

THE TOXIC TWINS

Duo Behind Environmental Rollback Are Two of California's Biggest Sources of Deadly Chemicals

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Tesoro and Valero are two of the biggest polluters in the state of California, official US government data shows. From their refinery operations in the Los Angeles and San Francisco Bay areas, Tesoro and Valero annually produce hundreds of thousands of pounds of toxic chemicals, including ammonia, sulfuric acid, lead compounds, asbestos, and vanadium.

Tesoro and Valero release many of these chemicals into the environment of California, both legally and illegally. According to regulatory filings (as detailed below), refineries owned by both companies have repeatedly been accused by environmental agencies in California of violating pollution laws.

According to the most recent rankings by the US Environmental Protection Agency, Valero's Benicia refinery is the Number 4 producer

of toxic chemicals in California, with 1.6 million pounds in 2008 alone. Tesoro's Martinez refinery is not far behind at Number 8, producing 761,000 pounds of toxic substances.¹ The source of this information is data turned over by the companies themselves to the US government, under federal law.

The pollution from these facilities affects all Californians and the health risks are widespread. But the people who bear the biggest health burdens from these facilities are disproportionately people of color: three of the four refineries these companies operate in California are sited in low-income areas with large populations of people of color, Census data shows. If California's environmental laws are weakened and production at these refineries is increased, the health impacts will be greatest upon the people who live closest to these plants.

TOXIC TALLY

Additional recent disclosures by Tesoro and Valero to the EPA reveal the following regarding their generation of toxic chemicals in California in 2009.

Tesoro

Ammonia	123,790 lbs.
Toluene	16,394 lbs.
Sulfuric acid	91,777 lbs.
Propylene	23,438 lbs.
Zinc compounds	47,404 lbs.
Asbestos	161,948 lbs.
Lead compounds	13,762 lbs.

Valero

Nitrate compounds	356,821 lbs.
Methanol	86,742 lbs.
Ethylene	21,493 lbs.
Carbonyl Sulfide	13,845 lbs.
Ammonia	544,313 lbs.
Zinc compounds	3,586 lbs.
Vanadium compounds	8,205 lbs.
Nickel compounds	9,058 lbs.
Cobalt compounds	737 lbs.

There is little scientific debate about the toxic nature of many of the substances that Tesoro and Valero emit into the air, water and soil of California.² Many of these pollutants are on the US government's Priority List of Hazardous Substances.³

Some of the largest emissions consist of ammonia gas, a corrosive chemical that the US Agency for Toxic Substances says can cause respiratory damage.⁴

The companies produce large amounts of lead compounds, which can damage the nervous system, cause infertility, anemia, and brain and kidney damage.⁵

Asbestos, which Tesoro releases in large quantities, is a proven carcinogen.⁶

Toluene, which is ranked #71 on the list of Priority Hazardous Substances, can cause birth defects and affects the nervous system.⁷

REPEAT OFFENDERS

Tesoro and Valero have repeatedly violated pollution laws in California.

On July 26, 2010, Tesoro agreed to pay a \$366,375 fine to the Bay Area Quality Management District to settle 44 violation notices over a three year period for causing serious air quality problems, including excessive releases of carbon monoxide, sulfur dioxide, and ammonia.⁸ Just two years ago, Tesoro agreed to pay \$1.5 million to the agency to settle similar pollution allegations.⁹

Valero has been cited by the agency for similar problems, including an accident in June at the Benicia refinery that injured several workers.¹⁰ The incident led to the release into the air of extremely deadly hydrogen sulfide gas, which was used to inflict mass casualties in World War I.¹¹

The situation is similar on the South Coast, where Tesoro received nine Notices of Violation in 2009.¹² In January, Valero disclosed that it had 29 outstanding Violation Notices from the South Coast Air Quality Management District and is pursuing a settlement.¹³

DIRTY BUSINESS

Overall, oil refining is one of the top sources of toxic chemical releases in California. Tesoro and Valero rank high in part because they have expanded their capacity in California to process the dirtiest types of oil produced, sulphur-laden varieties known as “sour” and “heavy” crudes.

Sour and heavy crudes, much of which come from North and South America, contain much higher levels of poisonous sulphur dioxide and hydrogen sulfide than higher quality oil. It is often more than \$4 per barrel cheaper than quality crudes, giving Tesoro and Valero greater profit margins but requiring the production of far more toxic chemicals in California.

On July 27, 2010, Valero reported its best financial results in two years based partly on “wider discounts on sour crude oils,” Valero chief executive Bill Klesse stated.¹⁴ Similarly, Tesoro told the SEC last year it improved its financial position by “increasing the use of heavy and sour crude oils.”¹⁵

In CA, Tesoro and Valero Prefer Using Dirty Oil by 2 to 1

Oil types used by Tesoro’s California refiners in 2009

Sour (i.e. dirty) crude	66%
Sweet (i.e. clean) crude	24%
Other types	10%

Oil types used by Valero’s California refiners in 2009

Sour	63%
Sweet	9%
Other	28%

OTHER CASES

Valero and Tesoro have been the leading defendants in more than 30 lawsuits alleging illegal contamination of the environment in relation to their production of the additive MTBE, much of it in California.¹⁶

On Feb. 5 of this year, the US Department of Justice filed suit against Tesoro in Washington DC federal court for extensive violations of the Clean Air Act.¹⁷

THOSE HURT FIRST AND WORST

A recent study by the University of California investigated the current distribution of California’s major air-polluting plants with regard to race, income and population density, and found that the populations residing within 2.5 miles of toxic facilities were 63% African American, Latino and Asian/Pacific Islander.

The researchers developed a measure – the “pollution disparity index” to describe the relative pollutant burden of the power plants oil refineries and cement plants in surrounding communities of color as compared with non-Hispanic white communities. In the top 10 facilities ranked for inequity by race, Tesoro’s Wilmington refinery was the second worse (after BP’s refinery in Carson) and Valero’s Wilmington refinery ranked #9.

The analysis also showed that Tesoro and Valero had 4 facilities on the list of worst 15 in California ranked on their contribution to pollution-induced health problems. According to the study, if the California refineries were grouped by company, Tesoro “would rank worst in health impacts among all companies with refining operations in the state.”¹⁸

Valero and Tesoro both operate refineries in Wilmington, a socioeconomically disadvantaged community in South Los Angeles where 85% of residents are Hispanic and more than one-fourth live below the poverty level.¹⁹ In the Bay Area, Census Data shows that the central Contra Costa County census tract where the Tesoro Refinery is located in Martinez, California, is a low-income area where about a quarter of the population is non-White and over 14% of residents are foreign-born.

¹<http://yosemite.epa.gov/opa/admpress.nsf/6427a6b7538955c585257359003f0230/456e513df288b06a8525768600624d89!OpenDocument>

²Toxicological Profiles available at <http://www.atsdr.cdc.gov/az/p.html>

³<http://www.atsdr.cdc.gov/cercla/07list.html>

⁴<http://www.atsdr.cdc.gov/ToxProfiles/tp126.pdf>

⁵<http://www.atsdr.cdc.gov/ToxProfiles/tp13.pdf>

⁶<http://www.atsdr.cdc.gov/csem/asbestos/cover2.html>

⁷<http://www.atsdr.cdc.gov/tfacts56.html>; <http://www.epa.gov/ttnatw01/hlthef/toluene.html>

⁸<http://www.baaqmd.gov/-/media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2010/Air%20District%20settles%20case%20with%20Tesoro.ashx>

⁹http://www.baaqmd.gov/-/media/Files/Communications%20and%20Outreach/Publications/News%20Releases/2008/tesoro_080507.ashx

¹⁰http://www.baaqmd.gov/-/media/Files/Compliance%20and%20Enforcement/Incident%20Reports/i061710_valero_refinery_coker.ashx

¹¹<http://www.atsdr.cdc.gov/tfacts114.html>

¹²http://www.aqmd.gov/nov/nov.aspx?notice_type=NOV

¹³SEC form 10-K, Valero, p. 20.

¹⁴Valero posts first profit in nearly two years, *SAN ANTONIO BUSINESS JOURNAL*, Tuesday, July 27, 2010
Read more: Valero posts first profit in nearly two years - San Antonio Business Journal

¹⁵Tesoro form 10-K, March 1, 2010, p. 28.

¹⁶See SEC 10-K forms, Valero and Tesoro.

¹⁷USA vs. Tesoro, 1:10-cv-00211-CKK

¹⁸Minding the Climate Gap: What's at Stake if California's Climate Law isn't Done Right and Right Away, Executive Summary by Manuel Pastor, Ph.D., Rachel Morello-Frosch, Ph.D., MPH, James Sadd, Ph.D., Justin Scoggins, M.S.

¹⁹http://www.cbcal.org/pdf/Wilmington_Refineries_report_final.pdf