



Corporate Sustainability and TRI: Exploring P2 Information for Facilities and Parent Companies

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February 2015



Going Green: Sustainability in the Business World

- Many companies have embraced sustainability
- *Why?*
 - A sense of corporate responsibility
 - Clients expect it
 - Internationalization
 - Shareholder pressure
- But most of all...it is the right thing to do
 - *Triple bottom line* advances profit, environment and communities simultaneously
- EPA encourages green thinking and processes

What is TRI?

- TRI tracks the management of certain toxic chemicals. U.S. facilities in different industry sectors must report annually how much of each chemical is released to the environment and/or managed as waste.



Releases



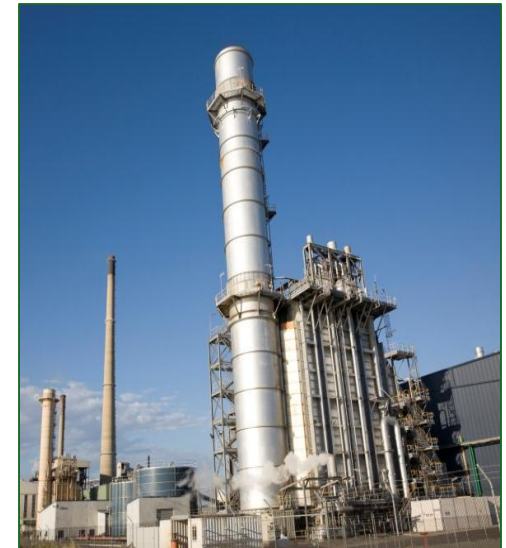
Waste transfers



Recycling



Pollution prevention



- TRI includes data about approximately **20,000 facilities** across the country and covers **more than 675 toxic chemicals.**



Parent Companies and TRI

- All TRI data are reported at the facility level, but parent company is a required TRI data field
 - Highest-level U.S. parent of the facility
 - Single company with the largest stake if multiple owners
 - Name of joint venture if ownership is 50/50
- Field is available in TRI database, but TRI tools had not offered standard reports at parent company level
- Complications with roll-up of TRI data to corporate level are now addressed by standardization process



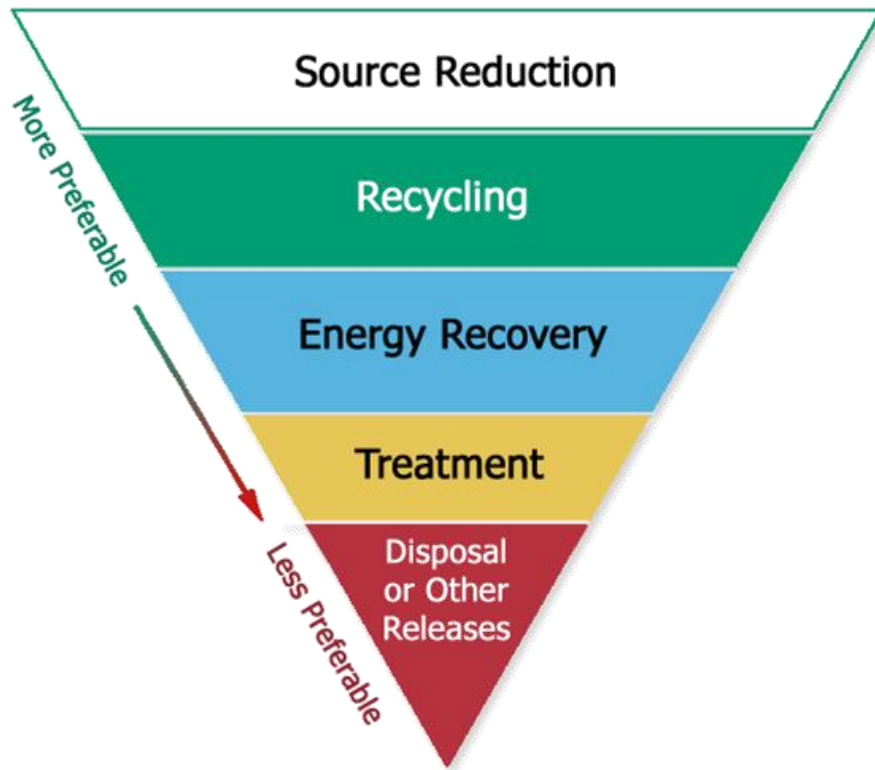
Parent Co. Standardization Process

- Apply standardization rules to ensure that a single distinct name is used for each parent company
 - E.g., “Bestchem Corporation”, “Bestchem Corp” and “Bestchem Corp.” all become Bestchem Corp
- Identify use of subsidiary names and contact facility
- Pre-populate reporting tool with standardized names
- Load standardized names into Envirofacts database for use in EPA analyses and analytical tools



TRI's Pollution Prevention (P2) Data

Waste Management Hierarchy



The Pollution Prevention Act

- Sets out hierarchy of preferred waste management techniques
- Tracks each TRI facility's progress up the hierarchy, with fields for:
 - **Source reduction codes**
 - **Optional P2 descriptions**
 - **Waste management quantities**
- Provides opportunity to publicly highlight any steps a facility takes to reduce toxic chemical releases to the environment



Optional P2 Descriptions from 2013

- **Process Modifications**

- A [rubber product manufacturer](#) installed three natural gas boilers and decommissioned two #6 fuel oil boilers in an effort to reduce emissions. The change was made in September 2013 and resulted in a 36% reduction in benzo(g,h,i)perylene emissions from the previous year. The facility expects they will not have any benzo(g,h,i)perylene emissions in 2014.

- **Raw Material Modifications**

- An [ophthalmic goods manufacturer](#) worked with vendor and internal resources to develop a new formulation for its coating line. Substitution of a non-TRI chemical (SDC ethanol) resulted in a 99% reduction in the use of methanol at the facility.

- **Surface Preparation and Finishing**

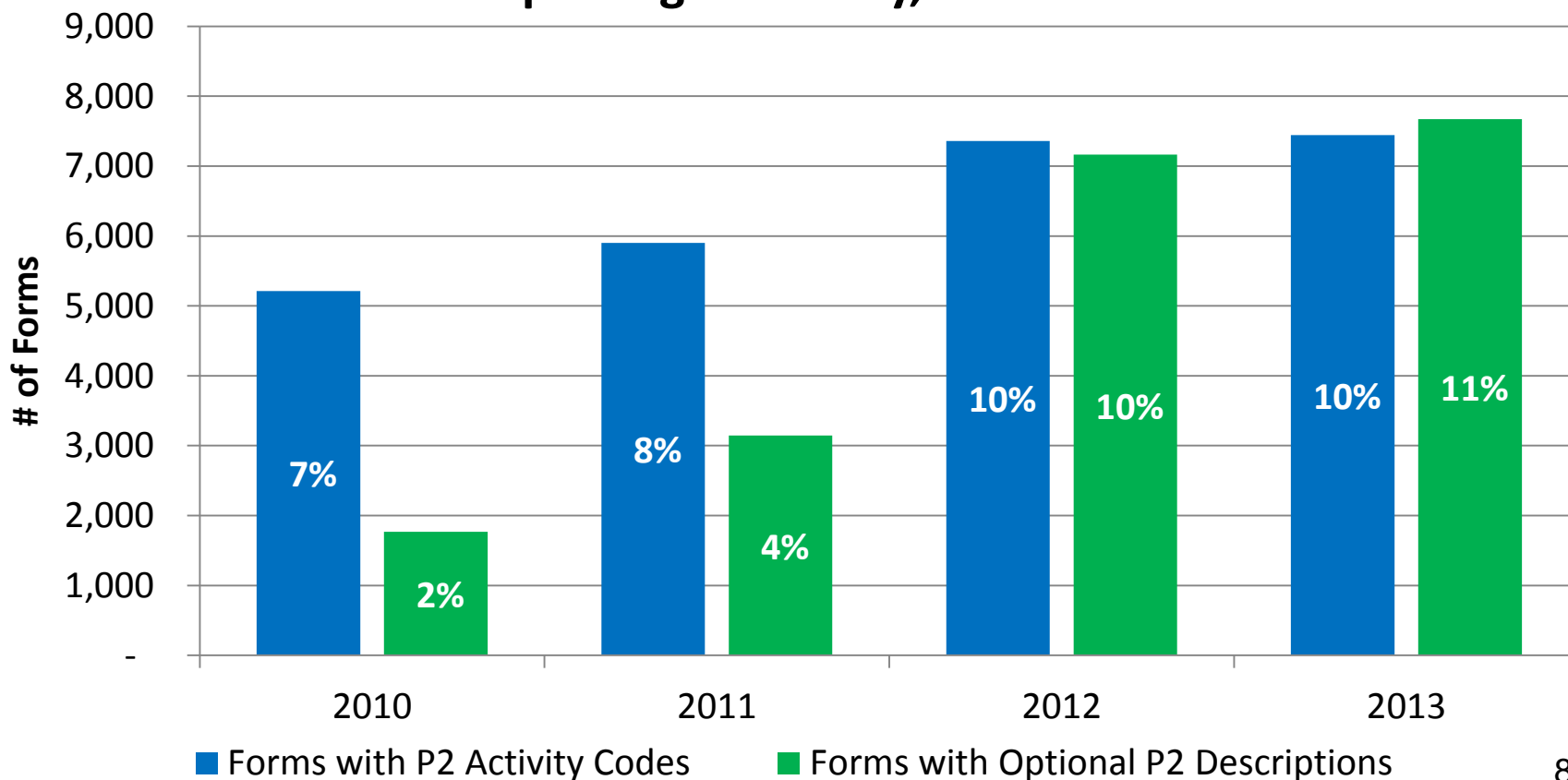
- By changing to an immersion acid process instead of using spray acid equipment, a [semiconductor manufacturer](#) reduced emissions of aerosolized hydrochloric acid.



P2 Reporting Trends

- Facilities have reported more P2 information since EPA increased emphasis on this part of the TRI reporting form

P2 Reporting Summary, 2010-2013



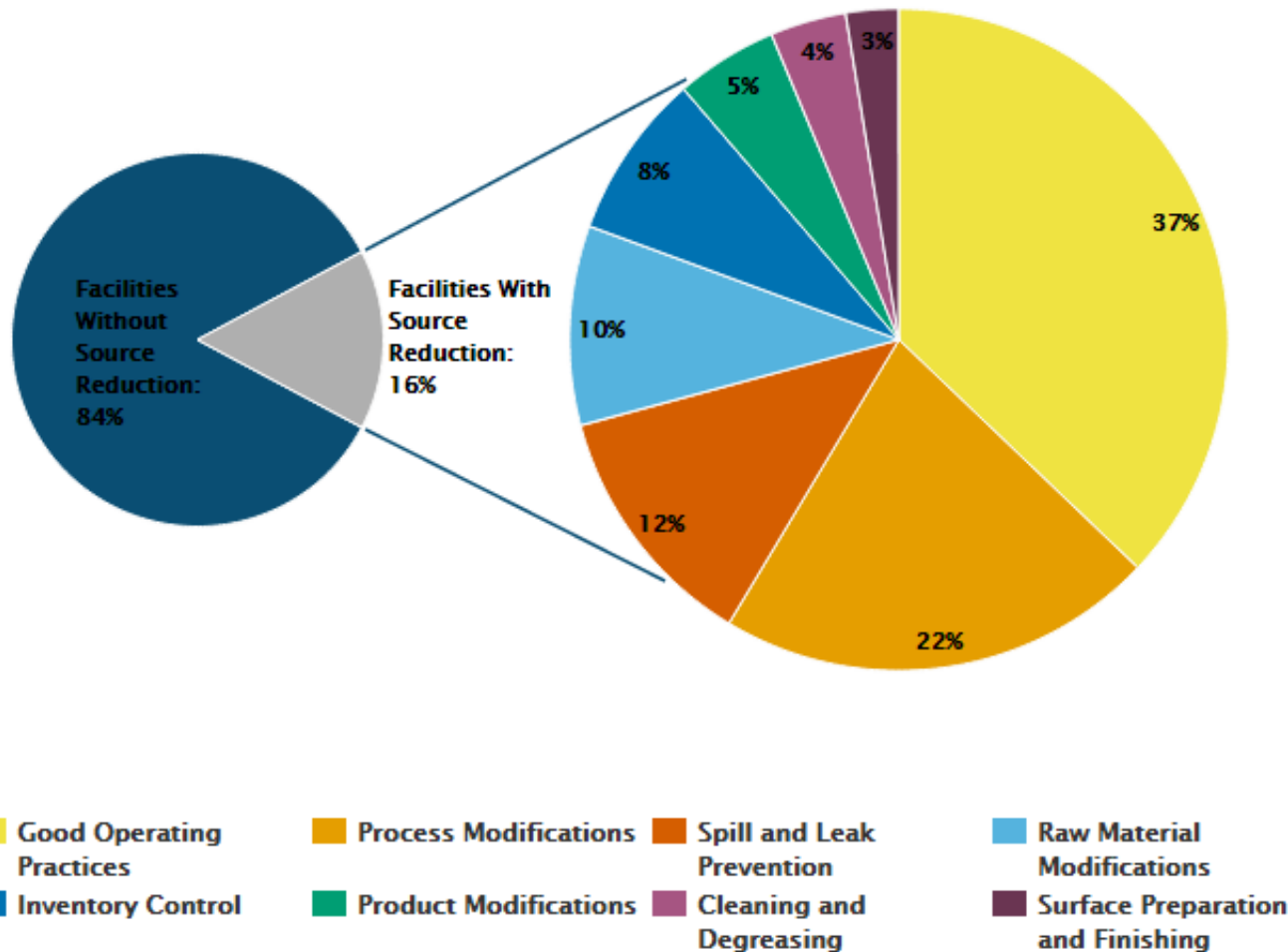


P2 in the 2013 TRI National Analysis

Newly Implemented Source Reduction Practices, 2013

Facilities Reporting to TRI

Source Reduction Activities Reported*

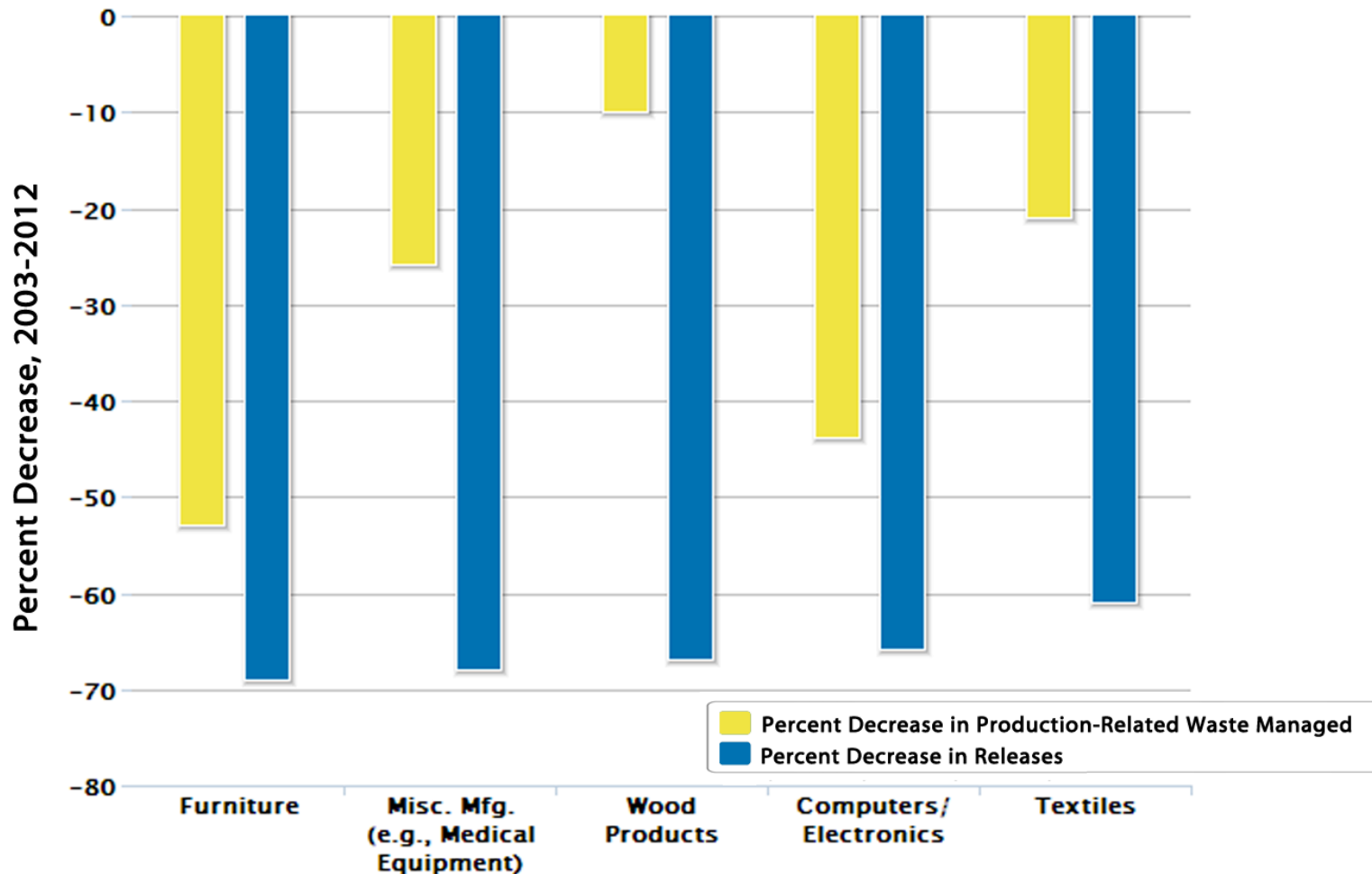


*Activities comprising each category are listed in the [TRI Reporting Forms and Instructions](#).



Sectors with Significant P2 Progress

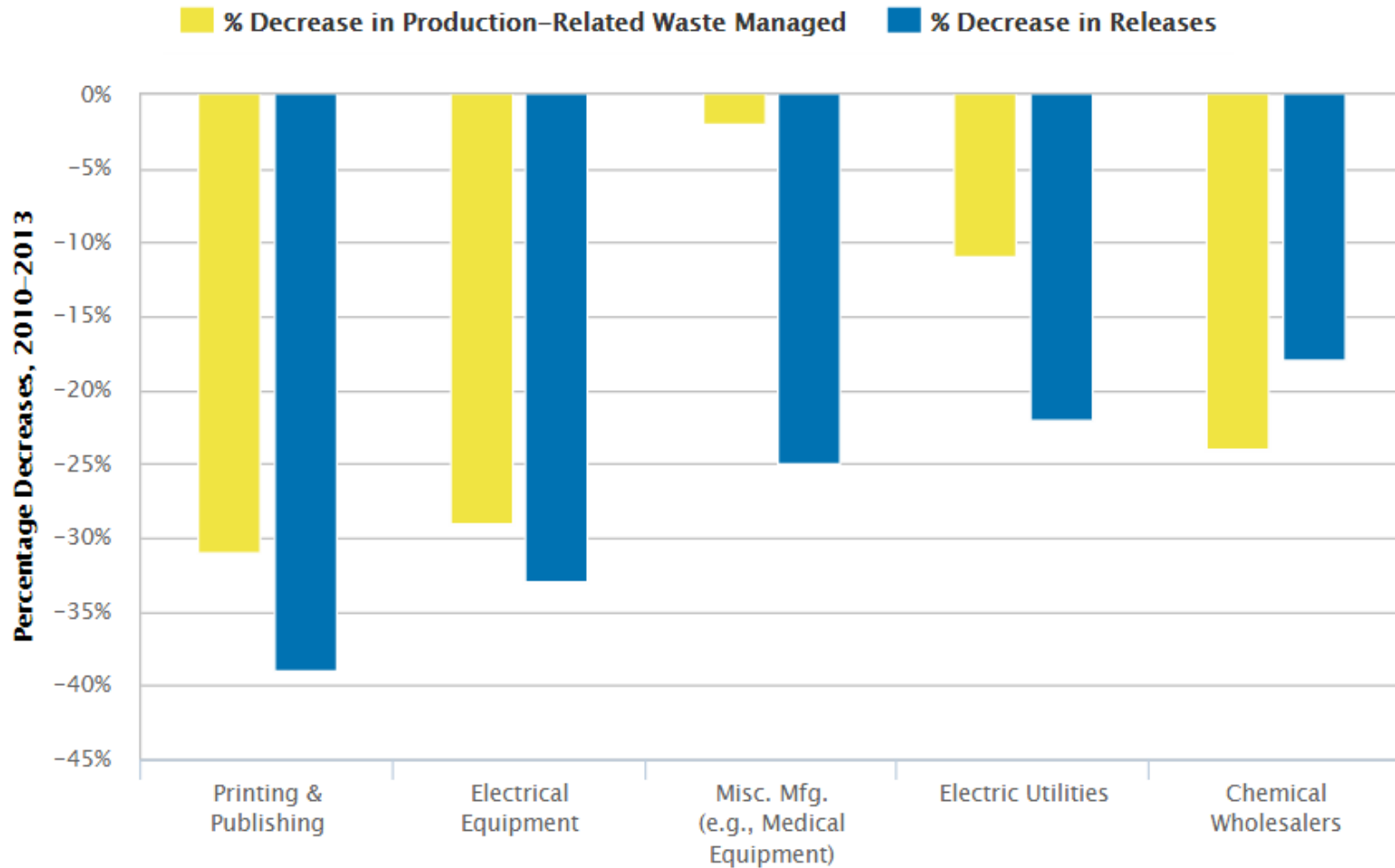
Percent Change in Production-Related Waste Managed & Releases for Industries with Largest Decreases in Releases, 2003-2012





Top Industry Decreases Since 2010

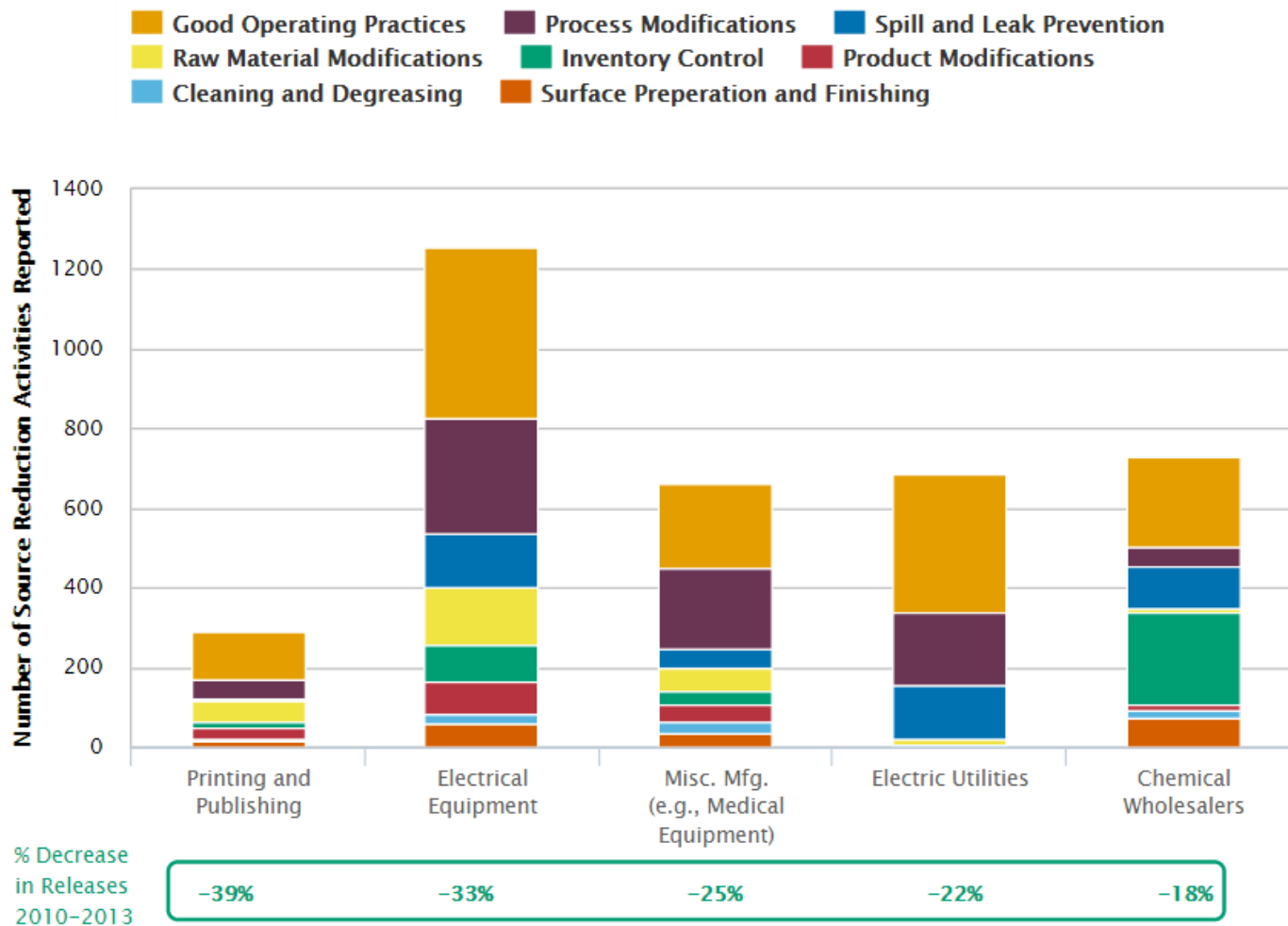
Percentage Change in Production-Related Waste Managed and Releases for Sectors with Greatest Decreases in Releases, 2010-2013





P2 Practices by Industry

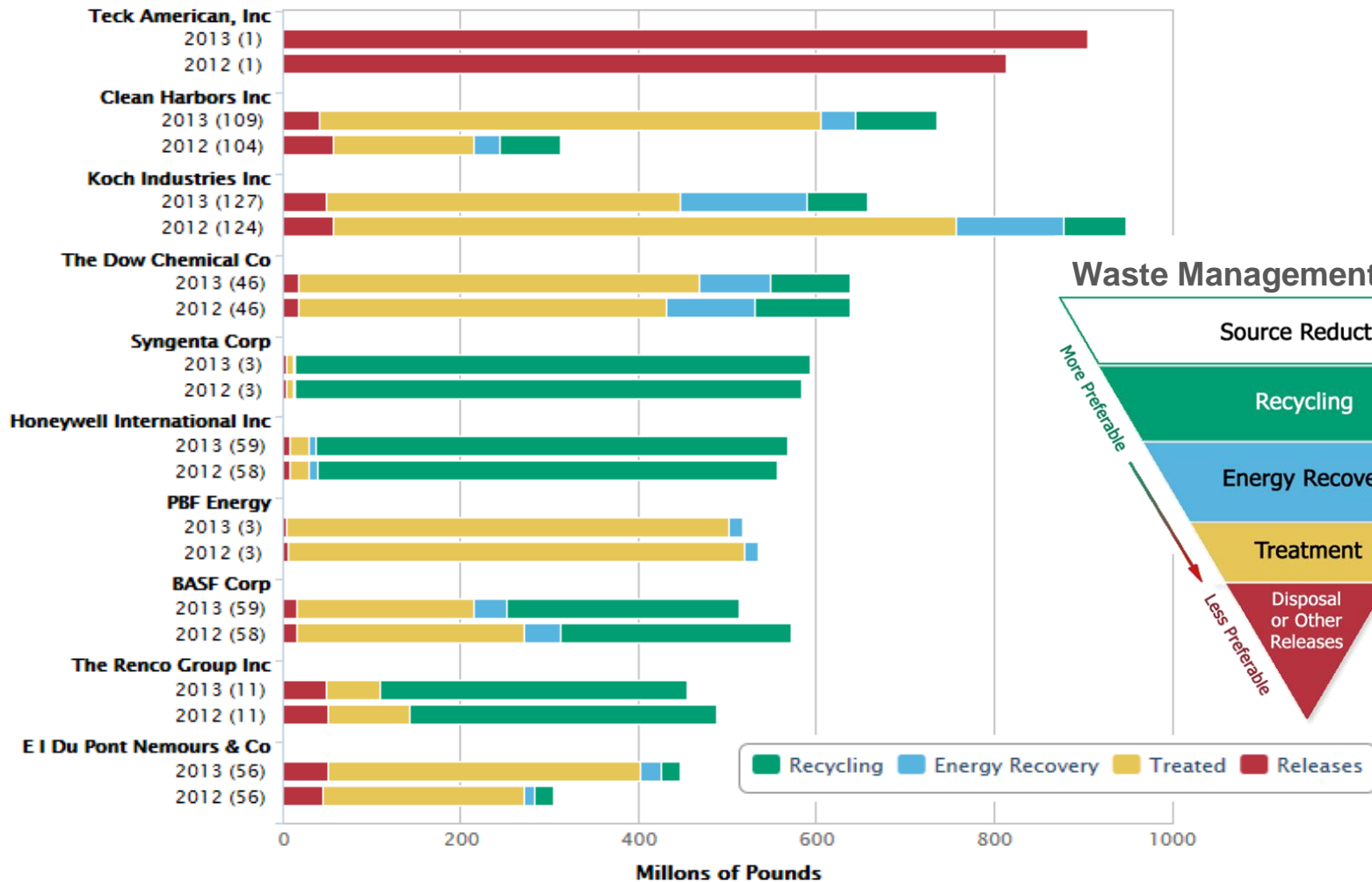
Number of Newly Implemented Source Reduction Activities for Top Sectors by Percentage Decrease in Releases, 2010–2013



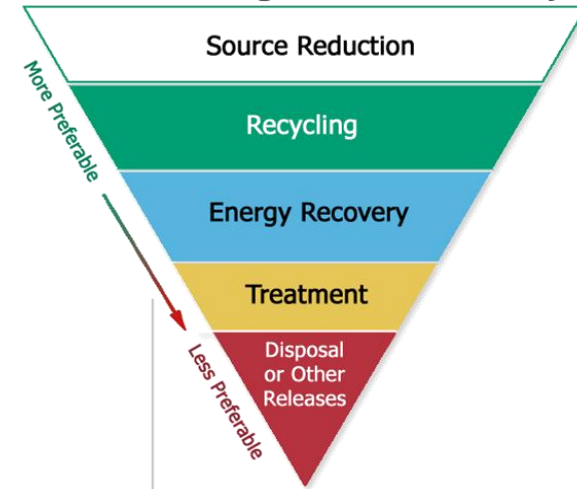


TRI Reporting by Parent Company

Production-Related Waste Managed by Top 10 TRI Parent Companies
2012-2013



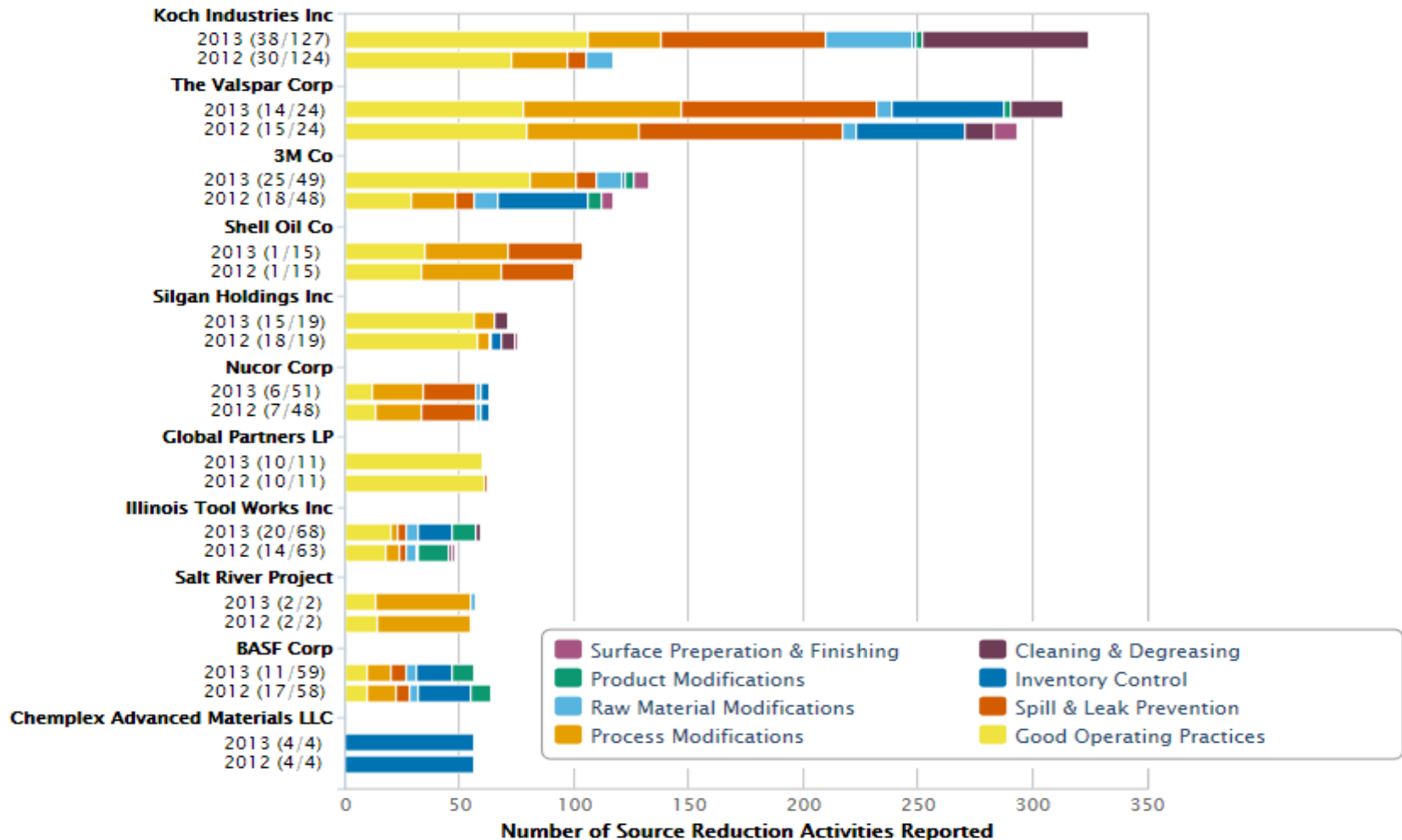
Waste Management Hierarchy





Source Reduction by Parent Co.

Top Parent Companies Based on Newly Implemented Source Reduction Activities, 2012-2013





To access the TRI P2 Tool, visit www.epa.gov/tri/p2.

TRI P2 TOOL DEMO WITH NEW PARENT COMPANY REPORTS



What Can the TRI P2 Tool Do?

- Features previously available at the facility level:
 - Display summary of P2 information for a facility
 - Provide P2 details for a single chemical at a facility
 - List P2 activities for industries, chemicals, or states sorted by “biggest reducer”
 - Compare P2 progress among facilities in an industry
 - Overlay TRI data with GHG emissions to provide a more holistic P2 picture

All of these features are now available at the parent company level as well





Enhanced TRI P2 Search Page




Use the TRI **Pollution Prevention Search** to learn how facilities have reduced releases of toxic chemicals to the environment and compare how different facilities have managed their toxic chemical waste. You can run two types of searches:

1. Click "**Show P2 Activities**" to view reported P2 activities and associated reductions in toxic chemical quantities.
2. Click "**Display Facility Comparison Report**" to visually compare facilities' waste management practices and trends.


After clicking a search button and viewing results, you can also get  for any individual facility that matches your search criteria. If you already have a **specific facility** in mind, you can access P2 information for that facility directly using the .


To learn more about P2 and the preferred methods for managing chemical waste, visit the [Pollution Prevention Overview](#).


Need help? The  offers step-by-step instructions on all the features of the P2 Search.


Search Criteria


Show P2 info for facilities Show P2 info for parent companies **New!**


Select one or more Industry Sector(s): 


All Industry Sectors 


Select one or more Chemical(s) or Chemical Group(s) 


All Chemicals 

Select one or more Year(s): 

2005-2013 


Select one or more Parent Companies: 

All Parent Companies 

Select one or more State(s): 

All States 

 Show P2 Activities

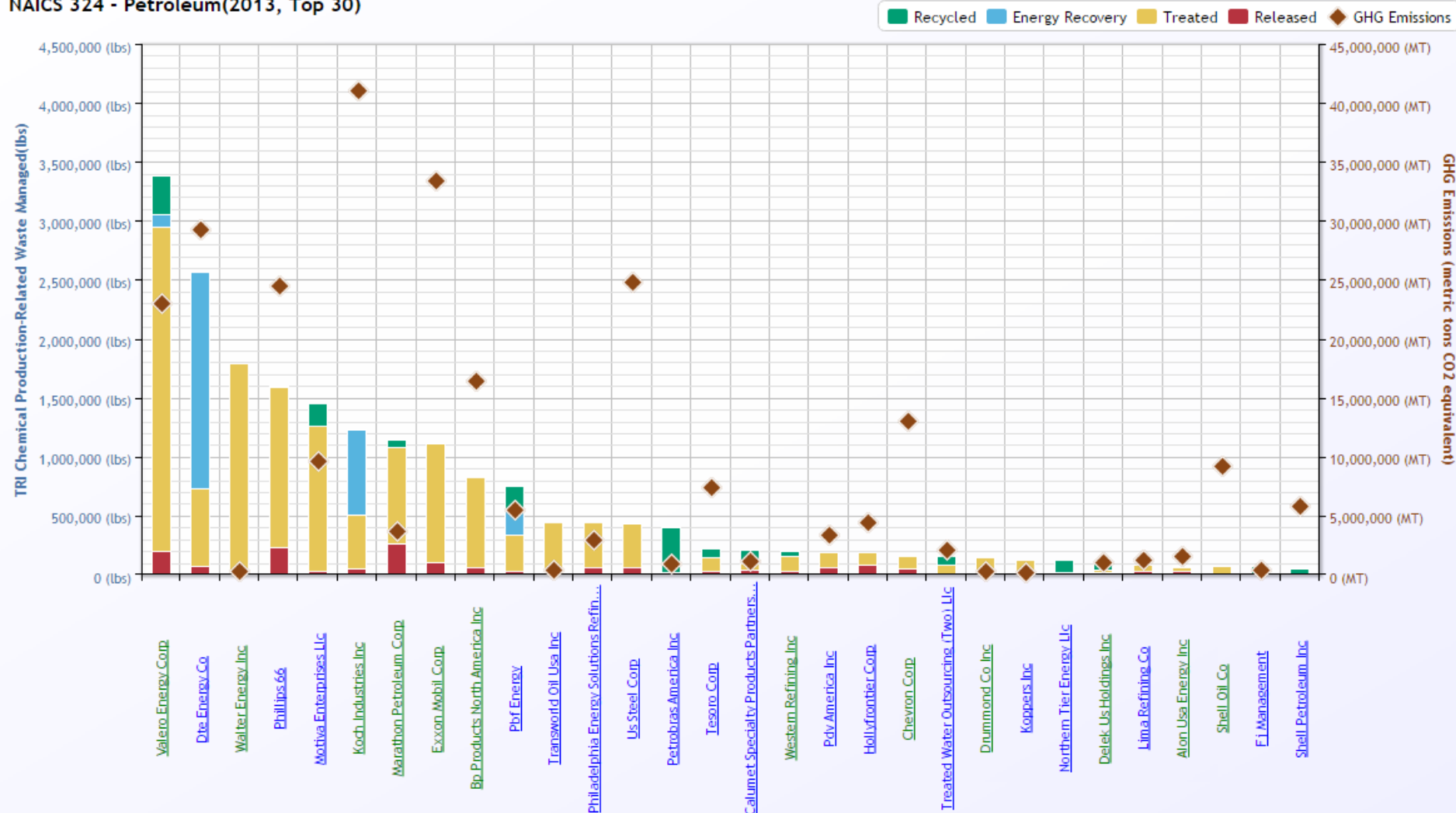
 Display Parent Company Comparison

Clear



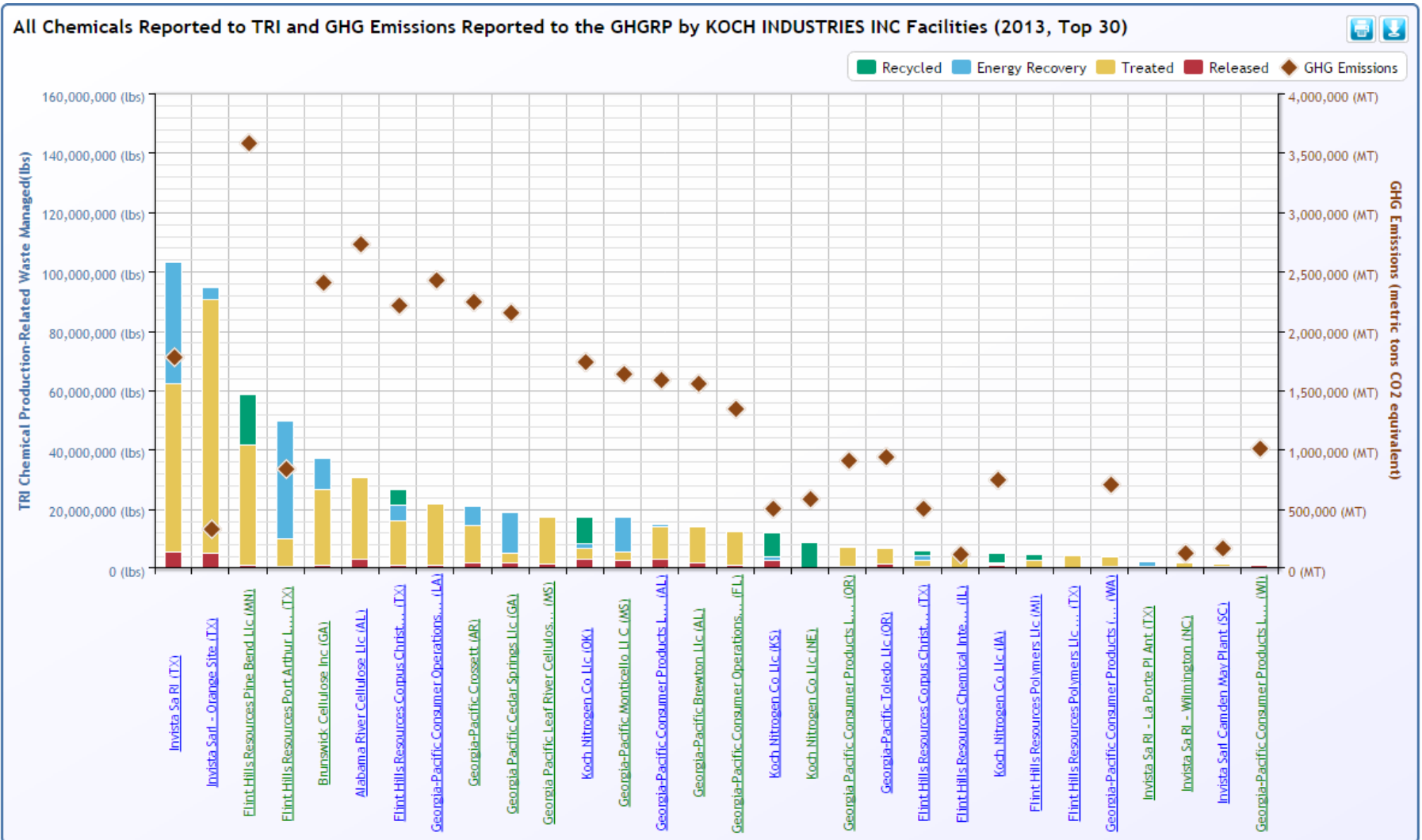
Parent Company Comparison

Parent Company Comparison for Benzene Reported to TRI and GHG Emissions Reported to the GHGRP by NAICS 324 - Petroleum(2013, Top 30)



Click on [parent company name](#) to view [P2 Details](#) for the selected chemical(s) and year. [Green links](#) indicate the company reported P2 activities for the selected chemical(s) and year; [orange links](#) indicate the company reported barriers to P2. Use [Chart Options](#) to add data to the chart (e.g., [# of facilities](#), [GHG emissions](#)).

EPA Compare Facilities Within a Company

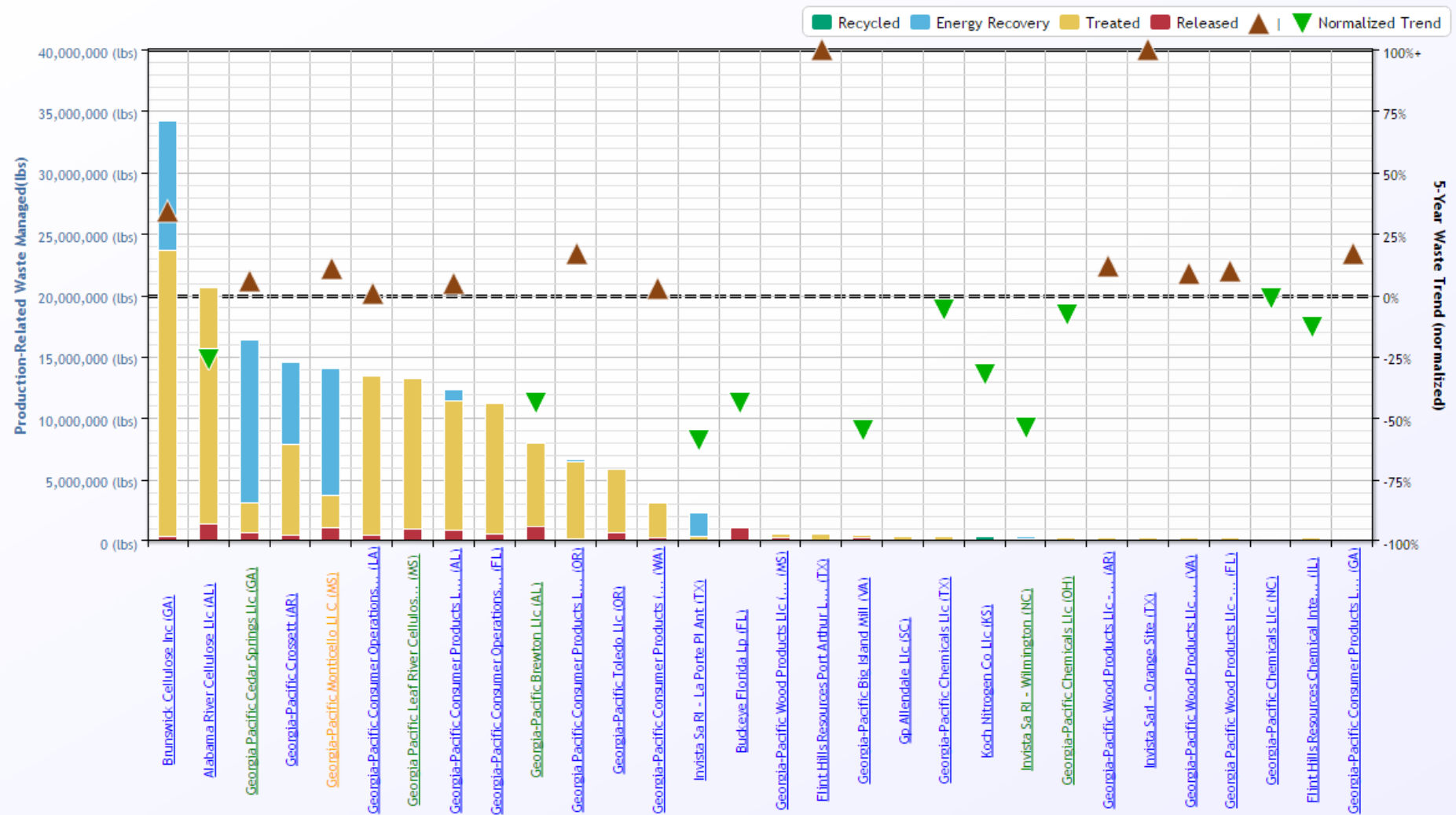


Click on [facility name](#) to view [P2 Details](#) for the selected chemical and year. [Green links](#) indicate the facility reported P2 activities for the selected chemical and year; [orange links](#) indicate the facility reported barriers to P2. Use [Chart Options](#) to add data to the chart ([waste trends](#), [GHG emissions](#)).



Comparison for a Specific Chemical

Methanol Managed by KOCH INDUSTRIES INC Facilities (2013, Top 30)



Click on [facility name](#) to view [P2 Details](#) for the selected chemical and year. [Green links](#) indicate the facility reported P2 activities for the selected chemical and year; [orange links](#) indicate the facility reported barriers to P2. Use [Chart Options](#) to add data to the chart [waste trends](#), [GHG emissions](#).



Get P2 Details for a Facility

Production Related Waste Management for Selected Chemical

For more on the Waste Management Hierarchy, see the [Pollution Prevention Overview](#) page

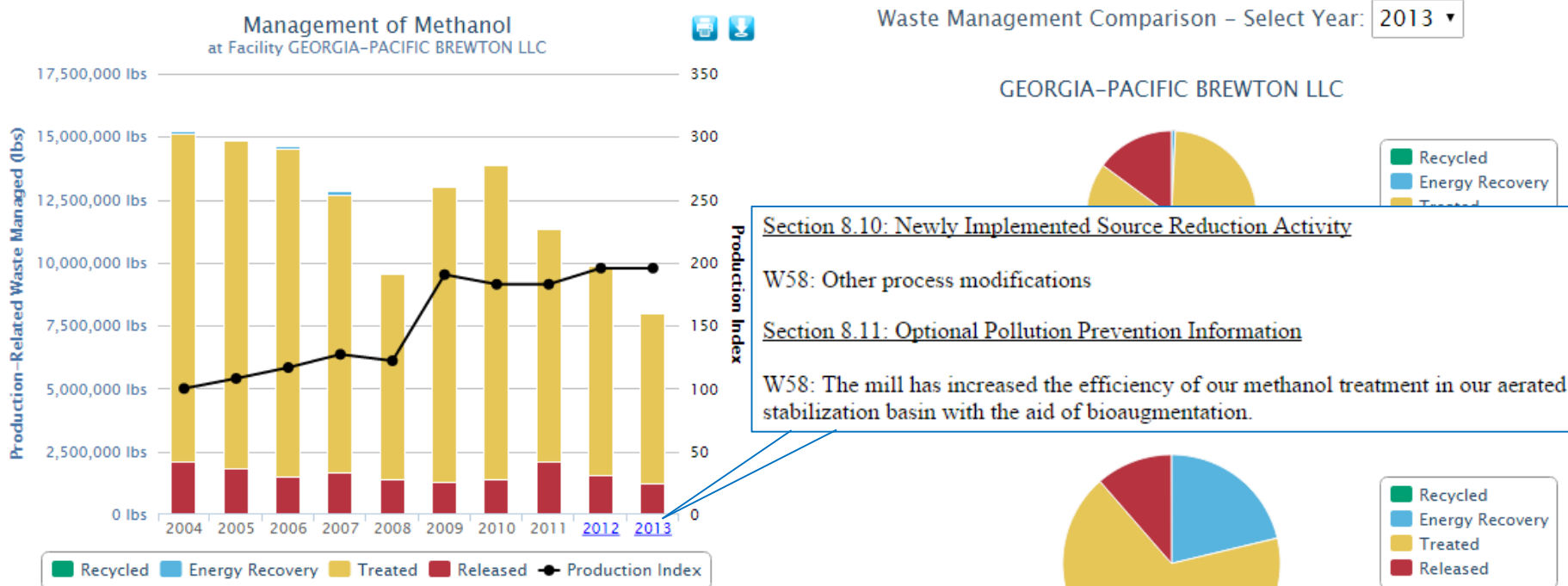
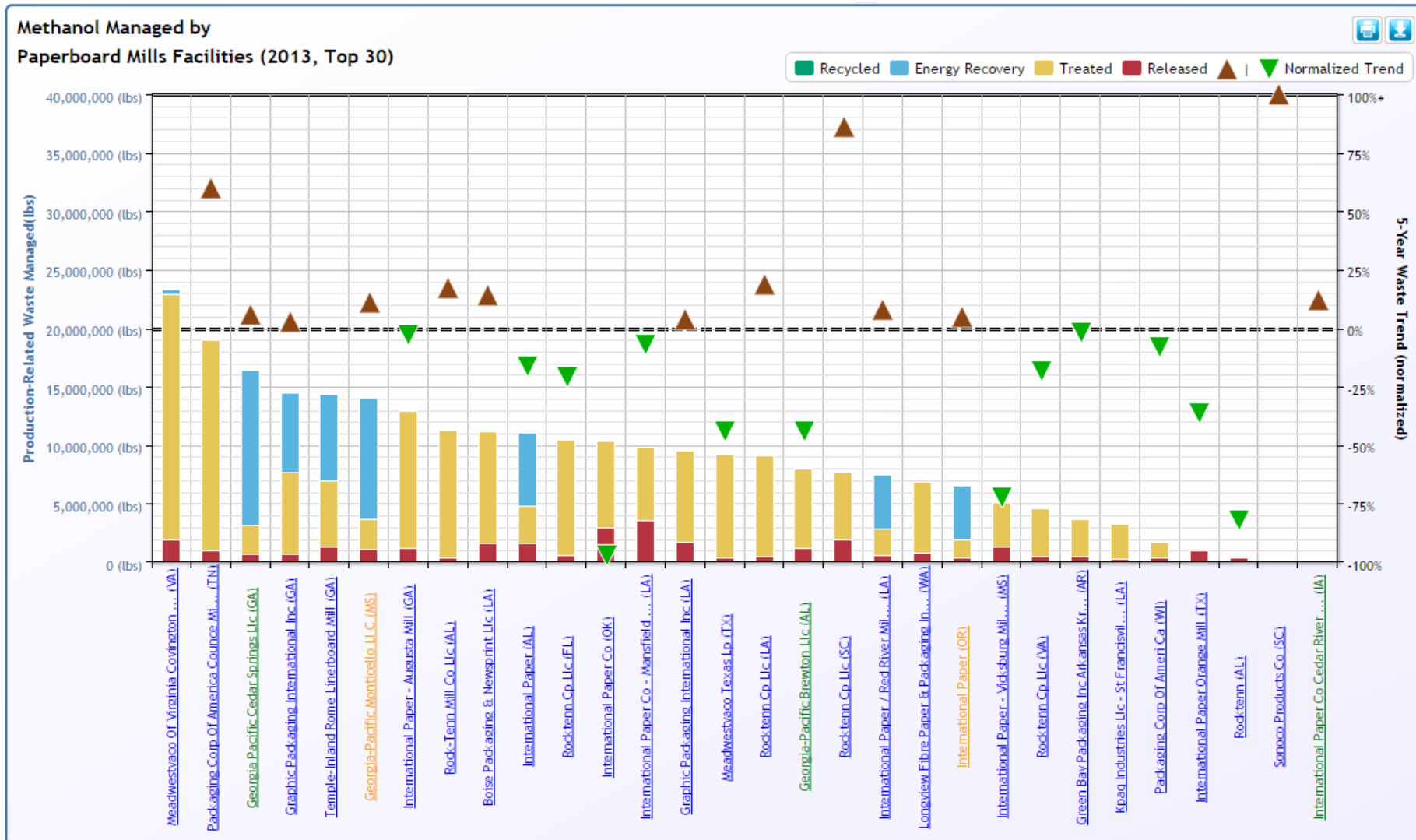


Chart Options:

- Display waste quantities only
- Display [production index](#)
- [Normalize waste quantities relative to production](#)
- Display waste quantities as a percentage of total waste
- Display GHG Emissions Reported to [GHGRP](#)

Find [more P2 activities](#) for this industry and chemical
Display [facility comparison report](#) for this industry and chemical

Comparison to Similar Facilities



Click on [facility name](#) to view [P2 Details](#) for the selected chemical and year. **Green links** indicate the facility reported P2 activities for the selected chemical and year; **orange links** indicate the facility reported barriers to P2. Use **Chart Options** to add data to the chart (e.g., [waste trends](#), [GHG emissions](#)).



Find More P2 Info for a Facility

Production Related Waste Management for Selected Facility

For more on the Waste Management Hierarchy, see the [Pollution Prevention Overview](#) page

Management of TRI Chemicals
at Facility GEORGIA-PACIFIC BREWTON LLC

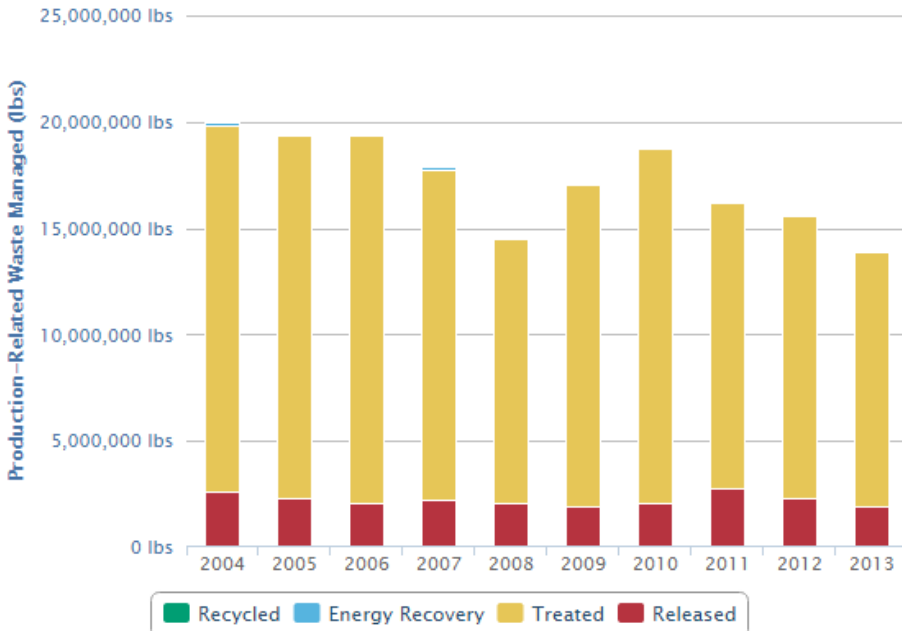


Chart Options:

- Display waste quantities only
- Display waste quantities as a percentage of total waste
- Display GHG Emissions Reported to GHGRP

Waste Management by Chemical – Select Year: 2013

Management of TRI Chemicals
at Facility GEORGIA-PACIFIC BREWTON LLC

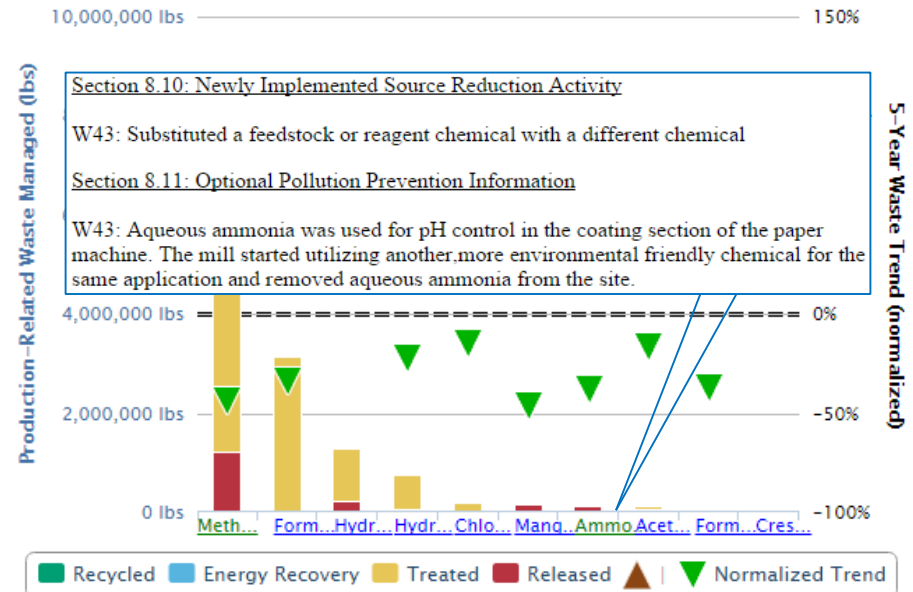


Chart Options:

- Display waste quantities only
- Display waste quantities as a percentage of total waste
- Display 5-Year Waste Trend
- Display 5-Year Waste Trend Normalized



List P2 Activities for a Company

List of Facilities in TRI submitting Pollution Prevention Information for Selected Criteria:

Year: between 2005 and 2013

Parent Company: KOCH INDUSTRIES INC

Additional Filters:


Exclude facilities that reported activity codes but no text descriptions

Value for Year-to-Year Comparison: Total Waste [displayed currently]

Copy CSV Excel PDF Print

Show 10 entries		Showing 1 to 10 of 79 entries						Search:	
FACILITY NAME	ADDRESS	CHEMICAL	INDUSTRY	YEAR	PRIOR YEAR WASTE *	CURRENT YEAR WASTE *	PERCENT CHANGE	POLLUTION PREVENTION INFORMATION (ACTIVITY CODES/TEXT)	
GEORGIA-PACIFIC GYPSUM LLC 	11401 US HWY 91, NORTH LAS VEGAS, NV 89036	Mercury Compounds	Gypsum Product Manufacturing	2012	1.20	0	-100%	<p><i>W13: Improved maintenance scheduling, recordkeeping, or procedures</i> - Procedures have been implemented throughout year to improve production efficiency (i.e., percent perfects) and reduce usage of SARA 313 chemicals</p> <p>Method(s) to Identify P2 Activities: <i>T04 [Participative Team Management]</i> - OPEX Team meets weekly with common goal to improve percent perfects.</p> <p>Procedures have been implemented throughout year to improve production efficiency (i.e., percent perfects) and reduce usage of SARA 313 chemicals OPEX Team meets weekly with common goal to improve percent perfects.</p>	
GEORGIA-PACIFIC CROSSETT 	100 MILL SUPPLY RD, CROSSETT, AR 71635	Lead Compounds	Pulp Mills	2012	10,370.00	2,194.00	-78.84%	<p><i>W19: Other changes in operating practices</i> - Mill wide effort to reduce process water use.</p> <p>Mill wide effort to reduce process water use.</p>	
FLINT HILLS RESOURCES CHRISTI LLC FORT WORTH TERMINAL 	12550 TRINITY BLVD, EULESS, TX 76040	Lead Compounds	Petroleum Bulk Stations and Terminals	2013	49.00	13.00	-73.47%	<p><i>W13: Improved maintenance scheduling, recordkeeping, or procedures</i></p> <p><i>W32: Improved procedures for loading, unloading, and transfer operations</i></p> <p><i>W42: Substituted raw materials</i></p> <p><i>W64: Improved draining procedures</i></p> <p>8.10.1 Cont.W71 Other Cleaning and Degreasing Modifications; T11 Other</p>	

P2 Tool Recap

- Reports available from the P2 Search page
 - Show P2 activities and associated chemical reductions for selected industry(s), chemical(s), company(s), state(s) or year(s)
 - Display facility comparison for selected criteria
 - Display parent company comparison for selected criteria
 - Compare facilities for selected parent company
- Drill-downs available from initial reports
 - Display P2 report for an individual facility
 - Display  report with all P2 and waste management information for a selected facility and chemical



P2 Reporting Changes for 2014

- New optional field for estimating the effectiveness of source reduction activities using percentage ranges
- Optional checkboxes to indicate why source reduction activities were not implemented (barriers)
- Optional checkboxes to categorize submitted P2 descriptions and provide info on different topics



Additional TRI Resources

- Daniel Teitelbaum, **TRI P2 Staff Lead:**
Teitelbaum.Daniel@epa.gov.
- Visit the **TRI Program's website:** www.epa.gov/tri.
 - TRI P2 webpage: www.epa.gov/tri/p2
 - 2013 TRI National Analysis: www.epa.gov/tri/nationalanalysis
- Check out the **TRI Pollution Prevention (P2) Search Tool:**
www.epa.gov/enviro/facts/tri/p2.html