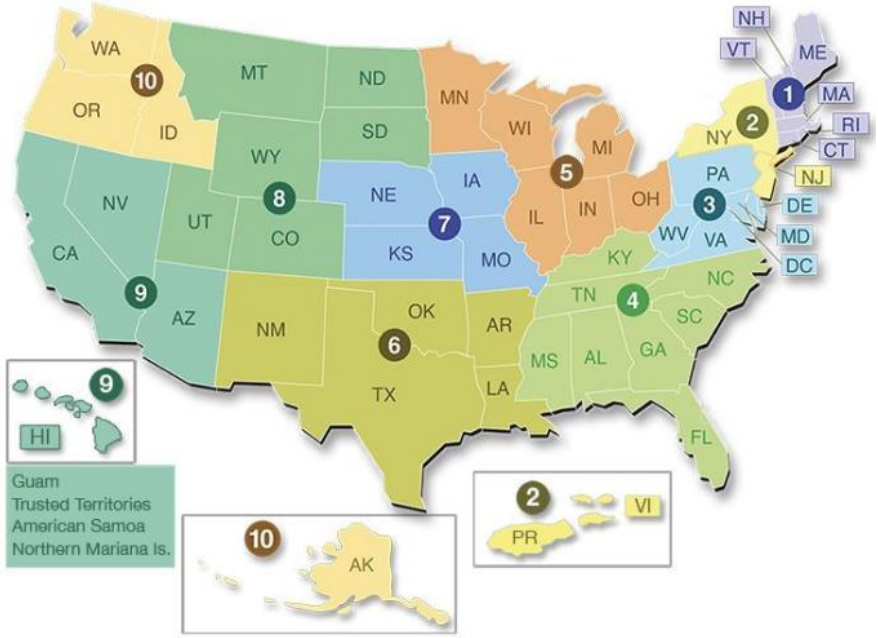
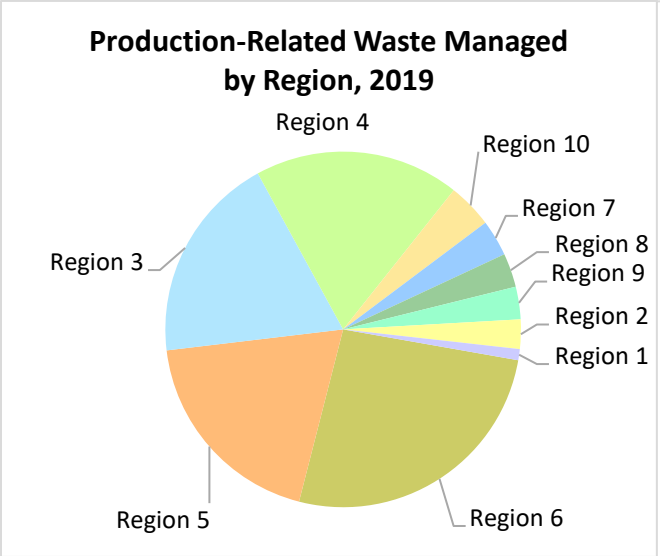
EPA Regional Profiles

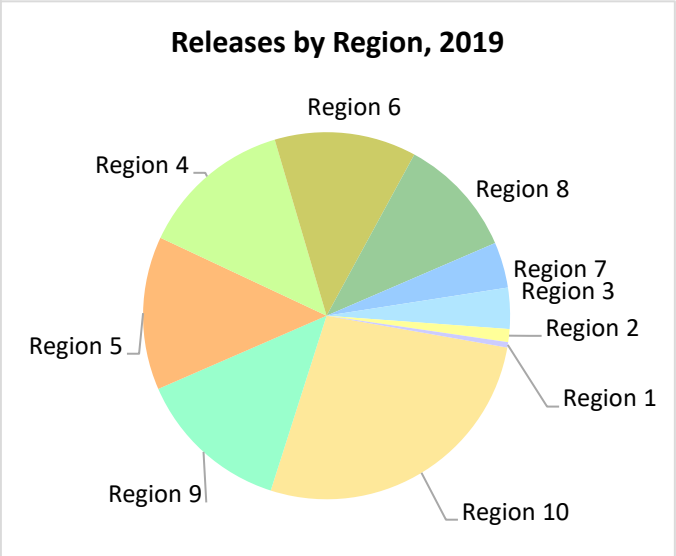
This section of the National Analysis looks at releases and other production-related waste management activities of Toxics Release Inventory (TRI) chemicals at the EPA regional level during 2019. EPA has 10 regional offices, each of which is responsible for multiple states and in some cases, territories and tribes.



EPA regions vary significantly in many important characteristics, including size, population, and the types of facilities located in each region. These factors result in significant differences between national and regional trends in TRI chemical waste management. For example, certain activities such as metal mining are geographically concentrated and generate large quantities of TRI chemical waste. As a result, release trends in regions with many metal mines often do not mirror national release trends.

The charts below show: 1) production-related TRI chemical waste managed, which includes management through recycling, combustion for energy recovery, treatment, and disposal or other release; and 2) the portion of production-related waste that is released, by EPA region.





The relative amounts of production-related waste managed compared to releases in each region is largely explained by the types of industry located in each region. For example:

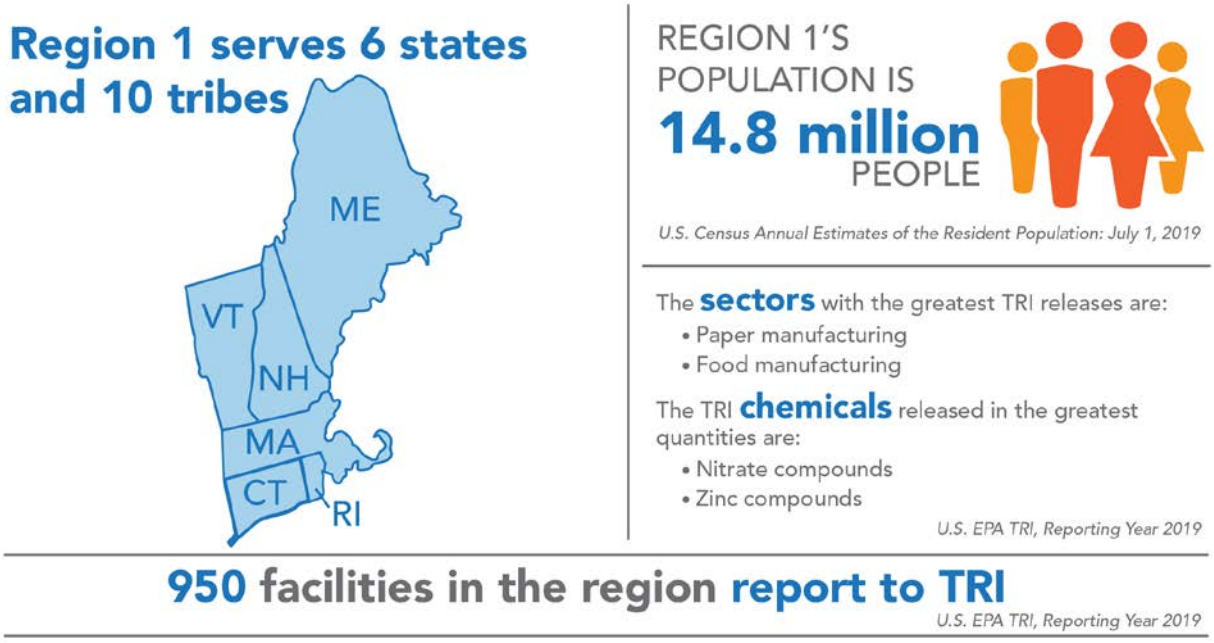
- In **Regions 8, 9 and 10**, metal mines accounted for more releases than any other sector. Metal mines tend to have high releases due to the large quantities of metals disposed of on site to land. For quantities of waste managed through treatment, energy recovery and recycling, metal mines rank lower than almost all other sectors, resulting in lower production-related waste managed in regions with substantial metal mining operations.
- **Region 6** had the largest quantity of production-related waste managed, driven by facilities in the chemical manufacturing sector treating chemicals on site, such as ethylene, toluene, and propylene.
- Quantities of production-related waste managed in **Regions 3, 4 and 5** were largely from the chemical manufacturing sector. Each of these regions include one chemical manufacturing facility that reported high quantities of chemicals recycled on site. For example, in Region 3, one facility reported 3.6 billion pounds of cumene recycled, and in Regions 4 and 5, one facility in each region reported recycling over one billion pounds of dichloromethane (methylene chloride). The recycling quantities at these individual facilities are major contributors to the large quantities of TRI production-related waste managed in these regions.

TRI Data Considerations

As with any dataset, there are several factors to consider when using the TRI data. Key factors associated with data used in the National Analysis are summarized in the Introduction. For more information see *Factors to Consider When Using Toxics Release Inventory Data*.

Regional Profile for EPA Region 1

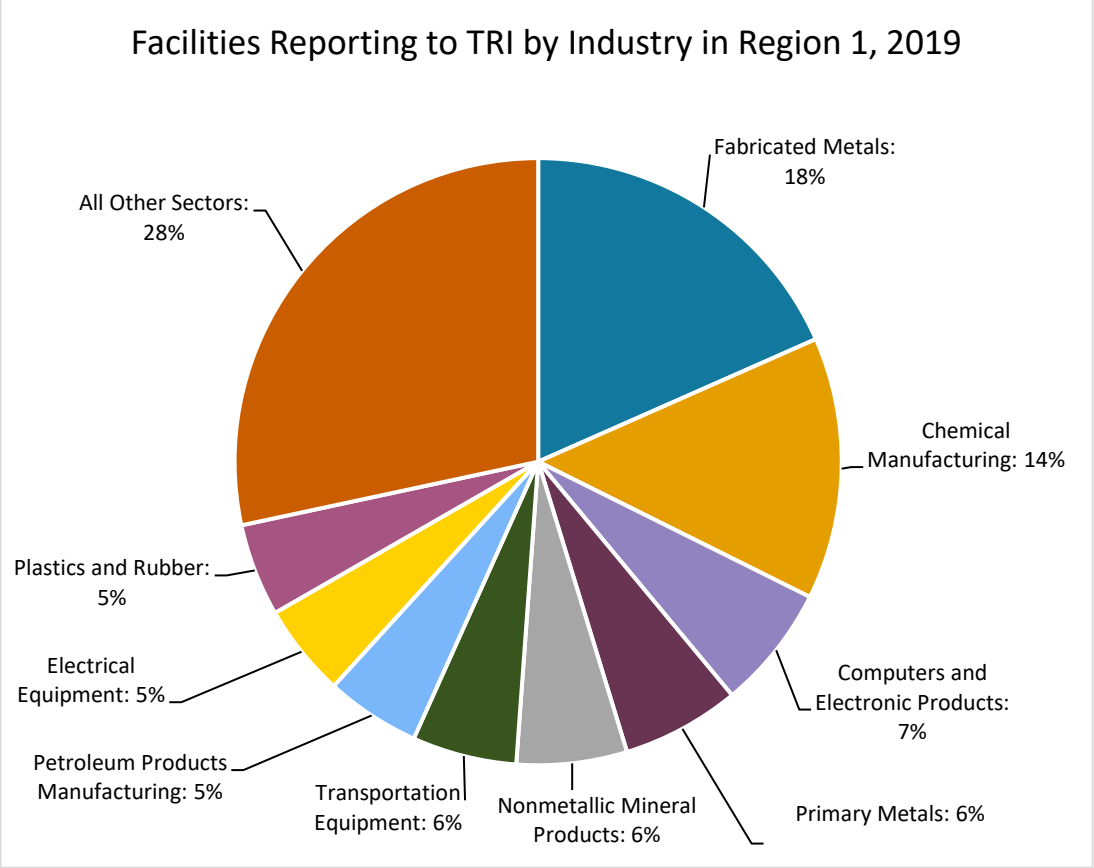
This section examines TRI reporting in EPA Region 1. Region 1 includes Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont, and 10 tribes.



Region 1 covers 4% of the U.S. population and includes 4% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Although Region 1 includes 10 tribes, no facilities located on tribal lands in the region reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 1.



In 2019:

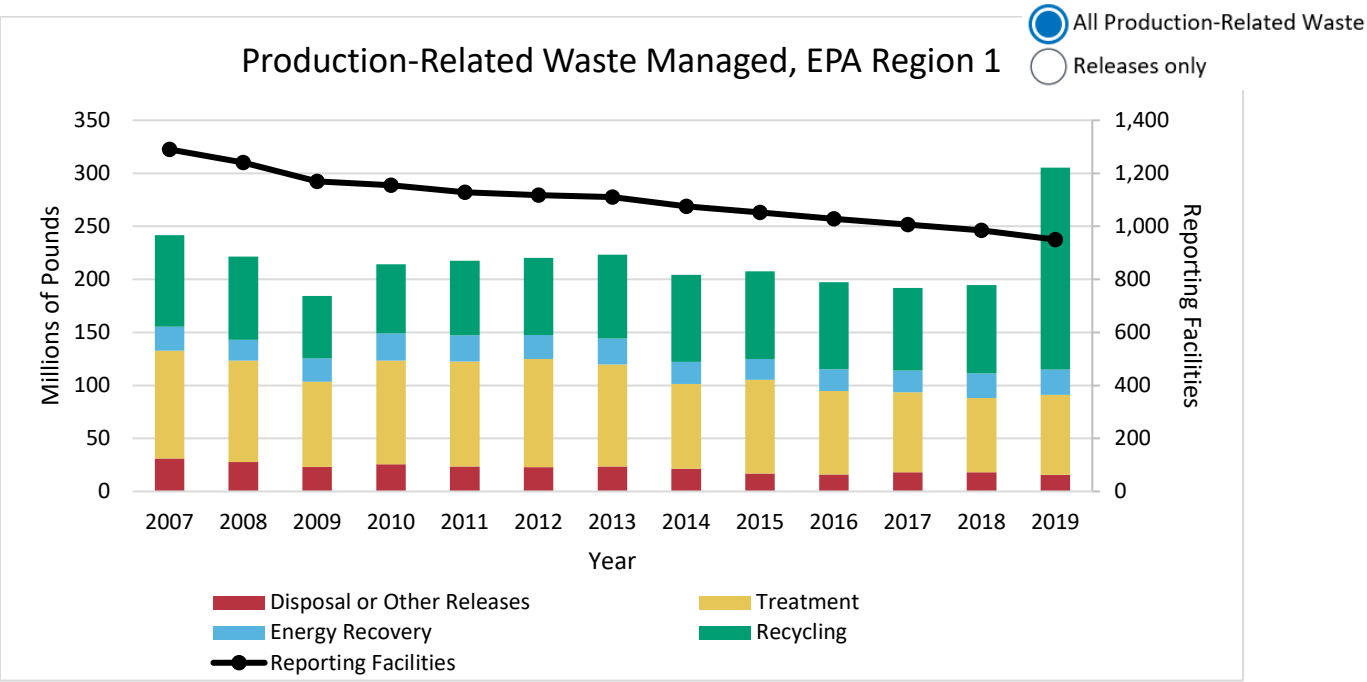
- 950 facilities in Region 1 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the fabricated metals (i.e., manufacture of metal products) or chemical manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sectors that reported the largest TRI releases in Region 1 were the paper manufacturing, food manufacturing, fabricated metals, and chemical manufacturing sectors. Note that relatively few facilities in the paper manufacturing and food manufacturing sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.

- Nationwide, the metal mining, chemical manufacturing, primary metals (including iron and steel manufacturing, and foundries), and electric utilities sectors reported the largest quantities of releases.

For information on the Region 1 facilities with the largest releases, see the Region 1 TRI factsheet.

Region 1 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 1. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

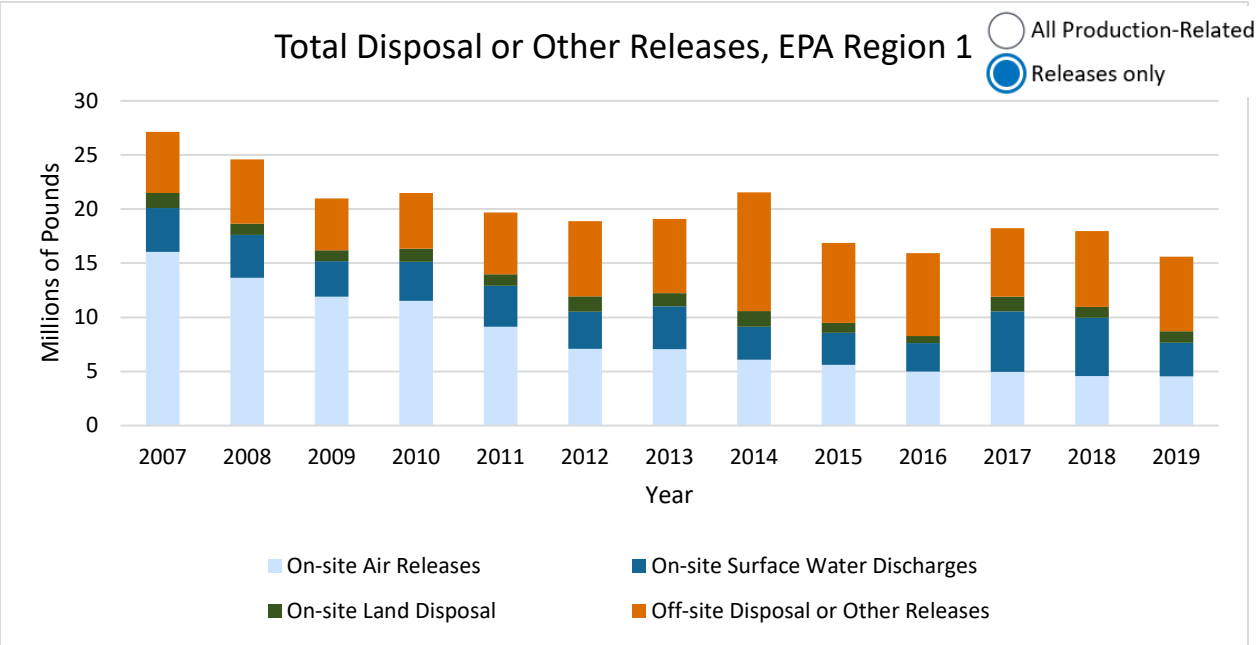
In 2019:

- Facilities in Region 1 managed 309 million pounds of production-related waste, 95% of which was recycled, combusted for energy recovery, or treated. Only 5% was disposed of or otherwise released into the environment in Region 1, compared to 11% nationally.
- Since 2018, quantities of production-related waste managed in the region increased by 56%, driven by a large increase in recycling, which more than doubled from 2018 to 2019.
    - The increase for 2019 is due to increased recycling of methanol by a single chemical manufacturing facility in Connecticut. [Click to view facility details in the TRI P2 Search Tool].

From 2007 to 2019:

- Production-related waste managed increased by 63.9 million pounds (26%), driven by the 2019 increase in recycling.
    - Nationally, quantities of production-related waste managed increased by 23% since 2007, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 1.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 1 reported releasing 16.2 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
    - To air: methanol and ammonia;
    - To water: nitrate compounds;
    - To land: zinc compounds and manganese compounds; and
    - Transferred off site for disposal: zinc compounds and nitrate compounds
- Since 2018, releases in Region 1 decreased by 2.3 million pounds (-13%). On-site releases to air and water and off-site transfers for disposal decreased while releases to land increased. Nationally, releases decreased by 9%.
- Contributions by state to TRI releases in Region 1 were: Maine (58%), Massachusetts (19%), Connecticut (15%), Rhode Island (2%), New Hampshire (2%), and Vermont (2%).

Regional Highlight

Since 2007, releases in Region 1 have decreased by 42%, driven by reductions in releases to air reported by electric utilities.

- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 1 were: Connecticut (66%), Massachusetts (32%), Maine (1%), Rhode Island (<1%), New Hampshire (<1%), and Vermont (<1%).
    - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

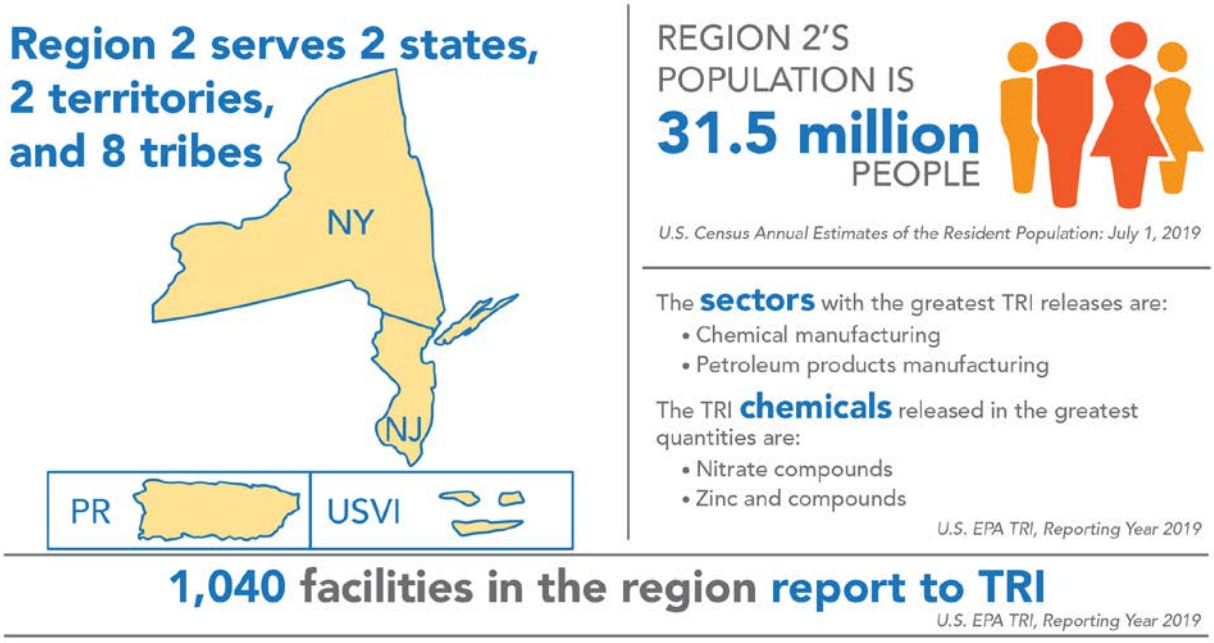
- Releases in Region 1 decreased by 11.5 million pounds (-42%), driven by reduced air releases from electric utilities. Nationally, releases decreased by 19%.
- Quantities of chemicals released to air, water and land decreased, while quantities of chemicals transferred off site for disposal increased.

Source Reduction

In 2019, 9% of facilities in Region 1 (82 facilities) reported implementing new source reduction activities. Source reduction reporting rates were among the highest in the computer/electronic products sector, in which 22% of facilities reported source reduction activities. For example, one circuit board manufacturer reduced its use of formaldehyde by optimizing the process control module that analyzes bath conditions and monitors the chemistry needed to maintain proper conditions. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 2

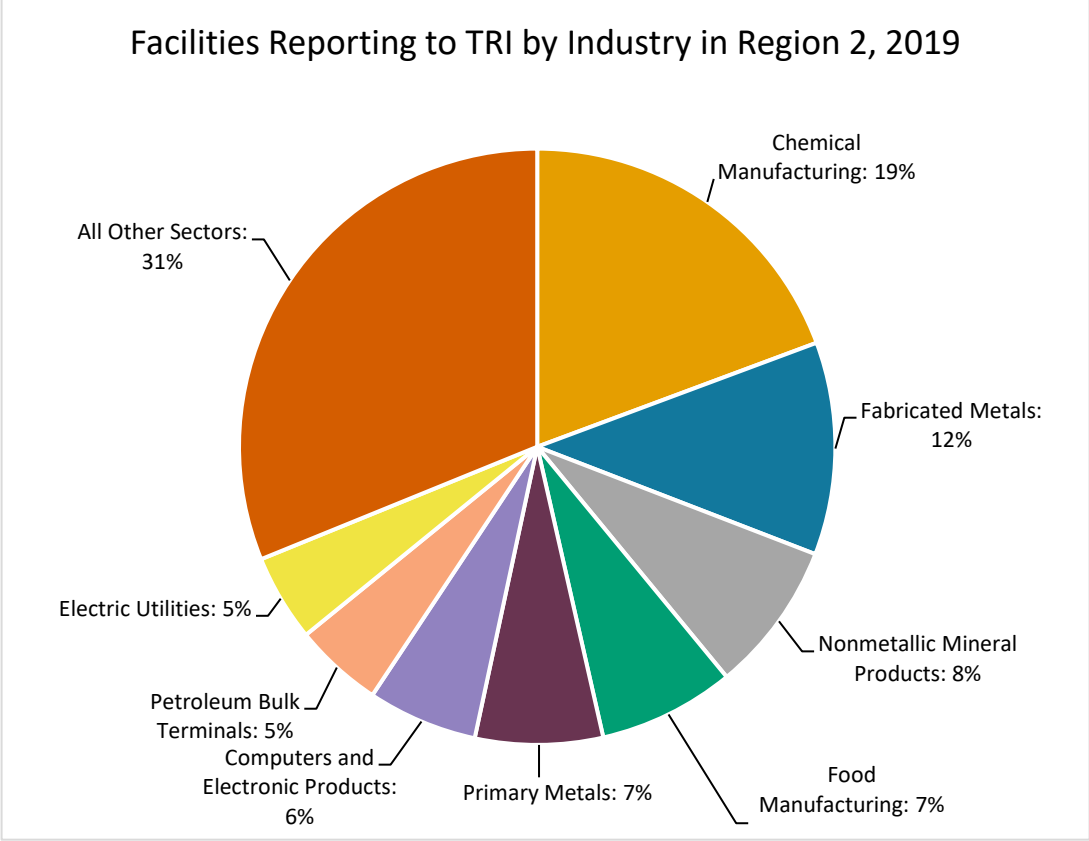
This section examines TRI reporting in EPA Region 2. Region 2 includes New Jersey, New York, Puerto Rico, US Virgin Islands, and 8 tribes.



Region 2 covers 10% of the U.S. population and includes 5% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Although Region 2 includes 8 tribes, no facilities located on tribal lands in the region reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 2.



In 2019:

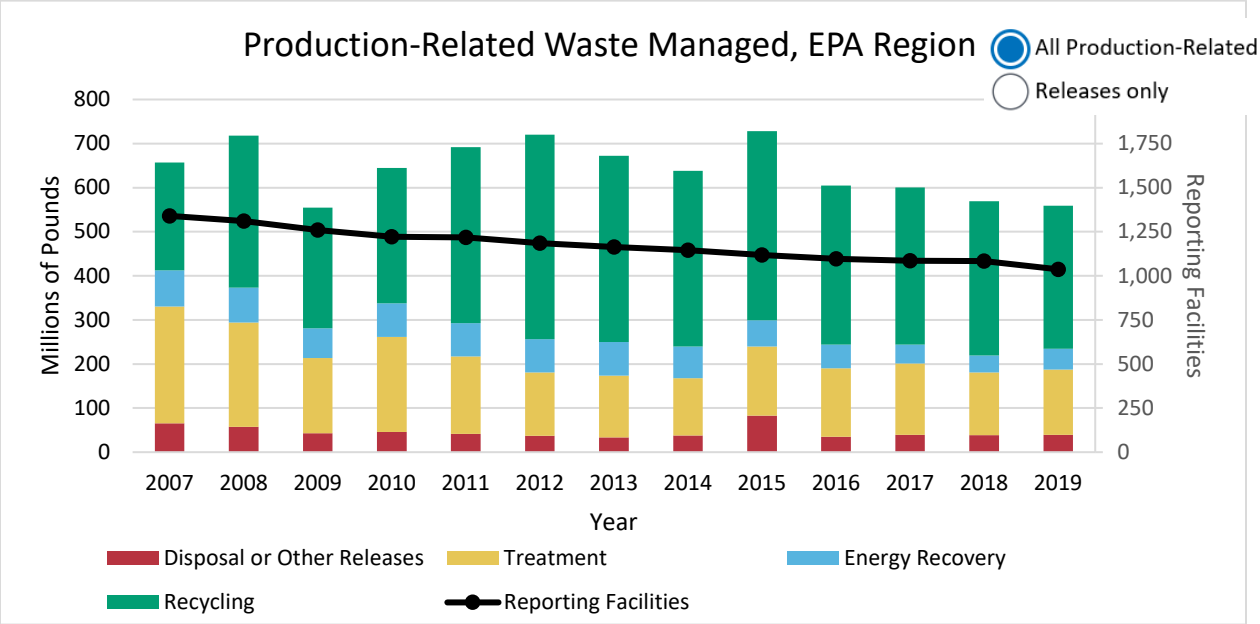
- 1,040 facilities in Region 2 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the chemical manufacturing or fabricated metals (i.e., manufacture of metal products) sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sectors that reported the largest TRI releases in Region 2 were the chemical manufacturing, petroleum products manufacturing, hazardous waste management, primary metals (including iron and steel manufacturing, and foundries), and electric utilities sectors. Note that relatively few facilities in the petroleum products and hazardous waste management sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.

- Nationwide, the metal mining, chemical manufacturing, primary metals, and electric utilities sectors reported the largest releases.

For information on the Region 2 facilities with the largest releases, see the TRI Region 2 TRI factsheet.

Region 2 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 2. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented. Total production-related waste managed reported for 2019 in Region 2 was higher than shown here due to large treatment quantities of hydrogen sulfide, which was not TRI-reportable until 2012.

In 2019:

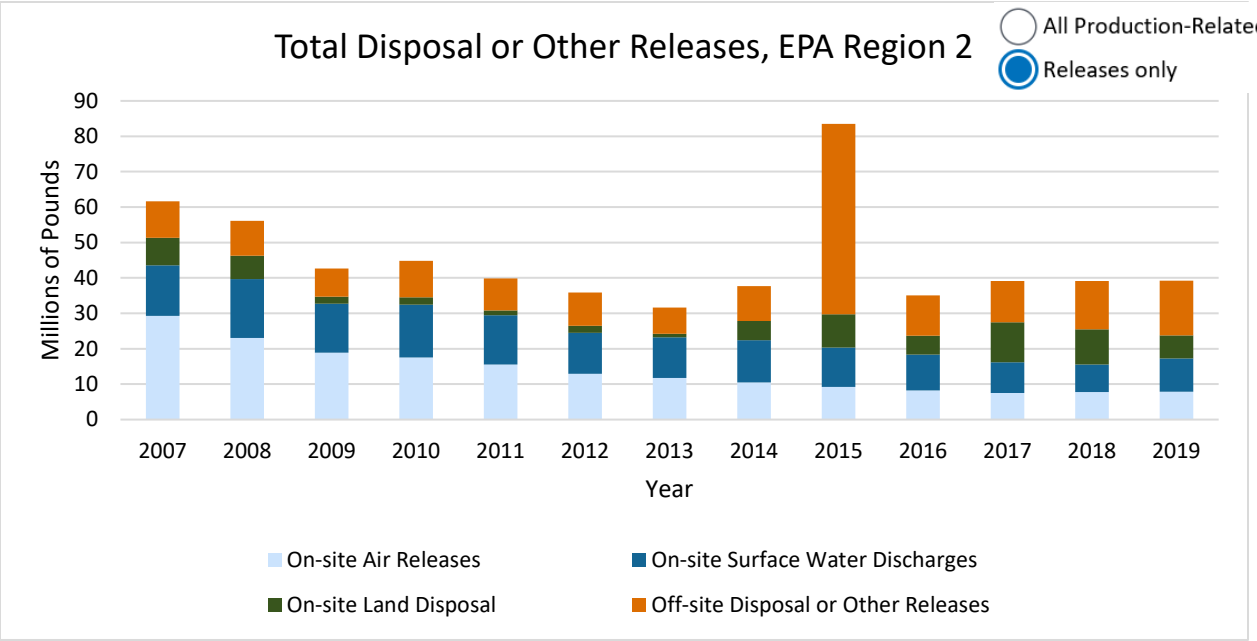
- Facilities in Region 2 managed 821 million pounds of production-related waste, 95% of which was recycled, combusted for energy recovery, or treated. Only 5% was disposed of or otherwise released into the environment in Region 2, compared to 11% nationally. The 821 million pounds of production-related waste includes all chemicals reported for 2019, while for comparability over time, the trend chart excludes chemicals that were added to the TRI list after 2007. For Region 2, the difference for 2019 is primarily due to the quantity of hydrogen sulfide treated which is included in the 821 million pound total for 2019 but is excluded from the trend chart. TRI reporting of hydrogen sulfide began in 2012.
- The chart above shows a 2% decrease in production-related waste managed since 2018. This excludes chemicals that were added to the TRI chemical list after 2007. Including

those chemicals, quantities of production-related waste managed in Region 2 increased by 64 million pounds (9%) since 2018, driven by increased treatment of hydrogen sulfide.

From 2007 to 2019:

- Production-related waste managed decreased by 97.8 million pounds (-15%). Quantities of waste treated, combusted for energy recovery, and disposed of or otherwise released decreased, while quantities recycled increased. Nationally, quantities of production-related waste managed increased by 23%.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 2.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 2 reported releasing 39.3 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
  - To air: ammonia and sulfuric acid;
  - To water: nitrate compounds;
  - To land: asbestos; and
  - Transferred off site for disposal: zinc compounds and nitrate compounds.
- Since 2018, releases decreased slightly (by less than 1%). Water releases and off-site transfers for disposal increased, while air releases and land releases decreased. Nationally, releases decreased by 9%.
- Contributions by state or territory to TRI releases in Region 2 were: New York (48%), New Jersey (36%), Puerto Rico (15%), and U.S. Virgin Islands (<1%).

Regional Highlight

Variability in TRI chemical releases in Region 2 is due to changes in releases reported by hazardous waste management facilities, where release quantities can vary widely year to year.

- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state or territory to the RSEI Score for Region 2 were: New Jersey (56%), New York (35%), Puerto Rico (9%), and U.S. Virgin Islands (<1%).
    - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

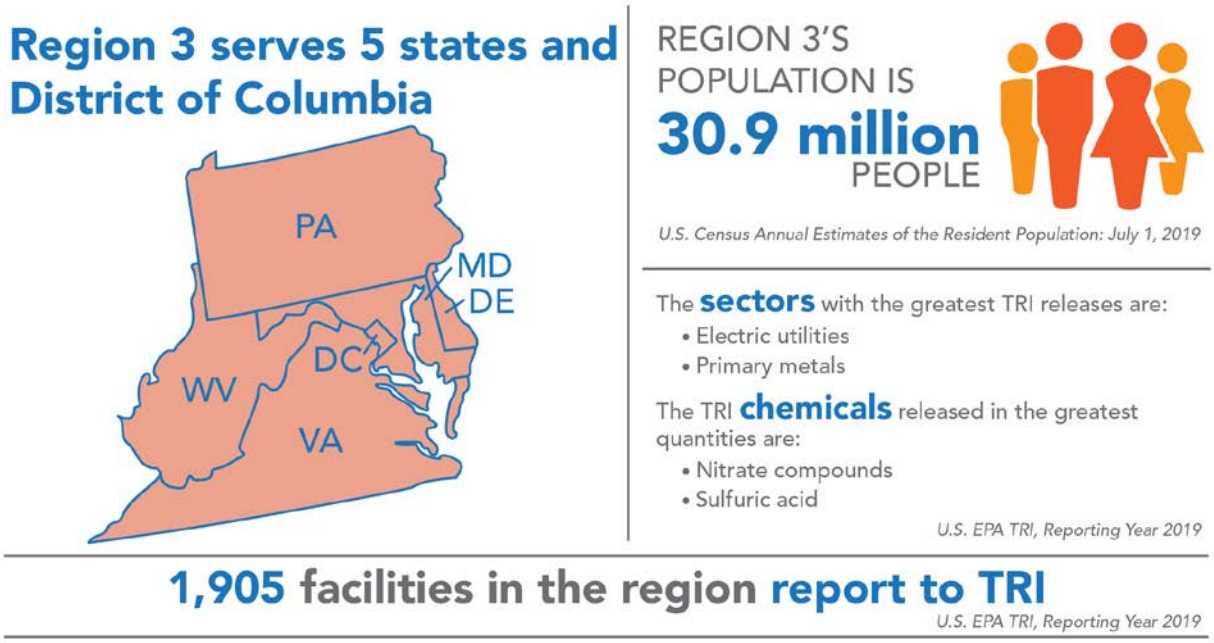
- Releases in Region 2 decreased by 22.4 million pounds (-36%), driven by reduced releases from electric utilities. Nationally, releases decreased by 19%.
- Quantities of chemicals released to air, water, and land decreased, while off-site transfers for disposal increased.
- The increased releases for 2015 shown in the graph were caused by off-site transfers for disposal of several chemicals from a hazardous waste management facility in Kearny, New Jersey. [Click to view facility details in the TRI P2 Search Tool].

Source Reduction

In 2019, 9% of facilities in Region 2 (95 facilities) reported implementing new source reduction activities. Source reduction reporting rates in the region were among the highest in the miscellaneous manufacturing sector, where 14% of facilities reported source reduction activities. As one example of source reduction in Region 2, a facility began monitoring operations to improve material yields and reduce waste. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 3

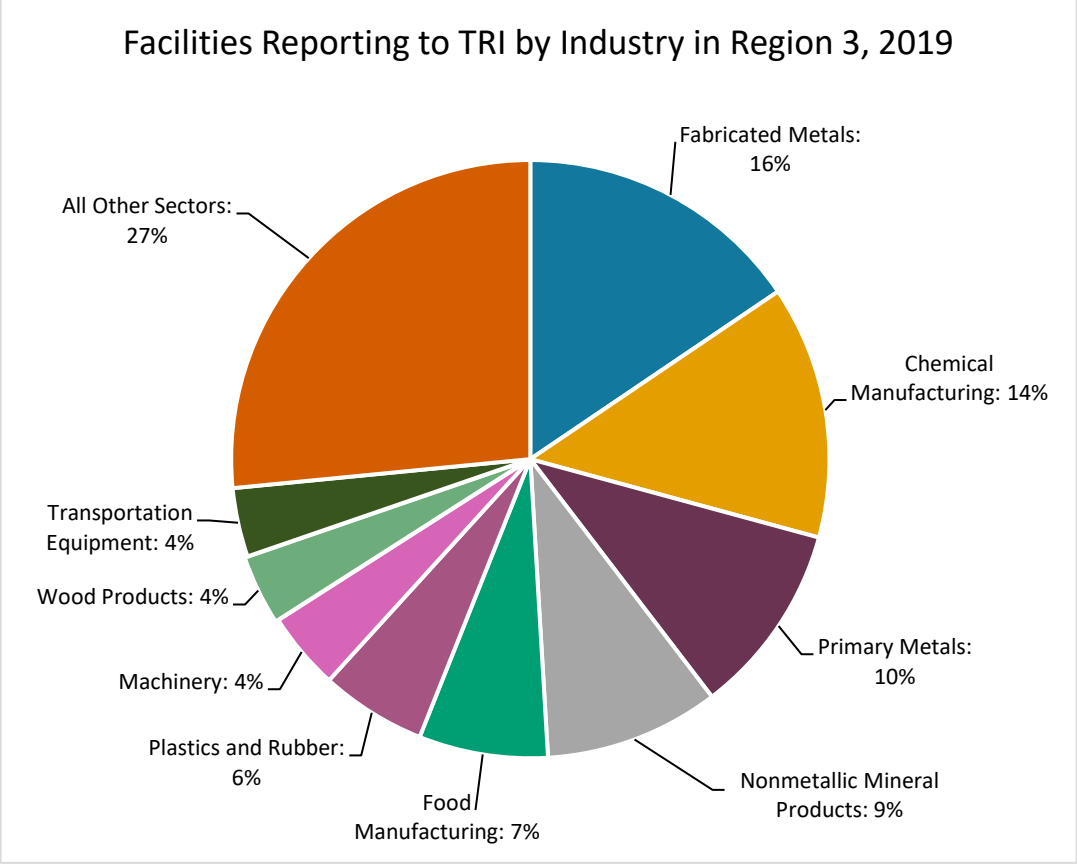
This section examines TRI reporting in EPA Region 3. Region 3 includes Delaware, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia.



Region 3 covers 9% of the U.S. population and includes 9% of all facilities that report to TRI. For state-specific TRI data, see the Where You Live section.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 3.



Note: Percentages do not sum to 100% due to rounding

In 2019:

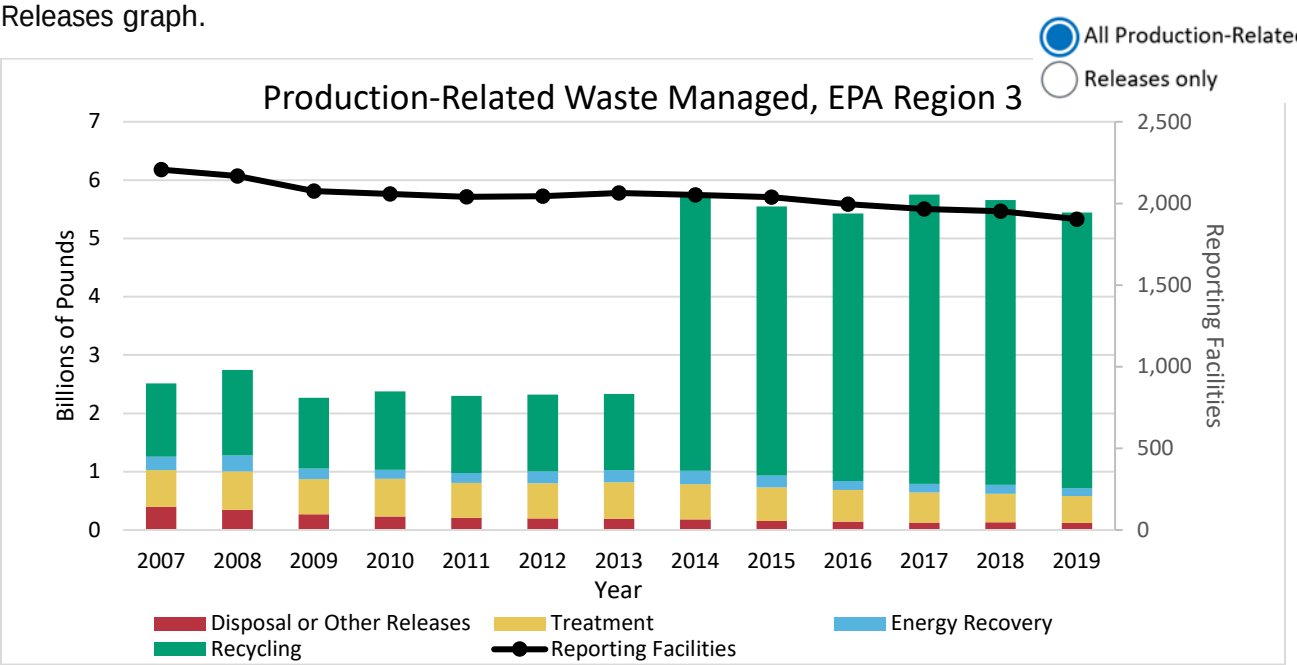
- 1,905 facilities in Region 3 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the fabricated metals (i.e., manufacture of metal products) or chemical manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sectors that reported the largest TRI releases in Region 3 were the electric utilities, primary metals (including iron and steel manufacturing, and foundries), and petroleum products manufacturing. Note that relatively few facilities in the electric utilities and petroleum products sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.

- Nationwide, the metal mining, chemical manufacturing, primary metals, and electric utilities sectors reported the largest releases.

For information on the facilities with the largest releases in the region, see the Region 3 TRI factsheet.

Region 3 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 3. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

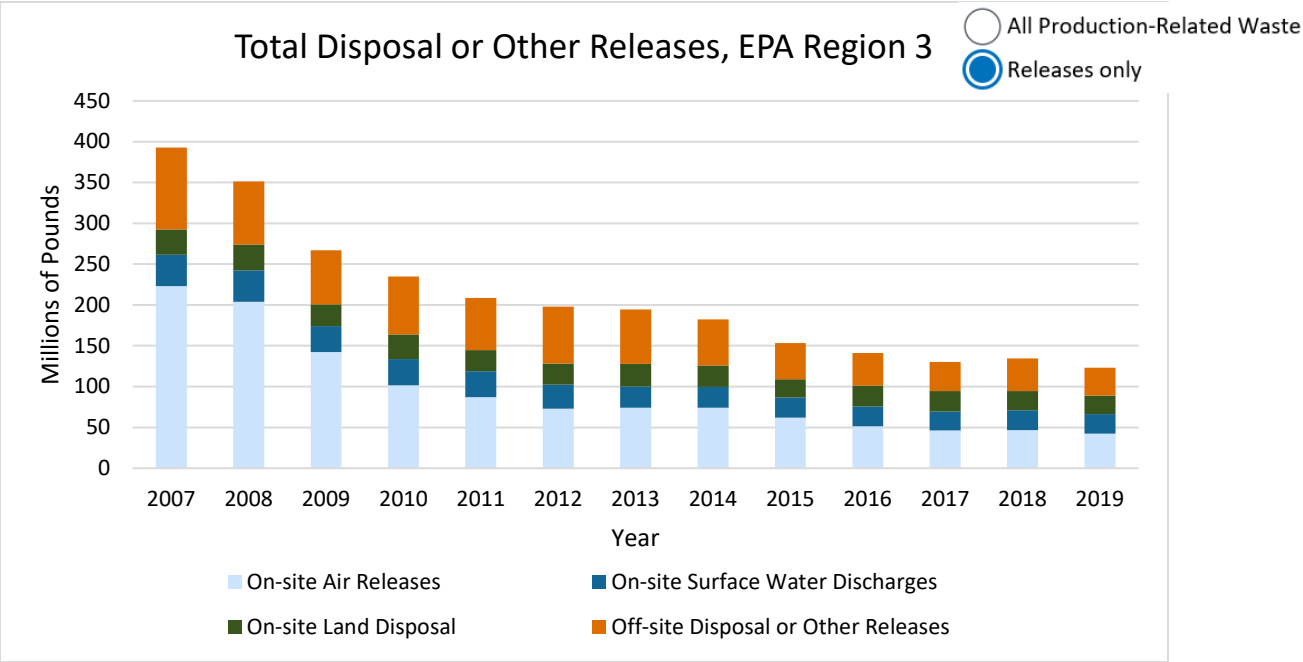
In 2019:

- Facilities in Region 3 managed 5.8 billion pounds of production-related waste, 81% of which was recycled, compared to 53% nationally.
- Since 2018, production-related waste managed in the region decreased by 324 million pounds (-5%), driven by reductions in the quantities of waste recycled and treated.

From 2007 to 2019:

- Total production-related waste managed increased by 2.9 billion pounds (117%), driven by one facility which reported that it recycled over 3 billion pounds of cumene each year from 2014 to 2019. [Click to view facility details in the TRI P2 Search Tool].
    - Excluding this facility, production-related waste managed in the region decreased by 699 million pounds (-28%).
    - Nationally, quantities of production-related waste managed increased by 23% since 2007, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 3.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 3 reported releasing 124 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
    - To air: sulfuric acid;
    - To water: nitrate compounds;
    - To land: lead compounds and manganese compounds; and
    - Transferred off site for disposal: zinc compounds and manganese compounds.
- Since 2018, releases decreased by 11.4 million pounds (-8%), primarily driven by air releases and off-site transfers for disposal, though releases to land and water also decreased slightly. Nationally, releases decreased by 9%.
- Contributions by state to TRI releases in Region 3 were : Pennsylvania (41%), Virginia (28%), West Virginia (22%), Delaware (5%), and Maryland (4%).

Regional Highlight

The decrease in chemical releases for 2019 in Region 3 was driven by a reduction in releases to air and off-site transfers for disposal from the electric utilities sector.

- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 3 were: Pennsylvania (62%), Virginia (14%), West Virginia (9%), Delaware (8%), and Maryland (1%).
    - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

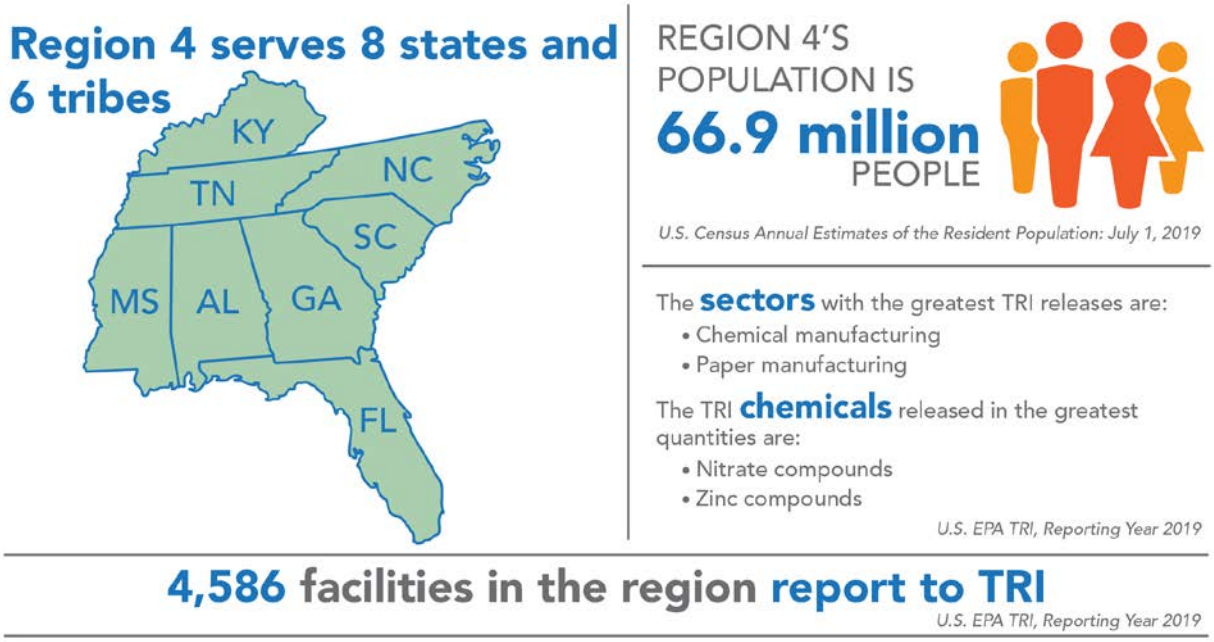
- Releases in Region 3 decreased by 270 million pounds (-69%), compared to a 19% decrease nationally.
- Quantities of chemicals released to air, water, and land, and transfers off-site for disposal all decreased, with a 181-million-pound reduction in air releases driving the overall decrease.

Source Reduction

In 2019, 7% of facilities in Region 3 (130 facilities) reported implementing new source reduction activities. Source reduction reporting rates in the region were among the highest in the plastics/rubber manufacturing sector, where 14% of facilities reported source reduction activities. For example, a foam products manufacturer implemented spill prevention solutions to reduce the loss of nitrate compounds through spills or leaks. The facility also began electronically tracking maintenance activities to improve scheduling and recordkeeping procedures. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 4

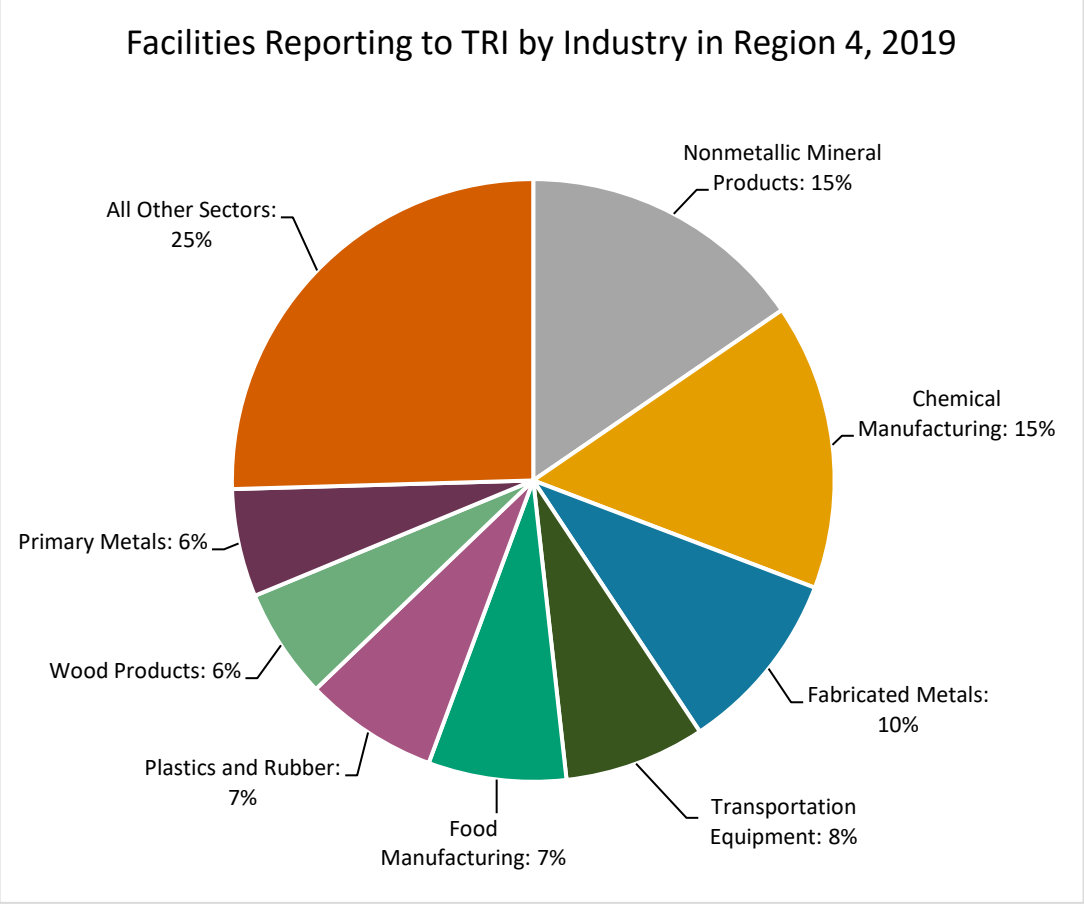
This section examines TRI reporting in EPA Region 4. Region 4 includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and 6 tribes.



Region 4 covers 20% of the U.S. population and includes 21% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. One facility located on tribal land in Region 4 reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 4.



Note: Percentages do not sum to 100% due to rounding

In 2019:

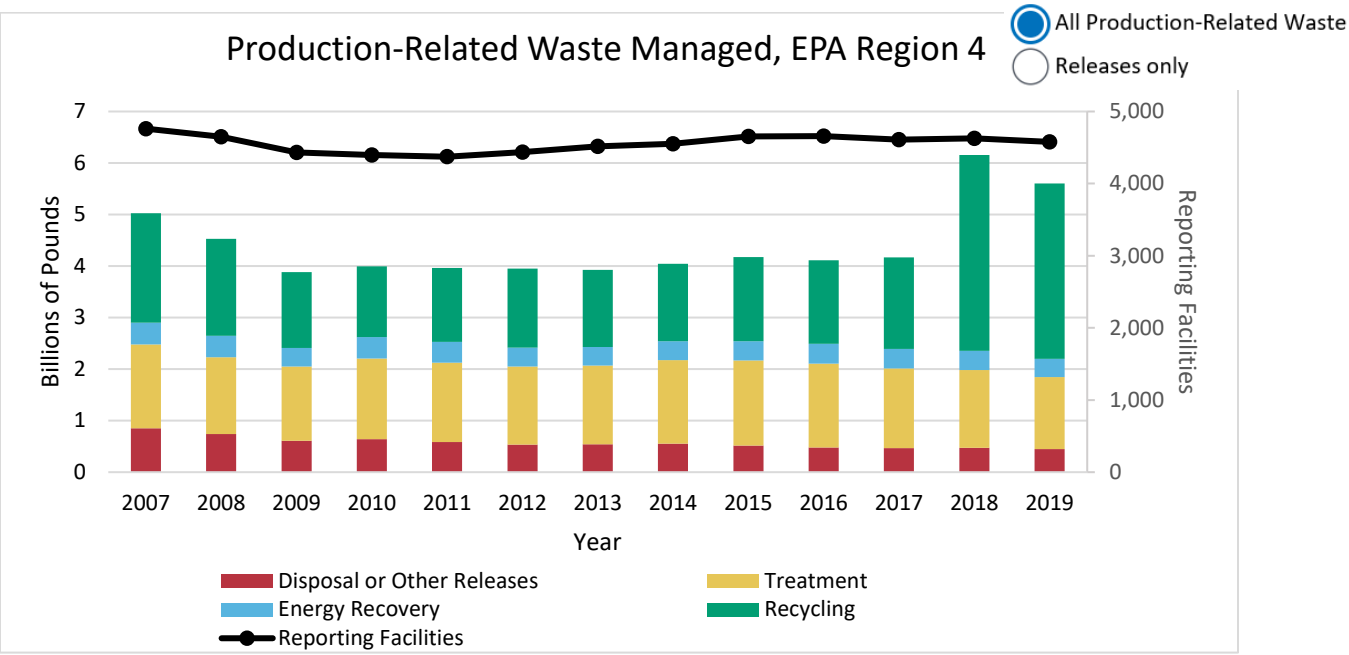
- 4,586 facilities in Region 4 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the nonmetallic mineral products (including cement and concrete manufacturing) or chemical manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sectors that reported the largest TRI releases in Region 4 were the chemical manufacturing, paper manufacturing, electric utilities, and primary metals (including iron and steel mills and foundries) sectors. Note that relatively few facilities in the paper manufacturing and electric utilities sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above. Nationwide, the metal mining, chemical

manufacturing, primary metals, electric utilities, and paper manufacturing sectors reported the largest releases.

For information on the Region 4 facilities with the largest releases, see the Region 4 TRI factsheet.

Region 4 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 4. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 4 managed 5.72 billion pounds of production-related waste, 92% of which was recycled, combusted for energy recovery, or treated. Only 8% was disposed of or otherwise released into the environment in Region 4, compared to 11% nationally.
- Since 2018, quantities of production-related waste managed in the region decreased by 9%, with reductions in every waste management method (i.e., recycling, energy recovery, treatment, and releases).

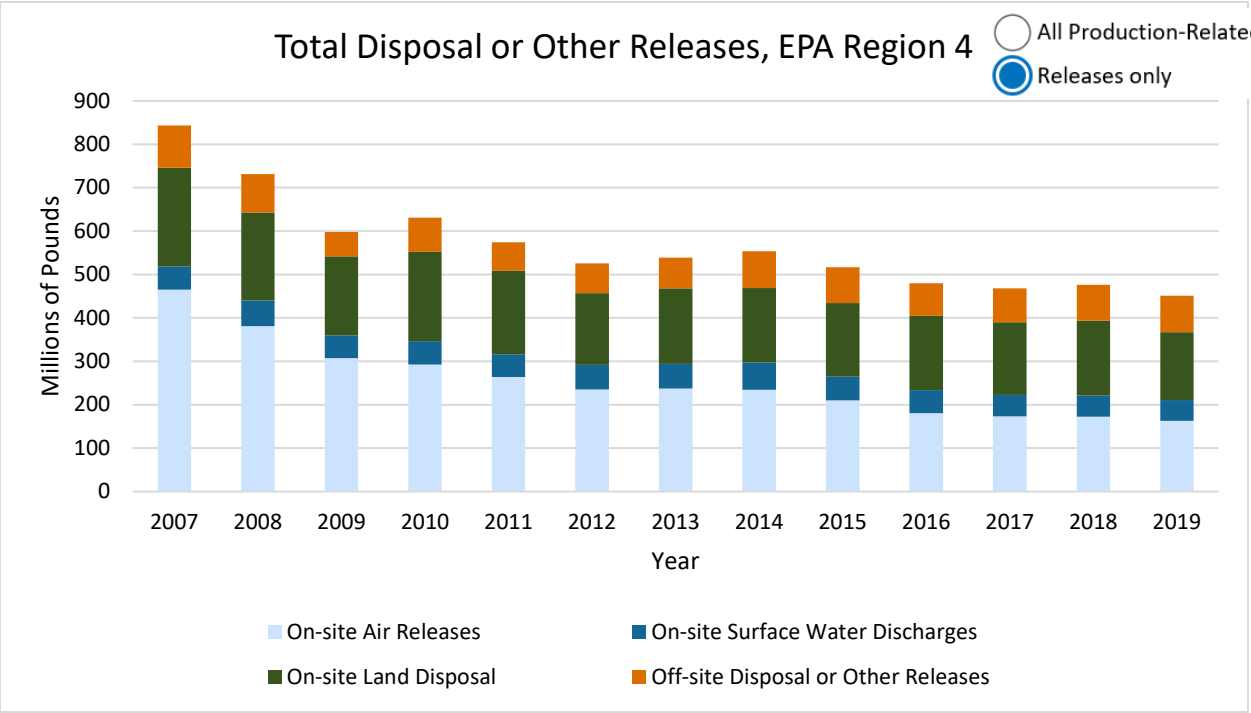
From 2007 to 2019:

- Production-related waste managed increased by 576 million pounds (11%), driven by one facility that reported recycling over 1.5 billion pounds of dichloromethane (methylene chloride) during 2018 and 2019. [Click to view facility details in the TRI P2

Search Tool]. Excluding this facility, production-related waste managed in the region decreased by 1.1 billion pounds (-22%), and quantities of waste managed by every method (i.e., recycling, treatment, energy recovery, and disposal and releases) decreased.

- Nationally, quantities of production-related waste managed increased by 23%, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 4.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 4 reported releasing 462 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
  - To air: methanol and ammonia;
  - To water: nitrate compounds;
  - To land: manganese compounds and zinc compounds; and
  - Transferred off site for disposal: zinc compounds and manganese compounds.
- Since 2018, releases decreased by 25.4 million pounds (-5%), driven by decreased releases to land and air. Nationally, releases decreased by 9%.
- Contributions by state to TRI releases in Region 4 were: Tennessee (18%), Alabama (17%), North Carolina (12%), Mississippi (12%), Florida (12%), Georgia (11%), Kentucky (10%), and South Carolina (8%).

Regional Highlight

On-site releases to air in Region 4 decreased by 65% since 2007. The largest decrease in was reported by electric utilities, which continued to report decreased releases to air from 2018 to 2019.

- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 4 were: Tennessee (24%), Florida (18%), Alabama (14%), Georgia (13%), North Carolina (12%), Kentucky (10%), South Carolina (8%), and Mississippi (2%).
    - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

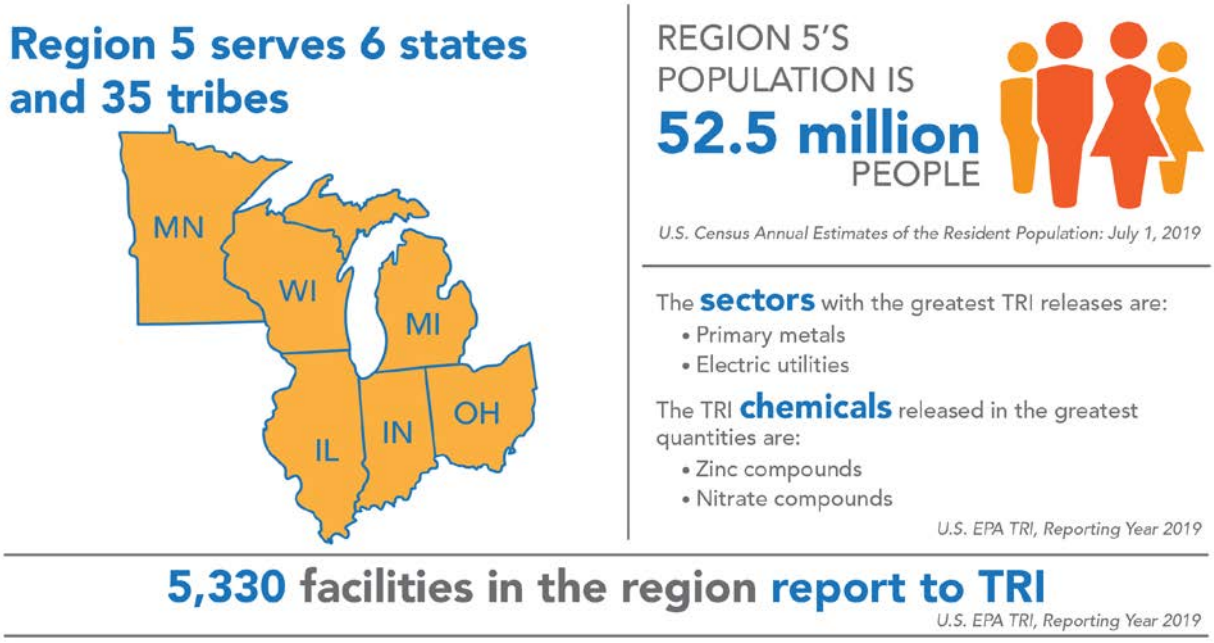
- Releases in Region 4 decreased by 392 million pounds (-47%), compared to a 19% decrease nationally.
- Quantities of chemicals released to air, water, and land, and transferred off-site for disposal all decreased, with the largest reduction in releases to air.

Source Reduction

In 2019, 6% of facilities in Region 4 (257 facilities) reported implementing new source reduction activities. Source reduction reporting rates in the region were among the highest in the computers/electronic products manufacturing sector, in which 19% of facilities reported source reduction activities. As one example of source reduction in Region 4, an electronic assembly facility reported that current mass production units are no longer manufactured using lead solder and that lead waste is contained in a limited number of service parts. Production of these service parts has decreased in the last year. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 5

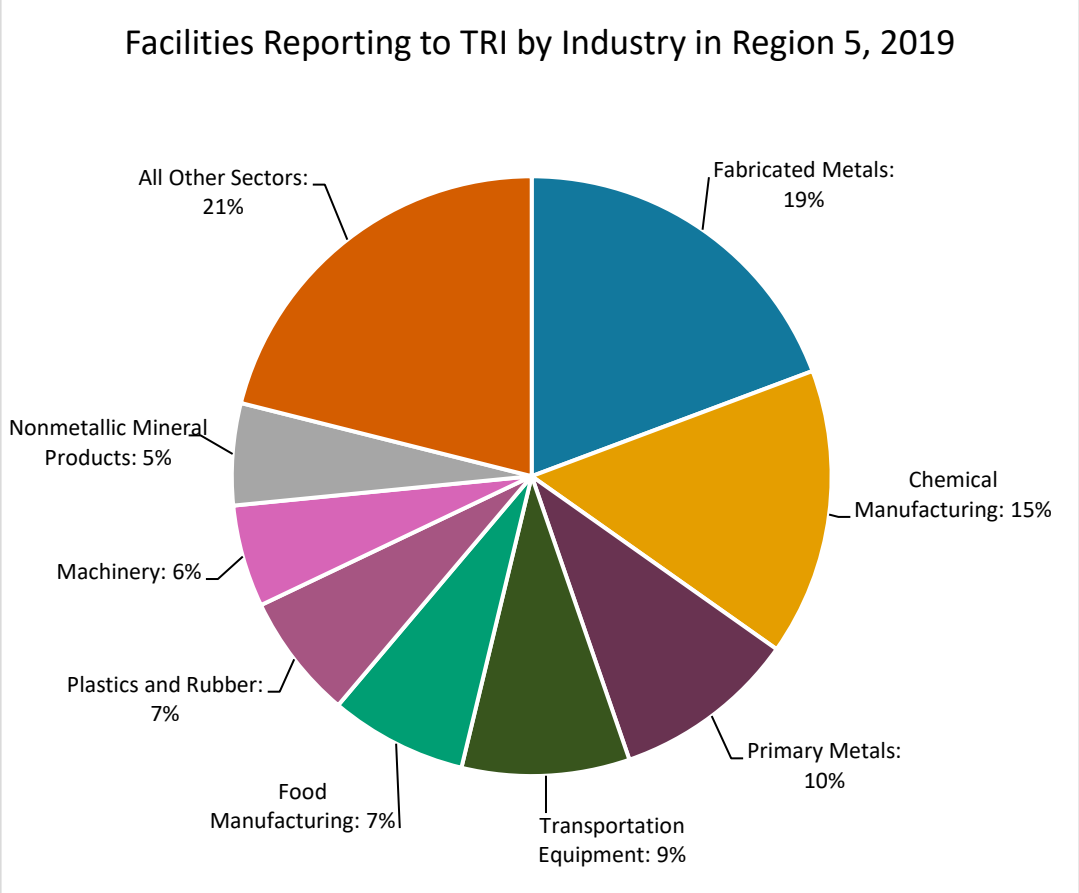
This section examines TRI reporting in EPA Region 5. Region 5 includes Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, and 35 tribes.



Region 5 covers 16% of the U.S. population and includes 25% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Five facilities located on the land of two different tribes in Region 5 reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 5.



Note: Percentages do not sum to 100% due to rounding

In 2019:

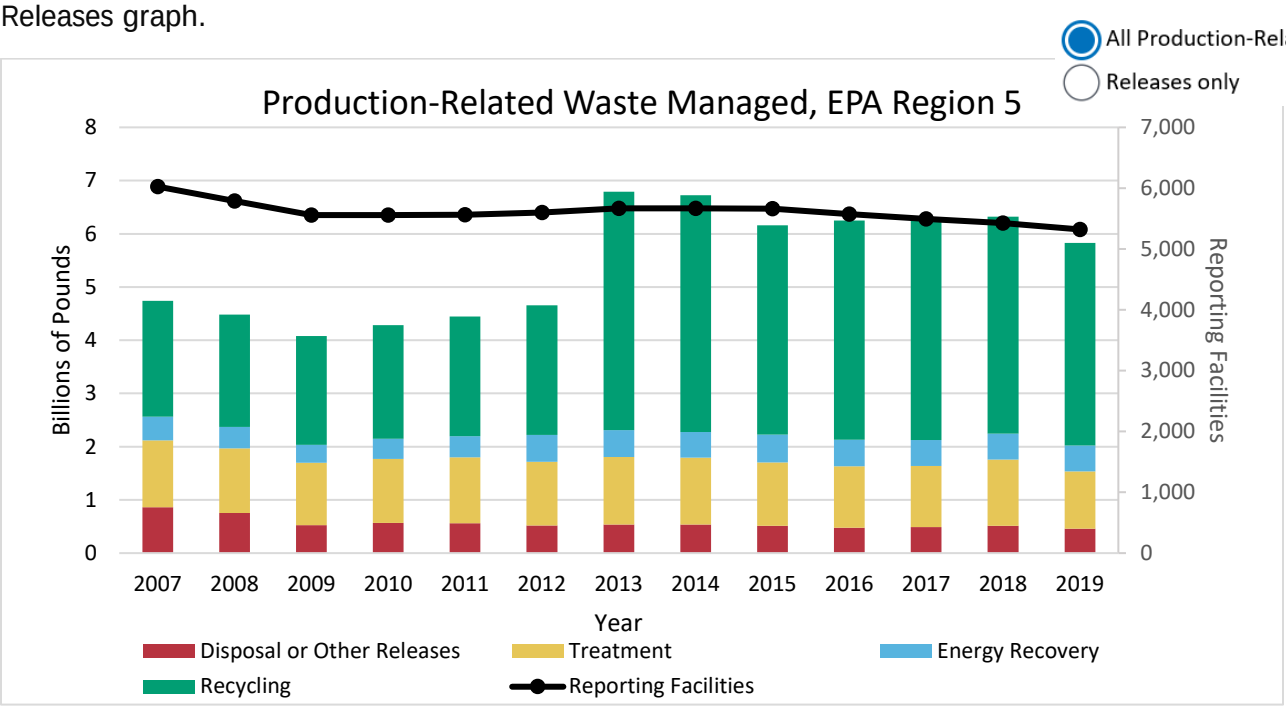
- 5,330 facilities in Region 5 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the fabricated metals (i.e., manufacture of metal products) or chemical manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sectors that reported the largest TRI releases in Region 5 were the primary metals (including iron and steel manufacturing, and foundries), electric utilities, chemical manufacturing, and hazardous waste management sectors. Note that relatively few facilities in the electric utilities and hazardous waste management sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.

- Nationwide, the metal mining, chemical manufacturing, primary metals, and electric utilities sectors reported the largest releases.

For information on the Region 5 facilities with the largest releases, see the Region 5 TRI factsheet.

Region 5 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 5. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

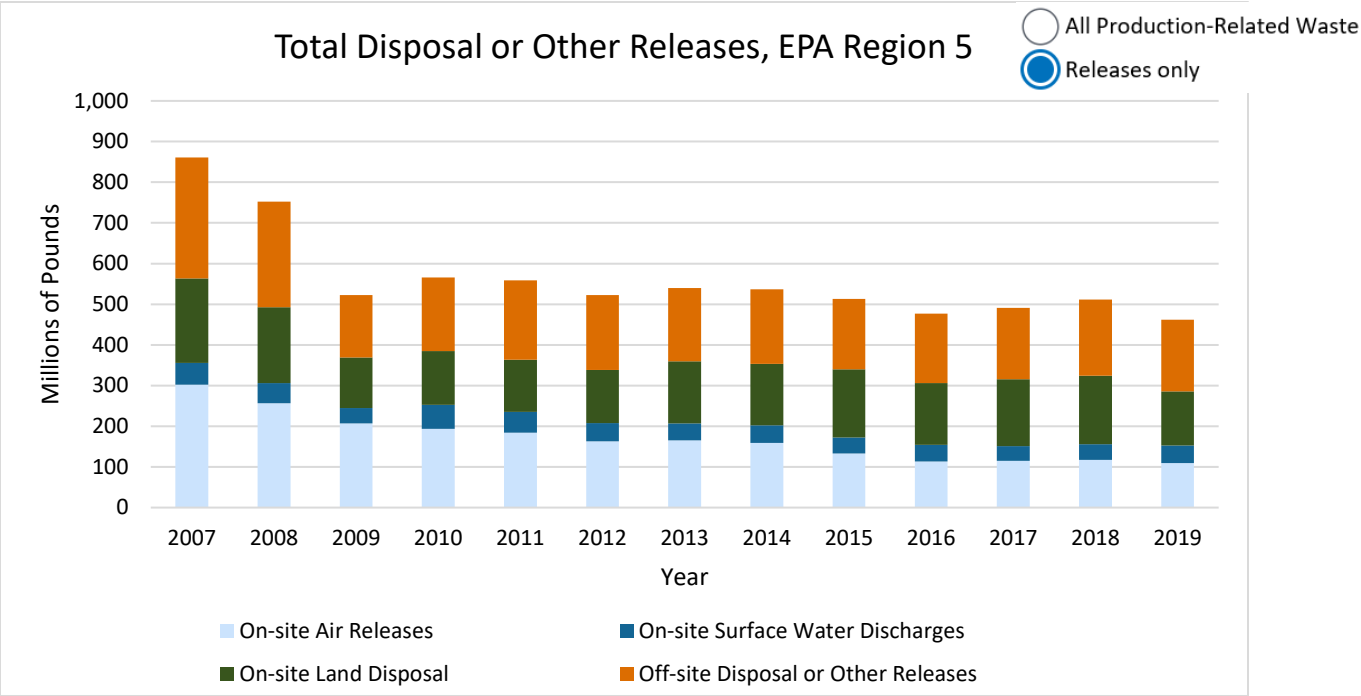
- Facilities in Region 5 managed 5.87 billion pounds of production-related waste, 65% of which was managed through recycling, compared to 53% nationally.
- Since 2018, quantities of production-related waste managed in the region decreased by 8%.

From 2007 to 2019:

- Total production-related waste managed increased by 1.1 billion pounds (23%), driven by one plastics manufacturing facility that reported recycling more than a billion pounds of dichloromethane (methylene chloride) annually from 2013 to 2019 [Click to view facility details in the TRI P2 Search Tool]. Excluding this facility, production-related waste managed in the region decreased by 387 million pounds (-8%).

- Nationally, quantities of production-related waste managed increased by 23% since 2007, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 5.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 5 reported releasing 464 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
  - To air: sulfuric acid, ammonia, and *n*-hexane;
  - To water: nitrate compounds;
  - To land: barium compounds, manganese compounds, and zinc compounds; and
  - Transferred off site for disposal: zinc compounds and manganese compounds.
- Since 2018, releases decreased by 49.2 million pounds (-10%). Decreases occurred across many sectors, with the largest decreases in the hazardous waste management and electric utilities sectors. Releases decreased to all media except water, which increased. Nationally, releases decreased by 9%.

Regional Highlight

Releases in Region 5 have decreased by almost 400 million pounds since 2007. Releases from the electric utilities, primary metals and hazardous waste sectors decreased the most, together decreasing by 374 million pounds.

- Contributions by state to TRI releases in Region 5 were: Indiana (27%), Ohio (23%), Illinois (22%), Michigan (16%), Wisconsin (7%), and Minnesota (5%).
- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 5 were: Ohio (33%), Illinois (30%), Indiana (16%), Michigan (12%), Wisconsin (5%), and Minnesota (4%).
    - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

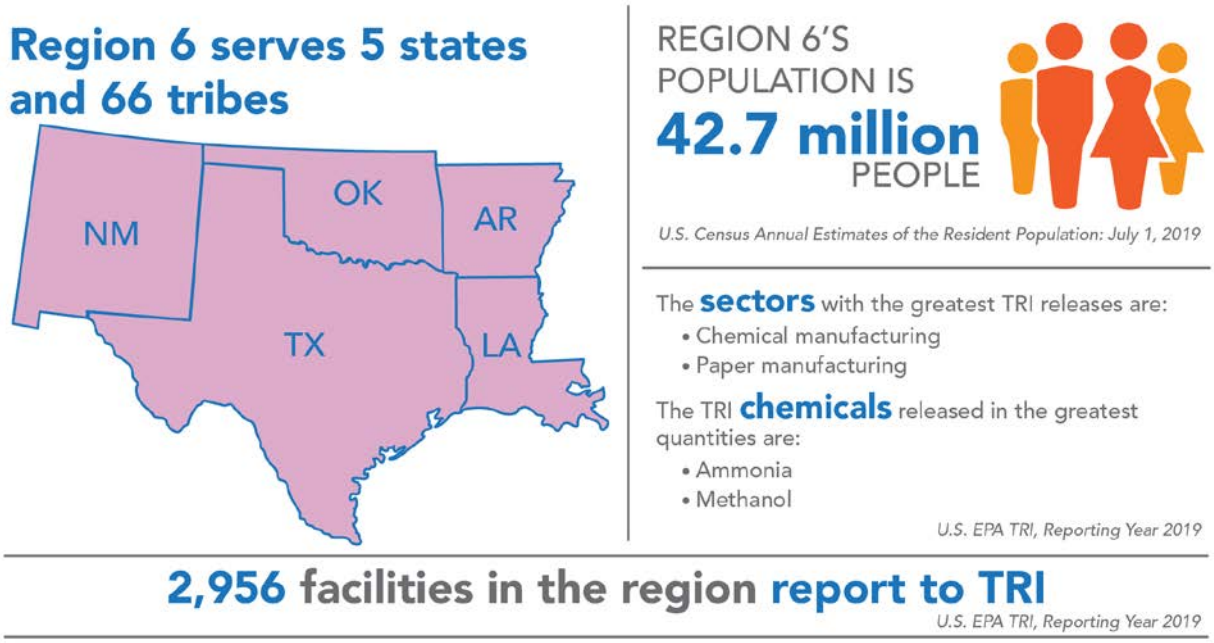
- Releases in Region 5 decreased by 399 million pounds (-46%), driven by reduced releases from electric utilities and the primary metals sector. Nationally, releases decreased by 19%.
- Releases to air, water, land, and transferred off site for disposal all decreased.

Source Reduction

In 2019, 7% of facilities in Region 5 (373 facilities) reported implementing new source reduction activities. Source reduction reporting rates in the region were among the highest in the computers/electronic products manufacturing sector, in which 23% of facilities reported source reduction activities. For example, a circuit board manufacturer reduced its copper usage by installing a new copper etcher that is more efficient than the previous equipment. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 6

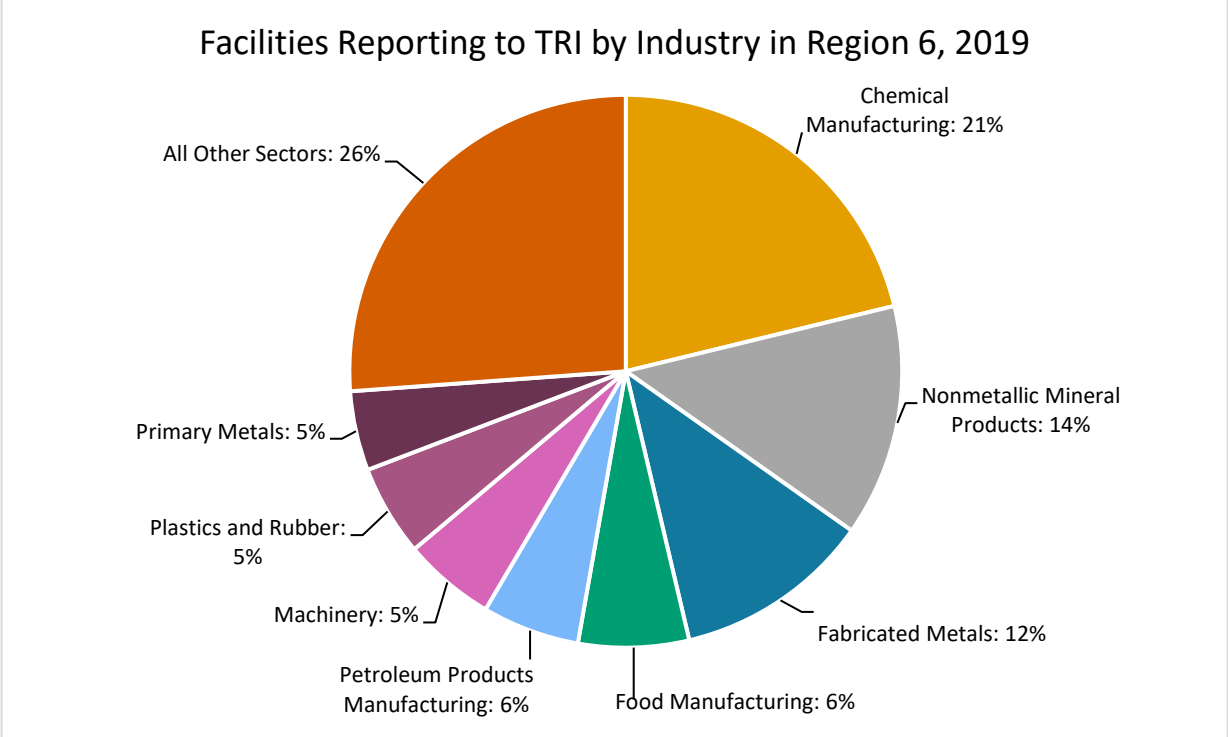
This section examines TRI reporting in EPA Region 6. Region 6 includes Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and 66 Tribes.



Region 6 covers 13% of the U.S. population and includes 14% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Three facilities located on the land of two different tribes in Region 6 reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 6.



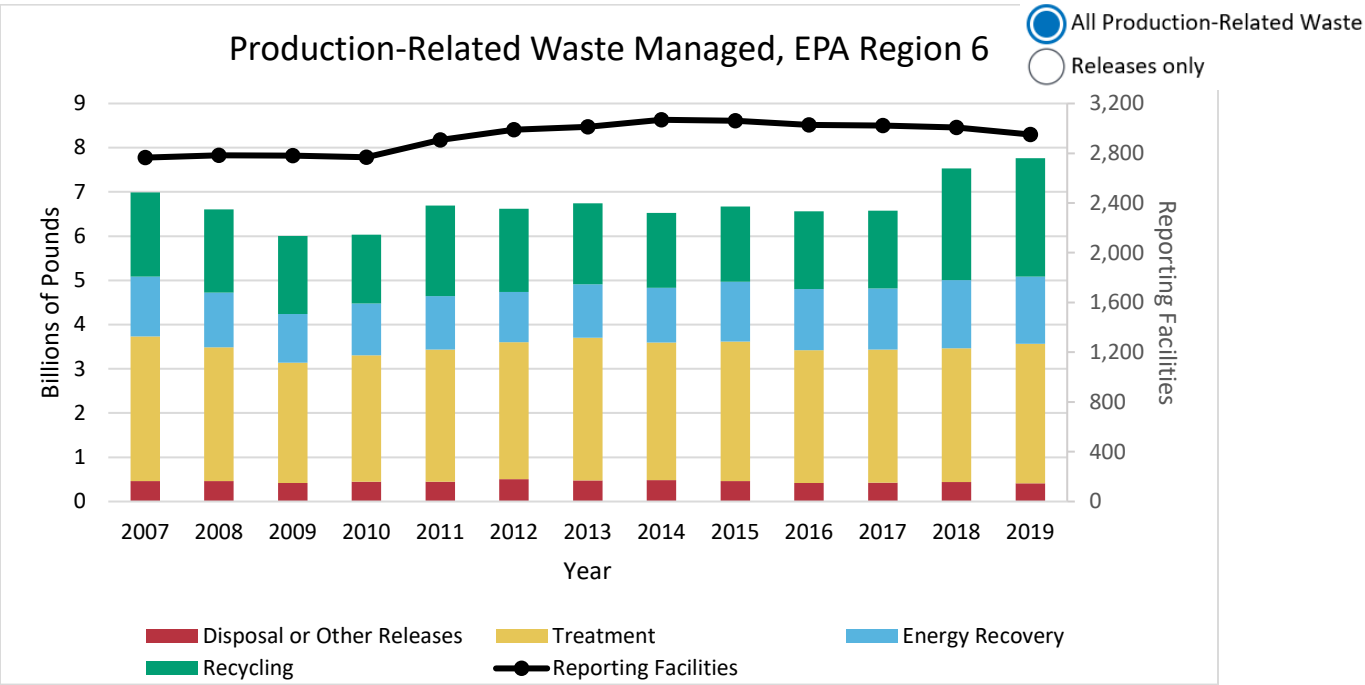
In 2019:

- 2,956 facilities in Region 6 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the chemical manufacturing or nonmetallic mineral products (including concrete manufacturing) sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sectors that reported the largest TRI releases in Region 6 were the chemical manufacturing, paper manufacturing, petroleum products manufacturing, and electric utilities sectors. Note that relatively few facilities in the paper manufacturing and electric utilities sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.
    - Nationwide, the metal mining, chemical manufacturing, primary metals (including iron and steel manufacturing, and foundries), and electric utilities sectors reported the largest releases.

For information on Region 6 facilities with the largest releases, see the Region 6 TRI factsheet.

Region 6 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 6. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 6 managed 8.05 billion pounds of production-related waste, 41% of which was treated and 34% of which was recycled. Nationally, 26% of production-related waste was managed through treatment and 53% was recycled. The 8.05 billion pounds of production-related waste includes all chemicals reported for 2019, while for comparability over time, the trend chart excludes chemicals that were added to the TRI list after 2007.
- Since 2018, quantities of production-related waste managed in the region increased by 3%.

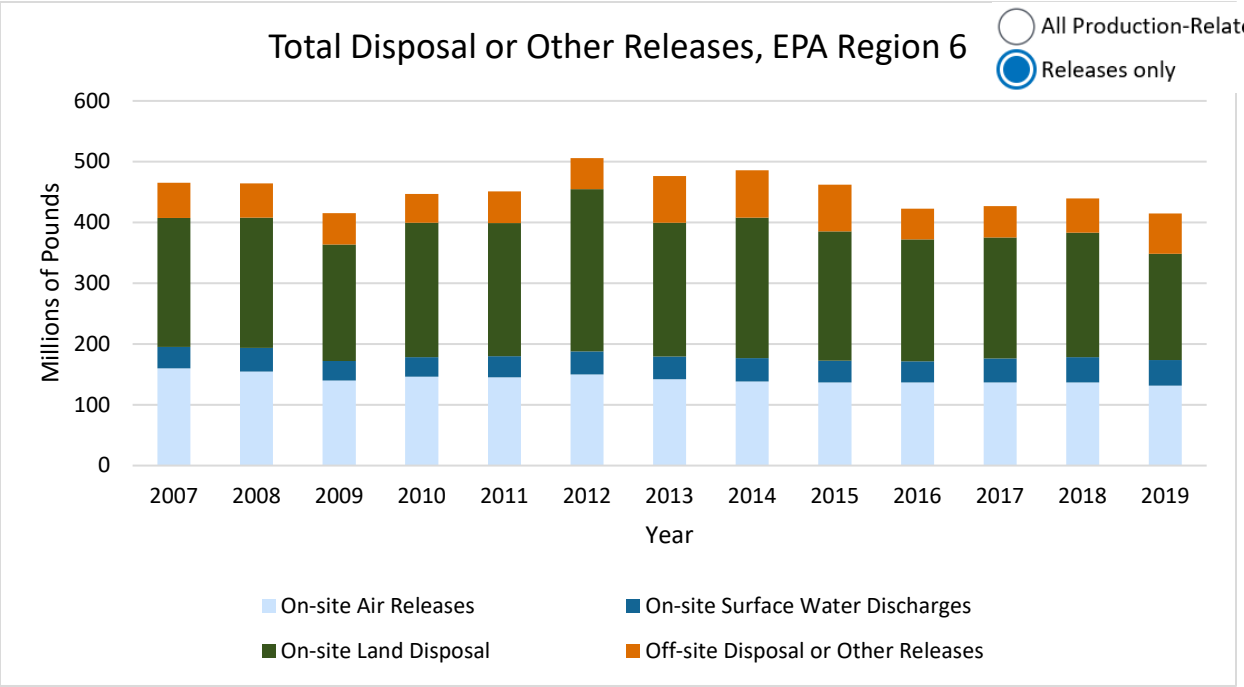
From 2007 to 2019:

- Production-related waste managed increased by 770 million pounds (11%), largely driven by one facility which reported 477 million pounds of recycling for 2019, compared

to 6 million pounds recycled in 2007. Excluding this facility, quantities of production-related waste managed in the region increased by 303 million pounds (4%) since 2007.

- Nationally, quantities of production-related waste managed increased by 23% since 2007, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 6.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 6 reported releasing 429 million pounds of TRI chemicals. The 429 million pounds of releases includes all chemicals reported for 2019, while for comparability over time, the trend chart excludes chemicals that were added to the TRI list after 2007.
- The chemicals released in the largest quantities by medium were:
  - To air: ammonia and methanol;
  - To water: nitrate compounds;
  - To land: ammonia, barium compounds, and formaldehyde; and
  - Transferred off site for disposal: manganese compounds and methanol.
- Since 2018, releases decreased by 25.9 million pounds (-6%). Releases to air and land decreased, while water discharges and off-site transfers for disposal increased. Nationally, releases decreased by 9%.
- Contributions by state to TRI releases in Region 6 were: Texas (45%), Louisiana (32%), Arkansas (12%), Oklahoma (7%), and New Mexico (4%).

Regional Highlight

Releases to air decreased by 5.4 million pounds from 2018 to 2019, driven by reductions in the chemical manufacturing, electric utilities, and petroleum product manufacturing sectors.

- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 6 were: Texas (75%), Louisiana (16%), Arkansas (6%), Oklahoma (4%), and New Mexico (<1%).
    - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

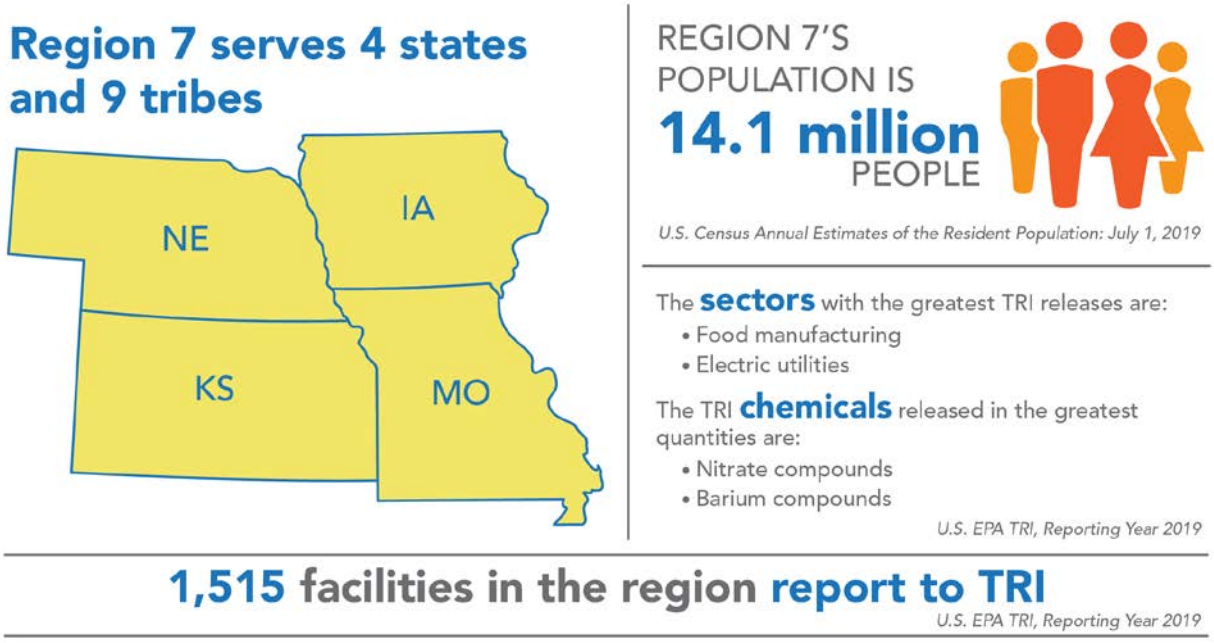
- Releases in Region 6 decreased by 50.7 million pounds (-11%), compared to a 19% decrease nationally.
- Quantities of chemicals released to air and land decreased, while releases to water and off-site transfers for disposal increased.

Source Reduction

In 2019, 5% of facilities in Region 6 (153 facilities) reported implementing new source reduction activities. As one example of source reduction in Region 6, a motor vehicle parts manufacturer updated the zinc rinse system with automated equipment, which reduced zinc waste by improving the overall effectiveness of the system. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 7

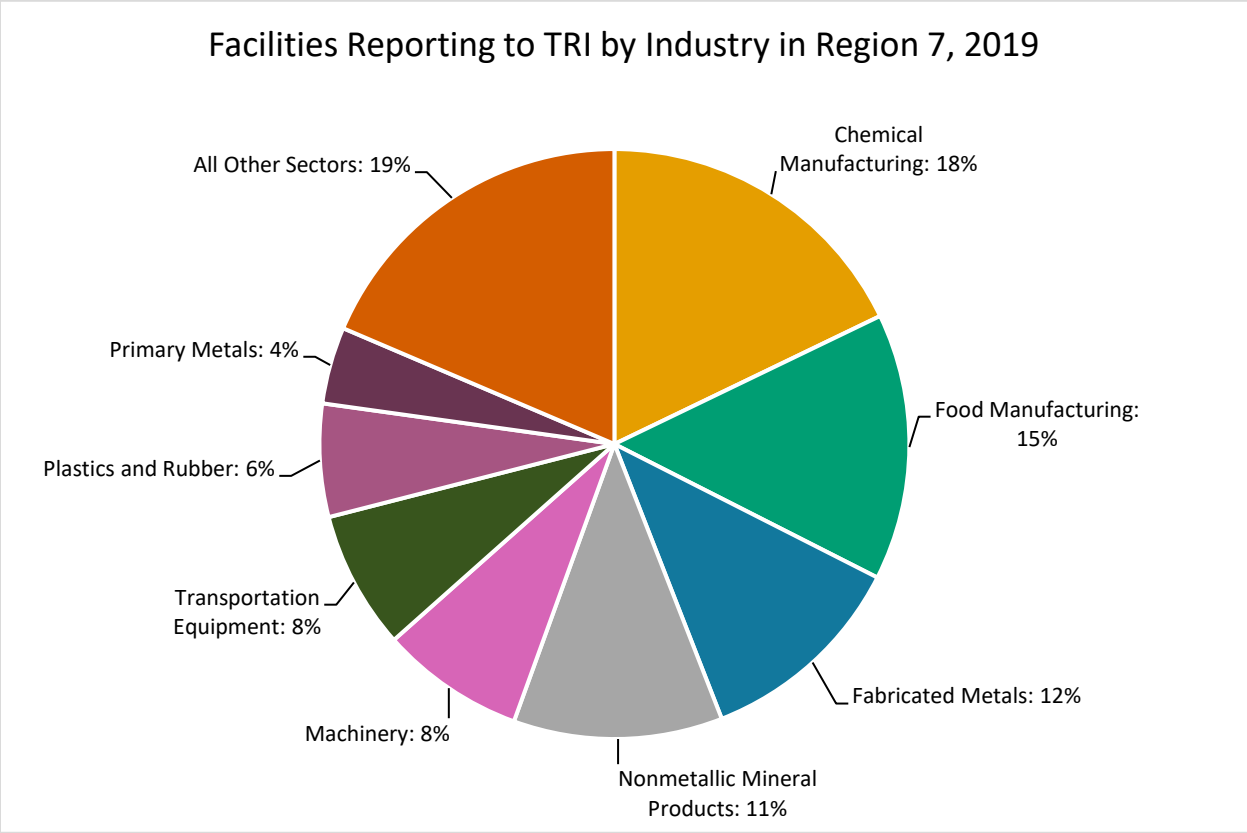
This section examines TRI reporting in EPA Region 7. Region 7 includes Iowa, Kansas, Missouri, Nebraska, and 9 tribes.



Region 7 covers 4% of the U.S. population and includes 7% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Although Region 7 includes 9 tribes, no facilities located on tribal lands in the region reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 7.



Note: Percentages do not sum to 100% due to rounding.

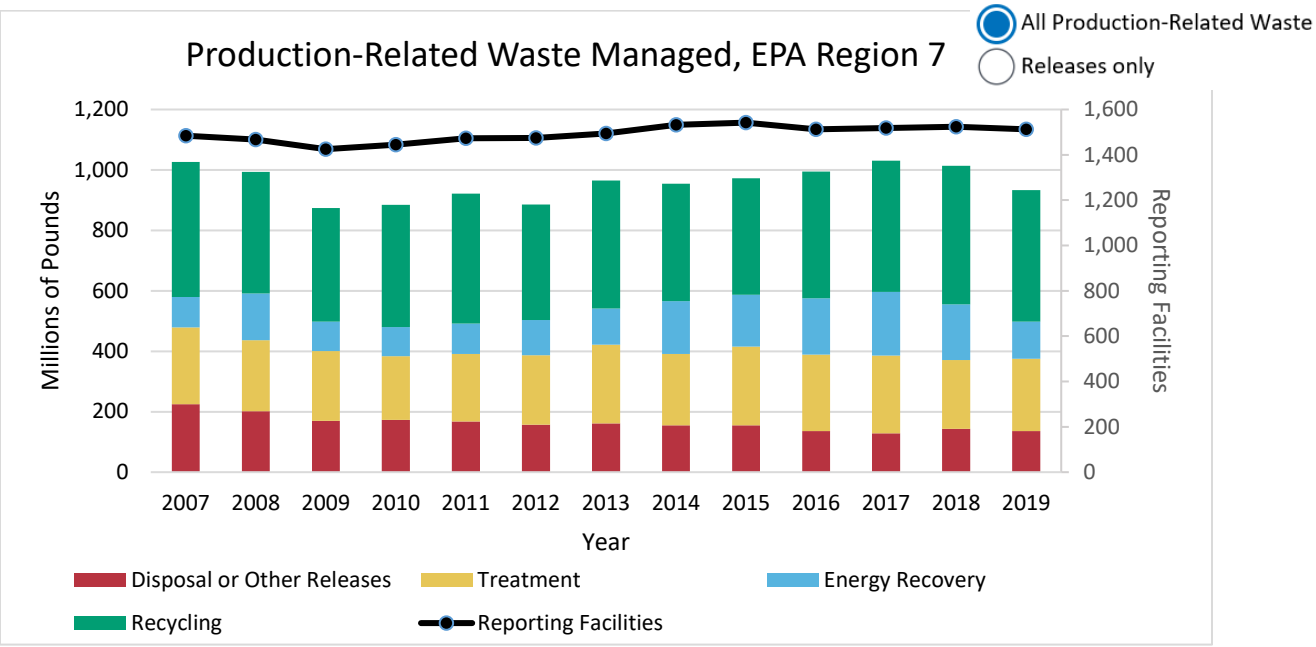
In 2019:

- 1,515 facilities in Region 7 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the chemical manufacturing or food manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sectors that reported the largest TRI releases in Region 7 were the food manufacturing, electric utilities, chemical manufacturing, and metal mining sectors. Note that relatively few facilities in the electric utilities and metal mining sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above. Nationwide, the metal mining, chemical manufacturing, primary metals (including iron and steel manufacturing, and foundries), and electric utilities sectors reported the largest releases.

For information on the Region 7 facilities with the largest releases, see the Region 7 TRI factsheet.

Region 7 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 7. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

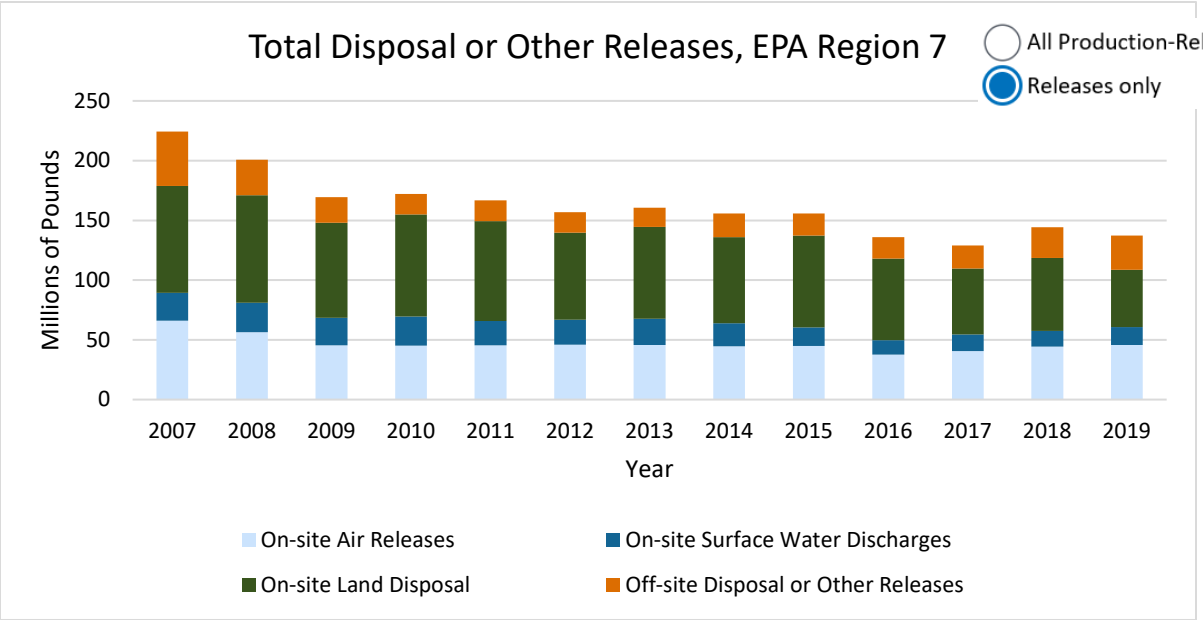
- Facilities in Region 7 managed 1.01 billion pounds of production-related waste, 89% of which was recycled, combusted for energy recovery, or treated. 11% was disposed of or otherwise released into the environment, which is consistent with the proportion of production-related waste released into the environment nationally. The 1.01 billion pounds of production-related waste includes all chemicals reported for 2019, while for comparability over time, the trend chart excludes chemicals that were added to the TRI list after 2007.
- Since 2018, quantities of production-related waste managed in the region decreased by 8%, which was driven by reduced waste combusted for energy recovery.

From 2007 to 2019:

- Production-related waste managed decreased by 92.6 million pounds (-9%). Quantities of waste recycled, treated, and disposed of or otherwise released all decreased, while

quantities of waste combusted for energy recovery increased. Nationally, quantities of production-related waste managed increased by 23%, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 7.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 7 reported releasing 138 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
  - To air: ammonia and n-hexane;
  - To water: nitrate compounds;
  - To land: lead compounds and barium compounds; and
  - Transferred off site for disposal: nitrate compounds.
- Since 2018, releases decreased by 7.0 million pounds (5%). Releases increased to all media except land. Nationally, releases decreased by 9%.
- Contributions by state to TRI releases in Region 7 were: Missouri (40%), Iowa (29%), Kansas (18%), and Nebraska (13%).
- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 7 were: Missouri (34%), Kansas (33%), Iowa (27%), and Nebraska (6%).
  - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI

Regional Highlight

Releases in Region 7 decreased from 2018 to 2019 primarily due to reduced releases from the electric utilities and metal mining sectors.

does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

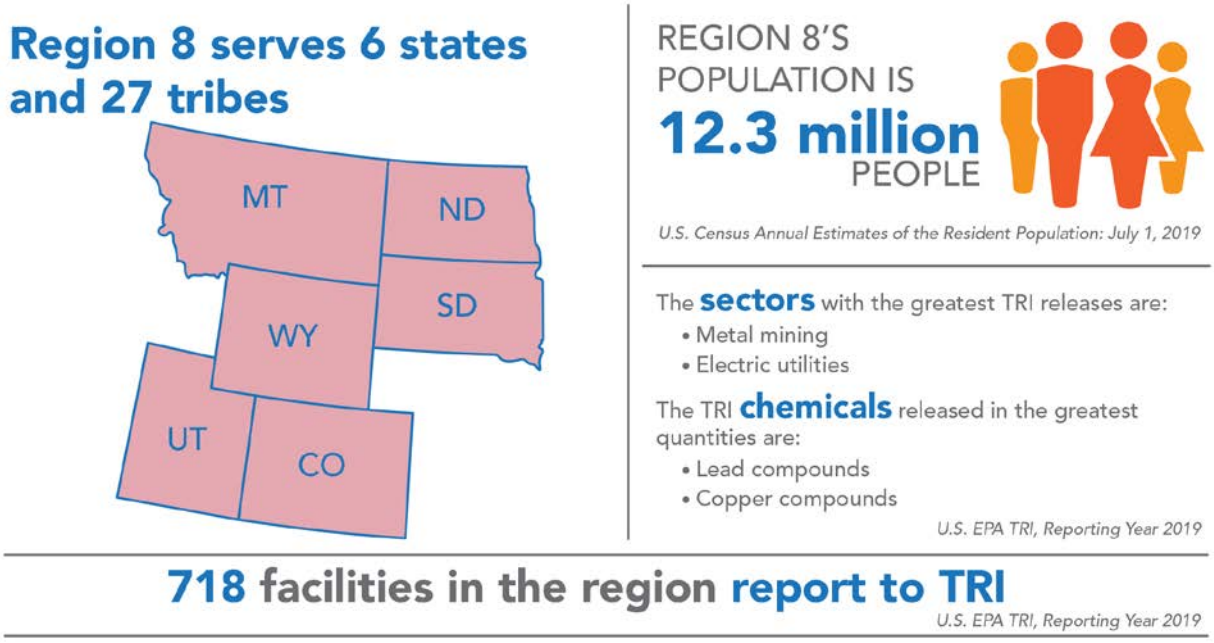
- Releases in Region 7 decreased by 86.9 million pounds (-39%). This decrease was driven by a reduction in releases from the primary metals and metal mining sectors. Nationally, releases decreased by 19%.
- Quantities of chemicals released to air, water, and land, and transferred off site for disposal all decreased.

Source Reduction

In 2019, 4% of facilities in Region 7 (65 facilities) reported implementing new source reduction activities. Source reduction reporting rates in the region were among the highest in the electrical equipment sector, where 16% of facilities reported source reduction activities. For example, a carbon fiber manufacturer reduced its styrene usage by moving to smaller bath sizes which reduced the amount of resin used and limited losses during production. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 8

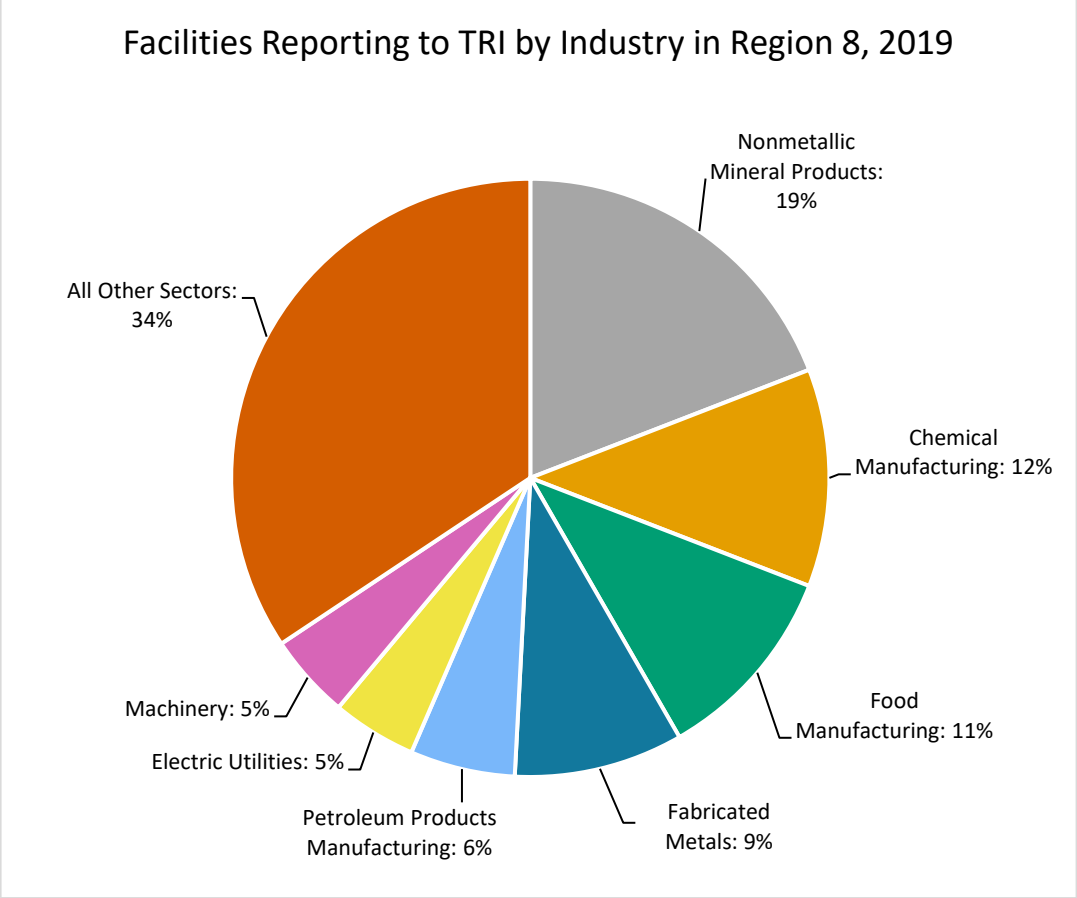
This section examines TRI reporting in EPA Region 8. Region 8 includes Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 tribes.



Region 8 covers 4% of the U.S. population and includes 3% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Two facilities located on the land of two different tribes in Region 8 reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 8.



Note: Percentages do not sum to 100% due to rounding.

In 2019:

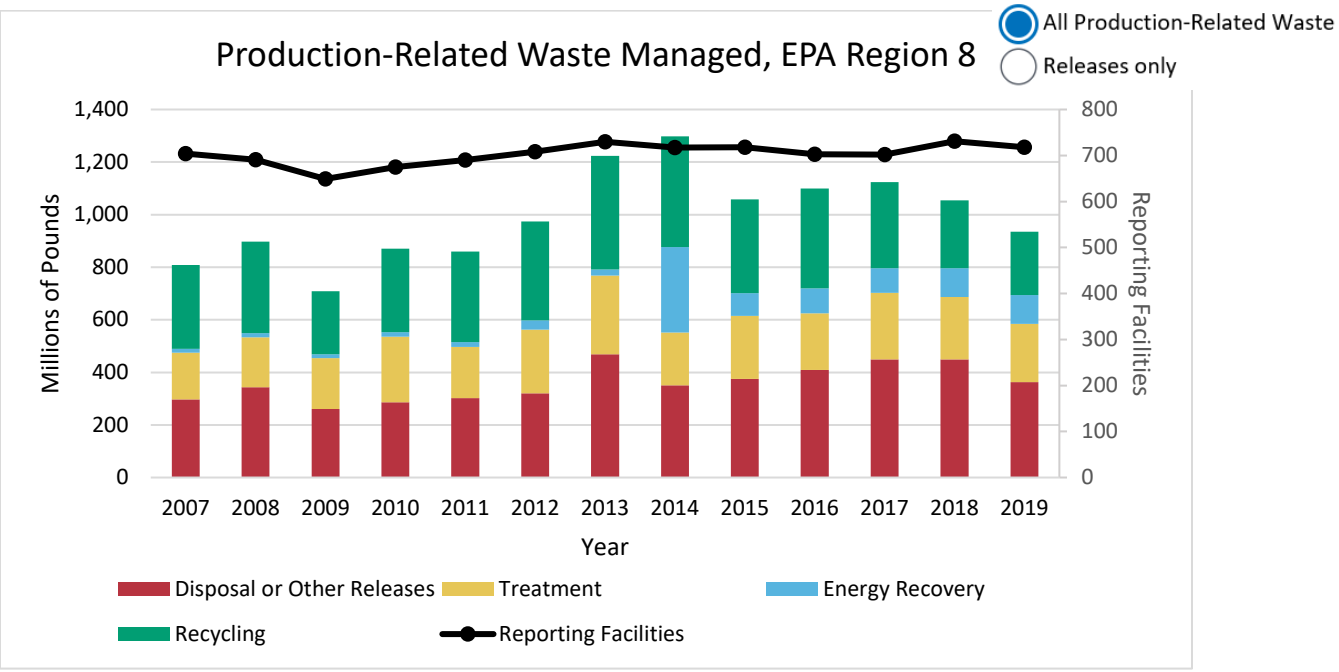
- 718 facilities in Region 8 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the nonmetallic mineral products (including concrete manufacturing), chemical manufacturing, or food manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the sector that reported the largest TRI releases in Region 8 was the metal mining sector, which accounted for 53% of releases reported in the region. After metal mining, the electric utilities, primary metals (including smelters), and chemical manufacturing sectors reported the largest releases. Note that relatively few facilities in the metal mining and primary metals sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.

- Nationwide, the metal mining, chemical manufacturing, primary metals, and electric utilities sectors reported the largest releases.
- Metal mining facilities typically handle large volumes of material. In this sector, even a small change in the chemical composition of the mineral deposit being mined can lead to large changes in the amount of TRI-listed chemicals reported. Therefore, releases in Region 8, where 11 metal mines reported to TRI for 2019, may differ from national trends. For more information on the metal mining sector, see the metal mining sector profile.

For information on the Region 8 facilities with the largest releases, see the Region 8 TRI factsheet.

Region 8 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 8. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

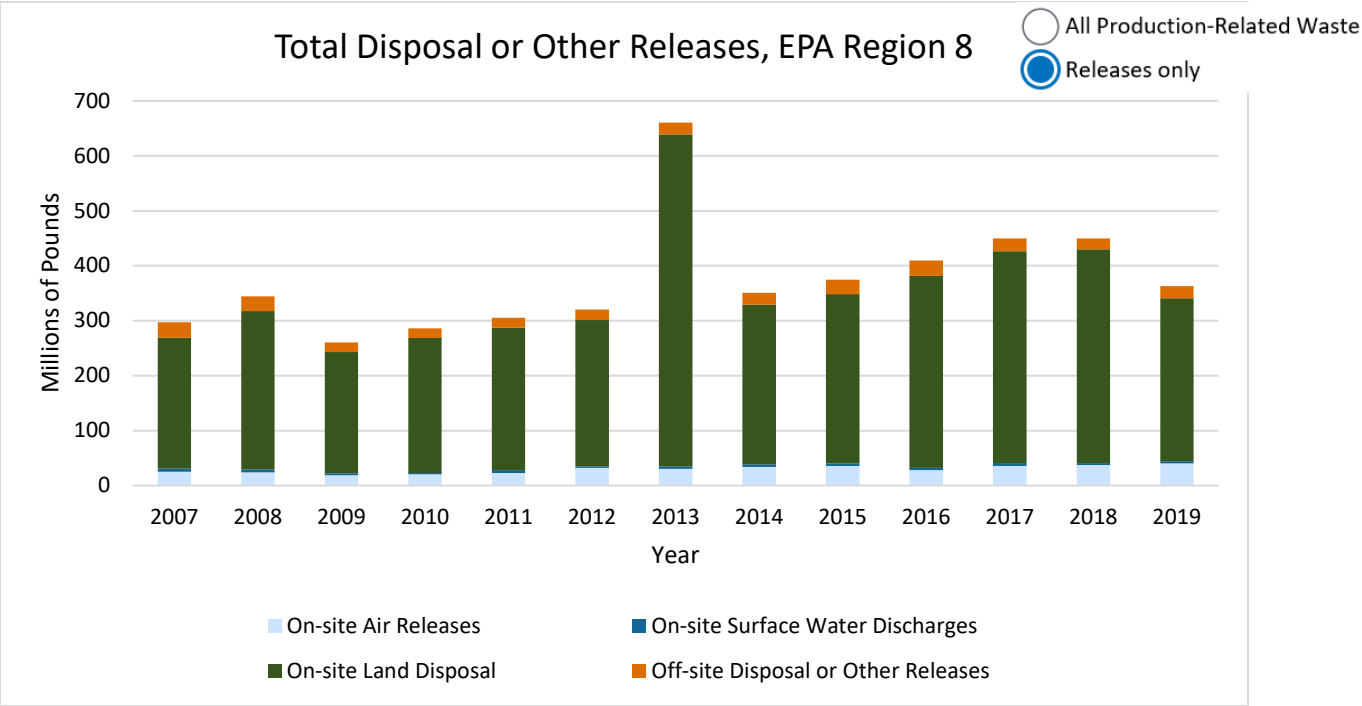
In 2019:

- Facilities in Region 8 managed 945 million pounds of production-related waste, 38% of which was disposed of or otherwise released, compared to 11% nationally. Metal mines drive the quantity of production-related waste released in Region 8. For 2019, metal mines in the region disposed of 95% of their waste on site to land.
- Since 2018, quantities of production-related waste managed in the region decreased by 11%, driven by reduced disposal or other releases from metal mines.

From 2007 to 2019:

- Production-related waste managed increased by 126 million pounds (16%). Quantities of waste combusted for energy recovery, treated, and disposed of or otherwise released increased, while quantities recycled decreased.
    - Nationally, quantities of production-related waste managed increased by 23%, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 8.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 8 reported releasing 363 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
  - To air: ammonia
  - To water: nitrate compounds
  - To land: lead compounds and copper compounds; and
  - Transferred off site for disposal: barium compounds
- Since 2018, releases decreased by 86.7 million pounds (-19%), driven by reduced releases to land. Nationally, releases decreased by 9%.
- Contributions by state to TRI releases in Region 8 were: Utah (55%), Montana (17%), North Dakota (13%), Colorado (8%), Wyoming (5%), and South Dakota (2%).
- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 8 were: Utah (80%), Colorado (14%), Montana (3%), North Dakota (2%), South Dakota (<1%), and Wyoming (<1%).

Regional Highlight

For 2019, 53% of total disposal or other releases reported in Region 8 were from the metal mining sector, down from 64% in 2018. The decrease in releases was driven by one copper mine in Utah [view facility details].

- The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities which drive the high release quantities for Utah. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

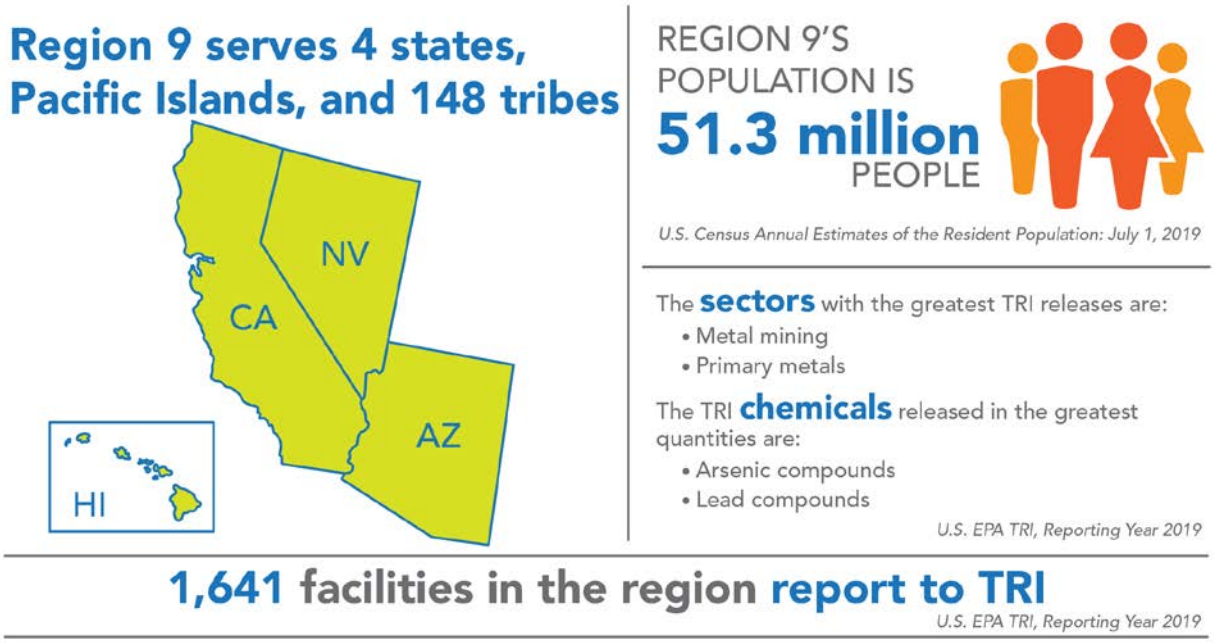
- Releases in Region 8 increased by 66.1 million pounds (22%), driven by increased land disposal by the metal mining and primary metals sectors. Nationally, releases of TRI chemicals decreased by 19%.
- Quantities of chemicals released to water and transferred off site for disposal decreased, and releases to air and land increased.

Source Reduction

In 2019, 5% of facilities in Region 8 (35 facilities) reported implementing new source reduction activities. For example, a wood cabinet manufacturer replaced its primer coat with a conversion varnish that uses less xylene per gallon, reducing the facility's overall xylene use. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 9

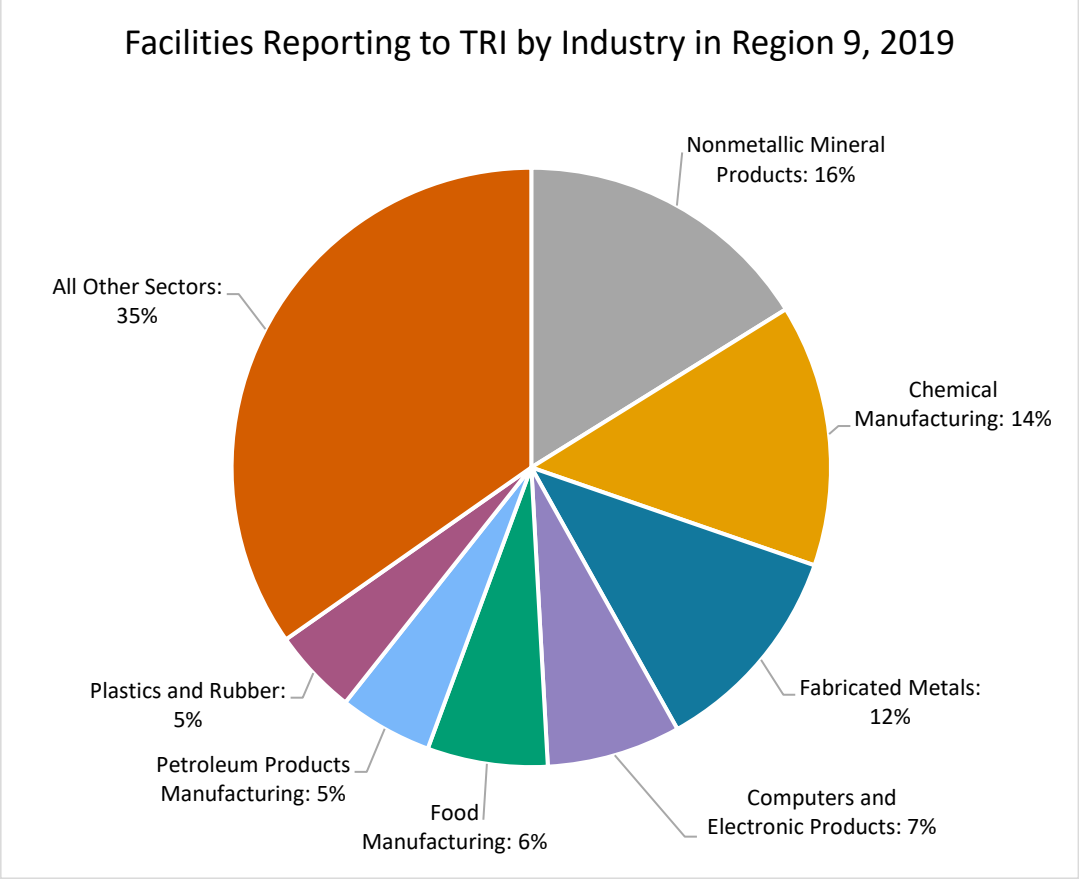
This section examines TRI reporting in EPA Region 9. Region 9 includes Arizona, California, Hawaii, Nevada, the Pacific Islands (American Samoa, Guam, and the Northern Mariana Islands), and 148 Tribes.



Region 9 covers 15% of the U.S. population and includes 8% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Thirteen facilities located on the land of six different tribes in Region 9 reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 9.



In 2019:

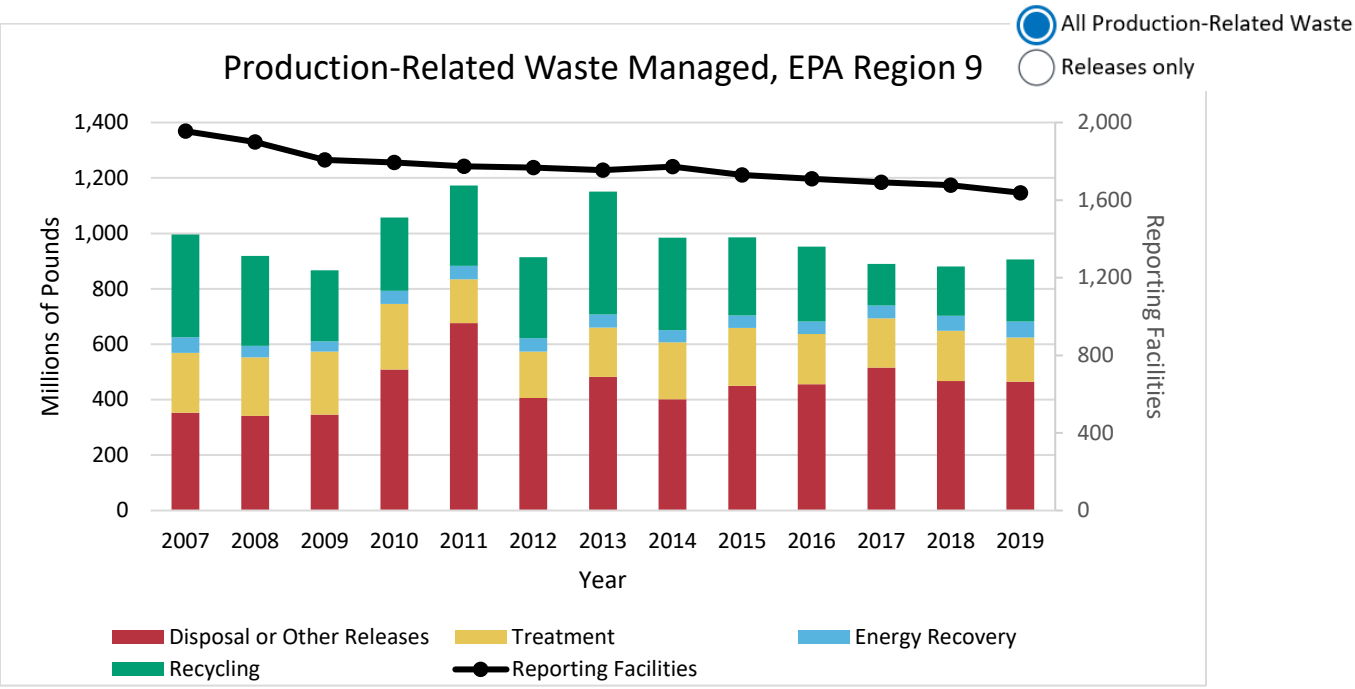
- 1,641 facilities in Region 9 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the nonmetallic mineral products (including concrete and cement manufacturing) or chemical manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the most TRI releases in Region 9 were from the metal mining sector, which accounted for 78% of the region's releases for 2019. After metal mining, the primary metals (including smelting), hazardous waste management, and petroleum products manufacturing sectors reported the largest releases. Note that relatively few facilities in the metal mining, primary metals, and hazardous waste management sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.
    - Nationwide, the metal mining, chemical manufacturing, electric utilities, and primary metals sectors reported the largest releases.

- Metal mining facilities typically handle large volumes of material. In this sector, even a small change in the chemical composition of the mineral deposit being mined can lead to large changes in the amount of TRI-listed chemicals reported. Therefore, releases in Region 9, where 42 metal mines reported to TRI for 2019, may not follow national trends. For more information on the metal mining sector, see the metal mining sector profile.

For information on the Region 9 facilities with the largest releases, see the TRI Region 9 factsheet.

Region 9 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 9. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

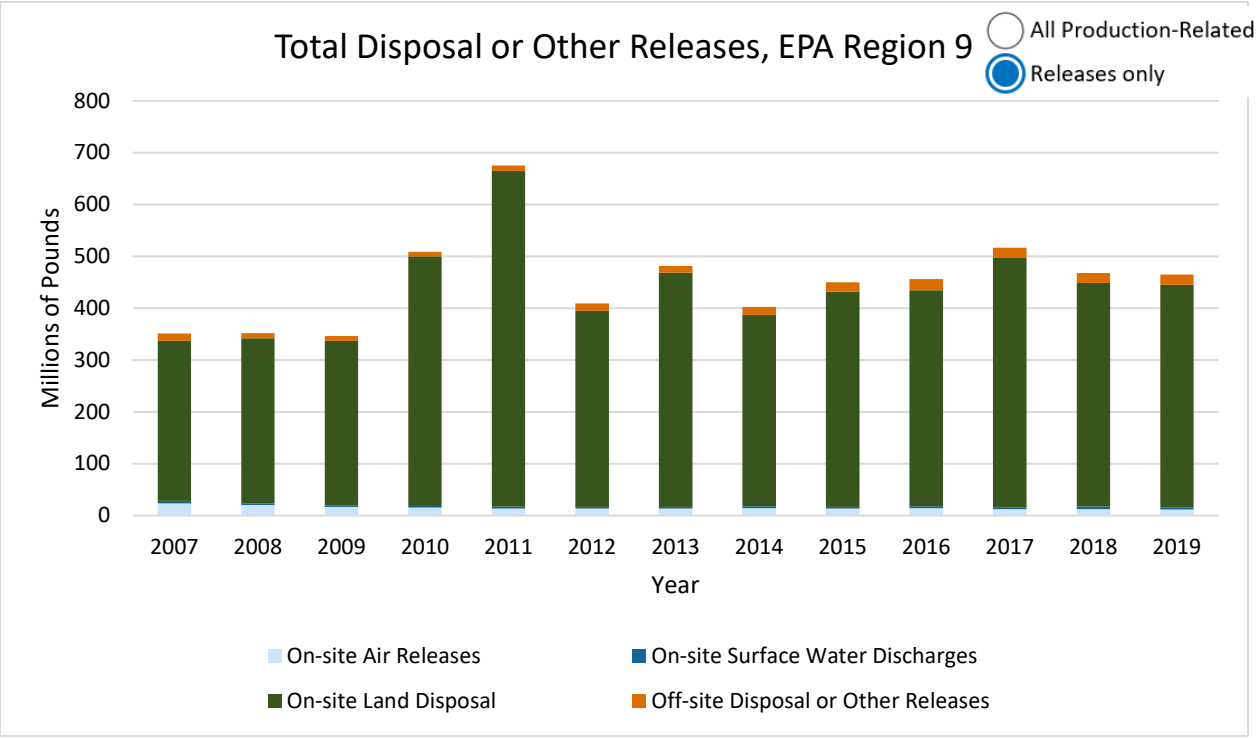
In 2019:

- Facilities in Region 9 managed 908 million pounds of production-related waste, 51% of which was disposed of or otherwise released, compared to 11% nationally. Metal mines drive the quantity of production-related waste released in Region 9. For 2019, metal mines in the region disposed of 90% of their waste on site to land.
- Since 2018, quantities of production-related waste managed in Region 9 increased by 3%, driven by increased production-related waste managed in the electrical equipment and metal mining sectors.

From 2007 to 2019:

- Total production-related waste managed decreased by 89.8 million pounds (-9%), driven by decreased recycling in the primary metals sector. In contrast, nationally, quantities of production-related waste managed increased by 23%, driven by increased recycling.

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 9.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 9 released 465 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
  - To air: ammonia and sulfuric acid;
  - To water: nitrate compounds;
  - To land: arsenic compounds and lead compounds; and
  - Transferred off site for disposal: nitrate compounds and manganese compounds
- Since 2018, releases stayed about the same, while nationally, releases decreased by 9%.
- Contributions by state to TRI releases in Region 9 were: Nevada (72%), Arizona (18%), California (8%), Hawaii (<1%), and the Pacific Islands (<1%).
- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI

Regional Highlight

42 metal mines in Region 9 reported to TRI for 2019, more than in any other region, accounting for 78% of the region's releases. Most of the mining releases were reported by gold mines in Nevada.

Score for Region 9 were: California (43%), Nevada (40%), Arizona (15%), Hawaii (<1%), and the Pacific Islands (<1%).

  - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

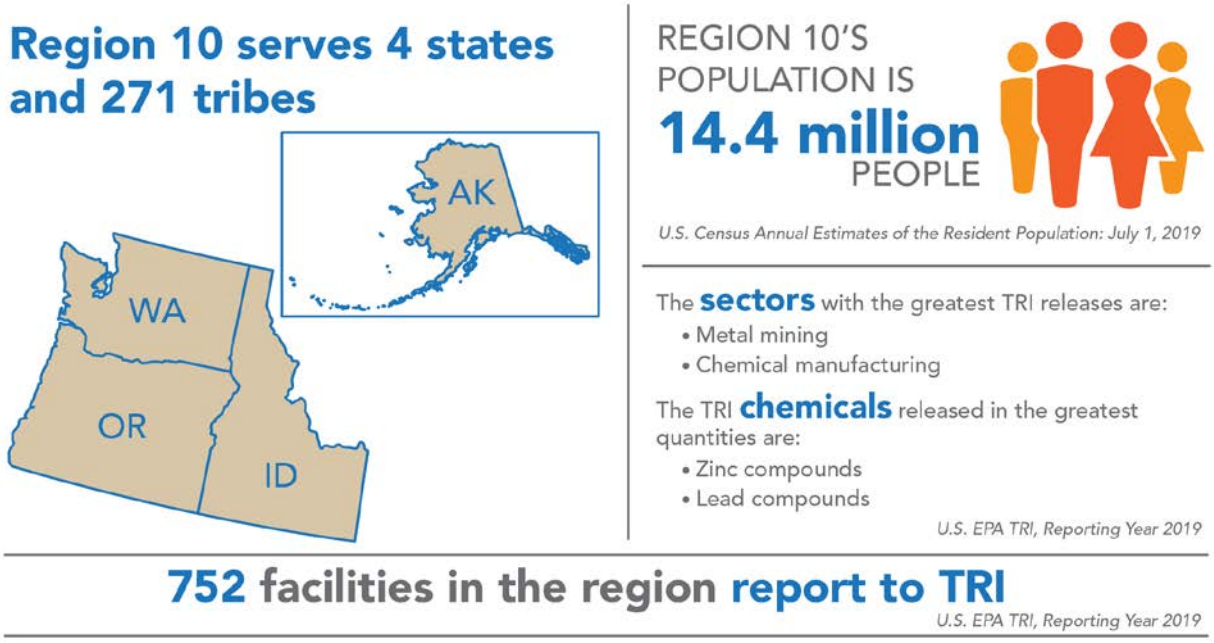
- Releases in Region 9 increased by 114 million pounds (32%), driven by increased releases from the metal mining sector, in which releases often vary substantially from year to year. In comparison, nationally, total releases of TRI chemicals decreased by 19%.
  - Excluding the metal mining sector, releases in Region 9 increased by 5 million pounds (5%).
- Quantities of chemicals released to air and water decreased, while land disposal and off-site transfers for disposal increased.

Source Reduction

In 2019, 6% of facilities in Region 9 (105 facilities) reported implementing new source reduction activities. Source reduction reporting rates in the region were among the highest in the electrical equipment sector, in which 22% of facilities reported at least one source reduction activity. For example, an electrical equipment manufacturer replaced a wave solder machine with a new selective solder machine that helped reduce the amount of lead used in the process. [Click to view facility details in the TRI P2 Search Tool].

Regional Profile for EPA Region 10

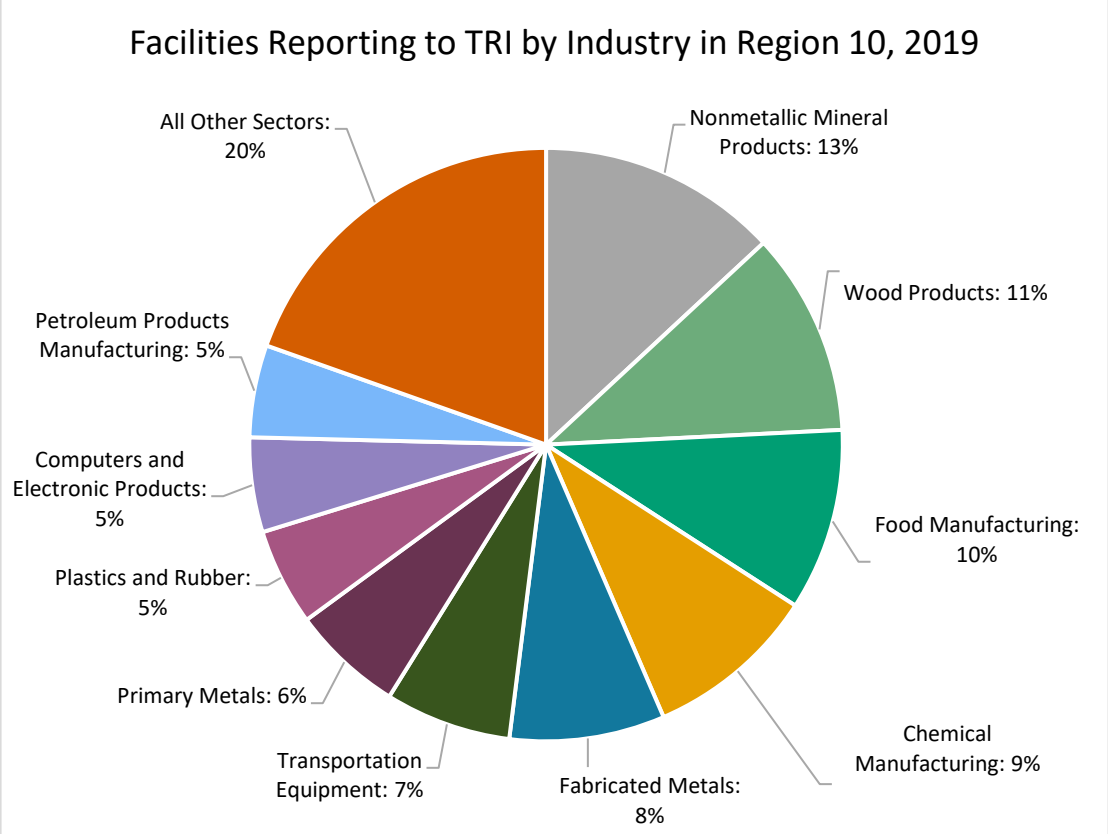
This section examines TRI reporting in EPA Region 10. Region 10 includes Alaska, Idaho, Oregon, Washington, and 271 tribes.



Region 10 covers 4% of the U.S. population and includes 4% of all facilities that report to TRI. For state- and tribe-specific TRI data, see the Where You Live section and the Tribal Communities section. Sixteen facilities located on the land of five different tribes in Region 10 reported to TRI for 2019.

Industry Sectors

This chart shows the industry sectors with the most TRI-reporting facilities in Region 10.



Note: Percentages do not sum to 100% due to rounding.

In 2019:

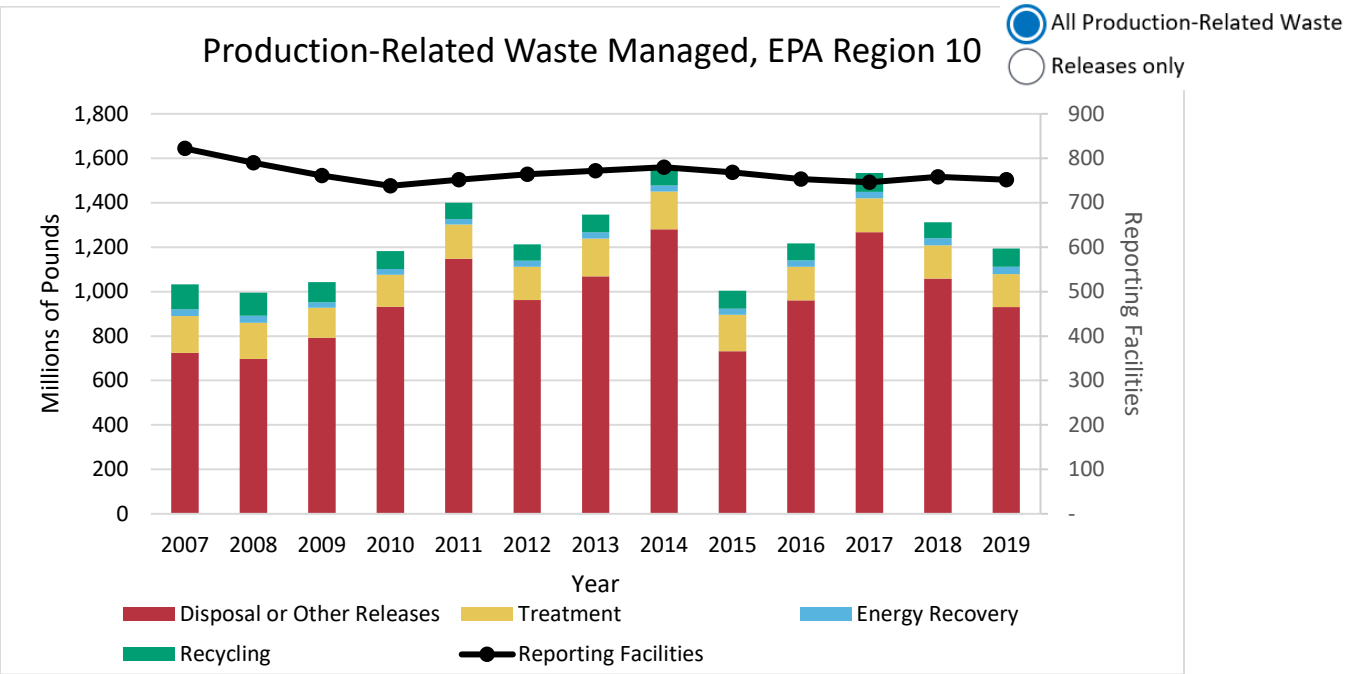
- 752 facilities in Region 10 reported to TRI, similar to reporting for 2018. These facilities were most commonly in the nonmetallic mineral products (including concrete manufacturing) or wood product manufacturing sectors.
- While the figure shows the sectors with the most TRI facilities in the region, the most TRI releases in Region 10 were from the metal mining sector, which accounted for 93% of the region's releases for 2019. After metal mining, the chemical manufacturing, food manufacturing, and paper manufacturing sectors reported the largest releases. Note that relatively few facilities in the metal mining sector or paper manufacturing sectors reported to TRI in this region and those sectors are included in "All Other Sectors" in the pie chart above.

- Nationwide, the metal mining, chemical manufacturing, electric utilities, and primary metals (including iron and steel manufacturing, and foundries) sectors reported the largest releases.
- Metal mining facilities typically handle large volumes of material. In this sector, even a small change in the chemical composition of the mineral deposit being mined can lead to big changes in the amount of TRI-listed chemicals reported. Therefore, releases in Region 10, where 10 metal mines reported to TRI for 2019, may not follow national trends. For more information on the metal mining sector, see the metal mining sector profile.

For information on the Region 10 facilities with the largest releases, see the Region 10 TRI factsheet.

Region 10 Waste Management Trend

The following graph shows the annual quantities of TRI chemicals in production-related waste managed by facilities located in Region 10. For more details on quantities released, toggle to the Releases graph.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

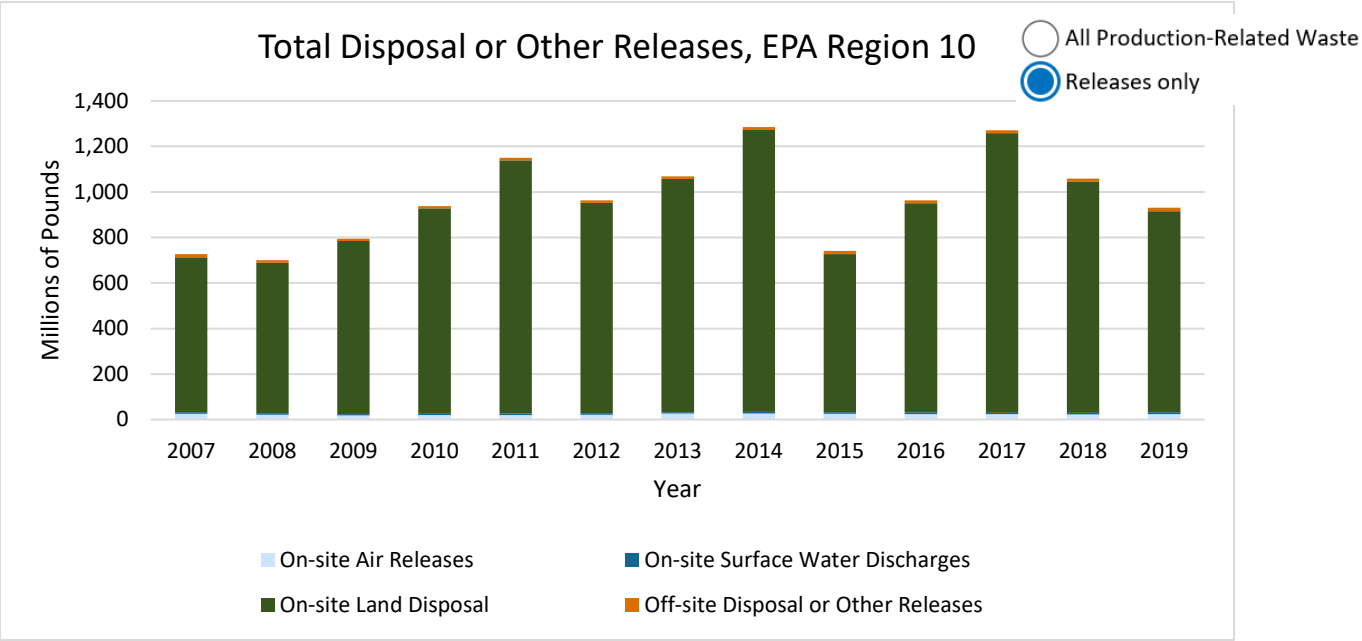
In 2019:

- Facilities in Region 10 managed 1.25 billion pounds of production-related waste, 74% of which was disposed of or otherwise released, compared to 11% nationally. Metal mines drive the quantity of production-related waste released in Region 10. For 2019, metal mines in the region disposed of more than 99% of their waste on site to land. The 1.25 billion pounds of production-related waste includes all chemicals reported for 2019, while for comparability over time, the trend chart excludes chemicals that were added to the TRI list after 2007.
- Since 2018, quantities of production-related waste managed in the region decreased by 9%, driven by decreased releases from metal mines. Excluding metal mines, production-related waste managed in Region 10 decreased by 9 million pounds (-3%).

From 2007 to 2019:

- Total production-related waste managed increased by 161 million pounds (16%), driven by increased releases reported by metal mines. Nationally, quantities of production-related waste managed increased by 23%, driven by increased recycling.
    - Excluding metal mines, production-related waste managed in the region decreased by 78.4 million pounds (-19%).

The following graph shows the annual quantities of TRI chemicals released by facilities located in Region 10.



Note: For comparability, trend graphs include only those chemicals that were reportable to TRI for all years presented.

In 2019:

- Facilities in Region 10 reported releasing 932 million pounds of TRI chemicals.
- The chemicals released in the largest quantities by medium were:
  - ammonia and methanol to air;
  - nitrate compounds to water;
  - zinc compounds and lead compounds to land; and
  - nitrate compounds and ethylene glycol transferred off site for disposal.
- Since 2018, releases decreased by 128 million pounds (-12%), compared to a 9% decrease nationally. The decrease in Region 10 releases was driven by the metal mining sector.
  - Excluding metal mining, releases decreased by 855,000 pounds (-1%) since 2018.
- Contributions by state to TRI releases in Region 10 were: Alaska (91%), Idaho (4%), Washington (3%), and Oregon (2%).

Regional Highlight

TRI chemical releases in Region 10 are dominated by one metal mine. For 2019, the Red Dog mine in Alaska reported 83% of the region's releases [View facility details].

- To consider the potential health risk from chronic exposure to these releases, EPA provides a risk-screening score from the RSEI model. Contributions by state to the RSEI Score for Region 10 were: Oregon (84%), Washington (15%), Idaho (<1%), and Alaska (<1%).
    - The RSEI model accounts for factors such as chemical properties and population density in addition to the pounds of TRI chemicals released. Additionally, RSEI does not model land disposal quantities, which drive the high release quantities for Alaska. These factors can lead to significant differences between a state's contribution to regional releases and its contribution to the regional RSEI Score.

From 2007 to 2019:

- Releases in Region 10 increased by 204 million pounds (28%), compared to a national decrease of 19%. The increase in Region 10 releases was driven by the metal mining sector, and if the sector is excluded, releases decrease by 35.3 million pounds (-35%).
- Quantities of chemicals released to every medium except air increased.

Source Reduction

In 2019, 4% of facilities in Region 10 (30 facilities) reported implementing new source reduction activities. As one example of source reduction in Region 10, a plastics plumbing fixture manufacturer began using a production line which uses a polymeric thermoset resin that does not contain styrene. This decreased the facility's styrene usage, waste generated, and air emissions. [Click to view facility details in the TRI P2 Search Tool].