

Chemical Manufacturing



Chemical manufacturers produce a variety of products, such as basic chemicals, products used by other manufacturers (such as synthetic fibers, plastics, and pigments) and consumer products (such as paints, fertilizers, drugs, and cosmetics). The sector had the second largest total disposal or other releases for 2012, which increased by 9% from 2011 to 2012 (see Figure 27), driven by numerous factors such as increased off-site transfers. Since 2003, the sector's releases decreased by 5%, mainly due to a reduction in air emissions.

Quick Facts for 2012

Number of TRI Facilities: 3,451
 Facilities Reporting Newly Implemented Source Reduction in 2012: 710

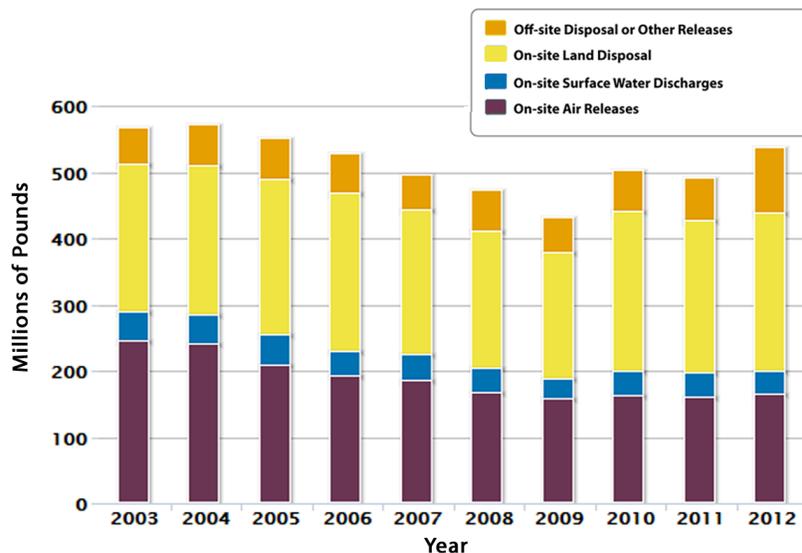
Total Disposal or Other Releases: 544.6 million lb

- On-site: 444.6 million lb
 - Air: 167.6 million lb
 - Water: 34.7 million lb
 - Land: 242.3 million lb
- Off-site: 100.0 million lb

Production-Related Waste Managed: 9,791.9 million lb

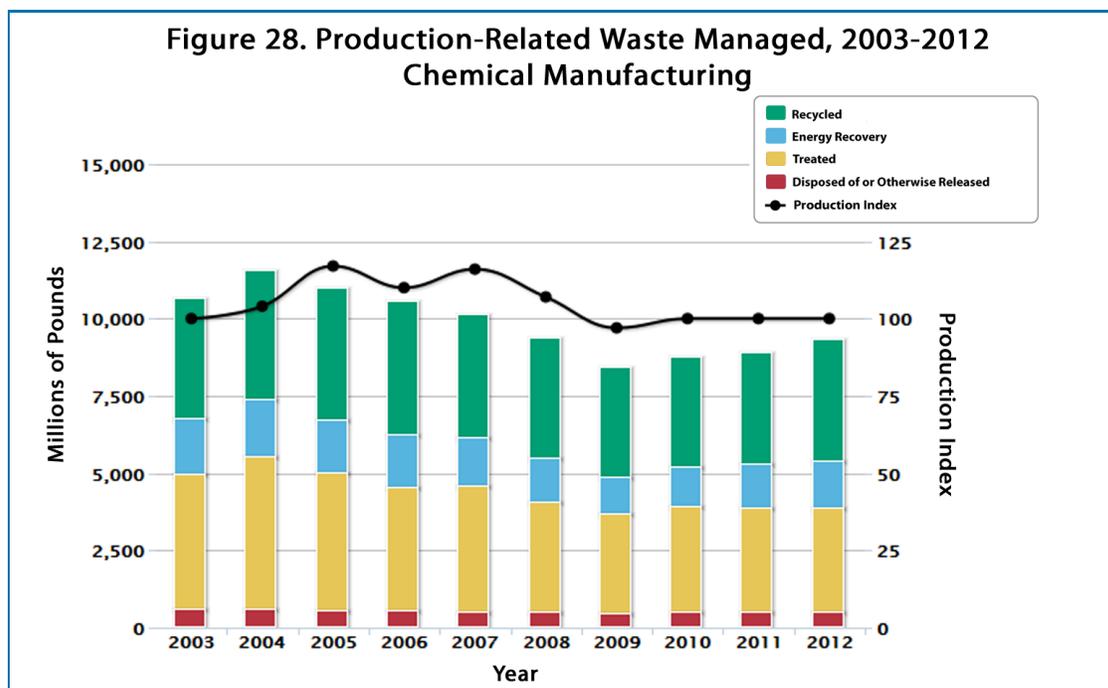
- Recycled: 4,025.0 million lb
- Energy Recovery: 1,695.9 million lb
- Treated: 3,549.3 million lb
- Disposed of or Otherwise Released: 521.7 million lb

Figure 27. Total Disposal or Other Releases, 2003-2012
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More chemical manufacturing facilities report to TRI than facilities in any other sector. Due in part to its scope and size, the sector has had the largest production-related waste managed every year since 2003, representing 42% of the total for all industries in 2012. Total disposal or other releases represent a small portion of total waste managed (5%) relative to all sectors (15%), indicating facilities in this sector are implementing other waste management methods to limit the release of toxic chemicals.

As shown in Figure 28, the sector’s production-related waste managed decreased by 12% from 2003 to 2012. Compare this to the black solid line in the figure, which shows this sector’s production (represented by the Federal Reserve Board Industrial Production Index) fluctuating over the time period but changing little overall. Production-related waste managed decreased despite the sector’s relatively consistent production, demonstrating that the decrease in waste managed by the sector was due to factors other than production.



Although the chemical manufacturing sector has consistently had the largest production-related waste managed, 21% of facilities in the sector reported having initiated practices to reduce their toxic chemical use and waste generation through source reduction activities in 2012. The most commonly reported type of source reduction activity for the sector was good operating practices. In one case, [a facility](#) reported that it increased planned maintenance with a focus on replacing packing and gasket materials that has resulted in a significant reduction in the facility’s ammonia releases. Process modifications and spill and leak prevention were also commonly reported by this sector.

TRI’s Pollution Prevention Search Tool can help you learn more about [pollution prevention opportunities in this sector](#). And for more information about how this industry and others can choose safer chemicals, visit EPA’s Design for the Environment Program pages for [Alternatives Assessments](#) and the [Safer Chemical Ingredients List](#).