTAL	5,355	0	0	5,355	0	0		

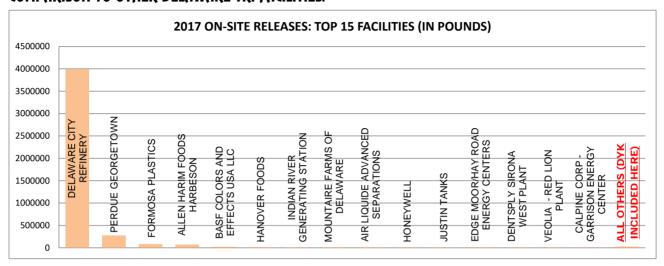






#### DYK AUTOMOTIVE LLC, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



DYK ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

# EDGE MOOR/HAY ROAD ENERGY CENTERS

#### LOCATION/CONTACT:

Address: 200 Hay Road

Wilmington, DE 19809

Phone: (713) 830-8833

Contact: Norma Dunn



#### **FACILITY OVERVIEW:**

The Calpine Edge Moor/Hay Road Energy Center is located along the Delaware River a mile north of the Port of Wilmington and produces electricity.

Pepco Holdings, Inc. (PHI) sold the generation assets owned by Conectiv Energy to Calpine Corporation in 2010. Based in Houston, Texas, Calpine Corporation is an electricity generating company and converted the Edge Moor, DE plant to burning natural gas exclusively. All coal combustion was discontinued in 2010. The ceasing of burning coal has significantly reduced releases on-site made by the facility.

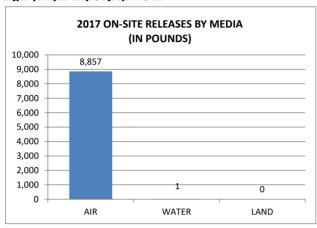
For 2017, the facility reported on 4 chemicals, ammonia, mercury, polycyclic aromatic compounds (PACs) and dioxin and dioxin like compounds (DLCs), with on-site releases to air and water. All the chemicals released except ammonia are formed as by-products during combustion process due to impurities in the fuel. Ammonia is utilized at the facility for pollution control.

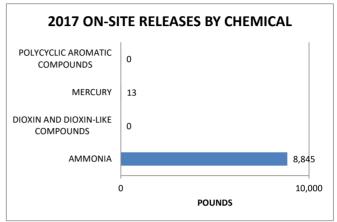
#### 2017 TRI DATA (REPORTED IN POUNDS):

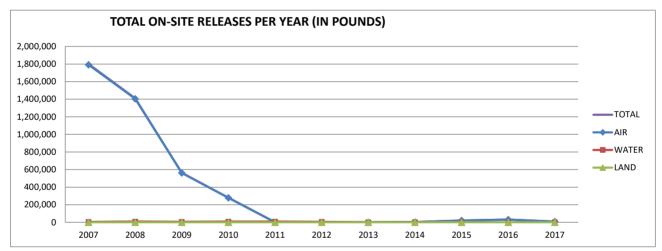
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
AMMONIA	8,844	1	0	8,845	76	0	NO	NO
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0.005357	0.000000	0.000000	0.005357	0.000000	0.000000	YES	NO
MERCURY	13.2000	0.0010	0.0000	13.2010	0.0800	0.0000	YES	NO
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	0	0	YES	YES
TOTAL	8,857	1	0	8,858	76	0		

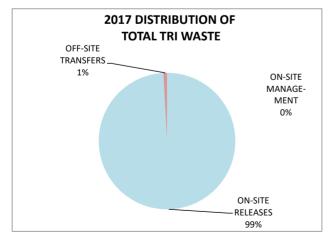


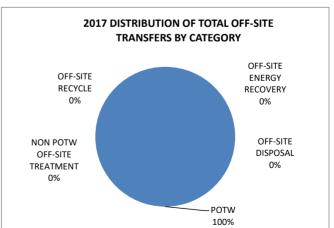
# EDGE MOOR/HAY ROAD ENERGY CENTERS, CONT.







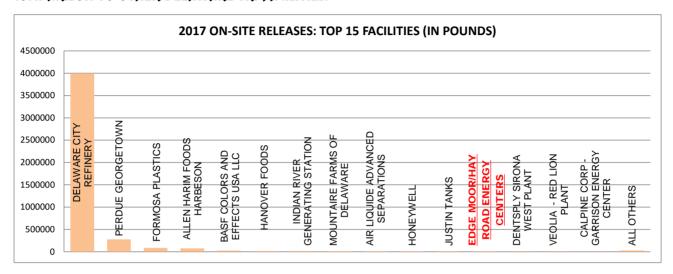






# EDGE MOOR/HAY ROAD ENERGY CENTERS, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



Edgemoor-Hay Road Energy Center ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

#### **NOTABLE 2017 NATIONAL RANKINGS:**

Edge Moor-Hay Road Energy Centers ranks 18th for on-site releases of mercury from electric utility facilities (NAICS code 2211) (out of 26 facilities).

#### **FORMOSA PLASTICS**

#### LOCATION/CONTACT:

Address: 780 Schoolhouse Road

Delaware City, DE 19706

Phone: (302)-836-2256

**Contact**: Kimberly Bennett



#### **FACILITY OVERVIEW:**

Formosa Plastics, located in the Delaware City complex, produces polyvinyl chloride (PVC) resin for bulk sale to other industries that produce PVC based products, such as containers, flooring, carpet backing, upholstery, toys, and gloves.

The facility has reported since 1987. Formosa reported on four TRI chemicals for 2017; vinyl acetate monomer, vinyl chloride monomer, ammonia, and dioxins and dioxin-like compounds. Vinyl acetate monomer (VAM) is a raw material used in certain products and is released through the drying process. Vinyl chloride monomer (VCM) is the primary ingredient for producing PVC and is released as residual unreacted monomer during the drying process of the PVC resin. Permits regulate the concentration of the residual monomer in the PVC before drying. Ammonia is also used in several of Formosa's products and is released during the PVC drying process. Trace amounts of dioxins and dioxin-like compounds were detected in the plant emissions (0.000009 pounds) and waste and recycled solids (0.000242 pounds), possibly the result of on-site incineration of waste gases. Scrubber water from the incinerator is processed by the wastewater treatment system.

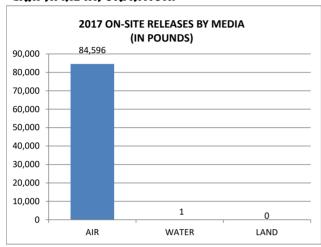
For 2017, total on-site releases were down 19%, compared to 2016.

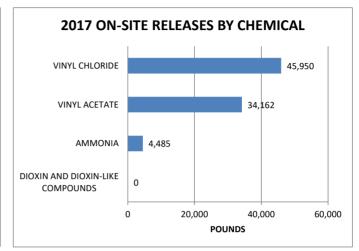
#### 2017 TRI DATA (REPORTED IN POUNDS):

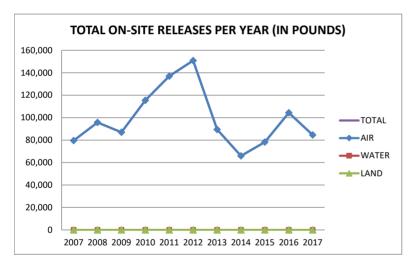
		ON-SITE	RELEASES		OFF CITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
AMMONIA	4,485	0	0	4,485	0	0	NO	NO
DIOXIN AND DIOXIN-LIKE COMPOUNDS	0.000009	0.000000	0.000000	0.000009	0.000242	0.000000	YES	NO
VINYL ACETATE	34,162	0	0	34,162	0	0	NO	YES
VINYL CHLORIDE	45,949	1	0	45,950	220	204,100	NO	YES
TOTAL	84,596	1	0	84,597	220	204,100		

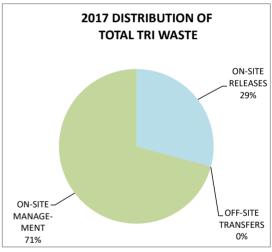


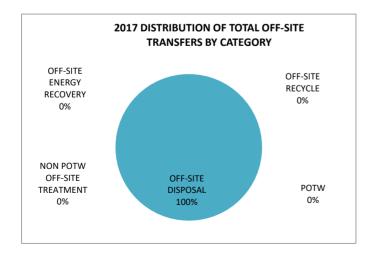
# FORMOSA PLASTICS, CONT.









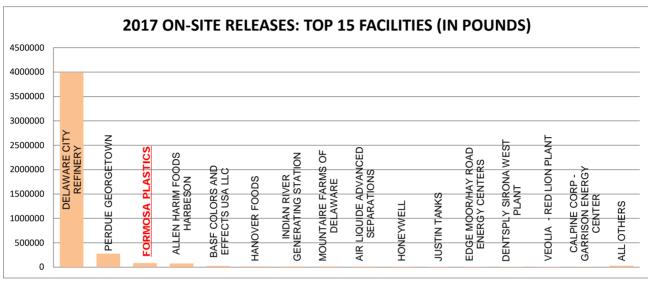






#### FORMOSA PLASTICS, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Formosa Plastics ranks 4th in the nation for on-site releases of vinyl chloride (out of 43 facilities).

Formosa Plastics ranks 10th in the nation for on-site releases of vinyl acetate (out of 140 facilities).

Formosa Plastics ranks 19th in the nation for on-site treatment of vinyl chloride (out of 52 facilities).

#### **GAC SEAFORD**

#### LOCATION/CONTACT:

Address: 25938 Nanticoke Street

Seaford, DE 19973

Phone: (813) 248-2101

**Contact**: Michael Thrasher



#### **FACILITY OVERVIEW:**

GAC Seaford manufactures asphalt based roof and driveway coatings and repair products. The products are manufactured in a batch process then filled into retail sized containers. The products are palletized and shipped to retail chains across the northeast.

The facility has reported since 1988. GAC Seaford reported one chemical in 2017, trimethylbenzene, on short form A. Trimethylbenzene is listed as a minor/trace component of Mineral Spirits on some supplier safety data sheets. Mineral Spirits are used to thin asphalt to make it flowable at ambient temperatures so it can be used as a cold process coating, sealant, or adhesive in finished products. Mineral spirits are not a generated waste at the site. Any unused mineral spirits from a previous batch are reworked into the next process batch. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.)

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF CITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
1,2,4-TRIMETHYLBENZENE*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.

## **GRIFFITH ENERGY -CARL KING**

#### LOCATION/CONTACT:

Address: 1400 E. Lebanon Road

Dover, DE 19901

Phone: (301) 322-6691

**Contact**: Charlie Raines



#### **FACILITY OVERVIEW:**

Griffith Energy Services, Inc.-Carl King, Inc. distributes heating oil and bulk stores fuel onsite. The operation involves loading petroleum products onto tank wagons and distributing them to customers. The tank wagons are top loaded in a diked area.

Griffith Energy-Carl King has reported since 1998, previously as Carl King. The facility reported on three chemicals in 2017, (1,2,4-trimethylbenze, naphthalene, xylene(mixed isomers)), with all chemicals being reported on the short Form A. These chemicals are found in the fuels that are sold. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs. of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 lbs. to be eligible to submit a Form A report.)

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE RELEASES				ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
1,2,4-TRIMETHYLBENZENE*	0	0	0	0	0	0	NO	NO
NAPHTHALENE*	0	0	0	0	0	0	NO	YES
XYLENE (MIXED ISOMERS)*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.

#### HANDYTUBE

#### LOCATION/CONTACT:

Address: 124 Vepco Boulevard Camden, DE 19934

Phone: (302)-697-9521

Contact: Rebecca Reimer



#### **FACILITY OVERVIEW:**

HandyTube Corporation specializes in the production of seamless stainless steel coiled and straight length tubing. These tubes are produced for numerous applications in the Petrochemical, Oil and Gas, Subsea and Downhole, Geothermal, Chromatography, Flow Measurement and Sensing, Medical, Ship Building, Military, Aerospace, Semiconductor and Instrumentation industries. HandyTube produces continuous seamless coils which can be in excess of 6,000 feet. The tubing ranges in size from .020 to 1.0 inch outer diameter.

The facility has reported since 1987, previously as Camdel Metals. Trichloroethylene (TCE) is the primary TRI chemical reported by HandyTube and makes up 100% of the on-site release amount. It is used as a solvent to clean the tubing. After 1994, HandyTube switched to a closed vacuum system for the TCE, which significantly reduced releases to air (92,000 pounds of TCE were released to air in 1994). HandyTube has continued to make improvements to the closed vacuum system that have further reduced TCE releases to air. In 2017, the facility added its first nonhazardous coil degreaser whereby fewer coils run through the TCE degreaser, resulting in continued TCE reductions. The facility reported a 67% reduction in releases to air compared to 2016.

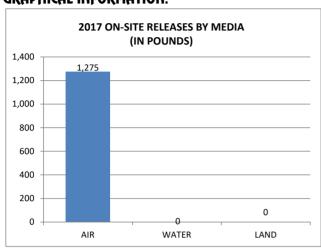
Of the scrap metal generated at the facility, over 99% is sent off site for recycle.

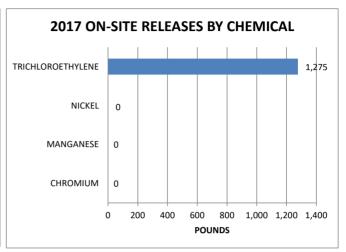
#### 2017 TRI DATA (REPORTED IN POUNDS):

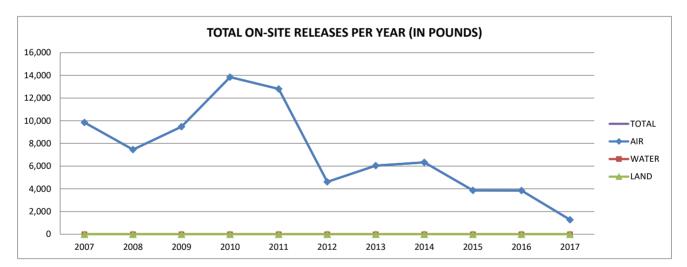
		ON-SITE	RELEASES		055 0175	011 0175		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
СНКОМІИМ	0	0	0	0	35,667	0	NO	NO
MANGANESE	0	0	0	0	3,693	0	NO	NO
NICKEL	0	0	0	0	32,557	0	NO	YES
TRICHLOROETHYLENE	1,275	0	0	1,275	10,323	0	NO	YES
TOTAL	1,275	0	0	1,275	82,240	0		

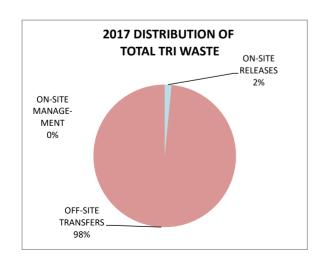


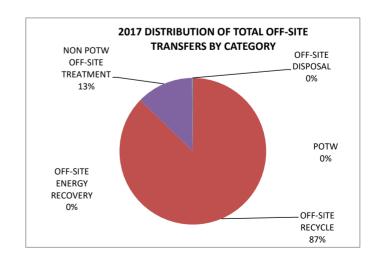
# HANDYTUBE, CONT.







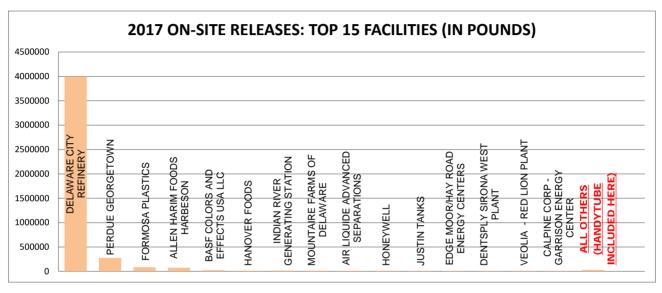






#### HANDYTUBE, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

HandyTube ranks 69th in the nation for on-site releases of trichloroethylene (out of 154 facilities).



# **HANESBRANDS**

#### LOCATION/CONTACT:

Address: 631 Ridgley Street

Dover, DE 19904

Phone: (336)-519-2582

**Contact**: David Swicegood



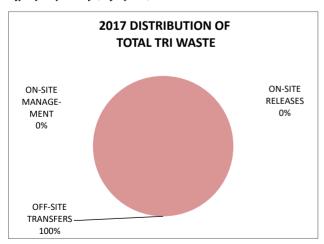
#### **FACILITY OVERVIEW:**

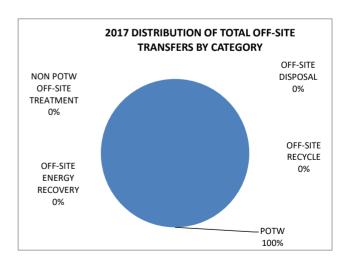
Hanesbrands makes the 18-Hour material for the Playtex 18-Hour Bras. By compounding the latex with different chemicals, a rubber latex is produced. This latex is placed on an engraved roll which then goes through a process which coats the rubber latex with adhesive, and nylon fabric is adhered to both sides to create the 18-Hour material.

Hanesbrands has reported since 2003, formerly as Sara Lee Apparel and Playtex Apparel. The facility reported on one chemicals in 2017, nitrate compounds. Nitrate Compounds are a by-product of compounding the latex and are transferred off-site for treatment.

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
NITRATE COMPOUNDS	0	0	0	0	40,278	0	NO	NO
TOTAL	0	0	0	0	40,278	0		

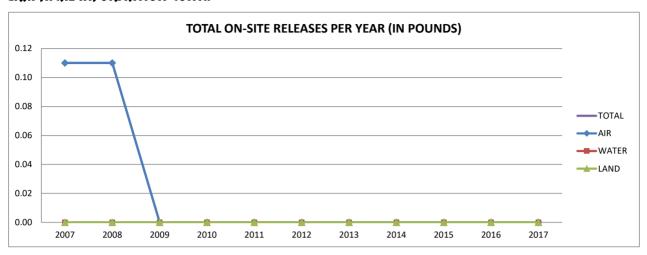




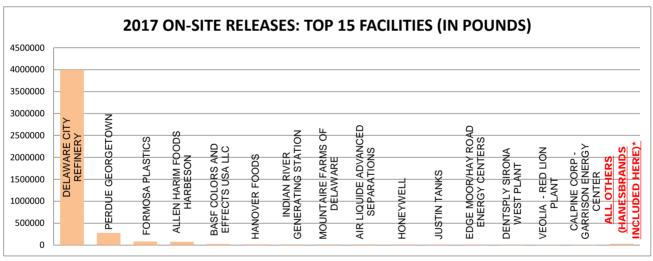


#### HANESBRANDS, CONT.

#### **GRAPHICAL INFORMATION CONT.:**



#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

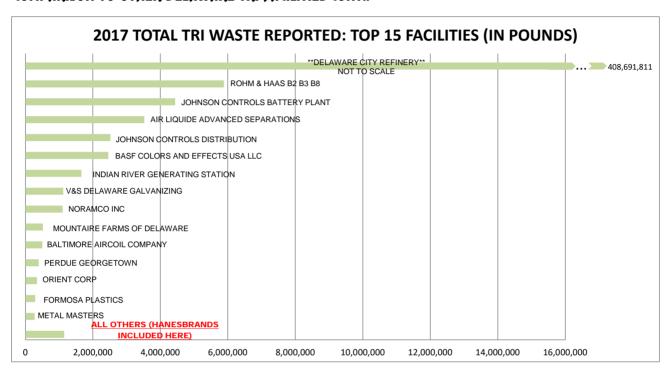


<sup>\*</sup>Hanesbrands ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 82 pounds released on-site. Comparisons only include facilities reporting on Form R.



#### HANESBRANDS, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES CONT.:**



Hanesbrands ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site. Comparisons only include facilities reporting on Form R.

#### **NOTABLE 2017 NATIONAL RANKINGS:**

Hanesbrands ranks 2nd in the off-site transfer of nitrate compounds for textile facilities (NAICS 313/314) (out of 7 facilities).



#### **HANOVER FOODS**

#### LOCATION/CONTACT:

Address: Route 6 & Duck Creek Road

Clayton, DE 19938

Phone: (302)-653-9281

**Contact**: Alvin Constantine



#### **FACILITY OVERVIEW:**

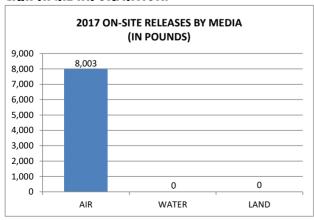
Hanover Foods reports under the North American Industrial Classification System (NAICS) as 311411, which covers the manufacturing of frozen fruit, juice and vegetables; and 311412, which covers frozen specialty food manufacturing. The facility bulk freezes fresh vegetables; grills and freezes poultry products; and also prepares, freezes and packages waffles. Customers for these products include the retail, food service, military, club store, and industrial markets.

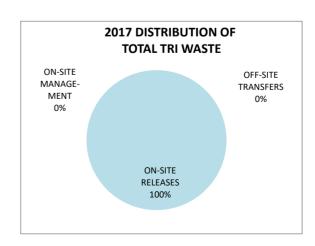
The facility has reported to TRI since 1987, previously as Natures Pride; but has been below the reporting threshold since 2012, so hasn't reported in recent years. Hanover Foods reported one TRI chemical in 2017, ammonia, released only to air. This facility originally reported an ammonia release amount of 15,779 for 2017, which shows up in Delaware's 2017 TRI report and in the EPA's final TRI data for 2017. In October of 2018, Hanover filed a revised report of 8,003, which is reflected in this facility profile, and in Delaware's 2017 TRI searchable data and open data bases. Ammonia is used in refrigeration equipment, and releases are typical through normal service maintenance, leaks, and other losses that occur in the system. On-site release amounts of ammonia vary from year to year.

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE I	RELEASES*		OFF OITE	ON OITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
AMMONIA	8,003	0	0	8,003	0	0	NO	NO
TOTAL	8,003	0	0	8,003	0	0		

<sup>\*</sup>revised downward from 15,779 originally reported

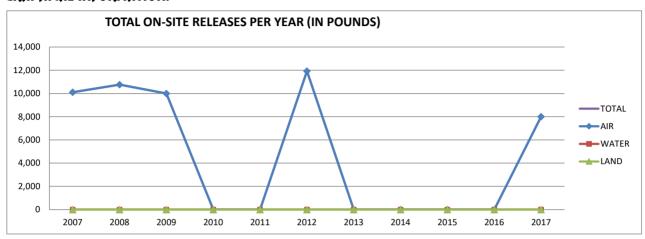




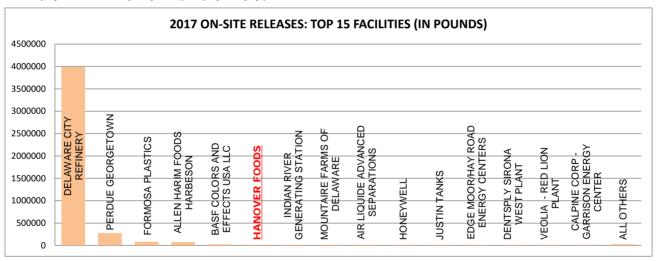


#### HANOVER FOODS, CONT.

#### **GRAPHICAL INFORMATION:**



#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



Hanover Foods ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.



## **HONEYWELL**

#### LOCATION/CONTACT:

Address: 6100 Philadelphia Pike

Claymont, DE 19703

Phone: (302)-791-6748

**Contact**: Russell Davis



#### **FACILITY OVERVIEW:**

Honeywell manufactures specialty chemicals that are used in the production of hydrocarbon resins, lubricants, and adhesives.

The facility has reported since 1987, previously as Allied Signal. Honeywell reported four TRI chemicals for 2017, with on-site releases to air and land. Releases of boron trifluoride and hydrogen fluoride accounted for over 99% of the on-site releases to air, while releases of methanol accounted for less than 1%. These three chemicals are utilized in the manufacture of fluorine based chemicals. In 2017, Honeywell had a one-time release of ethylene glycol to land due to work on a tank. This material was later transferred off-site for energy recovery.

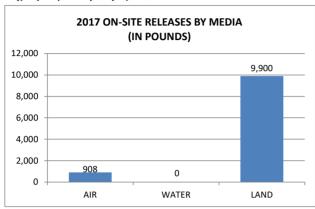
In 2013, Honeywell discontinued the use of hexane and ammonia at the facility, resulting in a significant reduction in on-site releases to air.

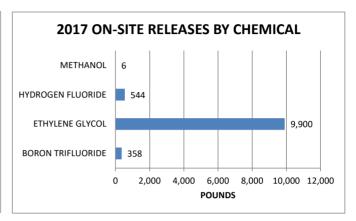
#### 2017 TRI DATA (REPORTED IN POUNDS):

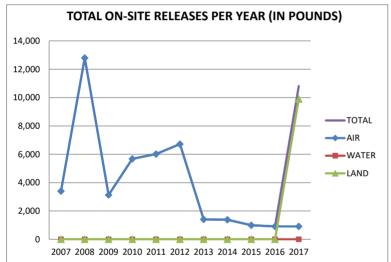
		ON-SITE	RELEASES		055 0175	ON OITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
BORON TRIFLUORIDE	358	0	0	358	0	0	NO	NO
ETHYLENE GLYCOL	0	0	9,900	9,900	9,900	0	NO	NO
HYDROGEN FLUORIDE	544	0	0	544	0	70	NO	NO
METHANOL	6	0	0	6	2,360	0	NO	NO
TOTAL	908	0	9,900	10,808	12,260	70		

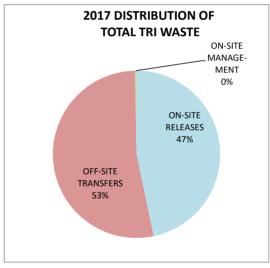


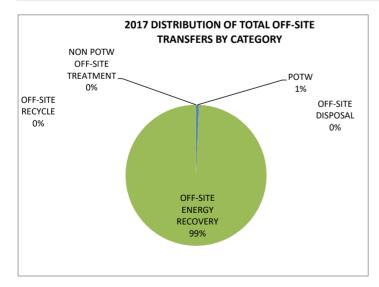
#### HONEYWELL, CONT.

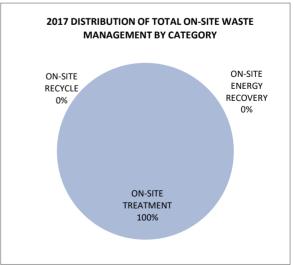








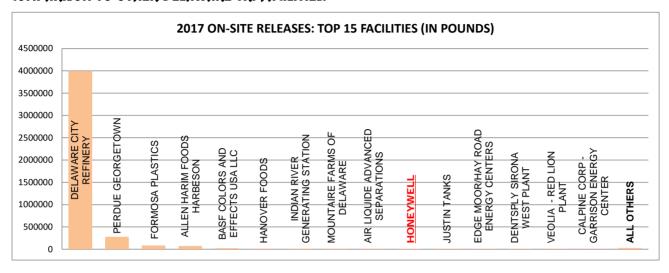






# HONEYWELL, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



#### **NOTABLE 2017 NATIONAL RANKINGS:**

Honeywell ranks 4th nationally in on-site releases of boron trifluoride (out of 21 facilities).



#### **IKO**

#### LOCATION/CONTACT:

Address: 120 Hay Road

Wilmington, DE 19809

Phone: (302) 764-3100

Contact: Steven Grier



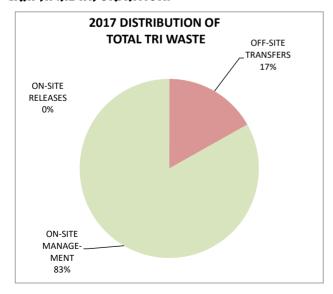
#### **FACILITY OVERVIEW:**

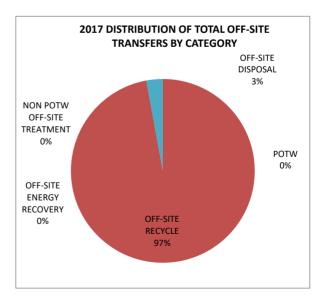
IKO Production, Inc. manufactures residential roofing products, mainly asphalt shingles, which are made from fiberglass mat coated with asphalt and finished with colored roofing granules.

IKO has reported since 2000. The facility reported on one chemical in 2017, polycyclic aromatic compounds (PACs), with 100% of the waste being managed on and off-site. PACS are a byproduct of asphalt, which is a residual petroleum product from crude oil distillation.

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE RELEASES				ON OITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
POLYCYCLIC AROMATIC COMPOUNDS	0	0	0	0	94	465	YES	YES
TOTAL	0	0	0	0	94	465		

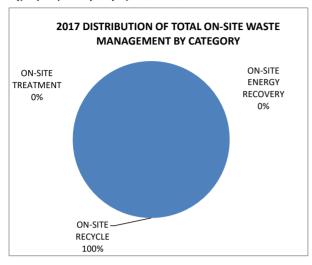




# TOXICS RELEASE INVENTORY

# IKO, CONT.

#### **GRAPHICAL INFORMATION CONT.:**



#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

IKO ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.

IKO ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

#### **NOTABLE 2017 NATIONAL RANKINGS:**

IKO ranks 55th in the nation for on-site recycling of polycyclic aromatic compounds (out of 1,615 facilities).



## INDIAN RIVER GENERATING STATION

#### LOCATION/CONTACT:

Address: 29416 Power Plant Road

Dagsboro, DE 19966

Phone: (609)-524-4529

Contact: David Gaier



#### **FACILITY OVERVIEW:**

Indian River Generating Station is a 426 megawatt facility that produces electricity, primarily from the combustion of coal. The facility previously consisted of four coal burning units and one combustion turbine. As of 2011, Units #1 and #2 were retired and Unit #3 was retired at the end of 2013.

For these units, these retirements took place even after additional emission controls and operational strategies were applied. These applications include reduced sulfur content of the coal burned for SO2 reduction, Activated Carbon Injection (ACI) for Mercury reductions, and Selective Non-Catalytic Reduction (SNCR) for NOx reductions. On Unit 4, in addition to SNCR and ACI technology, in 2011 the facility installed a Circulating Dry Scrubber (CDS) with a Baghouse for removal of acid gases including SO2 and HCl, metals, and particulate matter and Selective Catalytic Reduction (SCR) for NOx reductions. These shutdowns, along with the additional controls, and the operation of the facility primarily for peak usage have reduced the overall on-site releases by 99.6% compared to 2007.

The Indian River Generating Station reported on seven TRI chemicals for 2017. Three of these were metal or metal compounds, three were acid gases, and the remaining chemical was ammonia. All the compounds except ammonia are formed during the combustion process as a result of impurities within the coal and oil. Ammonia is a product of the nitrogen oxide emissions reduction process.

Coal analysis data, emissions data, and emissions factors are used as a basis for calculating releases. This gives a more representative total release for the year because it represents all the data for the year, not just the data collected during a single stack test.

Acid gasses including hydrochloric acid, sulfuric acid, and hydrofluoric acid accounted for 20% of the on-site releases for 2017 compared to 98% in 2011. On-site releases for acid gases in 2017 decreased by 98% compared to 2013. These decreases are due to the acid gases being treated on-site by the CDS control technology, to the shutdown of Unit 3, and to the operation of the facility primarily on peak electrical usage days.

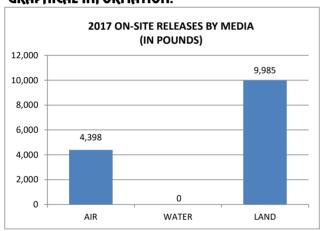
Metal compounds, formed as a result of impurities in the coal, are largely captured (99.6%) in the fly ash and bottom ash. Coal ash is disposed of in the on-site landfill, which includes a liner system and leachate collection. For 2017, chromium, copper, manganese, and zinc compounds were below the reporting threshold.

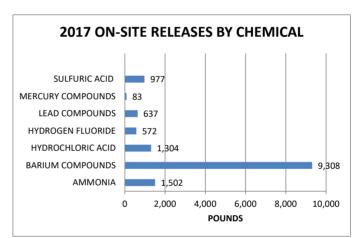


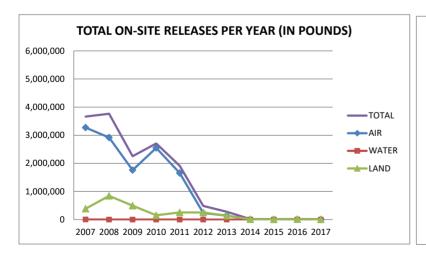
# INDIAN RIVER GENERATING STATION, CONT.

#### **2017 TRI DATA (REPORTED IN POUNDS):**

	ON-SITE RELEASES							
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
AMMONIA	1,502	0	0	1,502	0	49,734	NO	NO
BARIUM COMPOUNDS	30	0	9,278	9,308	9	0	NO	NO
HYDROCHLORIC ACID	1,304	0	0	1,304	0	1,001,839	NO	NO
HYDROGEN FLUORIDE	572	0	0	572	0	42,428	NO	NO
LEAD COMPOUNDS	11	0	626	637	0	0	YES	YES
MERCURY COMPOUNDS	1.7000	0.0000	80.8000	82.5000	0.0000	0.0000	YES	NO
SULFURIC ACID	977	0	0	977	0	550,595	NO	NO
TOTAL	4,398	0	9,985	14,382	9	1,644,596		





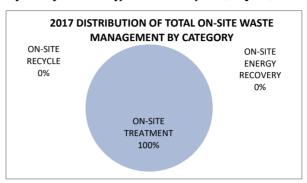




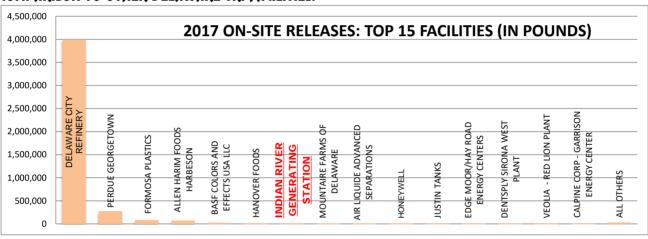


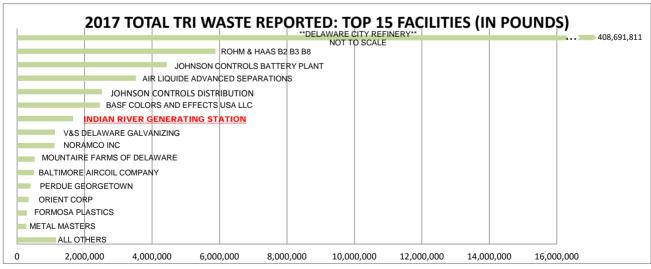
# INDIAN RIVER GENERATING STATION, CONT.

#### **GRAPHICAL INFORMATION CONT.:**



#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

The Indian River Generating Station ranks 87th in on-site treatment of sulfuric acid aerosol by electric utility facilities (NAICS 2211) (out of 232 facilities).

The Indian River Generating Station ranks 76th in on-site treatment of hydrochloric acid aerosol by electric utility facilities (NAICS 2211) (out of 250 facilities).



#### **INTERVET**

#### LOCATION/CONTACT:

Address: 29160 Intervet Lane

Millsboro, DE 19966

Phone: (302) 934-4265

Contact: Tom Bastian



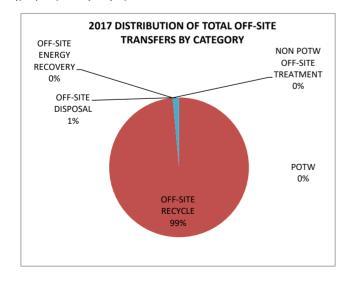
#### **FACILITY OVERVIEW:**

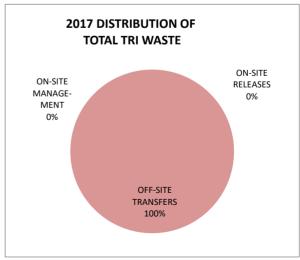
Intervet reported under the North American Industrial Classification System (NAICS) as 325414, which covers biological product manufacturing. The facility, located in Millsboro, is a fully integrated Animal Health site dedicated to the bio-manufacturing of animal vaccines.

Intervet has reported since 2000. The facility reported on one chemical, mercury compounds. All waste reported for mercury compounds were transferred off-site for recycle or disposal. Mercury compounds are utilized in the production of vaccines (Thimerosal) as a preservative and mercury containing light bulbs are at the site.

#### **2017 TRI DATA (REPORTED IN POUNDS):**

	ON-SITE RELEASES				055 0IT5	ON OUT		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
MERCURY COMPOUNDS	0.0000	0.0000	0.0000	0.0000	8.1192	0.0000	YES	NO
TOTAL	0	0	0	0	8	0		







# INTERVET, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

Intervet ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.

Intervet ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

#### **NOTABLE 2017 NATIONAL RANKINGS:**

Intervet ranks 24th in the off-site transfer of mercury compounds for chemical facilities (NAICS 325) (out of 92 facilities).



# **JOHNSON CONTROLS BATTERY PLANT**

### LOCATION/CONTACT:

Address: 700 N. Broad Street

Middletown, DE 19709

Phone: (260)-740-9336

**Contact**: Stephen Garrett



#### **FACILITY OVERVIEW:**

Johnson Controls Battery Plant manufactures the internal lead parts of batteries that are formed and filled 1.5 miles away at their Middletown Distribution Center, before being shipped to customers. These completed batteries are used in a wide variety of vehicle types including passenger, commercial, agricultural, golf carts, and boats.

Johnson Controls Battery plant has reported since 1987. The facility reported on two chemicals in 2017, with onsite releases from lead compounds to air and water. Lead compounds are utilized in the manufacturing of the battery's internal (positive and negative) plates, and for completing the circuit between these plates throughout the battery. The other chemical reported was antimony compounds, an impurity within the lead received from smelters, which is recycled off-site. The facility assumes worst case for this impurity, which is 3% of all lead.

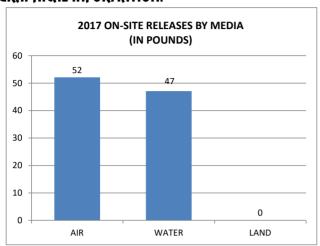
The majority of waste is sent off-site for recycling, with less than 0.01 % being released on-site. On-site releases for 2017 increased by 4% compared to 2016 (see *Total On-site Releases Per Year Graph* on the next page).

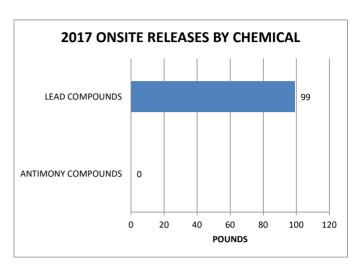
#### 2017 TRI DATA (REPORTED IN POUNDS):

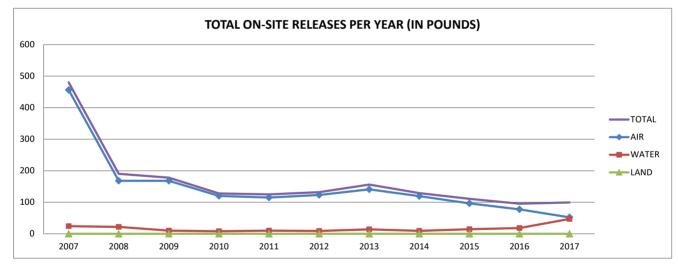
	ON-SITE RELEASES				OFF OUT	ON OITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
ANTIMONY COMPOUNDS	0	0	0	0	17,133	0	NO	NO
LEAD COMPOUNDS	52	47	0	99	4,420,595	0	YES	YES
TOTAL	52	47	0	99	4,437,728	0		



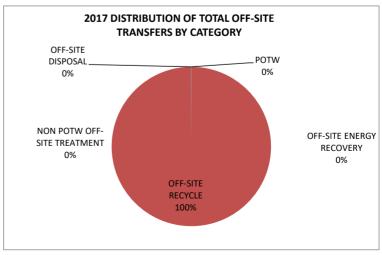
# **JOHNSON CONTROLS BATTERY PLANT, CONT.**







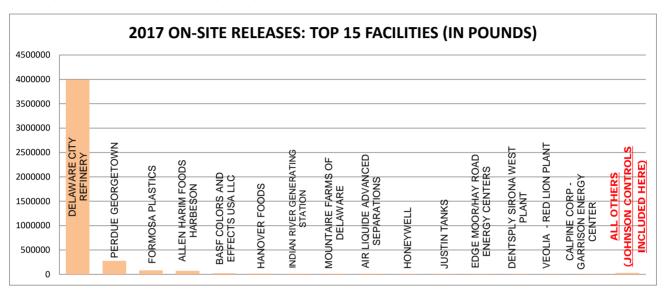


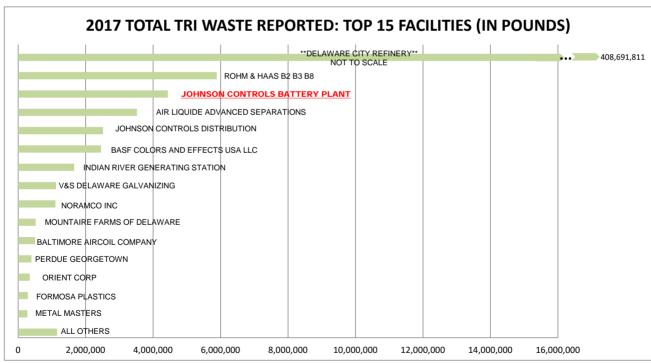




# JOHNSON CONTROLS BATTERY PLANT, CONT.

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

The Johnson Controls Battery Plant ranks 11th in the nation for off-site transfers of lead compounds (out of 3,806 facilities).



# JOHNSON CONTROLS DISTRIBUTION CENTER

# LOCATION/CONTACT:

Address: 50 Patriot Drive

Middletown, DE 19709

Phone: (302)-696-3209



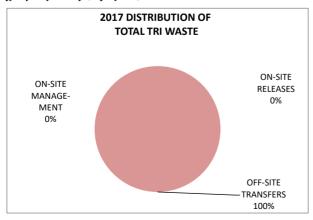
#### **FACILITY OVERVIEW:**

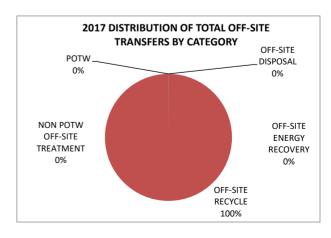
Johnson Controls Distribution Center forms and fills batteries, then prior to shipping; the batteries are washed and then labeled with the decal specified by the customer. From their battery plant, that is located 1.5 miles away in Middletown, the batteries are mostly shipped to customers within the Northeast. These batteries are used in a wide variety of vehicle types including passenger, commercial, agricultural, golf carts, and boats. In addition to many types of batteries Johnson Controls Middletown Distribution Center ships, there are just as many brands that leave the facility each day as well.

Johnson Controls Distribution Center has reported since 2011. The facility reported on three chemicals in 2017, lead compounds, antimony compounds, and arsenic compounds. These metal compounds are utilized in the construction of (primarily lead) batteries, and more than 99.9% of the amounts reported are sent off-site for recycling. The metal compounds that are shipped off-site for recycling are from the in-plant junks and warranty returns from customers.

#### **2017 TRI DATA (REPORTED IN POUNDS):**

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
ANTIMONY COMPOUNDS	0	0	0	0	9,753	0	NO	NO
ARSENIC COMPOUNDS	0	0	0	0	600	0	NO	YES
LEAD COMPOUNDS	0	0	0	0	2,507,675	0	YES	YES
TOTAL	0	0	0	0	2,518,028	0		

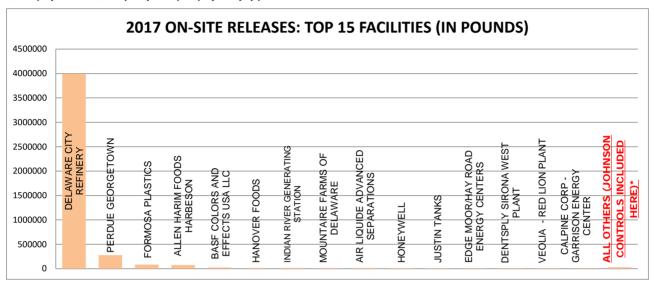






# JOHNSON CONTROLS DISTRIBUTION CENTER, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



\*The Johnson Controls Distribution Center ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site. Comparisons only include facilities reporting on Form R.



#### **NOTABLE 2017 NATIONAL RANKINGS:**

The Johnson Controls Distribution Center ranks 23rd in off-site transfers of lead compounds (out of 3,806 facilities).



# **JUSTIN TANKS**

#### LOCATION/CONTACT:

Address: 21413 Cedar Creek Ave.

Georgetown, DE 19947

Phone: (302)-856-3521



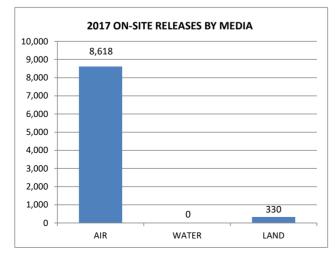
#### **FACILITY OVERVIEW:**

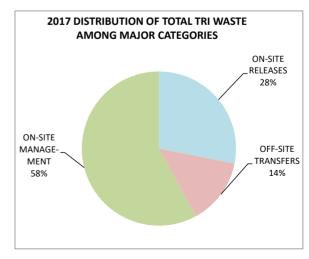
Justin Tanks, located in Georgetown, manufactures a wide variety of Fiberglass Reinforced Plastic (FRP) tanks for use in the chemical, agricultural, and food industries.

Justin Tanks has reported since 1987. The facility reported on one TRI chemical, styrene, for 2017. Styrene is used as a monomer in the polymerization of fiberglass resin. The majority of the styrene is released to the air during the process of applying fiberglass reinforcement to the tank. During polymerization and curing, small amounts of styrene are released, and the amount of styrene release diminishes to zero at full cure. No release occurs after the tank polymerization and curing process is complete. On-site release of styrene was down 14% for 2017, compared to 2016 (see *Total On-site Releases Per Year Graph* on the next page).

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
STYRENE	8,618	0	330	8,948	4,430	18,439	NO	YES
TOTAL	8,618	0	330	8,948	4,430	18,439		

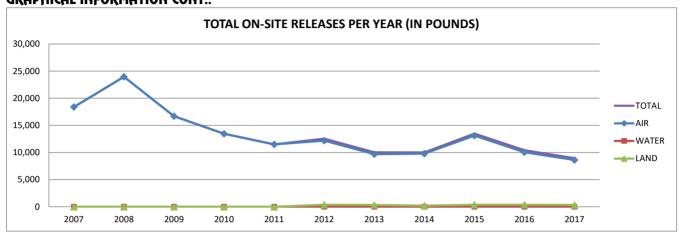


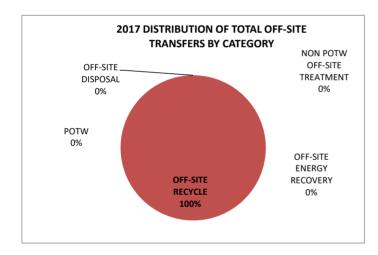


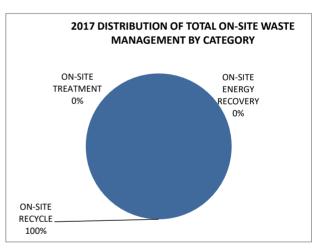


# JUSTIN TANKS, CONT.

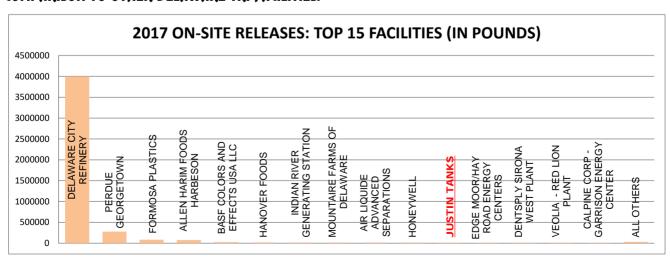
#### **GRAPHICAL INFORMATION CONT.:**







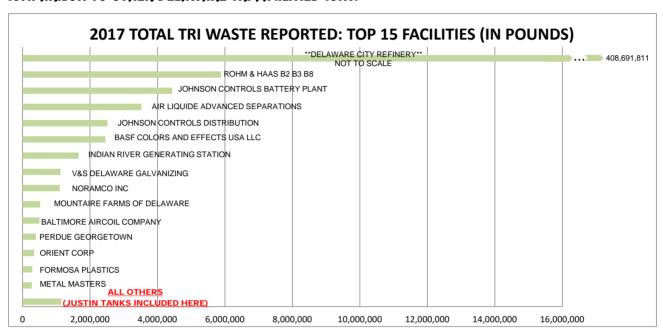
#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





# JUSTIN TANKS, CONT.

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES CONT:**



# **NOTABLE 2017 NATIONAL RANKINGS:**

Justin Tanks ranks 10th in on-site recycling of styrene (out of 1,169 facilities).



### KUEHNE

# LOCATION/CONTACT:

Address: 1645 River Road

Delaware City, DE 19706

Phone: (302)-834-4557

**Contact**: Alan Rogers



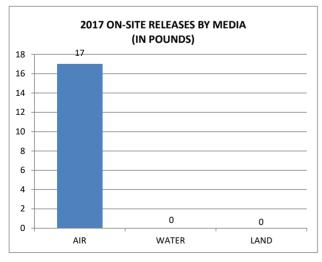
#### **FACILITY OVERVIEW:**

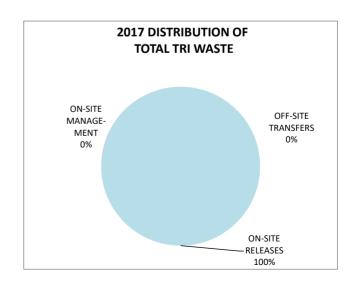
Kuehne reports under the North American Industrial Classification System (NAICS) as 325181, which covers the manufacturing of basic inorganic chemicals. Material produced at the facility is used primarily for municipal water and wastewater treatment.

Kuehne has reported since 1987, previously reporting under the company Chloramone. For 2017, the facility reported on one chemical, chlorine, with all on-site releases being made to air. Chlorine releases have decreased by 97% since 2014, due to the installation of a higher efficiency scrubber. Chlorine is repackaged for sale and also used in the production of sodium hypochlorite (bleach).

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF OUT	ON OITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
CHLORINE	17	0	0	17	0	0	NO	NO
TOTAL	17	0	0	17	0	0		

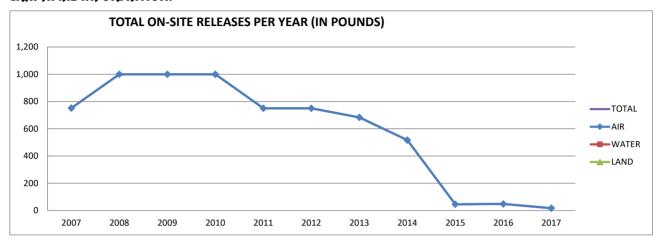




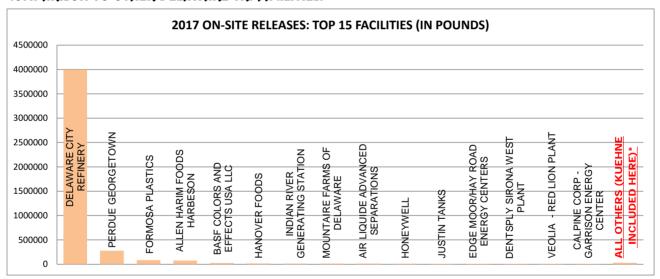


# KUEHNE, CONT.

#### **GRAPHICAL INFORMATION:**



#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



<sup>\*</sup>Kuehne ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.

Kuehne ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.



# **METAL MASTERS**

# LOCATION/CONTACT:

Address: 100 Industrial Blvd.

Clayton, DE 19938

Phone: (302)-653-3087

**Contact**: Richard Murphy



#### **FACILITY OVERVIEW:**

Eagle Group manufactures commercial stainless steel foodservice equipment. Their Metal Masters product line includes sinks, tables, food warming equipment, serving equipment, shelving of both solid and wire design, and custom fabrications. The raw metals are purchased in sheet or wire form and then sheared, punched, formed, welded, spot welded, ground and finished to produce an end product.

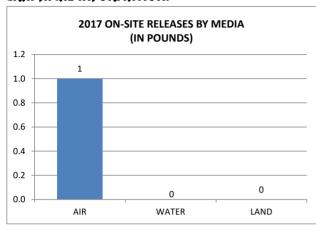
Metal Masters has reported since 2001. The facility reported on 2 chemicals in 2017, nickel and chromium, with on-site releases being only to air. These chemicals are component parts of the stainless steel and are released to air during the welding phase. These releases to air account for less than 0.01% of the total waste management. All scrap metal which is not able to be used for finished product is recycled off-site. A smaller portion of the waste that is generated as grinding dust is shipped off-site for disposal.

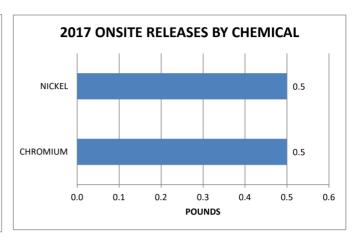
# 2017 TRI DATA (REPORTED IN POUNDS):

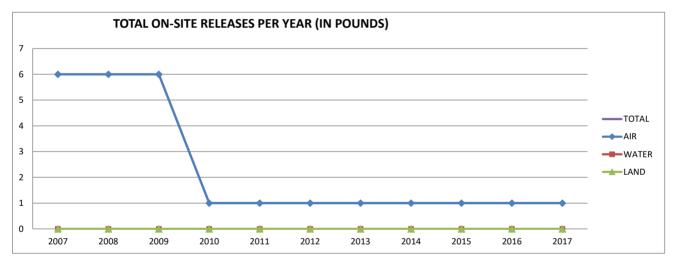
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
CHROMIUM	0.5	0	0	0.5	203,695	0	NO	NO
NICKEL	0.5	0	0	0.5	69,407	0	NO	YES
TOTAL	1	0	0	1	273,102	0		

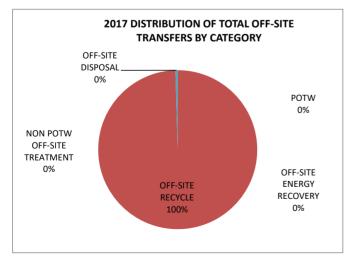


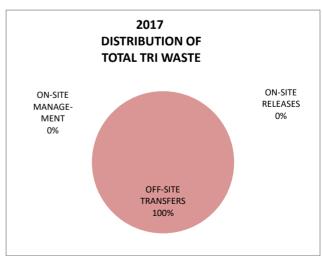
# **METAL MASTERS, CONT.**





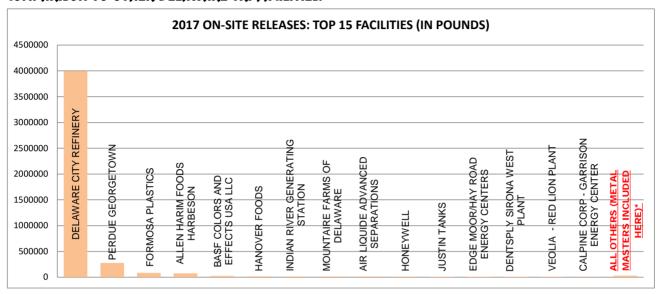




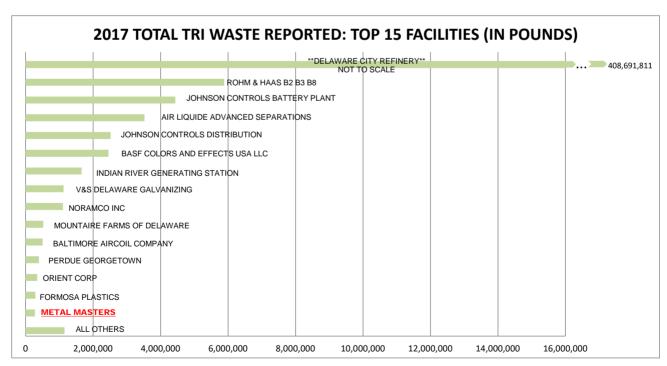


### **METAL MASTERS, CONT.**

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



<sup>\*</sup>Metal Masters ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.



#### **NOTABLE 2017 NATIONAL RANKINGS:**

Metal Masters ranks 58th in off-site recycling of chromium for fabricated metal facilities (NAICS 332) (out of 912 facilities).

# **MOUNTAIRE FARMS OF DELAWARE**

#### LOCATION/CONTACT:

Address: 29106 John J. Williams Highway

Millsboro, DE 19966

Phone: (302)-934-3123

**Contact**: Roger Marino



#### **FACILITY OVERVIEW:**

Mountaire Farms of Delaware is located in Millsboro, and hatches chickens for growers, produces feed for poultry growers, produces poultry byproducts, and produces retail, wholesale and export chicken products.

The facility has reported since 1987, previously as Townends. For 2017, Mountaire Farms of Delaware reported five TRI chemicals, hydrogen sulfide, peracetic acid, and metallic compounds (Copper, Manganese, and Zinc). Hydrogen sulfide is a byproduct of anaerobic wastewater treatment. The metallic compounds are used in poultry feed and are reported on form A. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.) Persistent Bio-Accumulative Toxic (PBT) Chemicals, such as lead, are ineligible for Form A.

Mountaire Farms in previous years has also reported on ammonia, a byproduct of poultry processing that is treated in the on-site wastewater treatment plant. Since the biological treatment of the wastewater fluctuates, ammonia is sometimes below the reporting threshold, which it was in 2017.

#### 2017 TRI DATA (REPORTED IN POUNDS):

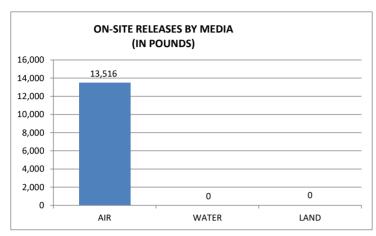
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
COPPER COMPOUNDS*	0	0	0	0	0	0	NO	NO
HYDROGEN SULFIDE	13,031	0	0	13,031	0	104,099	NO	NO
MANGANESE COMPOUNDS*	0	0	0	0	0	0	NO	NO
PERACETIC ACID	485	0	0	485	0	403,314	NO	NO
ZINC COMPOUNDS*	0	0	0	0	0	0	NO	NO
TOTAL	13,516	0	0	13,516	0	507,413		

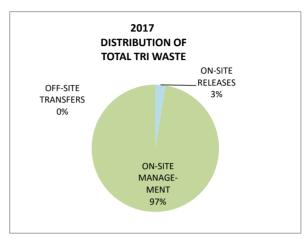
<sup>\*</sup>Reported on short Form A

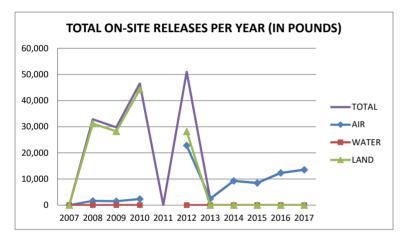


# **MOUNTAIRE FARMS OF DELAWARE, CONT.**

#### **GRAPHICAL INFORMATION CONT.:**

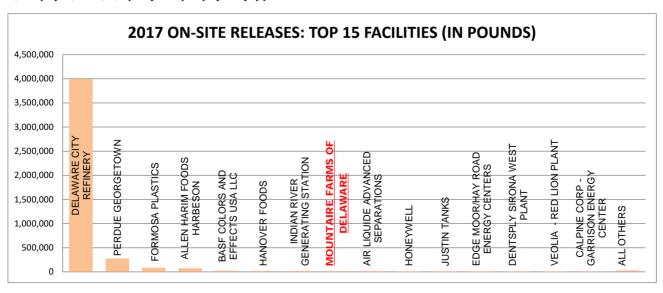








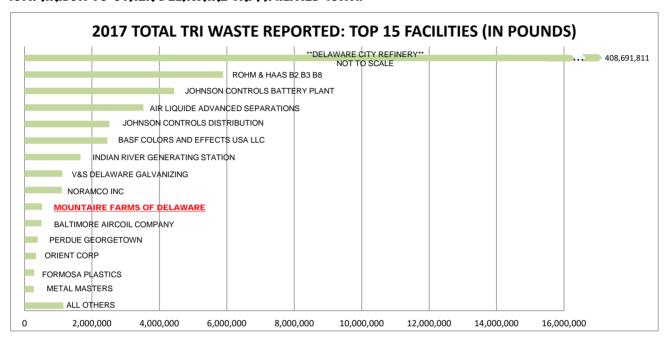
#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





### **MOUNTAIRE FARMS OF DELAWARE, CONT.**

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES CONT.:**



#### **NOTABLE 2017 NATIONAL RANKINGS:**

Mountaire Farms of Delaware ranks 23rd in the on-site treatment of hydrogen sulfide by food/beverage facilities (NAICS 311) (out of 92 facilities).

Mountaire Farms of Delaware ranks 4th in the on-site treatment of peracetic acid by food/beverage facilities (NAICS 311) (out of 231 facilities).

# **MOUNTAIRE FARMS- FRANKFORD**

#### LOCATION/CONTACT:

Address: 11 Daisey Street

Frankford, DE 19945

Phone: (302)-934-3123

**Contact**: Roger Marino



#### **FACILITY OVERVIEW:**

Mountaire Farms-Frankford reported under the North American Industrial Classification System (NAICS) as 311119, which covers animal food manufacturing, except facilities primarily engaged in custom grain grinding for animal feed. This location manufactures chicken feed.

Mountaire Farms-Frankford has reported since 1996. The facility reported on 3 chemicals in 2017, all on the short Form A. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs. of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.) Persistent Bio-Accumulative Toxic (PBT) Chemicals, such as polycyclic aromatic compounds (PACs), are ineligible for Form A.

#### 2017 TRI DATA (REPORTED IN POUNDS):

	ON-SITE RELEASES				OFF SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
COPPER COMPOUNDS*	0	0	0	0	0	0	NO	NO
MANGANESE COMPOUNDS*	0	0	0	0	0	0	NO	NO
ZINC COMPOUNDS*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.



# **MOUNTAIRE SELBYVILLE**

### LOCATION/CONTACT:

Address: Hoosier Street & Railroad Avenue

Selbyville, DE 19975

Phone: (302)-934-3123

**Contact**: Roger Marino



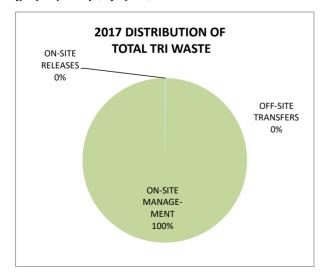
#### **FACILITY OVERVIEW:**

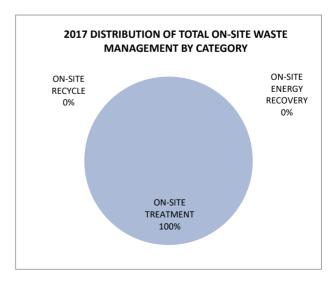
Mountaire Farms in Selbyville is a producer of poultry products. The facility processes chickens for sale to the retail market.

Mountaire Farms-Selbyville has reported since 1989, previously as Mountaire Farms of Delmarva; but was below the reporting threshold for about half of the years since 1989, so TRI Reports were not filed for those years. For 2017, the facility reported on one chemical, peracetic acid. Peracetic acid is found in a FDA-approved antimicrobial food treatment for pathogen reduction in poultry processing. The product is used in chilling and carcass washing equipment in the plant.

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		ON-SITE MANAGEMENT	PBT	CARCINOGEN
PERACETIC ACID	667	0	0	667	0	255,288	NO	NO
TOTAL	667	0	0	667	0	255,288	•	

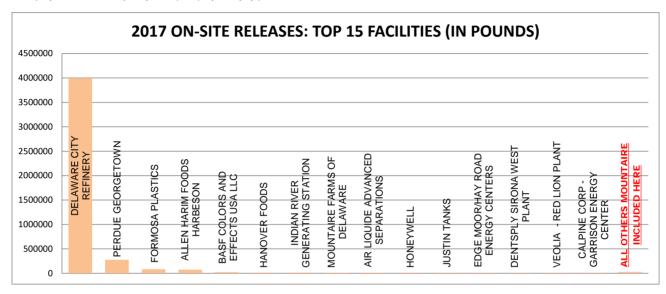


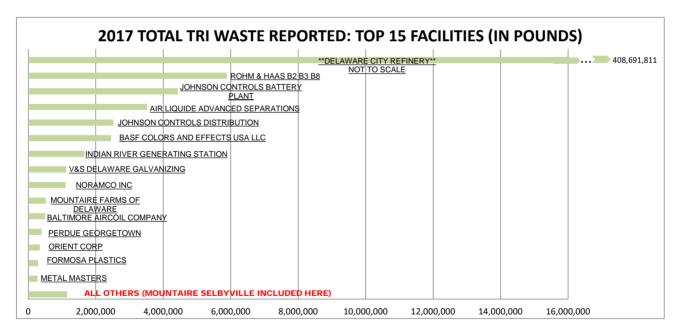




# MOUNTAIRE SELBYVILLE, CONT.

# **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Mountaire Selbyville ranks 10th for on-site treatment of peracetic acid (out of 231 facilities).



### **NATIONAL GUARD TRAINING RANGE**

### LOCATION/CONTACT:

Address: 1197 River Road

New Castle, DE 19720

Phone: (302)-326-7490

Contact: Sgt. Sean Maynard



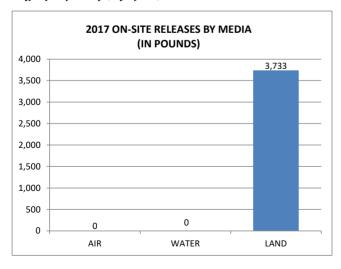
#### **FACILITY OVERVIEW:**

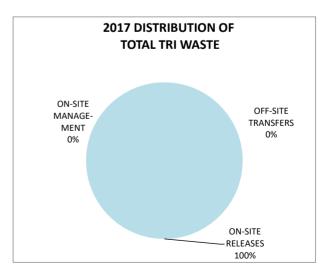
The U.S. Army's National Guard Training Site Range is a military installation that reports under the Federal Facility reporting requirements.

The National Guard Training Site Range reported for the first time in 2015, because they fell below the reporting threshold in prior years. Lead from ammunition is deposited in the earth berm at the site's firing range. Releases for 2017 have decreased by 28% since 2016. The National Guard Training Site Range is also used by local law enforcement agencies.

### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
LEAD	0	0	3,733	3,733	0	0	YES	YES
TOTAL	0	0	3,733	3,733	0	0		

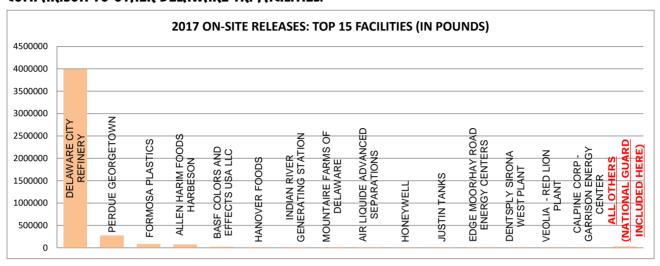






# NATIONAL GUARD TRAINING RANGE, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



The U.S. Army's National Guard Training Range ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.



# **NORAMCO**

### LOCATION/CONTACT:

Address: 500 Swedes Landing Road Wilmington, DE 19801

Phone: (302)-888-4477

Contact: Eric Hacherl



#### **FACILITY OVERVIEW:**

Noramco, Inc. is currently owned by SK Capital. Noramco manufactures and markets Active Pharmaceutical Ingredients (APIs) and fine chemicals for other affiliated companies and for distribution to third-party trade customers. The majority of such trade sales consist of controlled substance pain management active pharmaceutical ingredients.

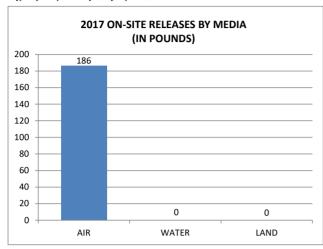
The facility has reported since 1987. Noramco reported three chemicals in 2017, and all on-site releases of these chemicals were to the air. The chemicals reported are comprised mainly of solvents that are used in the separation, synthesis, and purification of small molecule APIs made from natural plant materials. For this reason, the usage and release quantities of these chemicals are primarily tied to Noramco's production volumes. On-site releases for Noramco have decreased by 75.6% since 2016; and by 96% since 2007 (see *Total On-site Releases Per Year Graph* on the next page).

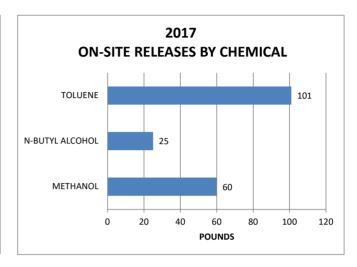
### 2017 TRI DATA (REPORTED IN POUNDS):

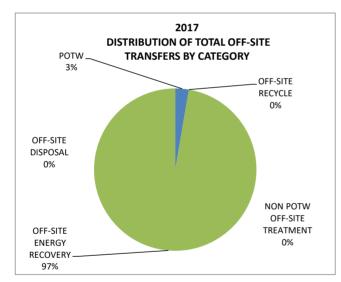
	ON-SITE RELEASES				OFF CITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
METHANOL	60	0	0	60	99,549	0	NO	NO
N-BUTYL ALCOHOL	25	0	0	25	367,028	0	NO	NO
TOLUENE	101	0	0	101	638,955	0	NO	NO
TOTAL	186	0	0	186	1,105,532	0		

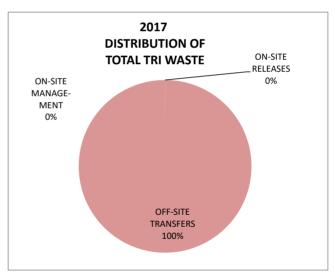


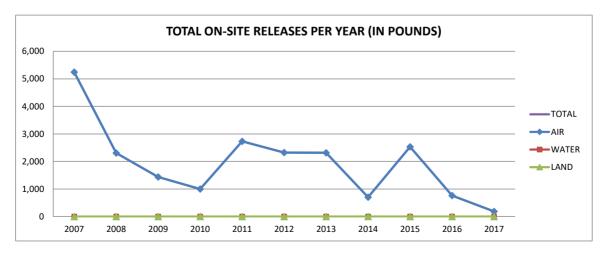
# **NORAMCO, CONT.**







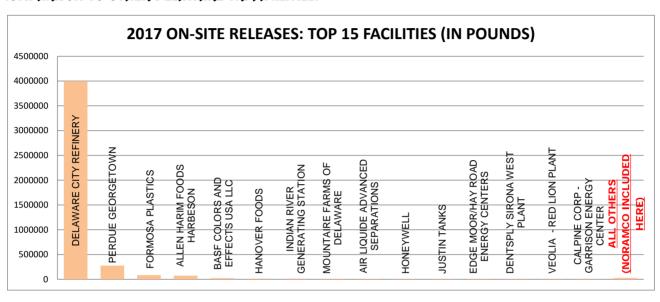


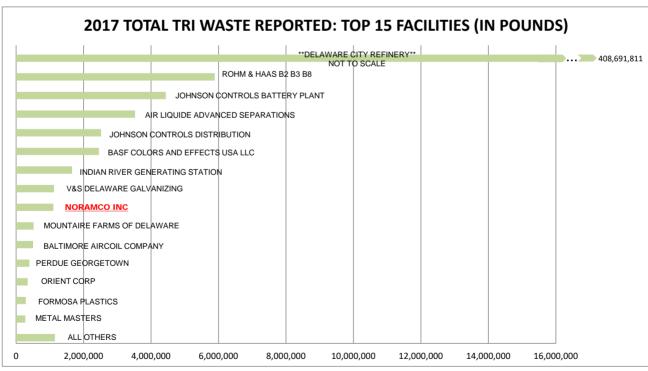




### NORAMCO, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





### **NOTABLE 2017 NATIONAL RANKINGS:**

Noramco ranks 8th in the nation for off-site transfers of n-butyl alcohol (out of 690 facilities).

Noramco ranks 33rd in the nation for off-site transfer of toluene (out of 2,034 facilities).

# **ORIENT CORPORATION**

# LOCATION/CONTACT:

Address: 111 Park Ave

Seaford, DE 19973

Phone: (302)-628-1300

Contact: Dave Curry



#### **FACILITY OVERVIEW:**

Orient Corporation distributes various dyes, pigment dispersions, and charge control agents. The Seaford plant produces nigrosine dye, a product used in phenolic and polyamide resins and specialty paints. Orient supplies a large share of domestic demand for this type of dye.

Orient has reported since 1992. The facility reported on four chemicals in 2017, with less than 100 pounds of onsite releases only to air. Aniline is the predominant on-site release, accounting for 98% of the total, with remaining 2% attributable to nitrobenzene. Aniline and nitrobenzene are both used in the production of dyes.

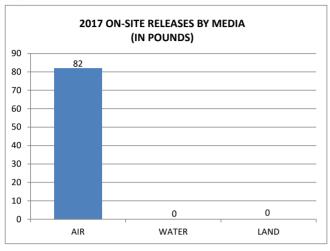
In 2011, TRI reports included more detailed calculations and analytical testing that were not used in previous years, resulting in higher releases reported. For the 2012 reporting year, a thermal oxidizer (installed in June 2011) was used for the calendar year for the destruction of aniline, which resulted in a decrease in on-site

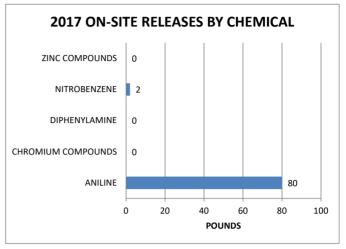
#### 2017 TRI DATA (REPORTED IN POUNDS):

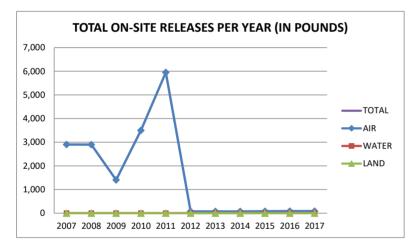
	ON-SITE RELEASES				OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
ANILINE	80	0	0	80	1,792	340,000	NO	NO
CHROMIUM COMPOUNDS	0	0	0	0	0	0	NO	YES
DIPHENYLAMINE	0	0	0	0	0	0	NO	NO
NITROBENZENE	2	0	0	2	0	0	NO	YES
ZINC COMPOUNDS	0	0	0	0	0	0	NO	NO
TOTAL	82	0	0	82	1,792	340,000		



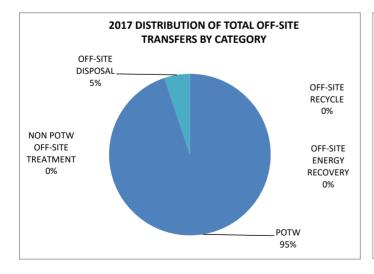
# ORIENT CORPORATION, CONT.

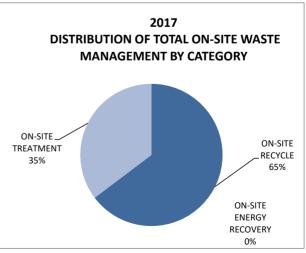








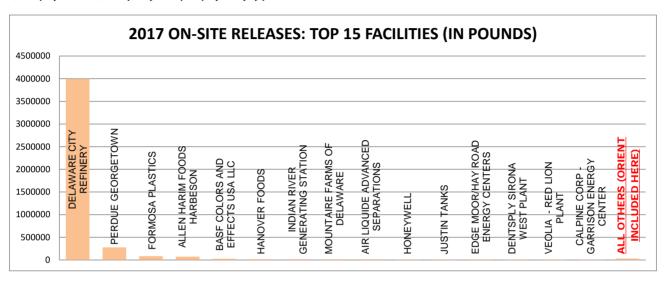


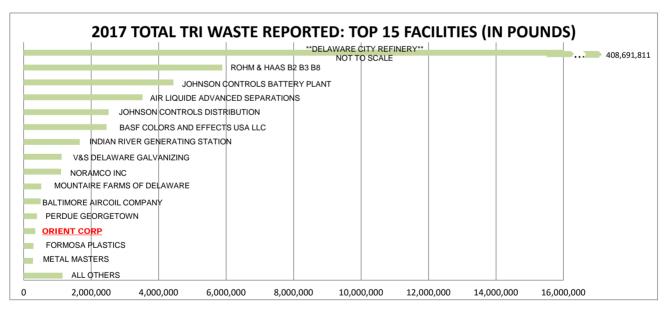




# **ORIENT, CONT.**

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Orient ranks 3rd in the nation for on-site recycling of aniline (out of 51 facilities).



# **OWEN STEEL COMPANY**

### LOCATION/CONTACT:

Address: 813 South Market Street Wilmington, DE 19801

Phone: (803)-251-7565

Contact: David Zalesne



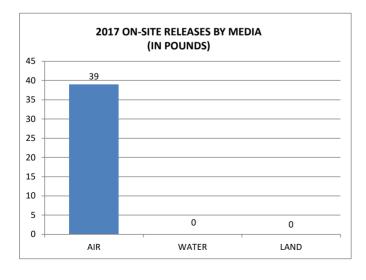
#### **FACILITY OVERVIEW:**

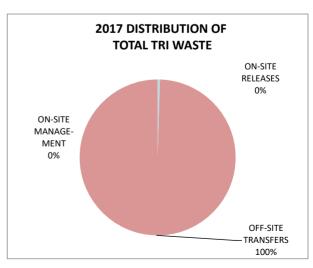
Owen Steel Company reported under the North American Industrial Classification System (NAICS) as 332312, which covers fabricated structural metal manufacturing.

Owen Steel Company, located in Wilmington, reported to TRI for the first time for 2015. The facility reported on three chemicals in 2017, lead compounds, manganese compounds, and nickel compounds. Off-site transfers for recycling accounted for more than 99% of the facility's total reportable waste, with on-site releases to air making up less than 1%.

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE RELEASES				ON SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
LEAD COMPOUNDS	0	0	0	0	211	0	YES	YES
MANGANESE COMPOUNDS	37	0	0	37	2,440	0	NO	NO
NICKEL COMPOUNDS	2	0	0	2	5,340	0	NO	YES
TOTAL	39	0	0	39	7.991	0		







# OWEN STEEL COMPANY, CONT.

### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

The Owen Steel Company ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.

The Owen Steel Company ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

# PERDUE BRIDGEVILLE

# LOCATION/CONTACT:

Address: 16447 Adams Road

Bridgeville, DE 19933

Phone: (410)-341-2755

Contact: Andrea Staub



#### **FACILITY OVERVIEW:**

Perdue Farms is a producer of poultry products. The Bridgeville facility is a feed mill that produces poultry feed.

Perdue Bridgeville has reported since 1995. The facility reported on three chemicals in 2017, all on short Form A. Form A reports do not include waste management activities. The chemicals reported are metal compounds that are used in poultry feed as nutritional ingredients. (Chemicals must have less than 500 lbs. of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.)

#### **2017 TRI DATA (REPORTED IN POUNDS):**

	ON-SITE RELEASES				OFF OFF	ON OITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
COPPER COMPOUNDS*	0	0	0	0	0	0	NO	NO
MANGANESE COMPOUNDS*	0	0	0	0	0	0	NO	NO
ZINC COMPOUNDS*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.

# **PERDUE GEORGETOWN**

# LOCATION/CONTACT:

Address: 20621 Savannah Road

Georgetown, DE 19947

Phone: (410)-341-2755

Contact: Andrea Staub



#### **FACILITY OVERVIEW:**

Perdue Farms is a producer of poultry products. The Georgetown facility processes chickens for sale to the retail market.

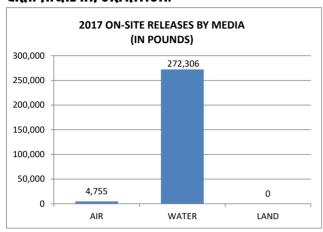
Perdue Georgetown reported on two TRI chemicals for 2017, nitrate compounds and hydrogen sulfide. Perdue's wastewater treatment plant digests production wastewater from the poultry processing plant and converts some of this waste into nitrate compounds, which are discharged into a local stream. Hydrogen sulfide is a byproduct from anaerobic treatment of the organic wastes in the wastewater and is released to air.

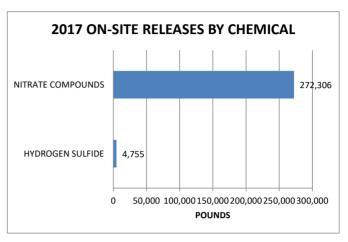
### 2017 TRI DATA (REPORTED IN POUNDS):

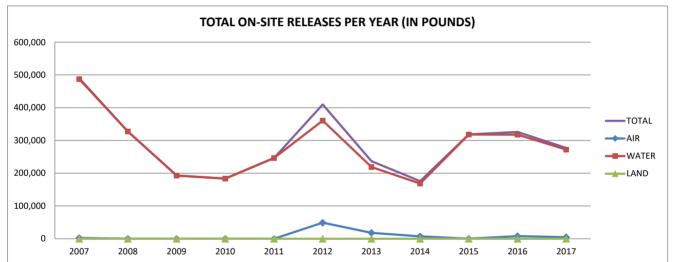
	ON-SITE RELEASES				OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
HYDROGEN SULFIDE	4,755	0	0	4,755	0	116,254	NO	NO
NITRATE COMPOUNDS	0	272,306	0	272,306	79	0	NO	NO
TOTAL	4,755	272,306	0	277,061	79	116,254		

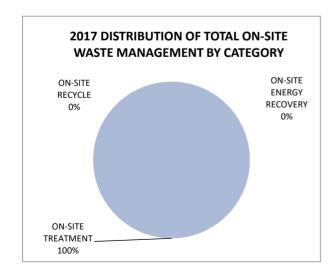


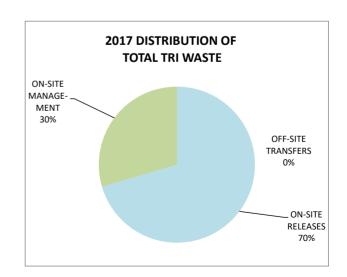
# PERDUE GEORGETOWN, CONT.







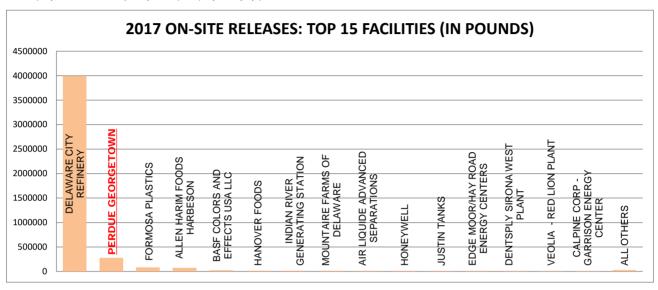






# PERDUE GEORGETOWN, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Perdue Georgetown ranks 65th in on-site release of nitrate compounds by food/beverage facilities (NAICS 311) (out of 565 facilities).

Perdue Georgetown ranks 19th in the on-site treatment of hydrogen sulfide by food/beverage facilities (NAICS 311) (out of 92 facilities).



# **PERDUE MILFORD**

### LOCATION/CONTACT:

Address: 255 N. Rehoboth Blvd. Milford, DE 19963

Phone: (410)-341-2755

**Contact**: Andrea Staub



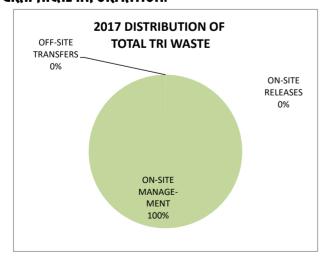
#### **FACILITY OVERVIEW:**

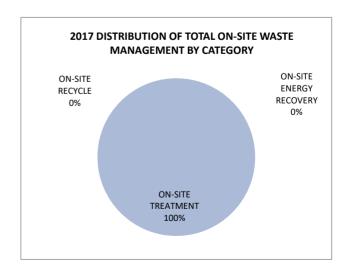
Perdue Farms is a producer of poultry products. The Milford facility processes chickens for sale to the retail market, and is an organic certified plant.

Perdue Milford has reported since 1991, previously as Conagra Broiler. From 1999 through 2006, the facility was below the reporting threshold, and no TRI reports were filed. For 2017, the facility reported on one chemical, peracetic acid, which is completely managed on-site. Peracetic acid is found in a FDA-approved antimicrobial food treatment for pathogen reduction in poultry processing. The product is used in chilling and carcass washing equipment in the plant. According to the manufacturer, the product is environmentally responsible as it is compatible with water treatment systems, and rapidly breaks down after use.

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
PERACETIC ACID	0	0	0	0	17	33,046	NO	NO
TOTAL	0	0	0	0	17	33,046		

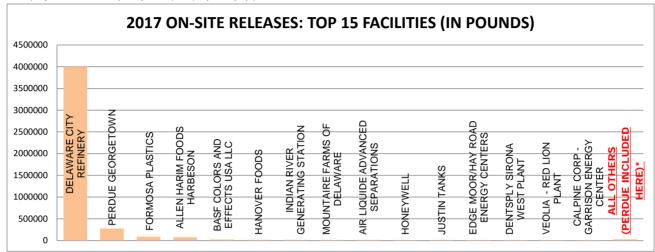






# PERDUE MILFORD, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



<sup>\*</sup> Perdue Milford ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.



#### **NOTABLE 2017 NATIONAL RANKINGS:**

Perdue Milford ranks 144th for on-site treatment of peracetic acid (out of 275 facilities).



### **PICTSWEET**

#### LOCATION/CONTACT:

Address: 18215 Wesley Church Road Bridgeville, DE 19933

Phone: (731)-663-7600

Contact: Allen Watts



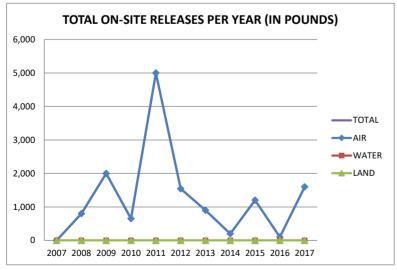
#### **FACILITY OVERVIEW:**

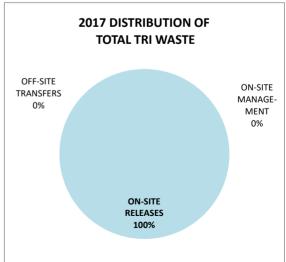
Pictsweet reports under the North American Industrial Classification System (NAICS) as 311411, which covers the manufacturing of frozen fruit, juice and vegetables.

The facility has reported since 1989, previously as Birds Eye Foods and Agrilink Foods. Pictsweet reported one TRI chemical in 2017, ammonia. Ammonia is used in refrigeration equipment, and releases are typical through normal service maintenance, leaks, and other losses that occur in the system. On-site release amounts of ammonia have varied year to year (see *Total On-site Releases Per Year Graph*).

#### 2017 TRI DATA (REPORTED IN POUNDS):

	ON-SITE RELEASES				OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
AMMONIA	1,600	0	0	1,600	0	0	NO	NO
TOTAL	1,600	0	0	1,600	0	0		

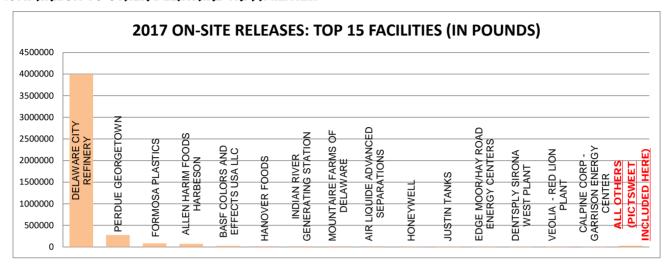






#### PICTSWEET, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



Pictsweet ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.



#### **PPG INDUSTRIES**

#### LOCATION/CONTACT:

Address: 1886 Lynnbury Woods Road

Dover, DE 19904

Phone: (302)-672-2160

Contact: Mitch Magee



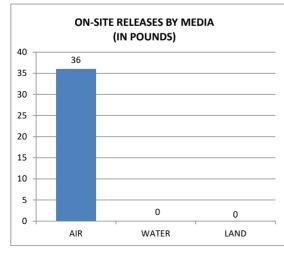
#### **FACILITY OVERVIEW:**

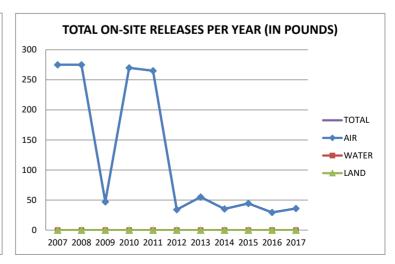
PPG Industries reported under the North American Industrial Classification System (NAICS) as 325510, which covers paint and coating manufacturing.

PPG Industries has reported since 1987. The facility reported on three chemicals in 2017, with on-site releases only to air. The chemicals reported are utilized as raw materials in the paint making process. The raw materials are mixed together to make architectural paint. On-site releases accounted for less than 1% of all waste activities in 2017. Releases for 2006 through 2008 and from 2010 and 2011 were higher than other years, with increased releases of zinc compounds on-site (see *Total On-site Releases Per Year Graph* on the next page).

#### 2017 TRI DATA (REPORTED IN POUNDS):

·								
	ON-SITE RELEASES				OFF CITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
CERTAIN GLYCOL ETHERS	2	0	0	2	1,732	0	NO	NO
ETHYLENE GLYCOL	0	0	0	0	3,948	0	NO	NO
ZINC COMPOUNDS	34	0	0	34	3,763	0	NO	NO
TOTAL	36	0	0	36	9,443	0		

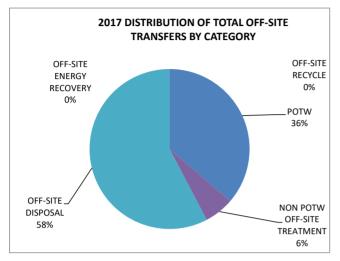


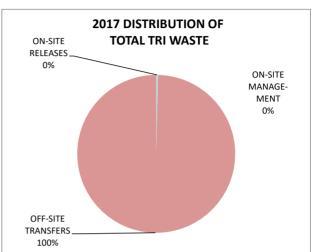




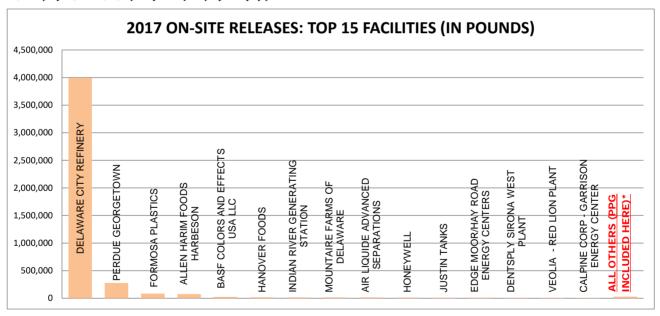
#### PPG INDUSTRIES, CONT.

#### **GRAPHICAL INFORMATION CONT.:**





#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**

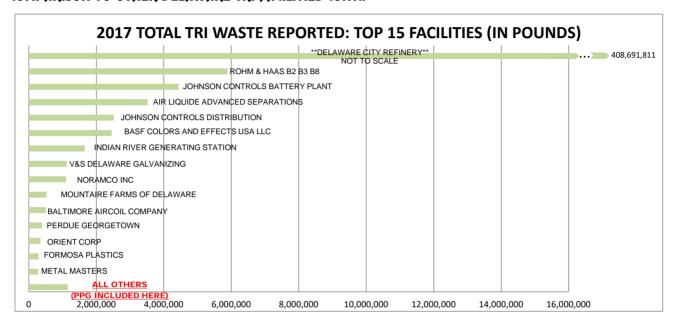


<sup>\*</sup>PPG Industries ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site. Comparisons only include facilities reporting on Form R.



#### PPG INDUSTRIES, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES CONT.:**



PPG ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred

#### **NOTABLE 2017 NATIONAL RANKINGS:**

PPG Industries ranks 57th in the off-site transfer of certain glycol ethers to publicly owned treatment works (POTW) for chemical facilities (NAICS 325) (out of 647 facilities).



#### **PRINCE MINERALS LLC**

#### LOCATION/CONTACT:

Address: 301 Pigeon Point Road

New Castle, DE 19720

Phone: (646)-747-4176

**Contact**: Mary Simpler



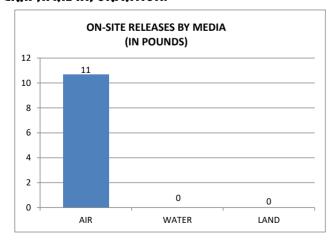
#### **FACILITY OVERVIEW:**

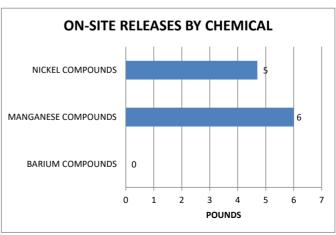
Prince Minerals LLC is a supplier of colorants and additives to the North American brick industry as well as complementary products to serve the foundry, glass, and refractory markets.

Prince Minerals LLC has reported since 1998, previously as American Minerals. The facility reported on 3 chemicals in 2017, all metal compounds, with on-site releases only to air.

#### **2017 TRI DATA (REPORTED IN POUNDS):**

		ON-SITE	RELEASES		OFF SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
BARIUM COMPOUNDS	0	0	0	0	0	0	NO	NO
MANGANESE COMPOUNDS	6	0	0	6	0	0	NO	NO
NICKEL COMPOUNDS	5	0	0	5	0	0	NO	YES
TOTAL	11	0	0	11	0	0		

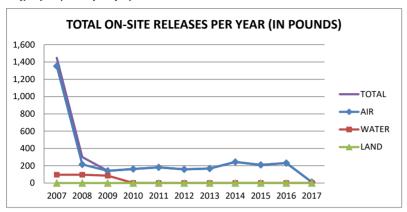


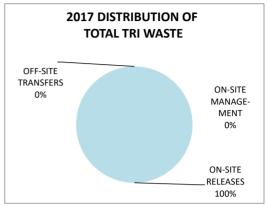




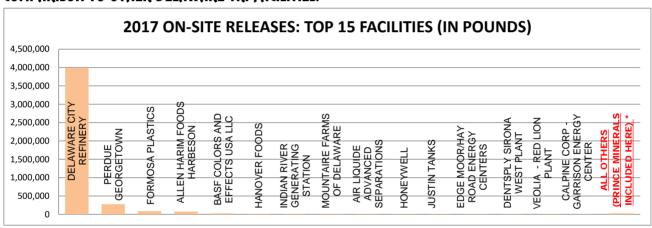
#### PRINCE MINERALS LLC, CONT.

#### **GRAPHICAL INFORMATION CONT.:**





#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**



\*Prince Minerals ranks in the bottom third in on-site releases reported by facilities in 2017. The bottom third accounted for less than a total of 126 pounds released on-site.



<sup>\*</sup>Prince Minerals ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

#### **ROGERS CORP**

#### LOCATION/CONTACT:

Address: 1100 Governor Lea Road

Bear, DE 19701

Phone: (860) 779-5598

**Contact**: Timothy Gauthier



#### **FACILITY OVERVIEW:**

Rogers Corp. specializes in the manufacturing of fluoropolymer (PTFE) laminates and ceramic-filled fluoropolymer laminates that are used in frequency-dependent circuit applications such as aircraft radar systems, base station amplifiers and cell tower antennas for wireless telecommunications. Rogers also produces precision calendared silicone rubber coated fabric and specialty extruded self-fusing silicone rubber tapes. These silicone rubber products are used in aerospace, transportation, general industrial, and semiconductor markets more often than not for electrical insulation.

Rogers has reported since 1987, previously as Arlon and Keene. Rogers reported three TRI chemicals, ethylbenzene, xylene and copper, in 2017. Rogers uses xylene as a chemical processing aid in the coating of fiberglass with the silicone rubber dispersion. Ethylbenzene is a component found in many commercial grades of xylene. A vast majority of the solvents used in the coating process is destroyed in the on-site thermal oxidizer system. Copper is used in the antenna assemblies.

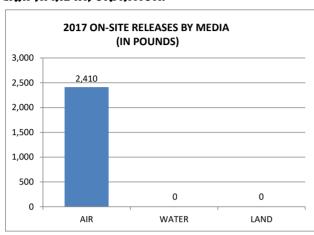
#### 2017 TRI DATA (REPORTED IN POUNDS):

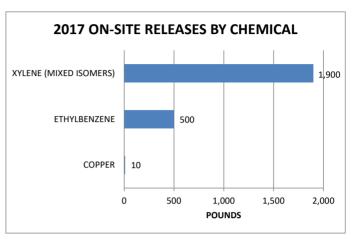
		ON-SITE RELEASES				ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	MANAGEMENT	PBT	CARCINOGEN
COPPER	10	0	0	10	5,023	0	NO	NO
ETHYLBENZENE	500	0	0	500	850	19,500	NO	YES
XYLENE (MIXED ISOMERS)	1,900	0	0	1,900	4,500	101,000	NO	NO
TOTAL	2,410	0	0	2,410	10,373	120,500		

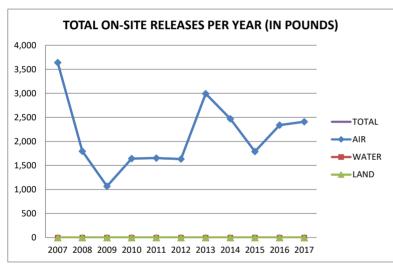
# TRI

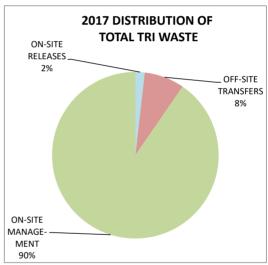
#### **GRAPHICAL INFORMATION:**

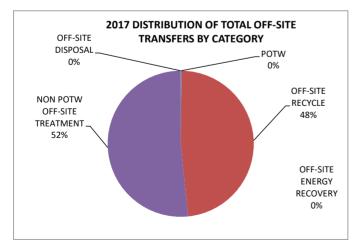
# ROGERS CORP,

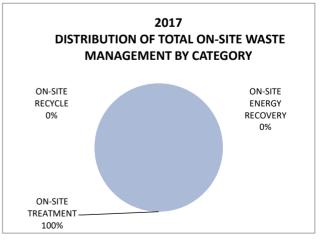








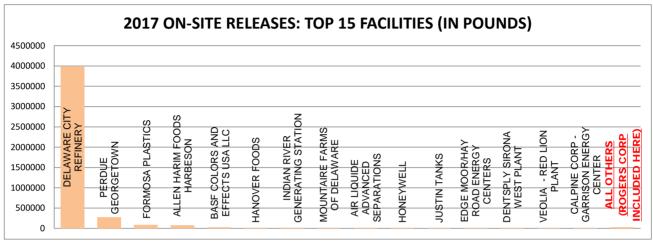


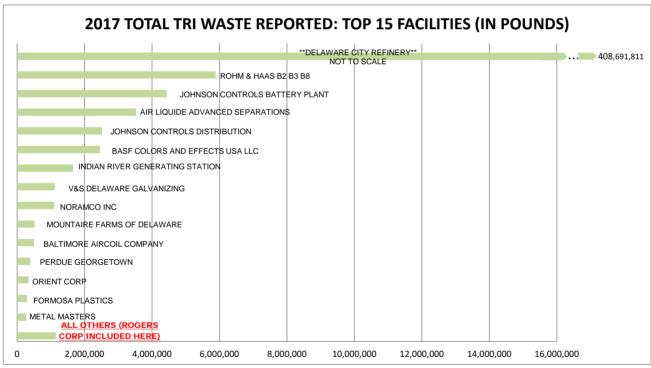




#### ROGERS CORP, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Rogers Corp. ranks 12th in the on-site treatment of xylene (mixed isomers) for plastic and rubber manufacturing facilities (NAICS 326) (out of 62 facilities).

Rogers Corp. ranks 38th in on-site releases of xylene (mixed isomers) for plastic and rubber manufacturing facilities (NAICS 326) (out of 62 facilities).



#### ROHM & HAAS B2, B3, B8

#### LOCATION/CONTACT:

Address: 451 Bellevue Road

Newark, DE 19713

Phone: (302)-366-0500

**Contact**: Christopher Glackin



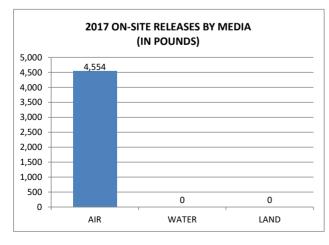
#### **FACILITY OVERVIEW:**

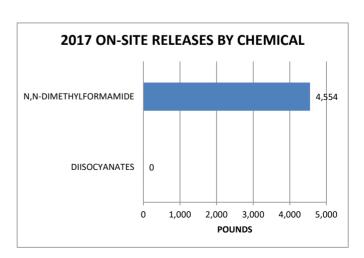
Rohm & Haas (Buildings 2, 3, and 8) manufactures polishing pads and slurries for the semiconductor, electronics, and glass industries.

The facility has reported since 1987, previously as Rodel. Rohm and Haas reported on two TRI chemicals for 2017. N,N-Dimethylformamide (DMF) is used as a solvent carrier in the polishing pad manufacturing process, and accounted for virtually all of their on-site releases. Releases of DMF mostly occur through evaporation from the poromerics coating and washing process. The majority of the DMF used is recycled in the distillation equipment for reuse in the process. All on-site releases of DMF were to air, and were primarily stack emissions from the scrubber and oxidizer used to control process emissions (see *Total On-site Releases Per Year Graph* on the next page).

#### 2017 TRI DATA (REPORTED IN POUNDS):

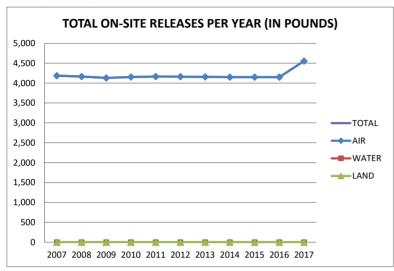
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
DIISOCYANATES	0	0	0	0	8,587	0	NO	NO
N,N-DIMETHYLFORMAMIDE	4,554	0	0	4,554	1,020,728	4,850,816	NO	NO
TOTAL	4,554	0	0	4,554	1,029,315	4,850,816		

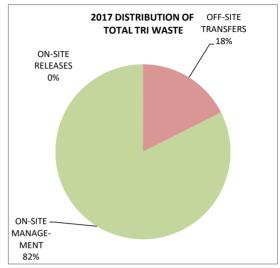


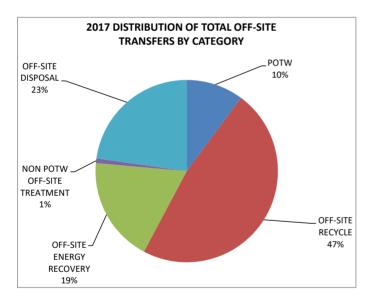


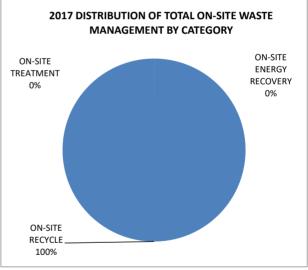


# ROHM & HAAS B2, B3, B8, CONT.





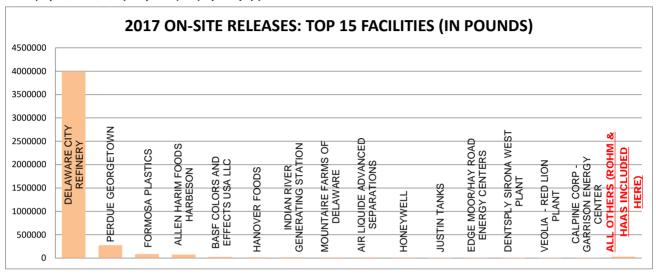


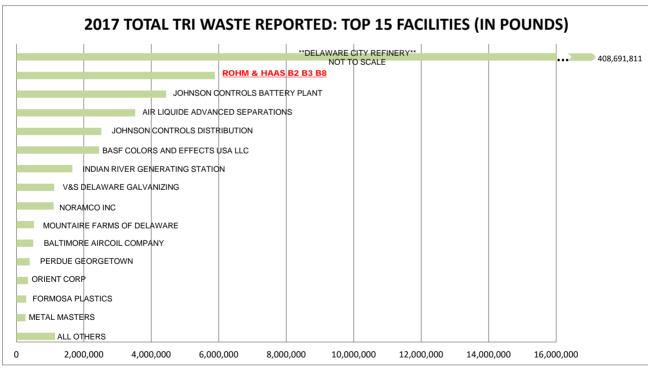




#### ROHM & HAAS B2, B3, B8, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

Rohm & Haas ranks 5th for off-site transfers of n,n-dimethylformamide (out of 155 facilities).

Rohm & Haas ranks 1st for on-site recycling of n,n-dimethylformamide (out of 155 facilities).



#### ROHM & HAAS B5, B6

#### LOCATION/CONTACT:

Address: 351 Bellevue Road

Newark, DE 19713

Phone: (302)-366-0500

**Contact**: Christopher Glackin

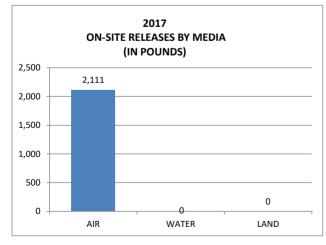


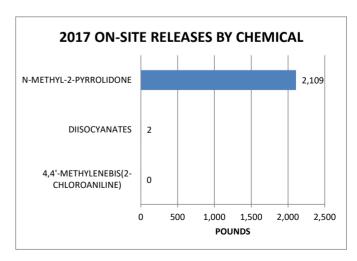
#### **FACILITY OVERVIEW:**

Rohm& Haas (Buildings 5 and 6) manufactures polishing pads for the semiconductor and electronics industries. Rohm & Haas (Buildings 5 and6) has reported since 1995, formerly as the Rodel Technical Center. For 2017, the facility reported 3 chemicals, with n-methyl-2-pyrrolidone (NMP) accounting for 99.9% of all on-site releases. NMP is utilized in cleaning equipment used in manufacturing. The majority of NMP is managed off-site with only about 3% being released on-site to air.

#### **2017 TRI DATA (REPORTED IN POUNDS):**

		ON-SITE	RELEASES		OFF-SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		ON-SITE MANAGEMENT	PBT	CARCINOGEN
4,4'-METHYLENEBIS(2-CHLOROANILINE)	0	0	0	0	1,075	0	NO	YES
DIISOCYANATES	2	0	0	2	3,912	0	NO	NO
N-METHYL-2-PYRROLIDONE	2,109	0	0	2,109	63,415	0	NO	NO
TOTAL	2,111	0	0	2,111	68,402	0		

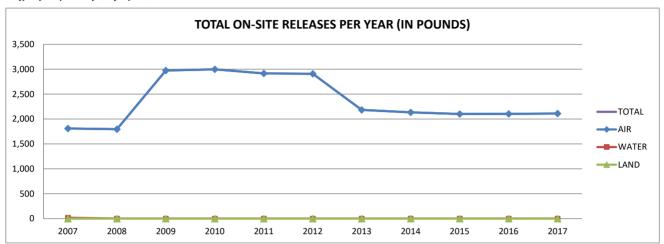


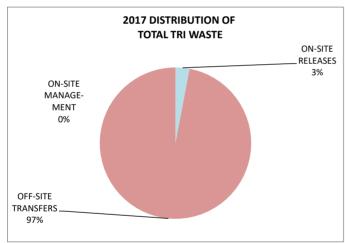


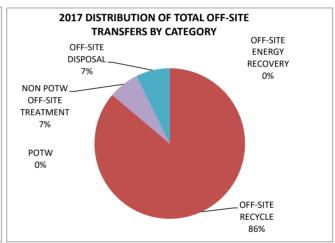


#### ROHM & HAAS B5, B6 CONT.

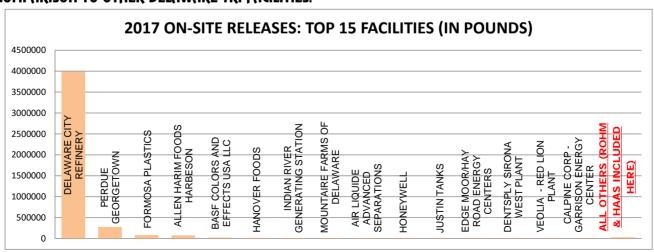
#### **GRAPHICAL INFORMATION:**







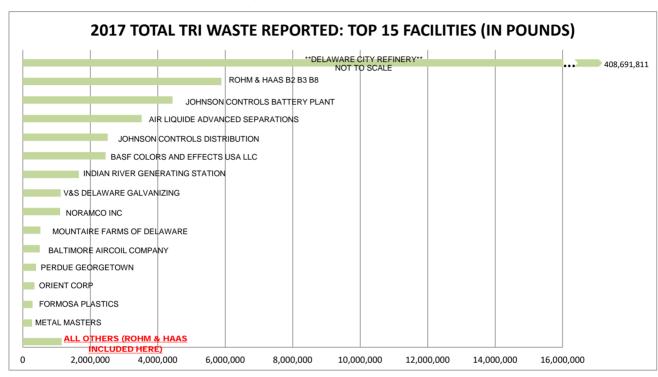
#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### ROHM & HAAS B5, B6 CONT.

#### COMPARISON TO OTHER DELAWARE TRI FACILITIES, CONT.:



#### **NOTABLE 2017 NATIONAL RANKINGS:**

Rohm & Haas B5, B6 ranks 88th for on-site releases of n-methyl-2-pyrrolidone (out of 380 facilities).

Rohm & Haas B5, B6 ranks 72nd for off-site transfers of n-methyl-2-pyrrolidone (out of 380 facilities).



## ROHM & HAAS B7, B15

#### LOCATION/CONTACT:

Address: 50 Bellevue Road

Newark, DE 19713

Phone: (302)-366-0500

Contact: Christopher Glackin



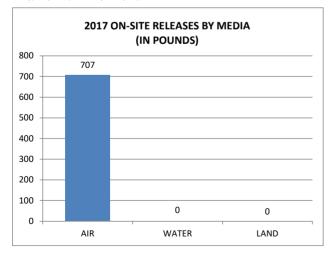
#### **FACILITY OVERVIEW:**

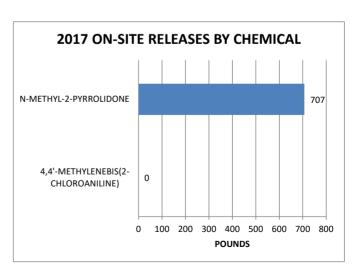
Rohm & Haas (Buildings 7 and 15) manufacture polishing pads for the semiconductor and electronics industries.

Rohm & Haas B7, B15 has reported since 2005, formerly as the Rodel Building 7. For 2017, the facility reported 2 chemicals, with n-methyl-2-pyrrolidone (NMP) accounting for more than 99.9% of all on-site releases. NMP is utilized in cleaning equipment used for manufacturing.

#### **2017 TRI DATA (REPORTED IN POUNDS):**

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
4,4'-METHYLENEBIS(2-CHLOROANILINE)	0	0	0	0	601	0	NO	YES
N-METHYL-2-PYRROLIDONE	707	0	0	707	11,561	0	NO	NO
TOTAL	707	0	0	707	12,162	0		

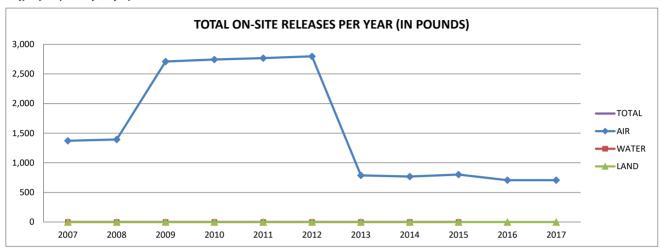


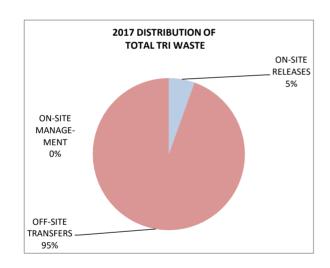


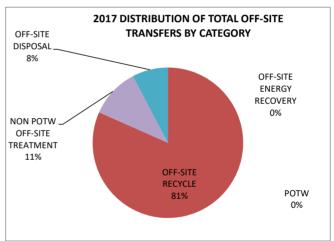


#### ROHM & HAAS B7, B15, CONT.

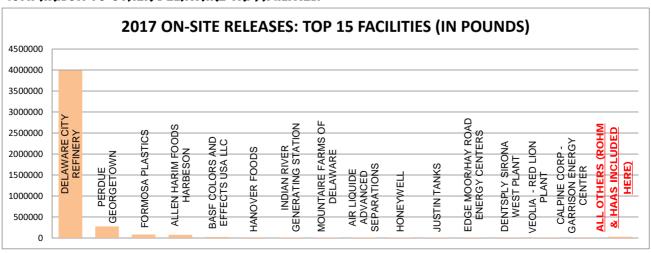
#### **GRAPHICAL INFORMATION:**







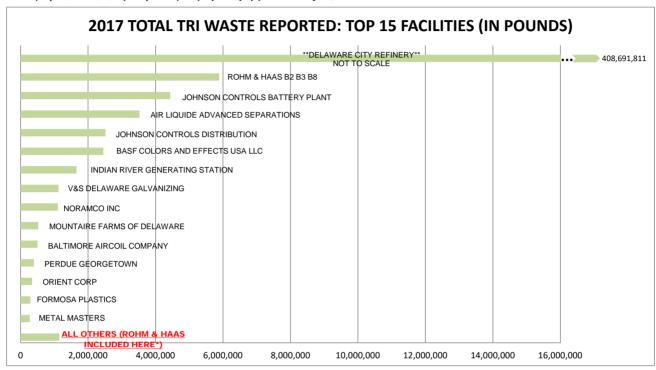
#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





# ROHM & HAAS B7, B15, CONT.

#### COMPARISON TO OTHER DELAWARE TRI FACILITIES, CONT.:



#### **NOTABLE 2017 NATIONAL RANKINGS:**

Rohm & Haas B7, B15 ranks 62nd for off-site recycling of n-methyl-2-pyrrolidone (out of 380 facilities).

## **SERVICE ENERGY DOVER**

#### LOCATION/CONTACT:

Address: 3799 N Dupont Highway

Dover, DE 19901

Phone: (302)-734-7433

Contact: Don Steiner



#### **FACILITY OVERVIEW:**

Service Energy reported under the North American Industrial Classification System (NAICS) as 424710, which covers bulk liquid storage facilities primarily engaged in merchant wholesale of crude petroleum and petroleum products.

Service Energy Dover has reported since 1998. The facility reported on two chemicals in 2017, 1,2,4-trimethylbenze and toluene; both on the short Form A. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs. of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 lbs. to be eligible to submit a Form A report.)

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF CITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
1,2,4-TRIMETHYLBENZENE*	0	0	0	0	0	0	NO	NO
TOLUENE*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.



# **FACILITY INFORMATION SHEETS**

#### SPI PHARMA

#### LOCATION/CONTACT:

Address: 40 Cape Henlopen Drive

Lewes, DE 19958

Phone: (616)-283-8506

Contact: John Creighton



#### **FACILITY OVERVIEW:**

SPI Pharma reported under the North American Industrial Classification System (NAICS) as 325412, which covers pharmaceutical manufacturing.

SPI Pharma has reported since 1987, previously as Barcroft. The facility reported on two chemicals in 2017, chlorine and nitric acid, both on short Form A. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs. of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.)

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE RELEASES					ON CITE		
CHEMICAL	AIR		WATER	LAND	TOTAL	OFF-SITE TRANSFERS	ON-SITE MANAGEMENT	PBT	CARCINOGEN
CHLORINE*	0		0	0	0	0	0	NO	NO
NITRIC ACID*	0		0	0	0	0	0	NO	NO
TOTAL	0		0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.

#### V & S GALVANIZING

#### LOCATION/CONTACT:

Address: 511 Carroll Drive

New Castle, DE 19720

Phone: (302) 322-1420



#### **FACILITY OVERVIEW:**

V&S Galvanizing reported under the North American Industrial Classification System (NAICS) as 332812, which covers metal coating, engraving, and allied services to manufactures.

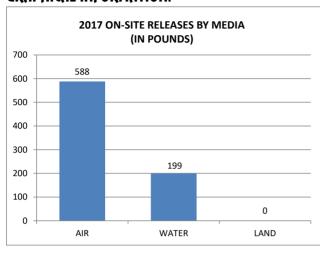
V&S Galvanizing has reported since 2009. The facility reported on two chemicals in 2017, with on-site releases to both air and water. The chemicals are that reported are found in the hot dip galvanizing process and coating. Stormwater data was also revised as more became available, combined with differences in annual precipitation for the various years. This resulted in reduced amount reported in stormwater for the 2013 to 2016 reporting years. Between reporting years 2011 and 2012, V&S Delaware Galvanizing took a more comprehensive look at air concentration data available and revised their method of calculation to include the most conservative data. On-site releases have increased by 258% compared to 2009, but make up less than 0.1% of all waste management activities. The resulting increase in releases reported was due to a change in calculations and release assumptions based on more readily available data.

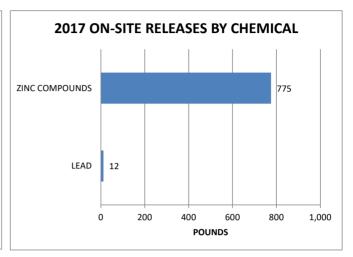
#### 2017 TRI DATA (REPORTED IN POUNDS):

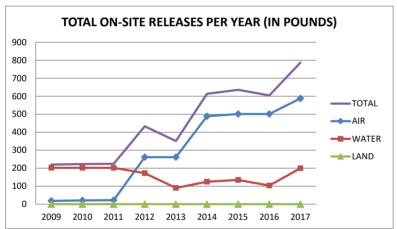
	ON-SITE RELEASES				OFF-SITE	ON CITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		ON-SITE MANAGEMENT	PBT	CARCINOGEN
LEAD	10	2	0	12	6,523	7,408	YES	YES
ZINC COMPOUNDS	578	197	0	775	239,114	869,115	NO	NO
TOTAL	588	199	0	787	245,637	876,523		

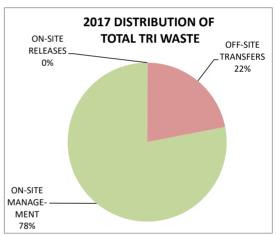


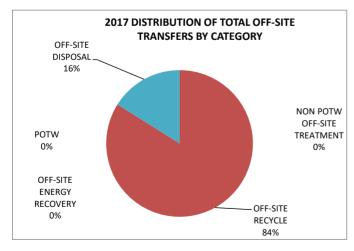
# V & S GALVANIZING, CONT.

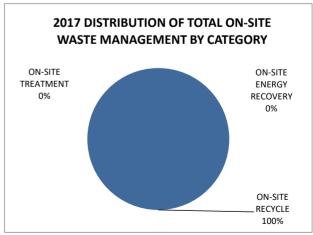








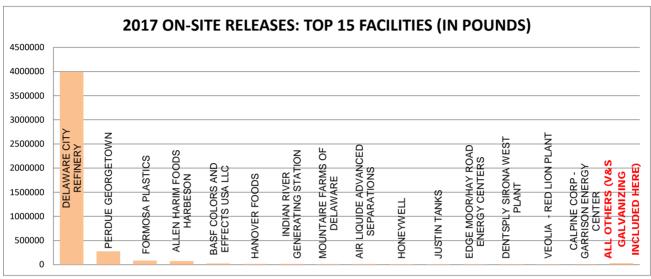






#### V & S GALVANIZING, CONT.

#### **COMPARISON TO OTHER DELAWARE TRI FACILITIES:**





#### **NOTABLE 2017 NATIONAL RANKINGS:**

V&S Galvanizing ranked 77th in the off-site recycle of zinc compounds for fabricated metal facilities (NAICS 332) (out of 363 facilities).

#### **VEOLIA RED LION**

#### LOCATION/CONTACT:

Address: 766 Governor Lea Road

Delaware City, DE 19706

Phone: (302) 834-5901

Contact: W. James Harman



#### **FACILITY OVERVIEW:**

Veolia Red Lion, located north of the Delaware City Refinery (DCR), manufactures sulfuric acid derived from refinery gas received from DCR and spent sulfuric acid received from DCR and other refineries. The refinery gas is received by pipeline. Spent sulfuric acid and fresh sulfuric acid are shipped to and from the Veolia facility via pipeline, tank trucks and tank cars.

Veolia Red Lion has reported since 2005, previously as Chemours Red Lion and DuPont Red Lion. The facility reported on four chemicals in 2017, hydrazine, hydrazine sulfate, hydrogen sulfide, and sulfuric acid. Hydrogen sulfide is used in the manufacturing process as a raw material. Hydrazine hydrate and hydrazine sulfate are used as process treatment chemicals.

All on-site releases were to air. For 2010, while the Delaware City Refinery was idle, the Red Lion facility was also idled and was below the TRI reporting threshold for sulfuric acid and was not required to report. The Red Lion facility re-started its operations in May of 2011 after an 18 month shutdown. In 2012, the Red Lion facility was operational at more typical production rates for the entire year as compared to 7 months in 2011. For 2017, on-site releases were up 8% compared to 2016. (see *Total On-site Releases Per Year Graph* on the next page).

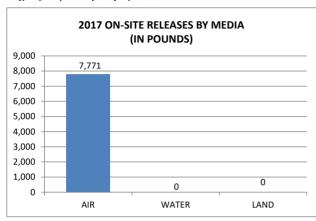
#### **2017 TRI DATA (REPORTED IN POUNDS):**

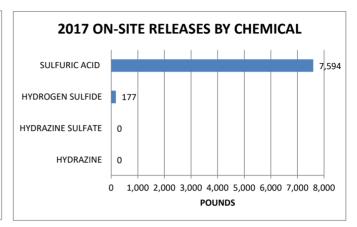
		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
HYDRAZINE	0	0	0	0	0	0	NO	YES
HYDRAZINE SULFATE	0	0	0	0	0	0	NO	YES
HYDROGEN SULFIDE	177	0	0	177	0	0	NO	NO
SULFURIC ACID	7,594	0	0	7,594	0	0	NO	NO
TOTAL	7,771	0	0	7,771	0	0		

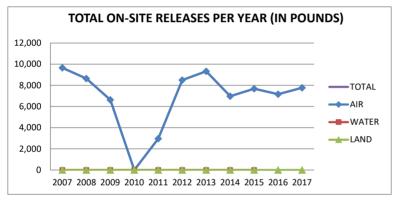


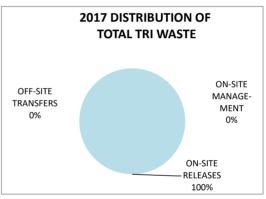
#### **VEOLIA RED LION, CONT.**

#### **GRAPHICAL INFORMATION:**

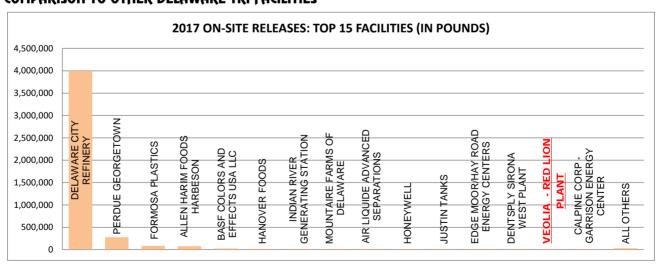








#### COMPARISON TO OTHER DELAWARE TRI FACILITIES



Veolia Red Lion ranks in the bottom third in total waste reported by facilities in 2017. The bottom third accounted for less than 53,000 pounds of total waste. Total waste includes waste released on-site, managed on-site, or transferred off-site.

#### **VP RACING FUELS**

#### LOCATION/CONTACT:

Address: 16 Brookhill Drive

Newark, DE 19702

Phone: (210)-635-7744

Contact: Susan Gray



#### **FACILITY OVERVIEW:**

VP Racing Fuels reported under the North American Industrial Classification System (NAICS) as 324199, which covers petroleum and coal products manufacturing.

VP Racing Fuels has reported since 2001. The facility reported on one chemical in 2017 using the short Form A. Form A reports do not include waste management activities. (Chemicals must have less than 500 lbs. of total waste activities and the total annual amount of the chemical manufactured, processed, or otherwise used does not exceed 1,000,000 pounds to be eligible to submit a Form A report.) Persistent Bio-Accumulative Toxic (PBT) Chemicals, such as lead, are ineligible for Form A.

#### 2017 TRI DATA (REPORTED IN POUNDS):

		ON-SITE	RELEASES		OFF-SITE	ON-SITE		
CHEMICAL	AIR	WATER	LAND	TOTAL		MANAGEMENT	PBT	CARCINOGEN
TOLUENE*	0	0	0	0	0	0	NO	NO
TOTAL	0	0	0	0	0	0		

<sup>\*</sup>Reported on short Form A

#### **GRAPHICAL INFORMATION:**

TRI reports for this facility were submitted on Short Form A. No on-site releases, off-site transfers, or on-site waste management activities are reported. Total reportable waste activities for this facility do not exceed 500 pounds per chemical reported.



# EPCRA Reporting Program Emergency Prevention and Response Section, DNREC 155 Commerce Way, Suite B Dover, DE 19904 (302) 739-9405

The Department of Natural Resources and Environmental Control is committed to affirmative action, equal opportunity, and the diversity of its workforce.

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