

March 18, 2024

Dr. Michal Freedhoff, Assistant Administrator
U.S. Environmental Protection Agency
Office of Chemical Safety and Pollution Prevention
1200 Pennsylvania Ave. NW
Washington, DC 20460-0001

Submitted via Regulations.gov to Docket EPA-HQ-OPPT-2018-0448

Re: Initiation of Prioritization Under the Toxic Substances Control Act (TSCA): Request for Comment, 88 Fed. Reg. 87,423 (Dec. 18, 2023); Docket EPA-HQ-OPPT-2018-0448; Information regarding vinyl chloride, CAS RN 75-01-4

Dear Assistant Administrator Freedhoff:

Beyond Plastics, Earthjustice, and Toxic-Free Future submit these comments to the Environmental Protection Agency (“EPA”) in connection with the initiation of the process for designating vinyl chloride as a high-priority substance under the Toxic Substances Control Act (“TSCA”). [*Initiation of Prioritization Under the Toxic Substances Control Act \(TSCA\): Request for Comment, 88 Fed. Reg. 87,423 \(Dec. 18, 2023\)*](#). Attached to these comments we are submitting a report prepared by Material Research, L3C, which provides detailed information about how people and the environment are exposed to vinyl chloride, as well as insight into the harm and devastation linked to vinyl chloride throughout its lifecycle: *Toxic Substances Control Act Technical Report: Exposure to Vinyl Chloride* (March 2024) (“VC Technical Report”).

Vinyl chloride is an extremely flammable and potentially explosive gas¹ that is acutely toxic and a known human carcinogen, which has harmed workers and communities for decades. Indeed, protecting people from vinyl chloride was one of the reasons TSCA was adopted in the first place; for nearly fifty years, vinyl chloride has been understood to be a “known cause[] of illness and death” from which people are not protected.² Residents of four separate Louisiana

¹ Agency for Toxic Substances and Disease Registry, Medical Management Guidelines for Vinyl Chloride, <https://wwwn.cdc.gov/TSP/MMG/MMGDetails.aspx?mmgid=278&toxid=51#:~:text=At%20all%20ambient%20temperatures%2C%20vinyl,adequate%20warning%20of%20hazardous%20concentrations>.

² Legislative History of the Toxic Substances Control Act, <https://archive.org/details/leehisto00unit/page/162/mode/2up?view=theater&q=vinyl>, at 160 quoting Dr. David Rall, Director of the National Institute of Environmental Health Sciences of

communities have abandoned their homes and the land that they and their forbears created and tended because vinyl chloride pollution made their homes uninhabitable, and they wanted to escape the death and disease that so many of their family and friends suffered.³ In some cases, such as in Mossville, Louisiana, they were primarily communities of color. We are unaware of any other chemical with such an ignoble distinction.

These comments are submitted for purposes of the current prioritization process as well as the anticipated publication of a draft scope of the risk evaluation.⁴ In sum, this submission:

1) highlights key takeaways from the VC Technical Report regarding vinyl chloride’s conditions of use and related exposures, including the reasonably foreseen, often disastrous, unplanned releases of vinyl chloride during manufacturing, processing, and distribution in commerce (by rail and by water), which have been occurring at an average rate of more than one per week for at least the last 13 years;

2) identifies potentially exposed or susceptible subpopulations—groups who “may be at greater risk than the general population of adverse health effects from exposure,” due to “either greater susceptibility or greater exposure”⁵—based on information in the VC Technical Report and other sources;

3) outlines known or potential exposure pathways referenced in the VC Technical Report for which additional information should be obtained, generated, or synthesized, including further study of whether and how much the general population is being exposed to vinyl chloride in drinking water that has leached from PVC pipes; and

4) urges EPA to base its toxicity values on the best available science regarding the health effects of vinyl chloride, especially at lower levels of exposure (including via micro- and nanoplastics), and to ensure that its risk evaluation takes into account the combined exposure and risk to the full suite of chemicals typically present at sites that manufacture, process and dispose of vinyl chloride, as well as all chemicals that are typically distributed in commerce along with vinyl chloride.

In sum, there is voluminous evidence (including information in the VC Technical Report) that vinyl chloride satisfies the “may present an unreasonable risk of injury to health or the

the National Institutes of Health; *see also id.* at 207 (Sen. Tunney) (“I have chaired hearings before the Senate Committee on Commerce which have documented time and again the lethal dangers associated with chemicals like vinyl chloride”).

³ VC Technical Report at III.C.2.

⁴ We understand that EPA might choose to publish a draft of the scope of the forthcoming risk evaluation during the prioritization period, 88 Fed. Reg. at 74,300-74,301, so our comments are addressed to the scope of the risk evaluation as well as to the prioritization process.

⁵ 15 U.S.C. § 2605(b)(1)(A); 15 U.S.C. § 2602(12).

environment” standard for high-priority designation.⁶ We urge EPA to finalize the designation as rapidly as permitted, so it can begin the process of evaluating, quantifying, and then truly eliminating, vinyl chloride’s risks—as TSCA requires.

A. Conditions of Use and Related Exposures That EPA Should Consider in its Prioritization Determination and That Should Be Included in the Scope of the Vinyl Chloride Risk Evaluation

The conditions of use, exposures, and hazards discussed below must be considered as part of the prioritization process and then included in the scope of the risk evaluation for vinyl chloride. Notably, manufacture, processing, and distribution of vinyl chloride in commerce regularly results in “reasonably foreseen” unplanned releases of vinyl chloride into the environment, including into drinking water supplies.⁷

1. Manufacture and processing of vinyl chloride

In 2021, five companies manufactured vinyl chloride in the U.S.; all 12 U.S.-based vinyl chloride manufacturing facilities are located in either Texas, Louisiana or Kentucky.⁸ While the number of facilities and owners in the U.S. has shrunk considerably over the last 50 years as the industry has consolidated, the volume of vinyl chloride production has *increased* steadily from 6.8 billion pounds in 1974, to more than 18.6 billion pounds in 2021, which was a record high.⁹

The vast majority of vinyl chloride is processed into polyvinyl chloride, known as PVC plastic. Currently, five companies manufacture PVC plastic in the U.S. at 14 facilities located in Texas, Louisiana, Kentucky, Mississippi, New Jersey, and Illinois. These facilities have a combined annual production capacity of 19.2 billion pounds of PVC plastic.¹⁰

According to EPA’s Chemview tool, 15 facilities filed TSCA section 8(a) chemical data reports for vinyl chloride in 2020 (one of which claimed its identity and site location as

⁶ 15 U.S.C. § 2605(b)(1)(B); *see also* 40 C.F.R. § 702.3 (defining a high priority substance as one that “may present an unreasonable risk of injury to health or the environment because of a potential hazard and a potential route of exposure under the conditions of use, including an unreasonable risk to potentially exposed or susceptible subpopulations identified as relevant by EPA”).

⁷ 15 U.S.C. § 2602(4) (defining “conditions of use” as including, *inter alia*, the circumstances under which a substance is “reasonably foreseen to be manufactured, processed, distributed in commerce used or disposed of”); 15 U.S.C. § 2605(b)(1)(A) (stating that storage of a chemical near significant sources of drinking water is a consideration for high-priority designation).

⁸ VC Technical Report, Tables III.A.1, III.A.2.

⁹ VC Technical Report, Tables III.A.5, III.A.6.

¹⁰ VC Technical Report at III.B; Table III.B.1.

confidential business information, or CBI, which is of dubious permissibility).¹¹ Eleven facilities reported that some workers were exposed to vinyl chloride—seven of which reported that more than 100 workers were exposed.¹² The remaining 4 facilities illegally asserted that this information is CBI.¹³

a. Expected releases from manufacture and processing of vinyl chloride

The VC Technical Report provides detailed information regarding air emissions of vinyl chloride as reported to the Toxics Release Inventory (“TRI”). Twelve facilities that manufacture and process vinyl chloride accounted for 82% of all vinyl chloride releases between 2010-2022, with Texas, Louisiana, and Kentucky the most impacted.¹⁴ Nationally, vinyl chloride air emissions (as reported to EPA’s Toxics Release Inventory) have plateaued at around a half-million pounds per year since 2010.¹⁵ According to the 2017 National Emissions Inventory, more than 850,000 pounds of vinyl chloride was released into the air that year, with the highest emissions from the chemical manufacturing sector and waste disposal as the second highest emitting sector.¹⁶

The U.S. facility with the highest reported air emissions of vinyl chloride (per TRI data) is the Westlake PVC plant in Calvert City, Kentucky.¹⁷ A recent EPA/State of Kentucky air monitoring study found that emissions of vinyl chloride and other volatile organic chemicals from this plant are increasing cancer risks for people who live, work, or recreate in the area.¹⁸ Notably, at a February 2024 public meeting about the situation convened by EPA, an EPA environmental engineer told the public that most emissions are “fugitive emissions” that are “accidental” and “come from sources like leaky pipes.”¹⁹

¹¹ EPA, Chemview, <https://chemview.epa.gov/chemview/>. Search “vinyl chloride,” and go to CDR Summary.

¹² *Id.*

¹³ *Id.*

¹⁴ VC Technical Report at III.C.1.; Graph III.C.5.

¹⁵ VC Technical Report at III.C; Graph III.C.1.

¹⁶ U.S. EPA, 2017 National Emissions Inventory (NEI) Data, scroll to Data Queries, search Vinyl Chloride in all sectors (Last updated on Dec. 8, 2023).

¹⁷ VC Technical Report at III.C.3.

¹⁸ See EPA, Calvert City, Kentucky Air Monitoring, <https://www.epa.gov/ky/calvert-city-kentucky-air-monitoring>; Calvert City, Kentucky VOC Air Quality Risk Assessment (Jan. 22, 2024), https://www.epa.gov/system/files/documents/2024-01/calvert-city-kentucky-voc-air-quality-risk-assessment_0.pdf.

¹⁹ WKMS, Calvert City residents seek answers about health concerns from environmental officials over chemical plant emissions (Feb. 14, 2024), <https://www.wkms.org/2024-02->

b. History of unplanned releases during manufacture and processing

In addition to the very significant volume of vinyl chloride air pollution that is reported to the TRI, vinyl chloride is released with great frequency from equipment at facilities that manufacture and process vinyl chloride as a result of unplanned events: from small leaks through gaskets and fittings to full-blown chemical disasters. At least 930 unplanned vinyl chloride release incidents occurred between 2010 and 2023—an average of more than 66 incidents per year (or more than one per week)—at facilities that manufacture and process vinyl chloride.²⁰ (This does not take into account transportation-related incidents, which are discussed below.) Four facilities reported more than 100 unplanned release incidents in that 13-year period— an average of more than 7 reported incidents per year.²¹ Moreover, over the past 60 years, deadly vinyl chloride releases at manufacturing or processing facilities killed at least 14 people and injured at least 120 people in the U.S.²² Section III.D.4 of the VC Technical Report is a chronology of 27 of the most significant unplanned releases of vinyl chloride from vinyl chloride manufacturing/processing facilities, including multiple significant releases during 2023 from manufacturing and processing sites (not including transportation). At least some of the unplanned releases of vinyl chloride have contaminated drinking water. For example, a Louisiana state appellate court found that “Dow's negligence” was responsible for vinyl chloride contamination of the Upper Plaquemine Aquifer, a groundwater drinking supply, through a series of chemical spills and leaks for many years.²³ As a result of this contamination, residents of a trailer park were forced to leave their homes permanently.²⁴

Unplanned releases also occur from storage spheres at vinyl chloride manufacturing facilities. From 2010 to 2023, there were at least 18 reports of vinyl chloride releases from storage units at facilities that manufacture and/or process vinyl chloride—more than one per year on average.²⁵ The potential for disaster from this type of incident is quite significant. For example, according to the Clean Air Act Risk Management Plan filed by OxyVinyls for its Deer Park, Texas vinyl chloride manufacturing and processing facility, the catastrophic release of 9.5

[14/calvert-city-residents-seek-answers-about-health-concerns-from-environmental-officials-over-chemical-plant-emissions.](#)

²⁰ VC Technical Report at III.D; Table III.D.2.

²¹ VC Technical Report at III.D.2.

²² VC Technical Report, Table III.D.1.

²³ *Thomas v. A. Wilbert & Sons, LLC*, 217 So. 3d 368, 388 (La. App. 1st Cir. Feb. 10, 2017); https://www.theadvocate.com/baton_rouge/news/communities/westside/judge-rules-against-dow/article_cdaa93d2-347b-53d1-bb2b-a605f7527281.html

²⁴ R. Bragg, Toxic Water Numbers Days of a Trailer Park. *The N.Y. Times* (May 5, 2003), <https://www.nytimes.com/2003/05/05/us/toxic-water-numbers-days-of-a-trailer-park.html>.

²⁵ VC Technical Report at III.D.3.

million gallons of vinyl chloride from a storage tank at that facility could impact 28,599 people in a 1.3-mile radius.²⁶ Shin-Etsu’s vinyl chloride manufacturing and processing facility in Plaquemine, Louisiana has as much as 28 million pounds of vinyl chloride on hand at any given time; a breach of its storage spheres could be cataclysmic.²⁷

c. Unplanned releases from manufacture and processing of vinyl chloride is a condition of use that must be considered in the prioritization process and the scope of the risk evaluation

The regularity and consistency of unplanned vinyl chloride releases from vinyl chloride manufacturing and processing facilities over the last several decades demonstrates that these incidents are an inevitable and predictable feature of vinyl chloride manufacture and processing.²⁸ As described above and detailed in the VC Technical Report, between 2010 and 2023:

- At least 930 unplanned vinyl chloride release incidents occurred at facilities that manufacture and process vinyl chloride—more than 66 incidents per year on average, or more than one per week.
- Four facilities reported more than 100 unplanned release incidents—more than 7 per year on average.
- At least 18 release incidents were reported involving storage units—more than one per year on average.

In the Preamble to EPA’s recent proposal to modify the *Procedures for Chemical Risk Evaluation Under the Toxic Substances Control Act*, the Agency stated: “where EPA has reasonably available information demonstrating that certain exposures associated with a spill or leak are known or reasonably foreseen to occur during a condition of use that is part of a risk evaluation (*e.g.*, regular or predictable exposures from equipment leaks as part of the manufacturing process), EPA would expect to include that exposure within the scope of the risk

²⁶ VC Technical Report at III.D.3.

²⁷ VC Technical Report at III.D.3 and Appendix 1.

²⁸ The conclusion that manufacturers seemingly cannot prevent these incidents from occurring on a regular basis is also shown by the facts described in a lawsuit involving a Formosa Plastics facility in Delaware. In that matter, the Supreme Court of Delaware found that on 40 separate occasions between May 1981 and December 1984, vinyl chloride was released into the air from equipment at the facility. Even after a cease and desist order was issued, there were ten separate occasions on which vinyl chloride was released. And even after a consent order was issued to settle a lawsuit against the facility for its violations, there were releases of vinyl chloride that were severe enough to activate the sprinkler system and to force employees to use breathing equipment. *Formosa Plastics Corp. v. Wilson*, 504 A.2d 1083, 1086 (Del. 1986).

evaluation.”²⁹ Given the regularity and predictability of unplanned releases from facilities that manufacture and process vinyl chloride over more than a decade, TSCA requires EPA to conclude that the unplanned release of vinyl chloride during manufacture and processing is “reasonably foreseen” and is therefore a condition of use.

2. Distribution of vinyl chloride in commerce

Approximately 30 percent—5.6 billion pounds —of all vinyl chloride produced in the U.S. is transported in chemical tanks by rail or boats to eight facilities (domestic and international) that process vinyl chloride into PVC.³⁰ As a result of regular and foreseeable releases during this distribution in commerce, millions of U.S. residents are at risk of being exposed to vinyl chloride. Thus, unplanned releases during distribution in commerce are a condition of use that must be considered in the prioritization process and included in the scope of the vinyl chloride risk evaluation.

In addition, given the flammability and explosiveness of vinyl chloride, this condition of use should include the likelihood that people will be exposed to hazardous combustion byproducts produced when vinyl chloride burns in connection with transportation disasters. These byproducts include phosgene, hydrogen chloride, carbon dioxide, carbon monoxide, as well as uncombusted vinyl chloride monomer.³¹ EPA should also assume that dioxins will be created and released when vinyl chloride burns in an uncontrolled setting.³²

²⁹ 88 Fed. Reg. 74,292, 74,298 (Oct. 30, 2023).

³⁰ VC Technical Report at IV, Table IV.A.

³¹ M. M. O'Mara, L. B. Grider & R. L. Daniel, Combustion Products from Vinyl Chloride Monomer. *American Industrial Hygiene Association Journal* (1971), 32:3, 153-156. <https://doi.org/10.1080/0002889718506429>.

³² This assumption is appropriate because there have been elevated levels of dioxins released in several major accidents involving chlorinated chemicals—from the 2004 explosion at the PVC plant in Illiopolis, Illinois, to the 1997 Plastimet PVC recycling fire in Ontario, to the 2001 World Trade Center attacks. A study of a European train carrying vinyl chloride that derailed and burned found background dioxin values measured in soils and plants generally in the range of 20 ng TEQ/kg in the surrounding area but increased to 8300 ng at the at the fire. Producers of PVC and vinyl chloride monomer report releasing dioxins. Oxy Vinyls’ vinyl chloride monomer (VCM) plant in Texas reported the greatest releases of dioxins compared to any other facility in the country, according to the EPA 2021 TRI dioxin factsheet. S. Steingraber, *The Pirates of Illiopolis*, <https://orionmagazine.org/article/the-pirate-of-illiopolis/>; *The Hamilton Spectator*, *Plastimet: The inferno that never went out* (Oct. 16, 2021), https://www.thespec.com/life/hamilton-region/plastimet-the-inferno-that-never-went-out/article_bebe89d0-4b1e-5b8f-a6e1-c81cba16a7c7.html; U.S. EPA, *Assessment of Inhalation Exposures and Potential Health Risks to the General Population that Resulted from the Collapse of the World Trade Center Towers*,

a. Releases during distribution of vinyl chloride via rail

A January 2024 report by Toxic-Free Future and Material Research L3C on their investigation into OxyVinyls' rail route from Texas to New Jersey found that more than 3 million residents live within a mile of the tracks and about 670,000 children attend more than 1,500 schools within the same area.³³ The report also estimated that up to 36 million pounds of vinyl chloride travels on more than 200 rail cars across nearly 2,000 miles of U.S. railways at any given moment. These shipments supply OxyVinyls and Orbia PVC plastics factories in New Jersey, Illinois, and Niagara Falls, Ontario. Over the course of a year, an estimated 8,595 rail cars carry approximately 1.5 billion pounds of vinyl chloride from OxyVinyls, the nation's top producer of the chemical, to these plastics plants.

Two major vinyl chloride disasters occurred in recent years on this railway route: the November 2012 Paulsboro, New Jersey derailment and vapor cloud that sickened hundreds,³⁴ and the February 2023 East Palestine, Ohio conflagration whose toll is only beginning to emerge. Both involved OxyVinyls' vinyl chloride, which was manufactured in Texas and which was headed for New Jersey as part of its distribution in commerce. In the weeks that followed the East Palestine vinyl chloride catastrophe, an ATSDR/Ohio Department of Health ACE41 health survey was conducted and documented that both first responders and nearby residents experienced health symptoms, including stuffy nose/sinus congestion and burning nose or throat for first responders, and headaches, coughing, and irritation/pain/burning eyes, among other symptoms.³⁵ Seven of the 15 CDC staff who were surveying area residents in the impacted area reported symptoms including sore throat, headache, coughing, and nausea – symptoms similar to

<https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=127846#Download>; Thriene B, Benkwitz F, Willer H, Neske P, Bilsing H. Der Chemieunfall in Schönbeck--eine Abschätzung der Gefahren für Gesundheit und Umwelt [Chemical accident in Schönbeck--an assessment of the risk to health and environment]. *Gesundheitswesen*. 2000 Jan;62(1):34-8. German. doi: 10.1055/s-2000-10309. PMID: 10705663, <https://pubmed.ncbi.nlm.nih.gov/10705663/>; 2021 TRI Factsheet: Chemical - Dioxin and dioxin-like compounds, N150, <https://enviro.epa.gov/triexplorer/chemical.html?pYear=2021&pLoc=N150&pParent=TRI&pDataSet=TRIQ1> .

³³ Toxic-Free Future and Material Research, *Toxic Cargo* (Jan. 22, 2024), <https://toxicfreefuture.org/research/toxic-cargo/>. This report is being submitted to the docket for EPA's convenience. See also A. Ajasa, Millions of Americans face risk of a toxic 'bomb train.' *The Wash. Post* (Jan. 29, 2024), <https://www.washingtonpost.com/climate-environment/2024/01/29/vinyl-chloride-trains-chemical-report/>.

³⁴ See VC Technical Report at IV.B, IV.B.1 (describing derailment that resulted in release of 20,000 gallons of vinyl chloride in populated area, requiring evacuation of hundreds of people for a week).

³⁵ Ohio Emergency Management Agency. "East Palestine Update - 4/03/23." <https://ema.ohio.gov/media-publications/news/040323-east-palestine-update>.

those of residents.³⁶ Even one year after the disaster, residents' health problems persist.³⁷ In Paulsboro, a vinyl chloride vapor cloud sickened scores of emergency responders and area residents.³⁸ More than 250 residents and first responders visited the emergency room at area hospitals following the disaster. A New Jersey Department of Health study found that, "A high proportion of Paulsboro residents experienced symptoms consistent with exposure to vinyl chloride released from the train derailment site."³⁹ Very high concentrations of vinyl chloride were released into the air of the community, with life-threatening levels in the immediate area.⁴⁰

However, Paulsboro and East Palestine are far from the only places where residents have been exposed to high levels of vinyl chloride as a result of train derailments. Since 1968, there have been at least 29 incidents in which vinyl chloride-carrying tank cars derailed—a rate of one derailment every other year. Material Research estimates that these tanks contained approximately five million pounds of vinyl chloride, combined.⁴¹ In 12 of these derailments, the tank cars were compromised and vinyl chloride was released. The derailments resulted in orders to evacuate more than 40,000 people. Entire towns, including Edgewood and Tamaroa, Illinois,

³⁶J. Gans, CDC teams studying East Palestine health risks got sick during investigation. The Hill (March 31, 2023), <https://thehill.com/policy/healthcare/3927743-cdc-teams-studying-east-palestine-health-risks-got-sick-during-investigation-cnn/>.

³⁷K. Bense, One Year Later, East Palestine Residents Are Still Having Symptoms. Mother Jones (Feb. 25, 2024), <https://www.motherjones.com/environment/2024/02/east-palestine-train-derailment-health-symptoms-chemicals-pollution/>.

³⁸ National Transportation Safety Board, "Railroad Accident Report, Conrail Freight Train Derailment with Vinyl Chloride Release," 2012, pp 28. [Online]. Available: <https://www.nts.gov/investigations/AccidentReports/Reports/RAR1401.pdf>; New Jersey Department of Health Division of Epidemiology, "Surveys of Residents of Paulsboro, New Jersey Following a Train Derailment and Vinyl Chloride Gas Release", 2014. [Online]. Available: https://www.nj.gov/health/ceohs/documents/eohap/haz_sites/gloucester/train_derail/survey_report.pdf.

³⁹ New Jersey Department of Health. "Paulsboro Train Derailment and Vinyl Chloride Release, November 30, 2012 Health Survey Findings and Air Quality Impacts." https://www.nj.gov/health/ceohs/documents/eohap/haz_sites/gloucester/train_derail/factsheet.pdf.

⁴⁰ New Jersey Department of Health Division of Epidemiology, "Air Quality in Paulsboro, New Jersey Following a Train Derailment and Vinyl Chloride Gas Release," 2014. [Online]. Available: https://www.nj.gov/health/ceohs/documents/eohap/haz_sites/gloucester/train_derail/air_quality_report.pdf.

⁴¹ VC Technical Report at IV.B, IV.B.1.

and Dunreith, Indiana, have been evacuated. Schoolchildren, hospital patients, and retirement home residents, have all fled the scene of vinyl chloride tank car derailments.⁴²

National Response Center reports since 2010, which were reviewed by Material Research, reveal that vinyl chloride releases from railway tank cars also are common *within* facilities that manufacture and process vinyl chloride. There were 13 separate reports of releases from tank cars at manufacturing/processing facilities in recent years. These included reports of vapor clouds and leaks from vent lines, nuts, hoses, gaskets and valves.⁴³

b. Rail accidents are inevitable in part because many vinyl chloride tank cars are non-conforming

The VC Technical Report shows that between 2010 and 2021, the Federal Railroad Administration issued 337 one-time movement approvals (OTMAs) for vinyl chloride tank cars that did not conform with hazardous materials regulations. These OTMAs applied to 344 different non-conforming vinyl chloride tank cars, with some tank cars having multiple non-conformities. At least some of the nonconformities could compromise public safety, including faulty valves and fittings, and dents that may impair the thermal protection system and insulation.⁴⁴

c. Releases during distribution of vinyl chloride via ship

Approximately 3 billion pounds of vinyl chloride is exported from U.S. manufacturing facilities each year.⁴⁵ While some are by rail to Canada, the majority is transported by ship and rail to facilities in Mexico and Colombia. The vessels that carry vinyl chloride are large liquid petroleum gas ships with a typical delivery weight of about 10 million pounds.⁴⁶ The vessels leave the U.S. from facilities in Ingleside/Gregory, Texas, which is on Corpus Christi Bay, and in Lake Charles, Louisiana.⁴⁷ The process of transferring vinyl chloride to vessels at plant-side docks has well-known risks.⁴⁸ And, not surprisingly, several vinyl chloride release incidents have

⁴² VC Technical Report at Section IV.B.1.

⁴³ VC Technical Report at IV.B. The first incident was a deadly explosion at a DuPont plant in New York. Six of the other 12 were at Occidental plants (4 in La Porte TX, one in Pedricktown NJ, one in Geismar LA). Tank cars also released vinyl chloride at Westlake's PVC plant in Aberdeen MS, two at the Westlake/Shintech complex in Plaquemine LA, one each at Formosa's Baton Rouge and Point Comfort operations, and one at Orbia's PVC plant in Henry, Illinois.

⁴⁴ VC Technical Report at IV.B.2.

⁴⁵ VC Technical Report at IV.C.

⁴⁶ VC Technical Report at IV.C.

⁴⁷ VC Technical Report at Table IV.C.3.

⁴⁸ VC Technical Report at IV.C.

occurred at chemical loading docks and aboard refrigerated chemical tankers in U.S. waters near the cities of Corpus Christi, Lake Charles, and Baton Rouge. These incidents are described in detail in the VC Technical Report. In one incident, 300 residents and 2,400 employees of the Naval station in Corpus Christi were evacuated.⁴⁹

d. Unplanned releases from distribution in commerce of vinyl chloride is a condition of use that must be considered in the prioritization process and the scope of the risk evaluation

The regularity and consistency of unplanned vinyl chloride releases during distribution in commerce over the last several decades demonstrates that these incidents are an inevitable and predictable feature of transporting vinyl chloride in commerce. As described above and detailed in the VC Technical Report:

- Since 1968, there have been at least 28 incidents in which vinyl chloride-carrying tank cars derailed—a rate of one derailment every other year.
- Since 2010, there were 13 separate reports of vinyl chloride releases from tank cars at manufacturing/processing facilities.
- Since 1995, there have been at least 7 unplanned releases of vinyl chloride related to vessels.

Given the regularity and predictability of unplanned releases of vinyl chloride during its transportation, TSCA requires EPA to conclude that unplanned releases of vinyl chloride during distribution in commerce is “reasonably foreseen” and is therefore a condition of use.

3. Use of vinyl chloride

Consumers and workers are exposed to vinyl chloride monomer (VCM) as a result of its presence in consumer products, including in PVC pipe used for drinking water systems.

a. Exposure to vinyl chloride from use of consumer products

Vinyl chloride is an intentional ingredient in wet-applied coatings, including adhesives, glues, and inks. Some of these products contain as much as 25% vinyl chloride.⁵⁰

Vinyl chloride is also present in some children’s products, sometimes at very significant levels. One company, Excelligence Learning Corp., recently disclosed to the states of Oregon, Vermont, and Washington that some of its children’s products —developmental/educational toys and artists accessories—contain more than 0.1% vinyl chloride. Some Excelligence Learning

⁴⁹ VC Technical Report at IV.C.4.

⁵⁰ VC Technical Report at V.B.

products—including “Fancy Dress Costumes,” baby cots, baby/infant stimulation toys—contain more than 1 percent (10,000 parts per million) vinyl chloride.⁵¹ The presence of such high concentrations of vinyl chloride in children’s products suggests an urgent need for restrictions and product testing.

Table V.D of the VC Technical Report lists more than a dozen examples of products for which the Safety Data Sheet or other self-reported sources acknowledge the presence of vinyl chloride at measurable levels in products available to consumers. (We have not undertaken a comprehensive search for these products, so there are inevitably more.)

There is no federal regulatory limit on vinyl chloride in children’s products, no mandatory standards limiting residual VCM in domestically manufactured or imported PVC,⁵² and no requirements to report the presence of vinyl chloride in consumer products (other than a few states that require reporting for children’s products). Given the extent that PVC is used in building materials, packaging, clothing, medical devices and many other products, exposure to residual vinyl chloride could be significant.

b. General population exposure to VCM from use of PVC drinking water pipes

Most PVC plastic is used in the construction industry,⁵³ including to make pipes for a variety of applications including drinking water. This is deeply concerning because as EPA has acknowledged, “[d]rinking water may contain low levels of vinyl chloride released from contact with PVC pipes.”⁵⁴ The potential presence of even low levels of residual vinyl chloride in drinking water contributes to risk, and must be considered in the prioritization process and included in the scope of the risk evaluation.

The Safe Drinking Water Act and implementing regulations are not designed to identify vinyl chloride that leaches from pipes into drinking water; these legal authorities require only source water testing for vinyl chloride, not testing at the tap. Since there is no testing at the tap,

⁵¹ VC Technical Report at V.B.

⁵² EPA, Response to Petition to Classify Discarded Polyvinyl Chloride as RCRA Hazardous Waste, 88 Fed. Reg. 2089, 2090 (Jan. 12, 2023) (“In the United States, there are no mandatory standards limiting residual vinyl chloride in domestically manufactured or imported PVC.”).

⁵³ Statista, Distribution of demand for polyvinyl chloride (PVC) worldwide in 2021, by end-use sector, <https://www.statista.com/statistics/1394645/distribution-of-global-pvc-demand-by-end-use-sector/>.

⁵⁴ EPA, Vinyl Chloride and Health FAQ Document (5/31/2023), <https://www.epa.gov/system/files/documents/2023-06/Vinyl-Chloride-and-Health-FAQ-Document-5-31-508.pdf>; see also Beyond Plastics, The Perils of PVC Plastic Pipes (April 2023), <https://www.beyondplastics.org/publications/perils-of-pvc-pipes> .

there is no way to know whether and how much vinyl chloride has leached into drinking water from PVC pipes.

The only potential “safeguard” against contamination of drinking water from PVC pipes is the standards for drinking water systems materials established in NSF/ANSI/CAN 61-2020; Drinking Water Systems Components – Health Effects, which was created by NSF International, an industry-dominated private standard setting body. Compliance with this standard is not mandated by federal law. In addition, it is not clear if it is truly protective since the standard and any analyses that might explain or justify it are behind a hefty paywall.⁵⁵ Moreover, it is doubtful that all PVC pipe sold in the U.S. even meets the NSF 61 standard. A Vinyl Institute presentation reported that at least 95 pipes sampled between 1998 and 2015 exceeded NSF Standard 61’s limit of 3.2 ppm. It added that many of the non-compliant pipes “were produced offshore.”⁵⁶

The National Academies of Sciences’ 2006 report on reducing risk in drinking water distribution systems recognized that water quality can be degraded due to leaching—a problem that it found can be more severe in premise plumbing—and it recommended that “[t]esting of currently available materials should be expanded to include...the potential for leaching of compounds of public health concern.”⁵⁷ However, that recommendation does not appear to have been implemented.⁵⁸

⁵⁵ According to reports on the internet, the NSF 61 standard calls for a maximum residual vinyl chloride monomer in the pipe wall of an average of 3.2 mg/kg (or 3.2 ppm). A PVC industry “Technical Brief” asserts: “For PVC pipe to be certified, residual VCM measured in chemical-extractant testing of the pipe must be below 0.2 parts per billion. This value is one-tenth the allowable level set by the EPA. In effect, certification to NSF 61 applies a safety factor of 10:1 to the EPA requirements.” PVC Pipe Association, Technical Brief, Leaching of Vinyl Chloride Monomer (VCM): Not an Issue for AWWA PVC Water Pipe, <https://www.unibell.org/Portals/0/ResourceFile/leaching-of-vinyl-chloride-monomer-vcm-not-an-issue-for-awwa-pvc-water-pipe.pdf>. But since the certification standards and leaching test results are not public, it is not clear if this is in fact the NSF standard, nor if NSF accurately determined that up to 3.2 ppm of vinyl chloride in pipe walls will result in leaching of less than .2 parts per billion into drinking water.

⁵⁶ VC Technical Report at V.E. and endnote 183.

⁵⁷ National Academies of Sciences Engineering and Medicine, Drinking Water Distribution Systems: Assessing and Reducing Risks (2006), <http://nap.nationalacademies.org/11728>, at 10, 12.

⁵⁸ EPA’s 2002 analysis of Permeation and Leaching in drinking water systems acknowledged that pre-1977 PVC pipe had elevated levels of VCM that leached into groundwater resulting in exceedances of the Maximum Contaminant Level in Kansas, Missouri, Iowa, Arkansas and Texas. EPA, Office of Water, Permeation and Leaching (2002), <https://www.epa.gov/sites/default/files/2015-09/documents/permeationandleaching.pdf>, at 10. See also S. Ledson, States report pipeline VCM test results. Plastic News (April 5, 1999),

The serious flaws in detection and regulation of contamination of drinking water due to the leaching of PVC pipe (including leaching of VCM) was well summarized recently by Andrew Whelton, Ph.D., Professor of Civil, Engineering and Environmental and Ecological Engineering at Purdue, and an expert in drinking water systems, in this statement:

*We don't have a very good public understanding about the chemicals that are leaching out of a lot of the plastics that we install in our infrastructure....PVC pipes are used throughout the United States. And it's a risk that we all face, drinking water from materials that we haven't necessarily tested thoroughly. What complicates matters...is a lack of transparency with the testing and safety certification of plastic pipes. Those certifications are handed out by third-party organizations such as NSF. The plastics industry manufacturers pay an industry-backed organization to do their testing behind closed doors and issue them certification... There's a deeper systemic problem.*⁵⁹

Despite the lack of sampling or testing, at least one high-quality study indicates that VCM leaches out of currently used PVC pipes and into drinking water, especially if the water has sat for a while in the pipes.⁶⁰ In that 2011 study, researchers found that vinyl chloride levels tested in the laboratory and in the tap water of consumers' homes reached in the tens of parts per trillion range after a few days, and hundreds of parts per trillion after two years.

Given the evidence that some PVC pipes have leached VCM, and the significant public health concerns that would be present if PVC pipe is exposing the general population to residual VCM even at very low levels, EPA should include this pathway of exposure for purposes of prioritization and scoping of the vinyl chloride risk evaluation.

c. Exposure to VCM in drinking water when PVC pipes are exposed to heat

There is strong evidence that VCM is released into drinking water when buildings with PVC drinking water pipes burn or are damaged by wildfires. Scientists found elevated levels of

<https://www.plasticsnews.com/article/19990405/NEWS/304059972/states-report-pipeline-vcm-test-results>. The paper does not explain why EPA believes that leaching is no longer a concern, other than that it is not reported in the literature (which could be explained by the lack of required sampling at the tap). However, Table 8 of the paper lists concern that plastic pipe “may leach organic chemicals,” as a drawback of using this material.

⁵⁹ Environmental Health News, America is replacing its pipes: Is ductile iron pipe a good alternative for plastic? (Feb. 26, 2024), <https://www.ehn.org/pvc-versus-iron-water-pipes-2667288280.html>.

⁶⁰ Walter RK, Lin PH, Edwards M, Richardson RE. Investigation of factors affecting the accumulation of vinyl chloride in polyvinyl chloride piping used in drinking water distribution systems. *Water Res.* 2011 Apr;45(8):2607-15. <https://doi.org/10.1016/j.watres.2011.02.016>. Epub 2011 Feb 19. PMID: 21420710. This paper is being submitted to the docket for EPA's convenience.

VCM in drinking water from pipes damaged by two recent wildfires in California, the Tubbs Fire of 2017 and the Camp Fire of 2018.⁶¹ The research team noted that “[a] high level of mass loss, specifically for the vinyl materials, was inversely proportional to leaching. Results should be considered by responders, utility, health and building officials before and after fire events.”⁶²

Contamination of drinking water with VCM as a result of wildfires, and the resulting exposure potential, is a condition of use that EPA must consider in the prioritization process and include in the scope of the risk evaluation because it is a reasonably foreseen circumstance in connection with the use of PVC drinking water pipes. In the Preamble to EPA’s recent proposal to modify the *Procedures for Chemical Risk Evaluation Under the Toxic Substances Control Act*, the Agency stated: “[I]f information reasonably available to the Agency indicated that factors such as rising sea levels or extreme temperatures made worse by climate change were leading to regular and predictable changes in exposures associated with a given condition of use of a chemical substance, EPA would expect to consider those exposures within the scope of the risk evaluation.”⁶³ It is now clear, including to EPA, that climate change-related wildfires have become a regular and predictable occurrence in large swaths of the country in areas where many people reside.⁶⁴ Accordingly, releases of VCM into drinking water from PVC pipes during wildfires is a condition of use that must be considered in the prioritization process and risk evaluation for vinyl chloride.

4. Disposal

⁶¹ Isaacson, Kristofer P. and Proctor, Caitlin R. and Wang, Q. Erica and Edwards, Ethan Y. and Noh, Yoorae and Shah, Amisha D. and Whelton, Andrew J., Drinking water contamination from the thermal degradation of plastics: implications for wildfire and structure fire response, *Environ. Sci.: Water Res. Technol.*, 2021,7, 274-284, <https://pubs.rsc.org/en/content/articlelanding/2021/ew/d0ew00836b>. This paper is being submitted to the docket for EPA’s convenience.

⁶² *Id.*

⁶³ 88 Fed. Reg. at 74,298.

⁶⁴ A July 2022 EPA document entitled “Climate Change Indicators: Wildfires” states: “Multiple studies have found that climate change has already led to an increase in wildfire season length, wildfire frequency, and burned area.” <https://www.epa.gov/climate-indicators/climate-change-indicators-wildfires#:~:text=Although%20wildfires%20occur%20naturally%20and,wildfire%20frequency%2C%20and%20burned%20area>. See also Muyskens, John, et al., “1 in 6 Americans Live in Areas with Significant Wildfire Risk.” *The Wash. Post* (May 17, 2022), <https://www.washingtonpost.com/climate-environment/interactive/2022/wildfire-risk-map-us/>

Individuals who live near where vinyl chloride is disposed of, or was disposed of in the past, are exposed to elevated levels of vinyl chloride.⁶⁵ The VC Technical Report details a range of different types of facilities that are involved in disposal of vinyl chloride and from which vinyl chloride is released, including fuel blending plants, cement kilns, hazardous waste incinerators, municipal landfills, hazardous waste, landfills, and wastewater treatment plants around the country.⁶⁶ The vinyl chloride-containing waste includes products made of PVC from which VCM may leach and industrial wastes contaminated by vinyl chloride (including heavy ends, sludge, carbon filtration media, and resin slurry).⁶⁷ In addition, vinyl chloride manufacturing and processing facilities discharge vinyl-chloride-contaminated wastewaters into waterways (including Calcasieu River, Corpus Christi Bay, Delaware River, Houston Ship Channel, Illinois River, Lavaca Bay, Mississippi River, Ohio River, and Tennessee River) or transfer them to offsite waste management systems, including publicly owned treatment works.⁶⁸

All circumstances related to all types of disposal of vinyl chloride must be considered in prioritization and be included in the scope of the risk evaluation. Among other considerations:

- EPA must evaluate exposure and risk associated with the toxic byproducts that result from incineration of vinyl chloride-containing wastes, including but not limited to dioxins and PCBs, as the creation of combustion byproducts is a known and reasonably foreseen circumstance of burning vinyl chloride.⁶⁹
- EPA must evaluate exposure and risks associated with groundwater and drinking water contamination as these are known circumstances of vinyl chloride disposal.
 - As just one of many examples of this set forth in the VC Technical Report, Price's Pit in Egg Harbor Township, New Jersey, was the burial site for nine million gallons of toxic wastes from 49 companies, resulting in vinyl chloride

⁶⁵ ATSDR, Toxicological Profile of Vinyl Chloride (Jan. 2024), at 160-61 (“Individuals located near or downwind of production facilities, hazardous waste disposal sites, and landfills may be exposed to atmospheric levels of vinyl chloride higher than ambient background levels.”).

⁶⁶ VC Technical Report at VI.

⁶⁷ VC Technical Report at VI.A.

⁶⁸ VC Technical Report at VI.F.; *see also* Healthy Building Network, Environmental Impacts of Polyvinyl Chloride Building Materials (2002), <https://healthybuilding.net/uploads/files/environmental-impacts-of-polyvinyl-chloride-building-materials.pdf>, at ix (“Extremely large quantities—on the order of one million tons per year—of chlorine-rich hazardous wastes are generated in the synthesis of ethylene dichloride and vinyl chloride monomer”).

⁶⁹ *See id.* (“by-products are created and released to the environment during the incineration of hazardous wastes from EDC and VCM production, the incineration of vinyl products in the waste stream, the recycling of vinyl-containing metal products by combustion, and the accidental burning of PVC in fires in buildings, warehouses, or landfills”).

contamination of groundwater.⁷⁰ According to a Public Broadcasting System report: “People who live near Price's Pit - so dubbed because the owner is named Charles Price - depend on the wells for water and have complained of headaches, nausea, skin rashes and seizures.”⁷¹

- And a Missouri Superfund site (one of at least 699 federal Superfund sites with vinyl chloride contamination) is the source of vinyl chloride contamination that has resulted in the shutdown of multiple city drinking water wells.⁷²
- When evaluating exposure and risks associated with drinking water contaminated by vinyl chloride, EPA should take into account that:
 - There is a dearth of complete information about the number of drinking water systems where vinyl chloride is present, as monitoring for vinyl chloride is very limited.⁷³ In addition, there is no monitoring of well water.
 - The presence of vinyl chloride below the maximum contaminant level (MCL) does not mean an absence of unreasonable risk for purposes of TSCA. The maximum contaminant level of .002 mg/L (or 2 parts per billion) for vinyl chloride was set in 1987 based on feasibility using the best technology at that time taking cost into consideration.⁷⁴ In setting the MCL, EPA used a target reference range for cancer risk of 10^{-4} to 10^{-6} .⁷⁵ However, under TSCA risk determinations

⁷⁰ VC Technical Report at VI.J.

⁷¹ PBS, Peril & Promise: The Resurrection of Price’s Pit (Jan. 27, 2023), <https://www.pbs.org/wnet/peril-and-promise/2023/01/the-resurrection-of-prices-pit/>.

⁷² EPA Region 7, EPA Identified Ameren Huster Road Substation as Source of Elm Point Wellfield Contamination in St. Charles, Missouri (Feb. 9, 2023), [https://www.epa.gov/newsreleases/epa-identifies-ameren-huster-road-substation-source-elm-point-wellfield-contamination#:~:text=%E2%80%9CRecent%20field%20work%20by%20EPA,Charles%20residents.%E2%80%9D; St. Charles Missouri, City Drinking Water Wells, https://www.stcharlescitemo.gov/1111/City-Drinking-Water-Wells](https://www.epa.gov/newsreleases/epa-identifies-ameren-huster-road-substation-source-elm-point-wellfield-contamination#:~:text=%E2%80%9CRecent%20field%20work%20by%20EPA,Charles%20residents.%E2%80%9D;St.CharlesMissouri,CityDrinkingWaterWells,https://www.stcharlescitemo.gov/1111/City-Drinking-Water-Wells).

⁷³ 40 C.F.R. § 141.24(f)(11)(v) (for groundwater systems, states may require sampling as infrequently as every three years; for surface water systems, the frequency of monitoring is up to the state’s discretion).

⁷⁴ National Primary Drinking Water Regulations; Synthetic Organic Chemicals; 52 Fed. Reg. 25,690, 25,697 (July 8, 1987). Notably, the MCLG – a nonenforceable health goal for vinyl chloride – was set at 0, which EPA determined was the “level which would not result in adverse health effects with an adequate margin of safety.” National Primary Drinking Water Regulations; Volatile Synthetic Organic Chemicals, 50 Fed. Reg. 46,880, 46,891 (Nov. 13, 1985); 40 C.F.R. § 141.50(a)(2).

⁷⁵ *Id.*, 52 Fed. Reg. at 25,700-701.

must be made without consideration of cost or other nonrisk factors.⁷⁶ Under TSCA EPA uses 10^{-6} (or 1-in-1,000,000) as a benchmark level for cancer risk.⁷⁷ Thus, if there is any vinyl chloride in drinking water, even if levels are less than the MCL, the water may still present unreasonable risk under TSCA.

- EPA must evaluate exposure and risks associated with vapor intrusion and volatilization of vinyl chloride into water used for bathing and other household water uses leading to inhalation exposures.⁷⁸ Vinyl chloride is commonly found at vapor intrusion sites across the country.
 - Some vinyl chloride in the environment is present as a result of the breakdown of other chlorinated solvents, including trichloroethylene (TCE) and tetrachloroethylene (a.k.a., perchloroethylene or PERC).⁷⁹ Vinyl chloride present as a breakdown product must be included in the prioritization process and risk evaluation, since the risks posed are no different whether vinyl chloride was manufactured in a facility or the environment.⁸⁰ Moreover, since EPA did not include the risks from vinyl chloride produced as a breakdown product in its risk evaluations of TCE or PERC, if it does not include them in the forthcoming vinyl chloride risk evaluation, they will evade review, leaving unreasonable risks unmanaged.

⁷⁶ 15 U.S.C. § 2605(b)(4)(A).

⁷⁷ See, e.g., Charles W. Schmidt, *TSCA 2.0: A New Era in Chemical Risk Management*, 124 *Env't Health Persp.* 182, 184 (2016) (“Asked what constitutes ‘unreasonable risk’ under the new TSCA . . . [Office of Pollution Prevention and Toxics Director Wendy] Cleland-Hamnett cites the EPA’s cancer risk benchmark of no more than 1 case out of 1 million people exposed to a given carcinogen.”); EPA, EPA-744-D-22-001, *Draft TSCA Screening Level Approach for Assessing Ambient Air and Water Exposures to Fenceline Communities: Version 1.0*, at 54 (Jan. 2022) (“Fenceline Assessment Approach”), https://www.epa.gov/system/files/documents/2022-01/draft-fenceline-report_sacc.pdf (adopting a 1-in-1,000,000 cancer risk benchmark “for cancer risk in fenceline communities” “consistent with the cancer benchmark used for general population cancer risk in several other EPA programs and in previous risk evaluations”).

⁷⁸ ATSDR, *Toxicological Profile of Vinyl Chloride* (Jan. 2024), at 159; see also EPA, *TEACH Chemical Summary, Vinyl Chloride* at 2 (last revised 10/1/2007), https://archive.epa.gov/region5/teach/web/pdf/vc_summary.pdf (finding a “medium” risk that children would be exposed to vinyl chloride due to the fact that “[i]n homes/dwellings located above contaminated groundwater, vinyl chloride is capable of migrating through soil and foundations to enter basements or living spaces. Vinyl chloride can also volatilize to indoor air from contaminated groundwater due to indoor water uses (e.g., showering, dishwashing, laundry)).

⁷⁹ VC Technical Report at VI.H, Table VI.H.1.

⁸⁰ EPA’s Teach Chemical Summary for vinyl chloride states: “vinyl chloride exposure from drinking water should be considered in areas where groundwater is contaminated with TCE.” https://archive.epa.gov/region5/teach/web/pdf/vc_summary.pdf.

- EPA is required to consider ongoing releases from past acts of disposal, meaning that municipal solid waste landfills, hazardous waste landfills, and Superfund sites with vinyl chloride contamination from legacy disposal should be included in the scope of the risk evaluation if releases are ongoing. *See Safer Chems., Healthy Fams. v. EPA*, 943 F.3d 397, 424–26 (9th Cir. 2019) (holding that TSCA requires EPA to consider as “*independent disposals*” the ongoing leaking or other uncontrolled discharge of a chemical substance that was previously placed in a landfill).
- EPA should assess whether there is ongoing exposure from the nearly 700 federal Superfund sites that are contaminated with vinyl chloride, which includes: 211 sites with soil contaminated with vinyl chloride; 198 with groundwater contaminated with vinyl chloride; 96 with vinyl chloride in surface water; 33 with vinyl chloride detected in the air; 33 with vinyl chloride in sediment; and 28 with vinyl chloride in soil gas.⁸¹ If there is ongoing exposure, that must be quantified as part of the risk evaluation, and for people living near these sites, this risk must be aggregated with risks from other exposures.
- EPA should consider exposure and risk from use of vinyl chloride-contaminated soil in new construction and parks.⁸²

B. Many groups are potentially exposed or susceptible subpopulations for purposes of the vinyl chloride prioritization process and risk evaluation.

For both the prioritization process and the scoping of the forthcoming risk evaluation, EPA must consider risks posed by vinyl chloride to “potentially exposed or susceptible subpopulations,” meaning groups who are at greater risk from exposure to vinyl chloride due to either greater exposure or greater susceptibility, or both. Set forth below is a non-exhaustive list of populations that are at greater risk and should be so recognized in EPA’s risk evaluation.

1. Fenceline communities. Not surprisingly, the majority of people living near facilities that manufacture and process vinyl chloride, and who are most exposed to VCM releases, are low-income people of color. Among the people living within a three-mile radius of these plants, 63% are people of color, compared to 41% nationwide. Residents of these areas earn an average of \$23,747 per capita, which is 37% below the national average of \$37,638.⁸³ Twenty-seven percent are children, compared to the national average of 22%.⁸⁴ Notably, toxic pollution from

⁸¹ VC Technical Report at V.I.J.

⁸² VC Technical Report at V.I.J.

⁸³ Toxic-Free Future, Research Report: *PVC Poison Plastic* (April 13, 2023), <https://toxicfreefuture.org/wp-content/uploads/2023/04/Report-PDF-PVC-Poison-Plastic-Investigation-4.pdf>, at 8. This report is being submitted to the docket for EPA’s convenience.

⁸⁴ *Id.*, at 8-10. For more details, see this [table](#).

vinyl chloride manufacture and processing has forced a large proportion of the residents of at least four Louisiana fence-line communities to relocate,⁸⁵ underscoring the serious risk faced by people living on the fence-line. For all of these reasons, EPA must conclude that communities living near sites where vinyl chloride is manufactured and processed into PVC plastic have both greater exposure and greater susceptibility to harm from vinyl chloride than the general population. As discussed throughout these comments, people living along transportation routes and disposal sites are also at greater risk than the general population from vinyl chloride.

2. Workers. The Agency for Toxic Substances and Disease Registry (“ATSDR”) Toxicological Profile of Vinyl Chloride identifies several sets of workers who are more highly exposed to vinyl chloride than the general population. These are:

- workers involved in the production or use of vinyl chloride;⁸⁶
- people working near flowback pits in the Marcellus Shale natural gas drilling sites;⁸⁷ and
- workers who are involved in welding applications that use PVC pipes or other PVC materials.⁸⁸

3. Children, infants, fetuses, and pregnant people. The ATSDR VC Tox Profile identifies fetuses, infants, and young children as “unusually susceptible” to harm from vinyl chloride.⁸⁹

4. First responders. As discussed extensively above, unplanned releases of vinyl chloride occur on a regular basis, including some that require emergency response. First responders are therefore more exposed than the general population. This includes firefighters, police and other first responders on the scene of accidents involving vinyl chloride or PVC, and firefighters who may be routinely exposed to dioxins and other toxic chemicals from burning residences with vinyl siding, vinyl windows, vinyl flooring, PVC plastic furniture, and related items.

5. People with underlying liver disease and other comorbidities. The ATSDR VC Tox Profile states that people with “comorbidities (e.g., obesity and liver disease) and genetic polymorphisms of HLA-DR5, HLA-DR3, and B8 alleles are unusually susceptible to the effects of vinyl chloride.”⁹⁰ Relatedly, recent studies have found evidence that low-dose exposure to

⁸⁵ VC Technical Report at III.C.2.

⁸⁶ ATSDR, Toxicological Profile of Vinyl Chloride (Jan. 2024) (“ATSDR VC Tox Profile”), <https://www.atsdr.cdc.gov/toxprofiles/tp20.pdf>, at 160.

⁸⁷ *Id.* at 162.

⁸⁸ *Id.* at 161.

⁸⁹ *Id.* at 124-26.

⁹⁰ *Id.* at 126.

vinyl chloride may increase hepatotoxicity among people with underlying liver disease, potentially exacerbating the severity of non-alcoholic fatty liver disease.⁹¹

6. People who smoke. The ATSDR VC Tox Profile notes that “[c]igarette smoke and smoke from small cigars have been found to contain vinyl chloride... Therefore, people who smoke may be potentially exposed to higher levels of vinyl chloride than nonsmokers.”⁹²

C. EPA must generate or obtain additional information about known or potential exposure pathways referenced in these comments and/or the VC Technical Report

EPA has more than enough information to designate vinyl chloride as a high priority substance under TSCA, which it should do without delay.

However, there are significant data gaps that must be filled for EPA to evaluate the risks associated with all of vinyl chloride’s conditions of use⁹³ based on all reasonably available information— defined as information that EPA “possesses or can reasonably generate, obtain

⁹¹ Lang AL, Beier JI. Interaction of volatile organic compounds and underlying liver disease: a new paradigm for risk. *Biol Chem*. 2018 Oct 25;399(11):1237-1248. doi: 10.1515/hsz-2017-0324. PMID: 29924722; PMCID: PMC6181143, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6181143/>. This paper is being submitted to the docket for EPA’s convenience.

⁹² *Id.* at 161.

⁹³ TSCA section 6(b) requires EPA to “conduct risk evaluations . . . to determine whether a chemical substance presents an unreasonable risk . . . under the conditions of use.” 15 U.S.C. § 2605(b)(4)(A). It is well established that when the word “the” precedes a collective or plural noun, such as “conditions of use,” it is equivalent to “all.” *See, e.g., Dutcher v. Matheson*, 840 F.3d 1183, 1194 (10th Cir. 2016); *Kaufman v. Allstate N.J. Ins. Co.*, 561 F.3d 144, 155 (3d Cir. 2009); *Frazier v. Pioneer Ams. LLC*, 455 F.3d 542, 546 (5th Cir. 2006). TSCA therefore requires EPA to “determine” the risks associated with a chemical under all of the “circumstances . . . under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.” 15 U.S.C. §§ 2602(4), 2605(b)(4)(A). TSCA and EPA’s implementing regulations “unambiguously do not grant EPA the discretion” to exclude conditions of use from a risk evaluation. *Safer Chems., Healthy Fams. v. EPA*, 943 F.3d 397, 419 (9th Cir. 2019) (explaining why TSCA’s text does not authorize EPA to exclude conditions of use); Procedures for Chemical Risk Evaluation Under the Toxic Substances Control Act (TSCA), 88 Fed. Reg. 74,292, 74,297 (proposed Oct. 30, 2023) (stating, in proposed revisions to TSCA risk evaluation rule, that “[i]n the absence of comprehensive risk evaluations on chemical substances (i.e., an approach that considered only a subset of a chemical’s uses), the unevaluated uses would create uncertainty as to whether EPA had fully addressed a chemical’s unreasonable risk and further delay progress on the backlog of existing chemicals”). Therefore, EPA must evaluate the full extent of a vinyl chloride’s risks under all its conditions of use, individually and in combination.

and synthesize for use”⁹⁴—as TSCA requires. The VC Technical Report and these comments identify multiple critical data gaps; EPA should not delay in using all of TSCA’s information collection authorities to fill these data gaps, as lack of data is not a justifiable excuse for an incomplete risk evaluation. The suggestions below should be used as a starting point in identifying information that EPA must generate or obtain as soon as possible in order to fill these data gaps.

1. *Fenceline monitoring at sites that manufacture and process vinyl chloride.* The recent results of air monitoring near the vinyl chloride/PVC facility in Calvert City (*see* section A.1.a above) highlights that the best (and maybe only) way to identify fenceline community inhalation risk is to measure levels in the air where people are exposed. As it did in Calvert City, EPA should establish fenceline monitoring at other sites that manufacture and process vinyl chloride, especially near residences, schools and parks.
2. *PVC pipe leaching studies.* As discussed above in sections A.3.b and A.3.c, we are not aware of any reliable data on rates that VCM leaches into drinking water from PVC pipe under real-life conditions, including in high-heat climates and places where water may sit stagnant in pipes for long periods. This testing should look, in particular, at leaching rates from PVC pipe from different sources, including imported pipe from a variety of countries. Even if leaching rates and resulting concentrations in water supplies are low, any level of this no-threshold carcinogen is a concern, especially in combination with other exposures to vinyl chloride, and other carcinogens. Moreover, as discussed below, there is evidence that low levels of exposure to VCM contributes to liver disease and/or exacerbates existing liver disease. Given the very large number of people whose drinking water goes through PVC pipe (a number that is likely to increase due to revisions to the Safe Drinking Water Act Lead and Copper Rule), EPA cannot quantify the risks of vinyl chloride without measured data on exposure from drinking water systems.
3. *Testing of drinking water pipe to determine levels of residual VCM in the pipe and how that corresponds to leaching rates.* EPA should assess PVC pipe to determine the concentration of residual VCM and how this relates to leaching rates, as we are not aware of publicly available data on this. This is especially important for pipe produced outside the U.S., given information from the Vinyl Institute that at least 95 pipes sampled between 1998 and 2015, which were produced outside the U.S., exceeded NSF Standard 61’s limit of 3.2 ppm (*see* VC Technical Report V.D.). It is

⁹⁴ 40 C.F.R. § 702.3.

also important to assess leaching rates of pipe that complies with the 3.2 ppm NSF 61 Standard.

4. *Generate or obtain data on potential exposures to vinyl chloride from industrial wastewater discharges.* The VC Technical Report states that wastewater discharge reports from the vinyl chloride manufacturing and processing industries are sporadic, with many violations (*see* VC Technical Report VI.F.). The inadequacy of industry self-reported information suggests that the agency should gather data from state agencies or other possible sources. It should also consider testing of waters and sediments around likely significant discharge points.
5. *Testing of products sold to consumers, home renovators, and building contractors.* The VC Technical Report documents that manufacturers of products are still intentionally adding vinyl chloride to wet-applied coatings, and/or manufacturing products with PVC that contain high levels of residual VCM (*see* VC Technical Report V.B, V.C). However, information about this is sparse and certainly incomplete as it comes from three state databases that contain industry-provided reports about vinyl chloride in children's products they sell in those states, and self-reported information from safety data sheets. EPA should do a more comprehensive search for information, and should consider asking manufacturers to test and report on levels of intentionally added vinyl chloride and residual VCM in their products.
6. *Workplace exposures.* Decades ago, after clusters of workers were diagnosed with liver cancers linked to occupational exposure to vinyl chloride, the vinyl chloride manufacturing and processing industries improved their workplace controls to reduce worker exposures. While exposure may have been reduced, it almost certainly has not been eliminated. Indeed, as noted above, according to EPA's Chemview tool, 11 facilities that filed TSCA section 8(a) chemical data reports for vinyl chloride in 2020 reported that some workers were exposed to vinyl chloride, including seven facilities that reported that more than 100 workers were exposed.

Information about current concentrations of vinyl chloride in the air in manufacturing/processing facilities is vital to understanding worker risk. If EPA does not have measured data regarding current exposure levels in several of these facilities, it must obtain it. Self-reported data from manufacturers that is not backed up by actual monitoring data is not adequate.

In addition, EPA should seek or develop information about exposure to vinyl chloride among workers who weld and cut PVC pipes. As noted in the prior section, ATSDR reported that workers who are involved in welding applications that use PVC pipes or

other PVC materials may be exposed to vinyl chloride.⁹⁵ It may also be that cutting PVC results in exposures. Understanding these potential exposures is important to evaluating risk to (and then protecting) workers.

7. *Ongoing releases from disposal sites.* The VC Technical Report documents that prior disposal sites are a source of ongoing exposure to vinyl chloride (*see* VC Technical Report VI.E, VI.J), and, as discussed above, TSCA requires EPA to consider continuing releases from legacy disposal in its risk evaluations.⁹⁶ Accordingly, EPA should develop information needed to inform this aspect of its risk evaluation. Relatedly, we note that the state of New Jersey recently proposed to make its groundwater quality standards for vinyl chloride more stringent.⁹⁷ The proposal indicates that if adopted, 639 now-closed sites involving vinyl chloride contamination would may need further remediation. This suggests that the state of New Jersey believes that legacy disposal of vinyl chloride is continuing to cause sufficient harm to justify additional clean-up at hundreds of sites. If this is true in New Jersey, it is likely true elsewhere as well.

D. EPA Must Base Its Toxicity Values on the Most Current Information and Consider Toxicity Based on the Effect of Combined Exposure to All Chemicals Typically Present at Sites that Manufacture, Process and Dispose of Vinyl Chloride

EPA must take into consideration cumulative toxicity from all chemicals to which vinyl chloride-impacted communities are typically exposed. At a minimum, this includes ethylene dichloride (EDC), which is used to produce vinyl chloride monomer. Communities' combined exposure to ethylene dichloride and vinyl chloride monomer significantly increases cancer risk, as EPA's recent air monitoring in Calvert City, Kentucky demonstrated.⁹⁸ The cumulative risk of exposure to vinyl chloride in combination with other chemicals used at and released from vinyl chloride manufacturing, processing, and disposal sites must be accounted for in the risk evaluation, including the potential for synergistic toxicity, taking into account the exacerbating effects of nonchemical stressors such as poverty and systemic racism.

Critical to the vinyl chloride risk evaluation will be the reference doses and concentrations that EPA uses to quantify risk. To the extent that additional information or

⁹⁵ ATSDR VC Tox Profile at 161.

⁹⁶ *See Safer Chems., Healthy Fams. v. EPA*, 943 F.3d 397, 424–26 (9th Cir. 2019) (holding that TSCA requires EPA to consider as “*independent disposals*” the ongoing leaking or other uncontrolled discharge of a chemical substance that was previously placed in a landfill).

⁹⁷ JDSupra, NJDEP Proposes Amendments to Ground Water Quality and Remediation Standards (Jan. 8, 2024), <https://www.jdsupra.com/legalnews/njdep-proposes-amendments-to-ground-1873024/>.

⁹⁸ VC Technical Report at III.C.3.

methods need to be obtained or generated to ensure that EPA's reference values comport with TSCA's best available science mandate, EPA must start obtaining and generating that information without delay. One clear need will be to develop cancer potency values that take into account all known, probable, or suggestive cancer sites within the human body, as EPA's *Guidelines for Carcinogen Risk Assessment* call for.⁹⁹ The IRIS assessment of vinyl chloride was finalized more than twenty years ago; to be "best available science," it will need to consider the more recent scientific literature.¹⁰⁰ We strongly urge the Office of Pollution Prevention and Toxics to ask the IRIS Program to update its vinyl chloride hazard assessment, building on the 2024 ATSDR VC Tox Profile, using IRIS methods and protocols, including the IRIS systematic review methods, which have received multiple favorable peer reviews from the National Academies of Sciences, Engineering, and Medicine, and are considered best practices.

It is also imperative that EPA use best-available-science noncancer toxicity values for low-dose exposures. The ATSDR VC Tox Profile identifies several gaps where additional studies are needed to fully characterize noncancer risk.¹⁰¹ These gaps include: chronic-duration inhalation studies on noncancer liver effects at low doses;¹⁰² immunotoxicity studies in animals that are known to have a propensity for developing autoimmune diseases in order to evaluate the suggestion that occupationally-exposed workers may develop an autoimmune-like syndrome;¹⁰³ and studies looking at neurotoxicity and developmental toxicity at low doses. As soon as possible, EPA should move forward to fill these critical gaps as it would be illegal to conduct a risk evaluation of vinyl chloride without characterizing noncancer risk from low-dose exposures related to endpoints of concern identified by ATSDR.

⁹⁹ *Guidelines for Carcinogen Risk Assessment* at 1-12 to 1-13 ("Because an agent may induce multiple tumor types, the dose-response assessment includes an of all tumor types, followed by an overall synthesis that includes a characterization of the risk estimates across tumor types..."); see also EPA, EPA-740-R1-8012, *Risk Evaluation for Asbestos Part I: Chrysotile Asbestos* 173–175 (Dec. 2020), https://www.epa.gov/sites/default/files/2020-12/documents/1_risk_evaluation_for_asbestos_part_1_chrysotile_asbestos.pdf (adding the risks associated with multiple types of cancer associated with chrysotile asbestos to determine the overall cancer risk).

¹⁰⁰ For example, EPA should evaluate recent epidemiological studies linking vinyl chloride exposure with breast cancer. *E.g.*, Garcia, Erika et al. "Hazardous air pollutants and breast cancer risk in California teachers: a cohort study." *Environmental Health* 14 (2015): 14. doi:10.1186/1476-069X-14-14; Ruckart, Perri Zeitz et al. "Evaluation of contaminated drinking water and male breast cancer at Marine Corps Base Camp Lejeune, North Carolina: a case control study." *Environmental Health* 14 (2015): 74. doi:10.1186/s12940-015-0061-4.

¹⁰¹ ATSDR VC Tox Profile at 165-68.

¹⁰² ATSDR VC Tox Profile at 165.

¹⁰³ ATSDR VC Tox Profile at 165.

It is also imperative that EPA consider the emerging evidence related to microplastics and nanoplastics (MNPs) and their potential health harms. To do this, it should include search terms in its systematic review that would identify studies involving MNPs containing VCM (which is presumptively present as a residual in any PVC MNP). As just one example, earlier this month, the New England Journal of Medicine published findings that patients with MNPs, including PVC, found in samples of plaque taken from their carotid arteries were at four-fold increased risk of experiencing cardiac incidents – including myocardial infarction (heart attack), stroke, and death – than patients without MNPs in their plaque specimens.¹⁰⁴

CONCLUSION

We urge EPA to use the information in the foregoing comments and accompanying reports and appendices, as well as our specific recommendations for research and evaluation, as a basis for proposing and finalizing the designation of vinyl chloride as a high priority chemical without delay. We also urge EPA to use this information and these recommendations in drafting the scope of the forthcoming vinyl chloride risk evaluation and obtaining, generating and synthesizing all of the information it will need to conduct a risk evaluation that meets the legal requirements of TSCA. Communities, workers and consumers across the nation are depending on EPA to protect them from this toxic and dangerous chemical.

If you have any questions, please feel free to contact Eve Gartner (egartner@earthjustice.org) or Judith Enck (judithenck@bennington.edu).

Dated: March 18, 2024

Respectfully submitted,

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¹⁰⁴ Marfella, R. et al., Microplastics and Nanoplastics in Atheromas and Cardiovascular Events. March 7, 2024. New England Journal of Medicine 2024; 390:900-910. <https://www.nejm.org/doi/10.1056/NEJMoa2309822>

Toxic Substances Control Act Technical Report: Exposure to Vinyl Chloride

MATERIAL RESEARCH, L3C
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By Material Research L3C
For Earthjustice and Beyond Plastics

March 2024



*Vinyl chloride explosion, Formosa Plastics,
Illioopolis, Illinois, April 23, 2004*



*Young children modeling plastic clothing
that contains more than 1% vinyl chloride*

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I. About this Report

On December 18, 2023, the United States Environmental Protection Agency (EPA) initiated a prioritization process for five chemicals, including vinyl chloride. It is considering designating the toxic chemicals as High-Priority Substances for risk evaluation under the Toxic Substances Control Act (TSCA).

The agency's request for public comment describes its sources of information. It states, "Data regarding the use of this chemical was reported to EPA in the 2020 set of Chemical Data Reports (CDRs). EPA also receives information annually on this chemical through the Toxics Release Inventory (TRI). Information is available from assessments conducted by other federal agencies, the state of California, international organizations, and other countries."

An EPA webinar on February 20, 2024, further identified its information sources as the ECOTOX Knowledgebase, Gray Literature Databases, Assessments and Documents (e.g., Integrated Risk Information System Assessments, European Chemicals Agency [ECHA]), CDRs (2020), TRI (2022), TSCA Work Plan summary document (2014), Water Quality Portal, Discharge Monitoring Reports, National Emissions Inventory, occupational health records from the National Institute for Occupational Safety and Health, and injury records from the Occupational Health and Safety Administration.

The following technical report for Earthjustice and Beyond Plastics is in part based on some of these sources, especially the Toxics Release Inventory and Chemical Data Reporting. But it also draws data and important findings of exposure from sources not referenced by EPA. These include United States Coast Guard incident reports on vinyl chloride releases at sea, National Response Center reports from facilities across the country, Risk Management Plan (RMP) accident reports, RMP worst case scenario data, International Trade Commission DataWeb trade statistics, Federal Railroad Administration records of tank car disasters and approvals for moving faulty tanks. They also include U.S., Mexico, and Colombia customs records, vessel tracking sites, and media reports of releases.

Not considered here, but important for EPA to pursue, are other sources of information about vinyl chloride. These include state emissions and incident reports, state and federal enforcement records, state product testing programs, fence-line monitoring data, independent wastewater discharge and sediment testing, and the testimony of people who live near, work in, and report on these manufacturing facilities. Community science is of at least equal importance as company-provided data. Federal-level reporting typically relies on self-reported numbers that are not based on actual measurements but on estimates. These sources will provide further insights into a chemical substance that poses a clear and present danger to millions of people.

Note: Vinyl chloride is also called vinyl chloride monomer, which is abbreviated as VCM. The terms vinyl chloride, vinyl chloride monomer and VCM are used interchangeably in this report. Polyvinyl chloride resin plastics is made entirely of vinyl chloride and will be referred to in this report as PVC plastic. PVC and "vinyl" products are made from PVC plastic that is blended with other substances,

especially additives such as plasticizers, antioxidants, stabilizers, and pigments. This report focuses exclusively on vinyl chloride monomer. While it examines releases of vinyl chloride from facilities that process vinyl chloride into PVC plastic (often referred to as PVC plastic manufacturing facilities), it is not a review of PVC plastic itself.

Acknowledgments

[Material Research L3C](#) produced this technical report on behalf of Earthjustice and Beyond Plastics.

[Earthjustice](#) uses the power of the law to ensure that all people have safe workplaces, neighborhoods, and schools; have access to safe drinking water and food; and live in homes that are free of hazardous chemicals.

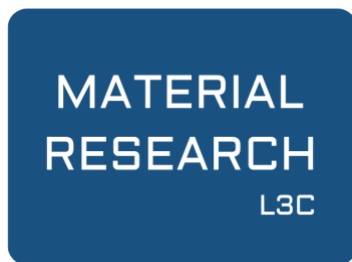
[Beyond Plastics](#) uses its deep policy and advocacy expertise to build a well-informed, effective movement seeking to achieve the institutional, economic, and societal changes needed to save our planet, and ourselves, from the negative health, climate, and environmental impacts of the production, use, transportation and disposal of plastics including chemicals and fossil fuels used to make plastics.

Thank you to Eve Gartner (Earthjustice) and Judith Enck and Jenny Gitlitz (Beyond Plastics) for their editorial review. We appreciate their initiative and support for getting this vital information on the public record.

All research, graphics and analysis are by Material Research staff: Connie Murtagh, Verónica Odriozola, Hira Ozair, Selena Sillari, Jim Vallette and Jill Weber.

The 13-year Toxic Release Inventory analysis was facilitated with data science provided by Larry Kilroy of DataKind, and the new platform, www.fencelinedata.org.

Paul Orum, independent chemical safety policy advisor, obtained Worst Case Scenario data from EPA's reading room in Washington, D.C.



About Material Research L3C (www.MaterialResearch.world)

Founded in 2019, Material Research L3C's international team connects the dots of industrial supply chains and their impacts. We work in collaboration with community leaders, non-profits, academics, and journalists worldwide.

Our prior analysis related to vinyl chloride and PVC plastic is available in reports by [Earthjustice](#) (2019), [Beyond Plastics](#) (2021), [Center for Environmental Health](#) (2022), [Coming Clean](#) (2023), [Healthy Building Network](#) (2019), [Sheffield Hallam University](#) (2022) and [Toxic-Free Future](#) (2023 and 2024).

II. Major Findings¹

- **There are 12 vinyl chloride manufacturing facilities in the U.S.** They produced a record amount - at least 18.6 billion pounds - in 2021.
- **All U.S. vinyl chloride is manufactured in three states:** Texas (an estimated 48% share), Louisiana (46%), and Kentucky (6%).
- **Vinyl chloride manufacturing facilities are in six distinct geographic areas:** Baton Rouge (37%), Houston (27%), Corpus Christi (11%), Lake Charles Louisiana (10%), Victoria, Texas (8%), and Marshall County, Kentucky (7%).
- **The vast majority of vinyl chloride is processed to produce polyvinyl chloride, known as PVC plastic.** (PVC plastic is the polymerized form of vinyl chloride).
- **PVC plastic manufacturing capacity in the U.S. has nearly quadrupled since 1974,** when EPA listed 41 facilities, owned by 25 companies, with a combined capacity of 5 billion pounds. By 2018, there were only 14 PVC plastics plants owned by just five companies: a major consolidation of the industry. Their combined PVC plastic production capacity is 19.2 billion pounds.
- **National reported vinyl chloride air emissions have plateaued at around a half-million pounds per year.** Between 2010 and 2022, a total of 6.3 million pounds of vinyl chloride air pollution was reported to EPA. This is a rate of 1,330 pounds per day. Facilities that manufacture vinyl chloride and PVC manufacturing facilities were responsible for 98.8% of all reported vinyl chloride air emissions in that time. The remaining emissions come from biocide, fluorochemical, and specialty chemical plants that process vinyl chloride for some products.
- **Westlake Chemicals' Calvert City, Kentucky facility, is consistently the leading source of vinyl chloride air pollution,** reporting more than 100,000 pounds of releases each year. A recent study by the EPA and the state of Kentucky found that emissions from this facility are increasing cancer risks for local residents and employees of an elementary school, nearly two miles away.
- **Vinyl chloride wastewater discharge reporting from the industry is sporadic.** Six facilities have been found to be in violation of the Clean Water Act (CWA) since January 2021. Occidental was out of compliance at one facility because it failed to provide any reporting at all for a period in 2023. At least two Westlake manufacturing facilities are out of compliance with the CWA because they are operating without wastewater permits, depriving EPA and other regulators of information that could be used to assess human and ecological effects.

- **The inadequacy of the vinyl chloride industry’s self-reported information** - and blatant and ongoing violations of the Clean Water Act - suggests that the Agency should undertake extensive testing of waters and sediments around discharge points. This is a prerequisite for determining potential exposures to, and risk from, vinyl chloride from industrial wastewater discharges.
- **Another common pathway for exposure is through unplanned releases of vinyl chloride gasses from industrial operations:**

In the past 60 years, violent vinyl chloride releases in the U.S. have killed at least 14 people and injured at least 120 people at vinyl chloride or PVC manufacturing plants.

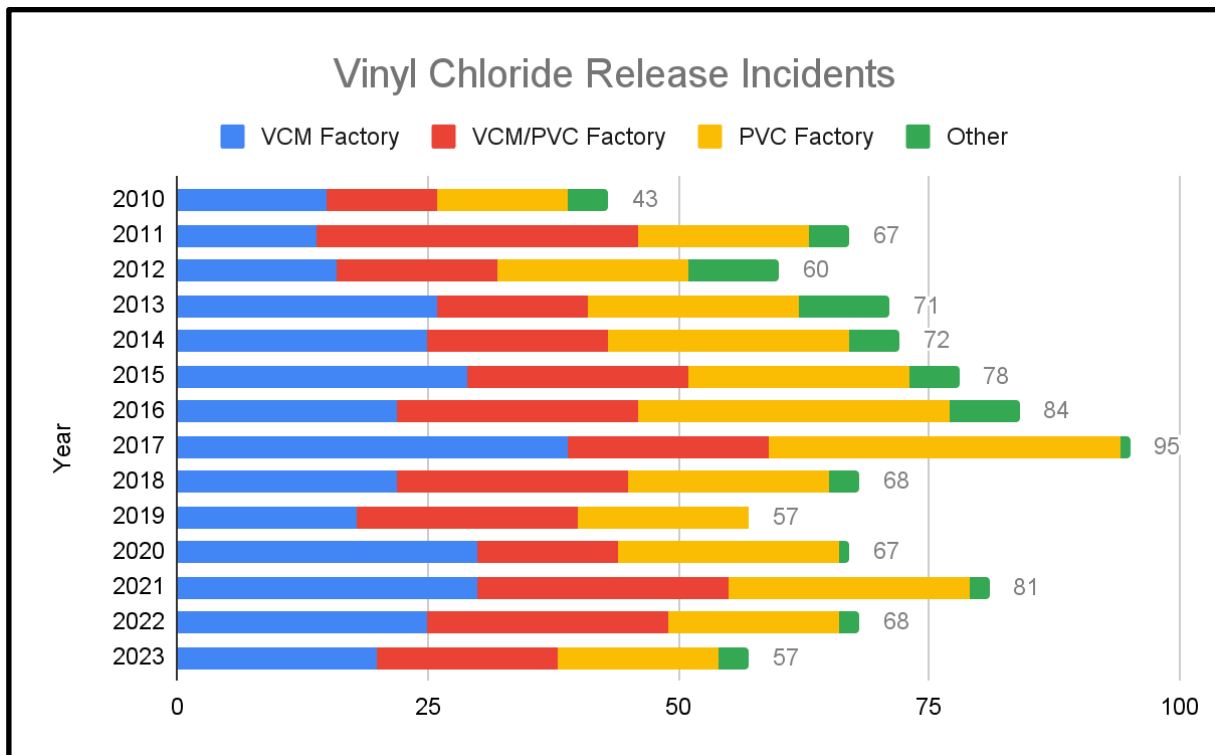
Since 2000, there have been at least nine major air releases of vinyl chloride at these facilities. They released more than 200,000 pounds of vinyl chloride, combined.
- **Since 2010, there have been at least 966 chemical incident reports involving vinyl chloride.** Of those, 930 occurred at factories that produce vinyl chloride or PVC plastics. The others occurred on railroads, ports, roads, waste management facilities, and specialty chemical manufacturing plants.
- **The rate of reported vinyl chloride incidents is one every 5.3 days.** The frequency of these incidents reveals they are a feature rather than an anomaly for the vinyl chloride industry. For example, in 2012, after a vinyl chloride reactor collapsed at its Geismar, Louisiana, operation, Westlake Chemicals marked the incident as “not preventable.”
- **Transportation of vinyl chloride is a dangerous practice that exposes a wide swath of the country to potential vinyl chloride catastrophes.** About 30% of all vinyl chloride produced in the U.S. is transported in chemical tanks by rail or boat to eight PVC plants. The rest is consumed in the same chemical manufacturing site, or one nearby connected by pipeline. Five of the long-distance destinations for vinyl chloride are in the U.S.; the others are in Canada, Mexico, and Colombia. Five PVC manufacturing facilities in New Jersey, Illinois, Mississippi, and Texas, received 3.6 billion pounds of vinyl chloride by rail each year, which is about 17% of U.S. production capacity.
- A chronology of incidents in this report details vinyl chloride rail car derailments and their consequences. **On at least 29 occasions since 1968, one or more rail cars have gone off the tracks.** This caused the evacuation of more than 40,000 people including hospital patients, school children, and residents of retirement homes.
- **A dozen of these derailments led to the release of vinyl chloride from a total of 29 tank cars.** Combined, the tanks contained approximately 5 million pounds of vinyl chloride² before they were punctured, burned, exploded, and/or rocketed into crowds and buildings. These incidents killed two people and injured more than 350 people.
- **Hundreds of vinyl chloride tank cars are on the rails at any moment.** Many of them have been found to be non-conforming to federal hazardous materials regulations. Between

2010 and 2021, the Federal Railroad Administration issued 337 one-time movement approvals for vinyl chloride tank cars out of conformity. Nonconformities often are reported while cars are parked in rail yards in densely populated areas.

- **U.S vinyl chloride producers export on average 2.6 billion pounds per year.** Some shipments are by rail, but most are by boat to Mexico and Colombia. These are shipped on liquid petroleum gas (LPG) vessels that are loaded on chemical docks near Corpus Christi, Texas, and Lake Charles, Louisiana. Each ship carries thousands of tons of the highly flammable product.
- **The process of transferring vinyl chloride to boats at plant-side docks introduces additional risk** to residents and businesses. Several vinyl chloride release incidents occurred at chemical loading docks and aboard LPG ships. In 2008, several workers and emergency responders were treated for exposure to high levels of vinyl chloride gas on a dockside vessel.
- During the manufacture of PVC, **not all vinyl chloride is polymerized. Some unreacted vinyl chloride remains in PVC plastics**, and in turn, in products made from these plastics. EPA has warned that residual entrapped vinyl chloride in plastics “can be liberated during fabrication, particularly during heating.”
- **More than 16,000 pounds of residual vinyl chloride may reside within one year’s production of pipes, fittings, and valves in the U.S.** Over time, this volatile chemical is released into the surrounding environment. No matter the amount, whatever residual is in a plastic pipe will eventually leach from it, since it is not molecularly bound to the polymer. This leaching will accelerate when pipes are exposed to high temperatures, as demonstrated in California after the Tubbs Fire of 2017 and Camp Fire of 2018.
- **Vinyl chloride is found as intentional content in wet-applied coatings, including adhesives, glues, and inks. Some products contain vinyl chloride in concentrations as high as 25%.**
- **Some children’s products made from PVC plastic, such as dresses marketed to 3-year-olds, contain 10,000 parts per million (1%) vinyl chloride.** The presence of such high concentrations suggests an urgent need for restrictions on vinyl chloride content, and for product testing especially of imported plastic children’s products.
- **The disposal of VCM wastes spreads vinyl chloride contamination across the United States.** VCM waste in many forms is dispersed in water, sludge, spent carbon, and in “fuel blends” where it is mixed with other flammable substances and burned in cement kilns and offsite incinerators. In 2022, VCM manufacturers and processors reported transfers of vinyl chloride hazardous waste to at least 38 locations in 14 states. Destinations include fuel blending facilities, landfills, incinerators and cement kilns. This is likely an incomplete list due to sporadic records in EPA’s system.

- **Microbes in the environment degrade some other chlorinated substances into vinyl chloride.** Biological degradation of many of these chlorinated solvents in landfills, soil around factories, and other settings results in the production of vinyl chloride.
- **Residual vinyl chloride monomer leaches from PVC plastic products in landfills,** where most municipal solid waste (MSW) and construction and demolition (C&D) waste is disposed.
- **Nearly 700 federal Superfund sites are contaminated with vinyl chloride.** In most of these Superfund sites, groundwater is contaminated with vinyl chloride. Contaminated soil and groundwater can release vinyl chloride vapors into homes and other buildings. Of the 699 federal sites with vinyl chloride contamination in EPA’s Superfund Enterprise Management System (SEMS):
 - 211 sites have soil contaminated with vinyl chloride.
 - 198 have groundwater contaminated with vinyl chloride.
 - 96 have vinyl chloride in surface water.
 - 33 have vinyl chloride detected in the air.
 - 33 have vinyl chloride in sediment.
 - 28 have vinyl chloride in soil gas.
 - 27 have vinyl chloride in leachate, mainly landfills.
 - 15 release landfill gases contaminated with vinyl chloride.
 - 9 have vinyl chloride in sludge.
 - 7 have contaminated debris.
 - 3 have buildings that are contaminated with vinyl chloride.
- **The Environmental Protection Agency (EPA)’s inquiry should extend to state agency records of polluted sites, to obtain a fuller understanding of the widespread contamination of the U.S. environment by this chemical.**
- **EPA should investigate the creation of dioxin and other highly toxic chemicals from the incomplete combustion of vinyl chloride monomer, and its long-term human and environmental health effects.** One recent example of an incomplete combustion incident was the intentional open burning of 115,000 gallons of VCM from five tank cars, three days after the Norfolk Southern train derailment in East Palestine, Ohio, on February 3, 2023.

Appendices to this report provide the raw data behind this analysis. They include depictions of “worst case scenarios” of vinyl chloride incidents that companies have filed with EPA; all facility air release reports to the Toxics Release Inventory (TRI) from 2010 to 2022; incident reports filed with the U.S. Coast Guard’s National Response Center and in Risk Management Reports from 2010 to 2022; and federal Superfund sites with vinyl chloride contamination, as listed by EPA.



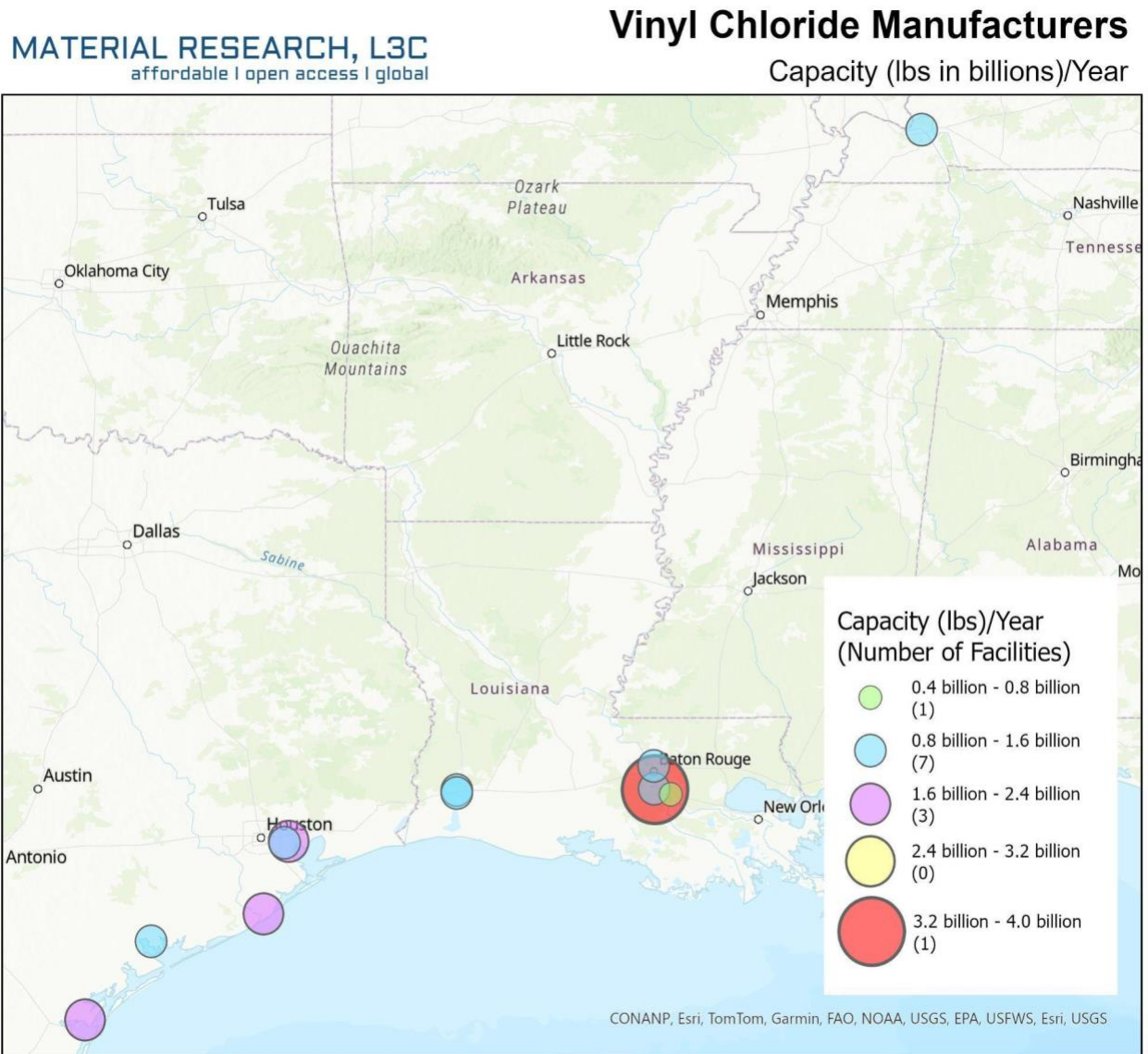
There have been 968 unplanned vinyl chloride incidents reported since 2010, according to Risk Management Plan (RMP) reports, incidents reported to the National Response Center, and local news sources. “Other” locations include railways, boats, trucks, waste storage and management facilities, and other chemical production facilities.

The most accessible databases for these reports are maintained by non-governmental organizations.

The Data Liberation Project’s datasets includes all current and historical RMPs, available here: <https://www.data-liberation-project.org/datasets/epa-risk-management-program-database/>.

SkyTruth Alerts maintains a running database and map of reports to the National Response Center, found here: <https://alerts.skytruth.org/>.

III. Exposures From Manufacturing and Processing Vinyl Chloride



III.A. Vinyl Chloride Manufacturing

Vinyl chloride production requires two ingredients: carbon and chlorine. In the United States, the carbon source is ethylene, obtained by cracking natural gas liquids obtained by hydraulic fracturing in the Permian and Marcellus Shale basins. Chlorine is obtained from locally mined brine reservoirs. Chlor-alkali plants split the brine into chlorine and caustic soda. The ethylene and chlorine are reacted to produce ethylene dichloride (EDC).³ EDC is vaporized, dried, and passed over charcoal catalysts in a thermal cracking furnace. This process - the thermal dehydrochlorination of ethylene dichloride (EDC) - produces vinyl chloride monomer and hydrogen chloride. These facilities release considerable volumes of hydrogen chloride gas into the

air, as well as vinyl chloride (see below). The VCM is filtered, transferred to a storage tank, boat, or rail car for future processing, or sent by pipeline to a nearby production line.⁴

Material Research estimates that twelve manufacturing facilities have the capacity to produce more than 20 billion pounds of vinyl chloride monomer each year. This estimate is based on air permits, and company and industry news references to individual facility capacities. About half of the production occurs in sites that produce VCM, but not PVC. The other half is produced in facilities that also process VCM into PVC plastic.

In 2021, the actual production (rather than capacity) of vinyl chloride in the United States reached a new record of at least 18.6 billion pounds, as estimated by Material Research.⁵ This is 93% of the estimated national production capacity. Production capacity is a vital statistic for comparing the sizes of chemical manufacturing plants and understanding the scale of the industry over time. Capacity represents the maximum amount of product that a factory can make each year, given design and regulatory constraints.

When EPA first reviewed vinyl chloride in 1974, it provided a list of production facilities and each facility's capacity. It is unlikely to do so now, given the increasing amount of information that is vanishing behind a shroud of "confidentiality" even though each producer is certainly aware of each other's capacity. In 2020, for example, EPA agreed to list 8 out of 12 vinyl chloride production facilities' annual production reports as "confidential" in Chemical Data Reports. In the aggregate, EPA provides only a range of up to 20 billion pounds of vinyl chloride production, nationally.

Other data sources provide insights into production capacity, provided here for EPA and public reference.⁶



Westlake plant in Calvert City, 2019. Jim Vallette/Material Research

III.A.1. Table. Estimated U.S. Vinyl Chloride Manufacturing Capacity

Company	Location	Vinyl chloride manufacturing capacity (pounds per year, estimated)
Shin-Etsu (Shintech)	Plaquemine, Louisiana*	4,188,778,000 ^{7*} (a)
Occidental (OxyVinyls)	Ingleside/Gregory, Texas	2,403,035,800 ⁸ (e)
Occidental (OxyVinyls)	La Porte, Texas	2,403,035,800 ⁹ (e)
Olin (Blue Cube)	Freeport, Texas	1,840,857,700 ¹⁰ (e)
Formosa	Point Comfort, Texas*	1,660,078,860 ¹¹ (b)
Occidental (OxyVinyls)	Deer Park, Texas*	1,600,000,000 ¹² (e)
Westlake	Plaquemine, Louisiana*	1,598,349,500 ¹³ (e)
Westlake	Calvert City, Kentucky*	>1,499,141,600 ¹⁴ (d)
Formosa	Baton Rouge, Louisiana*	1,439,616,860 ¹⁵ (c)
Westlake (North Plant)	Westlake, Louisiana	1,131,500,000 ¹⁶ (e)
Westlake (South Plant)	Westlake, Louisiana	967,991,322 ¹⁷ (e)
Westlake	Geismar, Louisiana*	848,778,000 ¹⁸ (e)
Total (estimated)		>20,082,021,842 pounds

Notes:

(*) Locations that also process VCM into PVC plastic. Capacity information sources are listed in facility details below.

(a) For comparison to this estimate, Shin-Etsu reported producing 3.812 billion pounds of vinyl chloride in its 2019 Chemical Data Report (CDR) to EPA.

(b) Formosa reported producing 1.41 billion pounds of vinyl chloride in Point Comfort in its 2019 CDR to EPA.

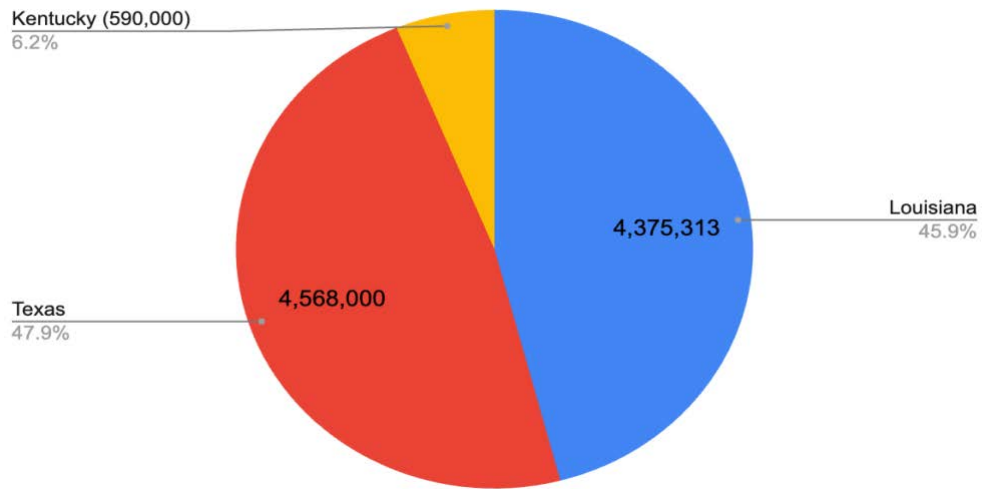
(c) Formosa reported producing 1.396 billion pounds of vinyl chloride in Baton Rouge in its 2019 CDR to EPA.

(d) Westlake reported producing 1.578 billion pounds of vinyl chloride in Calvert City in its 2019 CDR to EPA.

(e) This facility's production is listed as "Confidential Business Information" in 2016-2019 Chemical Data Reports as published by EPA.

III.A.2. Vinyl Chloride Production Capacity by State

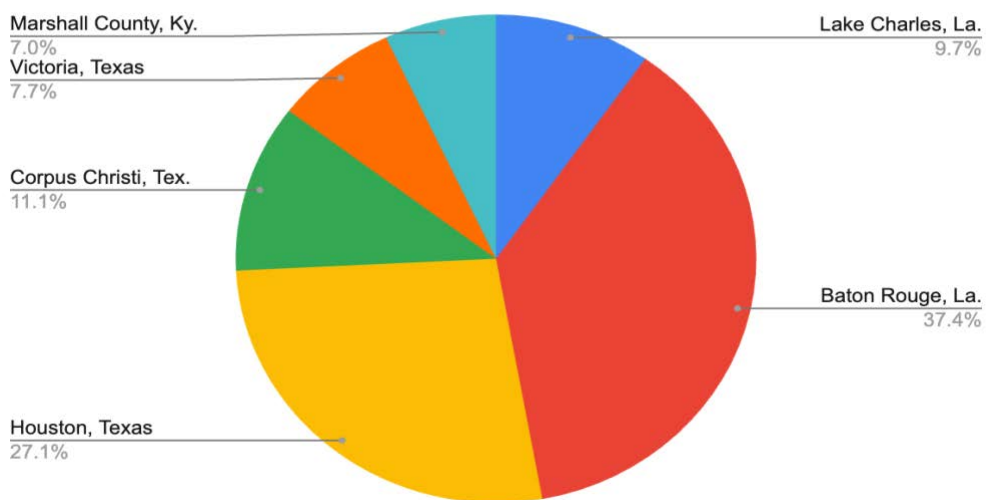
Vinyl chloride production capacity (tons per year)



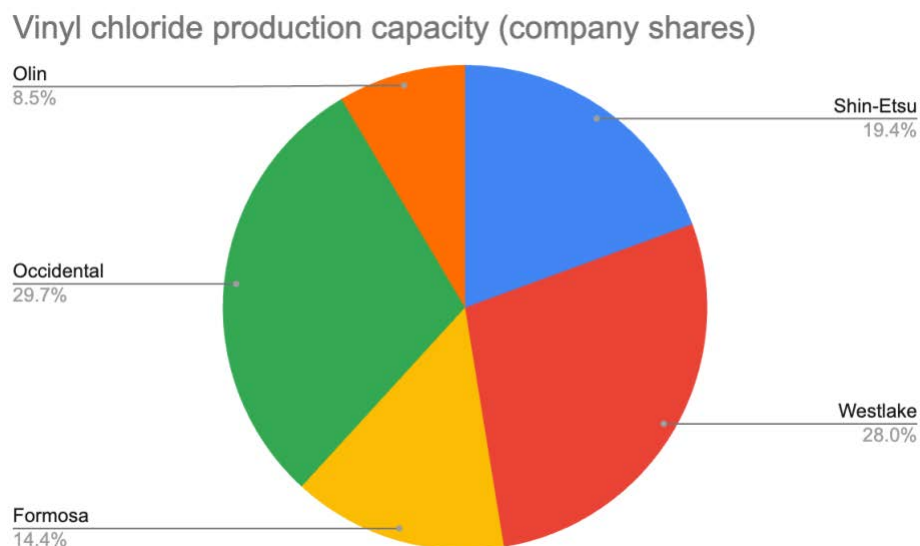
All U.S. vinyl chloride production capacity is in three states: Texas (estimated 48%), Louisiana (46%), and Kentucky (6%). Vinyl chloride manufacturing facilities are in six distinct geographic areas: Baton Rouge, Louisiana (37%), Houston, Texas (27%), Corpus Christi, Texas (11%), Lake Charles, Louisiana (10%), Victoria, Texas (8%), and Marshall County, Kentucky (7%).

III.A.3. Vinyl Chloride Production Capacity by Metropolitan Area

Vinyl chloride production capacity (metro area)



III.A.4. Vinyl Chloride Production Capacity by Owner



Five companies produce vinyl chloride in the United States: Occidental Petroleum (also known as OxyVinyls, 30% of total capacity), Westlake Chemical (28%), Shin-Etsu (Shintech, 19%), Formosa Plastics (14%), and Olin (9%). Occidental Petroleum is based in the U.S., Westlake Chemical and Formosa Plastics are headquartered in Taiwan, and Shin-Etsu is based in Japan. Shin-Etsu is the world's largest PVC plastics producer.

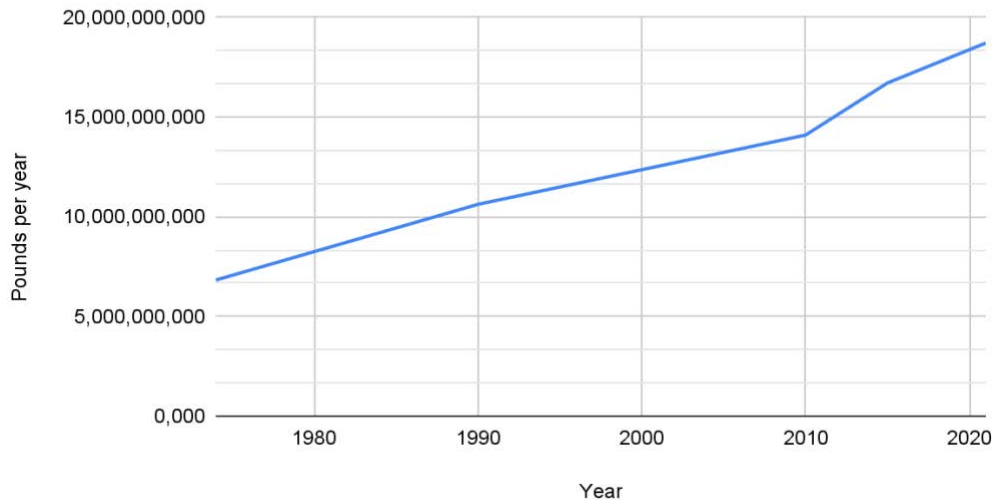
II.A.5. Table. Then and Now: Vinyl Chloride Production¹⁹

EPA's first review of vinyl chloride in 1974 listed fifteen manufacturing sites in the U.S.²⁰ The owners' identities all changed over the subsequent half-century, but seven of the 15 facilities continue to produce the chemical. *Note: Locations shaded green are currently producing vinyl chloride.*

<i>Vinyl Chloride manufacturing location</i>	<i>Year opened</i>	<i>1974 owner</i>	<i>2024 owner</i>
Freeport, Texas	1949	Dow Chemical	Olin
Texas City, Texas	1952	Monsanto	Closed in 1968
Calvert City, Kentucky	1953	B. F. Goodrich	Westlake
Plaquemine, Louisiana	1958	Dow Chemical	VCM unit closed in 2011 ²¹
Baton Rouge, Louisiana	1958	Ethyl Corp.	Closed in 1982 ²²
Long Beach, California	1960	American Chem.	Closed in 1982
Pasadena, Texas	1960	Ethyl Corp.	Closed in 1995
Geismar, Louisiana	1962	Monochem Inc. (US Rubber and Borden)	Westlake ²³
Lake Charles, Louisiana	1963	Continental Oil (Conoco)	Westlake (South plant)
Lake Charles, Louisiana	1963	PPG Industries	Westlake (North plant)
Pasadena, Texas	1963	Tenneco Chem.	Closed before 1990 ²⁴
Delaware City, Delaware	1965	Stauffer	VCM closing date unknown (after 1996) ²⁵
Baton Rouge, Louisiana	1968	Allied Chemical	Formosa
Oyster Creek, Texas	1968	Dow Chemical	VCM unit closed in 2011 ²⁶
Deer Park, Texas	1971	Shell	Occidental
Guayanilla, Puerto Rico	1971	PPG Industries	Closed in 1978 ²⁷
Norco, Louisiana	1973	Shell	Closing date unknown ²⁸
Plaquemine, Louisiana	1975	Not open yet	Westlake
La Porte, Texas	1978	Not open yet	Occidental
Ingleside/Gregory, Texas	1991	Not open yet	Occidental
Point Comfort, Texas	1994	Not open yet	Formosa
Plaquemine, Louisiana	2008	Not open yet	Shin-Etsu
Total		15 manufacturing facilities in 1974	12 manufacturing facilities in 2024

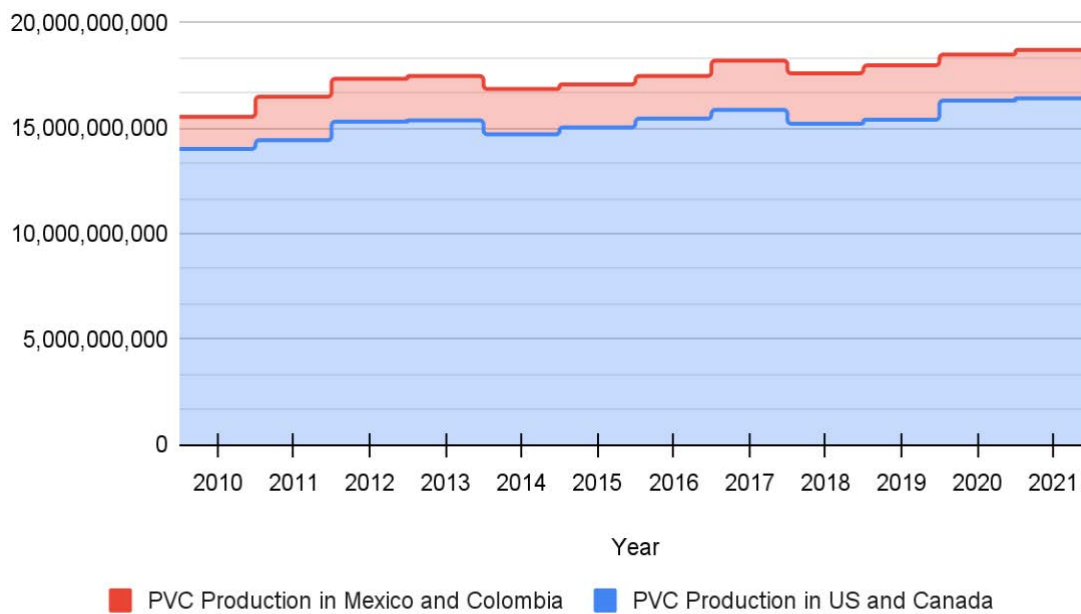
III.A.6. Graph. U.S. Vinyl Chloride Production, 1974 to 2021

Vinyl Chloride Production in the United States



Vinyl chloride production in the United States has nearly tripled, from 6.8 billion pounds in 1974 to more than 18.6 billion pounds in 2021.²⁹

U.S.-Made Vinyl Chloride Destinations (pounds per year)



III.B. Polyvinyl Chloride Plastic Manufacturing

Most of the vinyl chloride made in the U.S. is processed into PVC plastics at 17 locations, including 3 in other countries. A small share of vinyl chloride is processed by manufacturers of certain specialty chemicals, mainly biocides and fluorochemicals (this is discussed later).

Since 2016, all vinyl chloride processed into PVC plastic in the United States has been manufactured domestically in the facilities listed above. Since 2008 the amount of vinyl chloride imports has been less than 0.01% of what is made in the U.S. There was only one importer of vinyl chloride in 2023. (see Section III.E.2, Imports for Processing for details).

PVC manufacturing capacity in the U.S. has nearly quadrupled since 1974. Many smaller facilities, mainly in the Northeast and Upper Midwest, closed. Much larger ones materialized in the Deep South. Ownership consolidated. In its 1974 review of vinyl chloride, EPA listed 41 PVC manufacturing facilities, owned by 25 different companies, with a combined capacity to produce 5 billion pounds of PVC plastic. In 2024, there are 14 manufacturing facilities, owned by five different companies, with a combined production capacity of more than 19 billion pounds.

III.B.1. Table. PVC Manufacturing Sites in the U.S.

Company	Location	PVC plastic production capacity (pounds per year)
Shin-Etsu	Freeport, Texas	2,900,000,000 ³⁰
Shin-Etsu	Plaquemine, Louisiana	2,425,082,000 ³¹
Occidental	Pasadena, Texas	1,980,000,000 ³²
Westlake	Plaquemine, Louisiana*	1,973,134,900 ³³
Shin-Etsu	Addis, Louisiana	1,800,000,000 ³⁴
Formosa	Point Comfort, Texas*	1,759,286,760 ³⁵
Westlake	Calvert City, Kentucky*	1,499,141,600 ³⁶
Westlake	Aberdeen, Mississippi	1,400,000,000 ³⁷
Formosa	Baton Rouge, Louisiana*	1,130,970,060 ³⁸
Westlake	Geismar, Louisiana*	1,130,970,060 ³⁹
Occidental	Deer Park, Texas	550,000,000 ⁴⁰
Occidental	Pedricktown, New Jersey	480,000,000 ⁴¹
Orbia	Pedricktown, New Jersey	148,920,000 ⁴² (a)
Orbia	Henry, Illinois	107,120,000 ⁴³
Total	14 PVC plants	19,284,625,380 pounds

Notes:

(*) Facilities that also manufacture vinyl chloride

(a) In February 2024, Orbia announced it was closing this facility.⁴⁴

The above table includes only U.S. facilities. As discussed later, vinyl chloride monomer also is shipped by rail through Texas, the Mississippi River Valley, and into the Upper Midwest, and by boat from the Ports of Corpus Christi and Lake Charles to destinations in Canada, Mexico, and Colombia.

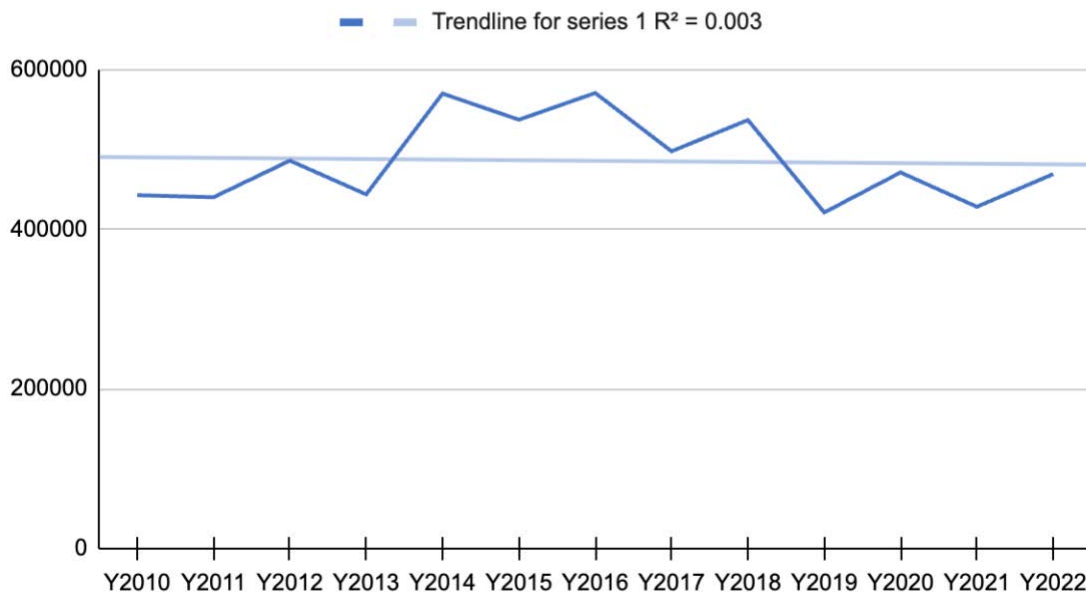
III.C. Vinyl Chloride Air Releases from Manufacturing VCM and Processing VCM Into PVC

Vinyl chloride is released into the air during manufacture of VCM and PVC plastic, placing workers and surrounding communities at risk of exposure. Data reported to EPA's Toxics Release Inventory typically reflect the expected releases given a facility's permitted operation. These data are usually based on the throughput of material - modeled by math and engineering - rather than actual monitoring data.

Nationally, vinyl chloride air emissions as reported to EPA's Toxics Release Inventory have plateaued at around a half-million pounds per year since 2010. The second largest source of emissions - Formosa's PVC plant in Delaware City, Delaware closed in 2018, but increased production in other sites offset the elimination of those emissions.

III.C.1.

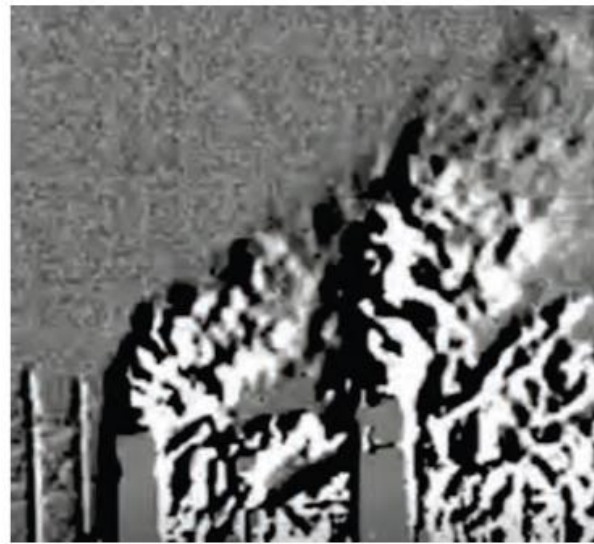
Vinyl Chloride Air Releases, TRI reports, pounds



Forty-nine (49) different facilities reported releases of at least one pound of vinyl chloride in at least one year between 2010 and 2022.

Twelve VCM and PVC manufacturing facilities accounted for 82% of all vinyl chloride releases in this period. The twelve are:

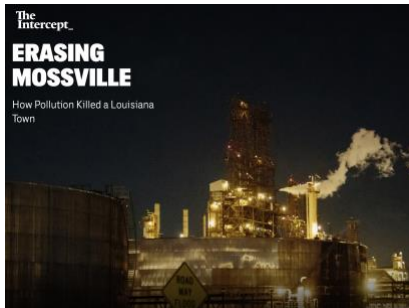
- Westlake - Calvert City, Kentucky (manufactures VCM and PVC)
- Formosa, Point Comfort, Texas (VCM and PVC)
- Shintech - Plaquemine, Louisiana (VCM and PVC)
- Westlake - Geismar, Louisiana (VCM)
- Shintech - Addis, Louisiana (PVC)
- Orbia, Henry, Illinois (PVC)
- Westlake - Westlake, Louisiana (North and South plants) (VCM)
- Westlake, Plaquemine, La. (VCM and PVC)
- Westlake, Aberdeen, Mississippi (PVC)
- Shintech - Freeport, Texas (PVC)
- Formosa - Baton Rouge, Louisiana (VCM); and,
- Orbia - Pedricktown, New Jersey (PVC).



An EPA inspector on April 13, 2022, using an infrared video camera, [recorded these emissions](#) from Westlake's Lake Charles South vinyl chloride manufacturing facility in Louisiana. "The GMAP detected elevated VOCs near the halogenated hydrocarbon tank farm. I recorded FLIR video MOV_0157 of VOC emissions coming from the area of the tank farm [screenshot at left]. I recorded FLIR video MOV_0158 of VOC emissions coming from the stack of the Plant A Powerhouse [screenshot at right]. It is unknown if the GMAP detections were due to emissions from the Plant A Powerhouse or a source in the halogenated hydrocarbon tank farm," reported inspector Nicholas Bobbs.

III.C.2. Vinyl Chloride Pollution and the Relocation of Communities of Color in Louisiana

“Over the years, people in low-income communities of color have been forced to relocate due to vinyl chloride and contamination from vinyl/PVC plants in at least four different communities in Louisiana including Mossville, Reveilletown, Morrisonville, and Plaquemine.” - Toxic Free Future, 2023.⁴⁵



Mossville: “Just beyond the curtain of pines and cypress trees surrounding Mossville sits an oil refinery, several petrochemical plants, and one of the country’s largest concentrations of manufacturers of vinyl chloride, a main ingredient in polyvinyl chloride, the plastic known as PVC. As a matter of course — and most often within permitted levels — these facilities emit millions of pounds of toxins into the air, water, and soil each year. ‘Living here has messed me up,’ Allen LeBlanc said. Although his appearance was disheveled, he spoke clearly and coherently, upright in his chair. ‘If I could have another life, I’d take it. This one ain’t worth 10 cents to me,’ he said in his thick Louisiana drawl. ‘I’d like to do things for myself again — I’d give everything I’ve got for that.’” - The Intercept, 2018⁴⁶



Morrisonville: “Dow Chemical Company bought the plantation land next to Morrisonville in 1958 and built a chemical plant to produce vinyl chloride and other chemicals. Dow’s facility encroached on Morrisonville more and more as the facility grew. It was said that the residents could hear announcements over Dow’s loudspeakers in their homes. In the 1980’s extensive vinyl chloride contamination of the groundwater was found under the Dow facility and Morrisonville. Dow bought out the residents, many of whom moved to two new subdivisions named in honor of the old town.”

- Rivergator.org⁴⁷

(Photo by Jim Vallette/Material Research, 2023)



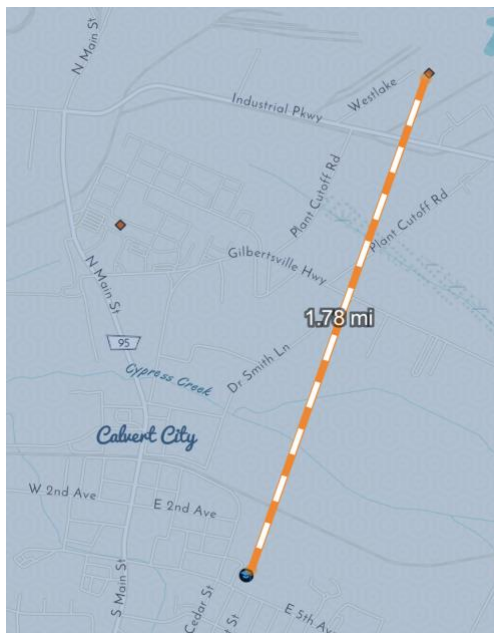
Reveilletown: “Reveilletown, Louisiana was once a small African-American town adjacent to a PVC facility owned by Georgia-Gulf. In the 1980s, after a groundwater toxic plume of vinyl chloride began to seep under homes, Georgia-Gulf agreed to permanently evacuate the entire community of one hundred and six residents. Reveilletown has since been demolished.” - CHEJ.⁴⁸

(Photo by Sam Kittner (1998), Library of Congress Collection⁴⁹)

Myrtle Grove (Plaquemine): “Myrtle Grove Trailer Park was located in Iberville Parish, on the southern end of the town of Plaquemine. In 1997, the Upper Plaquemine Aquifer tested positive for high levels of vinyl chloride. Its water supply came from the contaminated aquifer. Residents were not notified until 5 years later, in what state and local officials called an unfortunate incident of ‘human error.’ The contamination made insurance rates skyrocket, and the landlord shut down the trailer park, giving each resident \$2,000 for relocation. In 2011, Dow Chemical was found liable for the vinyl chloride contamination by Judge Jerome M. Winsberg. He ruled that Dow was responsible for cleaning up the groundwater pollution.” - Louisiana Environmental Action Network⁵⁰

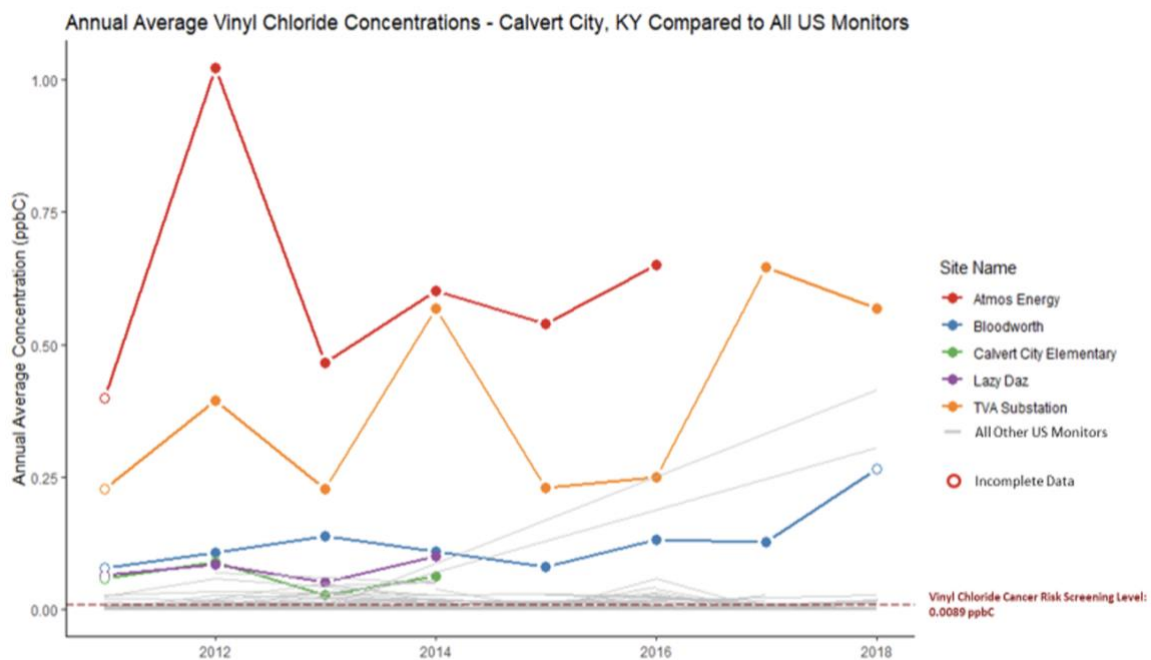
III.C.3. Westlake in Calvert City, Kentucky : #1 Vinyl Chloride Air Polluter

In Calvert City, Kentucky, Westlake runs the oldest active PVC plant in the country. It is the country’s leading source of vinyl chloride air pollution. Its annual reports often exceed 100,000 pounds per year. **A recent EPA/State of Kentucky air monitoring study found that emissions of vinyl chloride and other substances from this plant are increasing cancer risks for people who live, work, or recreate in the area.**⁵¹

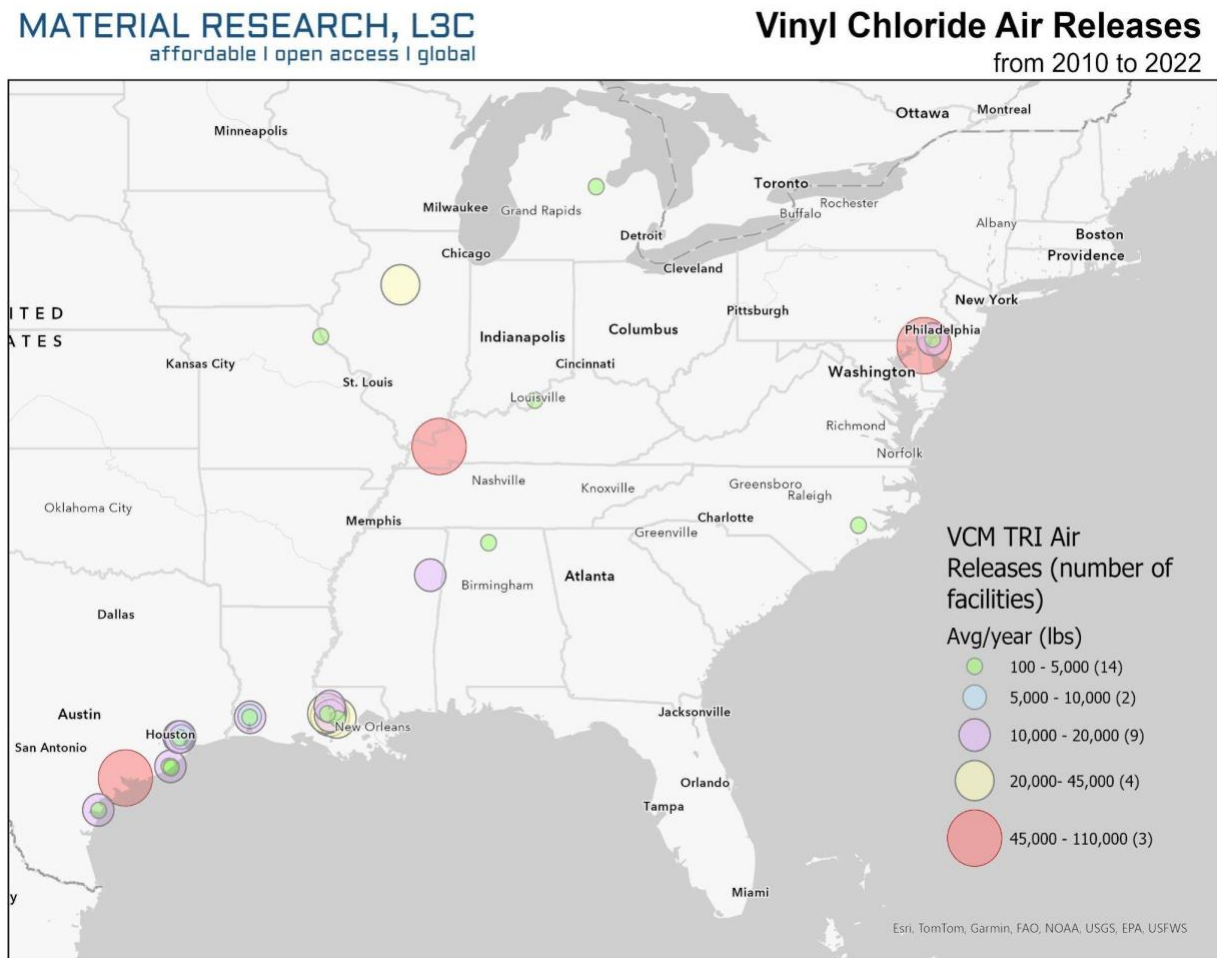


The State of Kentucky found that average annual vinyl chloride concentrations in the community of Calvert City, far from Westlake’s VCM/PVC factory, posed substantial health risks. Average concentrations exceeded cancer risk screening levels in locations such as the Calvert City Elementary School, 1.8 miles away (left).⁵²

Material Research World Atlas (left)
 Kentucky [Department for Environmental Protection](#)(below)



III.C.4. Map. Vinyl chloride air releases, 2010 to 2022

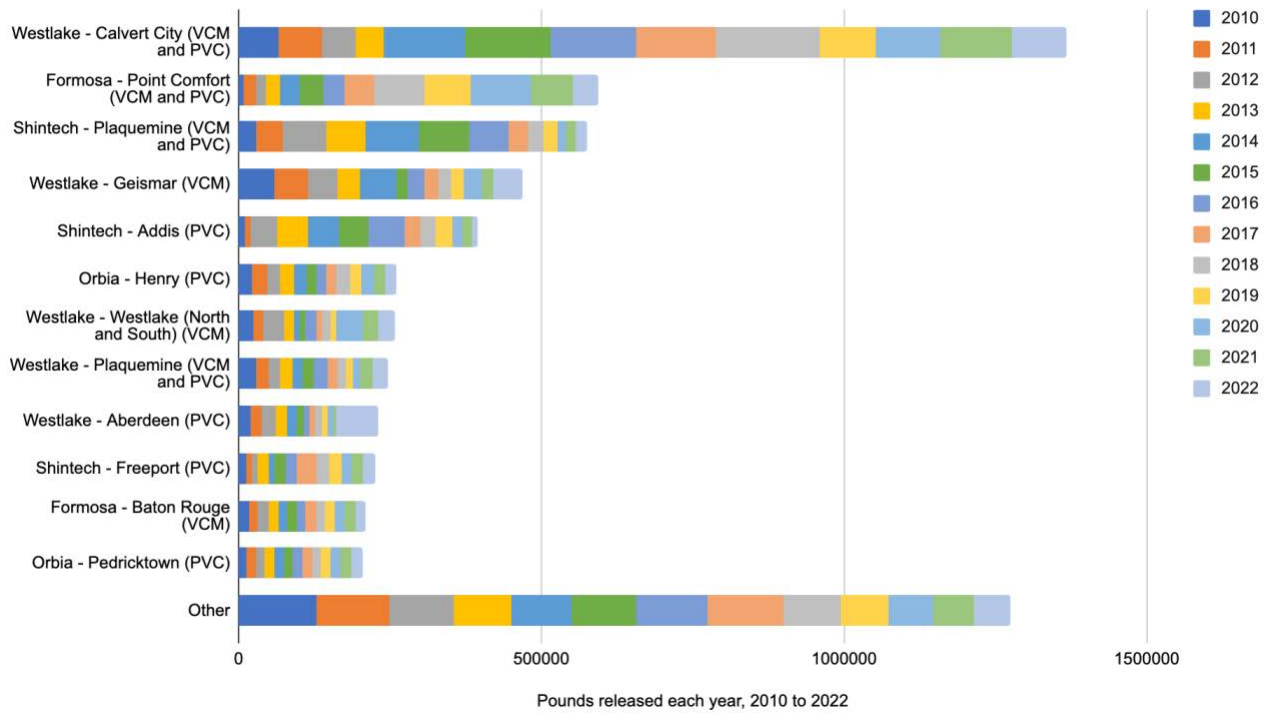


“Vinyl chloride is a widely used chemical, with many applications across industries like building, electronics, and packaging. However, vinyl chloride is a carcinogen with known toxic properties. Exposure to vinyl chloride through ingestion, inhalation, or skin contact can lead to its absorption into the bloodstream, where it is transported to the liver. In the liver, vinyl chloride is metabolized by the enzyme cytochrome P450, producing a highly reactive intermediate called chloroethylene oxide. This molecule contains an epoxide group ... that can readily bind to the bases in DNA (guanine as an example), resulting in the formation of DNA adducts. These adducts can cause DNA mutations, which may ultimately lead to the development of cancer.”

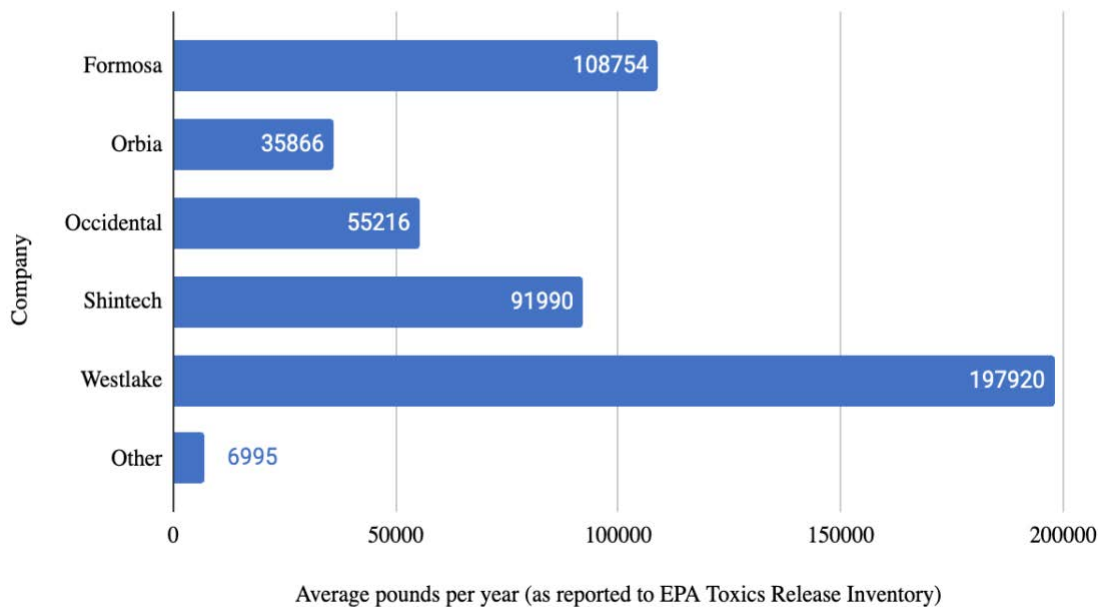
- CAS, a division of American Chemical Society, 2023⁵³

III.C.5. Graphs and charts on vinyl chloride air releases

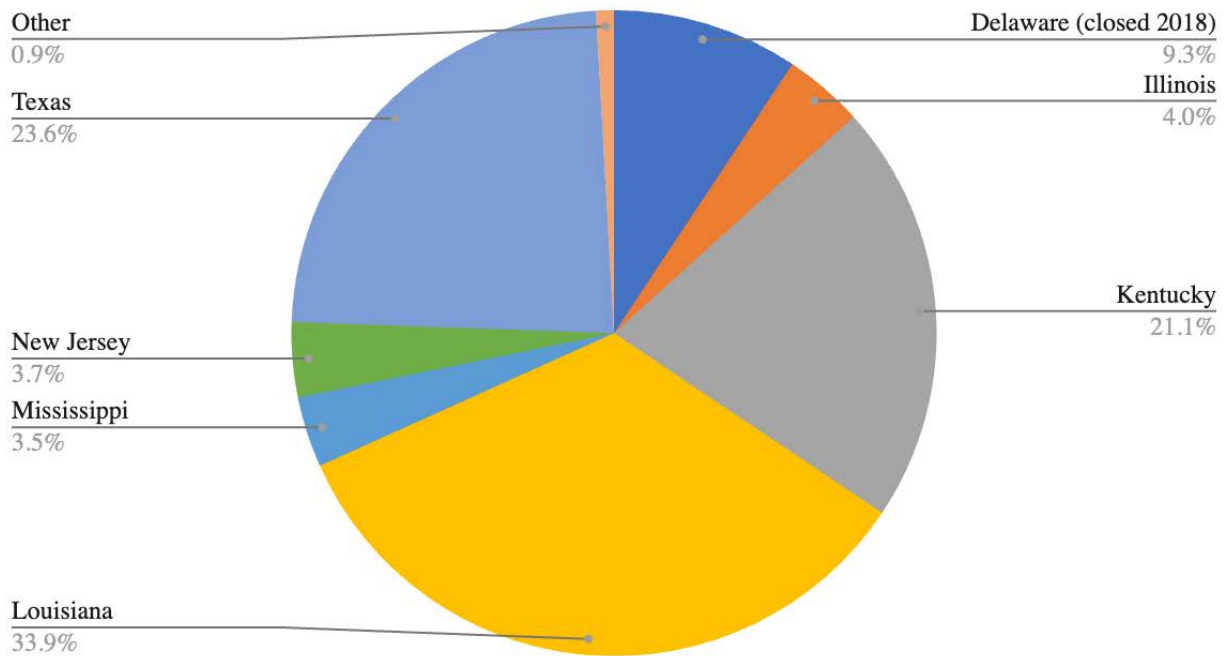
The Dirty Dozen Vinyl Chloride Air Polluters



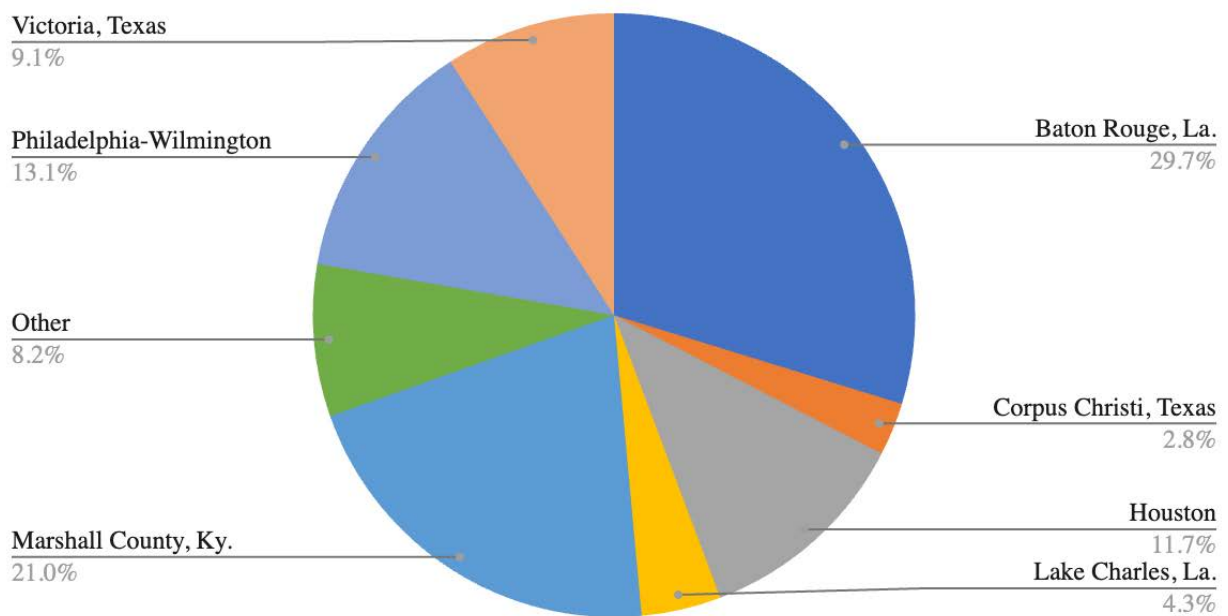
Vinyl chloride air releases - average pounds per year, 2010 - 2022



State shares of vinyl chloride air pollution, 2010 to 2023



Metro Shares, Vinyl Chloride Air Releases, average pounds/year (2010 to 2022)



III.D. Unplanned Vinyl Chloride Releases from Manufacturing VCM and PVC

In addition to what is routinely reported in the TRI, vinyl chloride is released, with great frequency though not by plan, from manufacturing facility equipment. These releases range from small leaks through gaskets and fittings to full-blown chemical disasters.

In the past 60 years, violent vinyl chloride releases at vinyl chloride or PVC manufacturing plants killed at least 14 people and injured at least 120 people in the United States.

III.D.1 Table. Vinyl Chloride Casualties at Manufacturing Plants

Date	Location	Number killed	Number injured
Jan. 12, 1964	Thompson Chemical PVC plant, Attleboro, Massachusetts	7	40
Aug. 12, 1969	Tenneco Polymers PVC plant, Raritan, New Jersey	2	38
1972	Tenneco Polymers PVC plant, Raritan, New Jersey	0	3
Sept. 1, 1980	Great American Chemical PVC plant, Fitchburg, Massachusetts	0	2
April 23, 2004	Formosa Plastics PVC plant, Illiopolis, Illinois	5	4
Dec. 24, 2012	Axiall vinyl chloride plant, Westlake, Louisiana	0	1
Dec. 22, 2013	Axiall vinyl chloride plant, Westlake, Louisiana	0	28
March 17, 2022	Olin Chemical vinyl chloride plant, Freeport, Texas	0	4

Incidents with casualties reveal chronically dangerous operations in which unplanned releases are commonplace.

National Response Center reports, Risk Management Plan records, and local media reports provide further insights into the frequency of unpermitted vinyl chloride releases at VCM and PVC plants.

From 2010 to 2023, at least 930 vinyl chloride incidents were reported at vinyl chloride and PVC manufacturing facilities. This is an average of more than 66 incidents per year.

III.D.2. Graphs and tables on vinyl chloride incidents

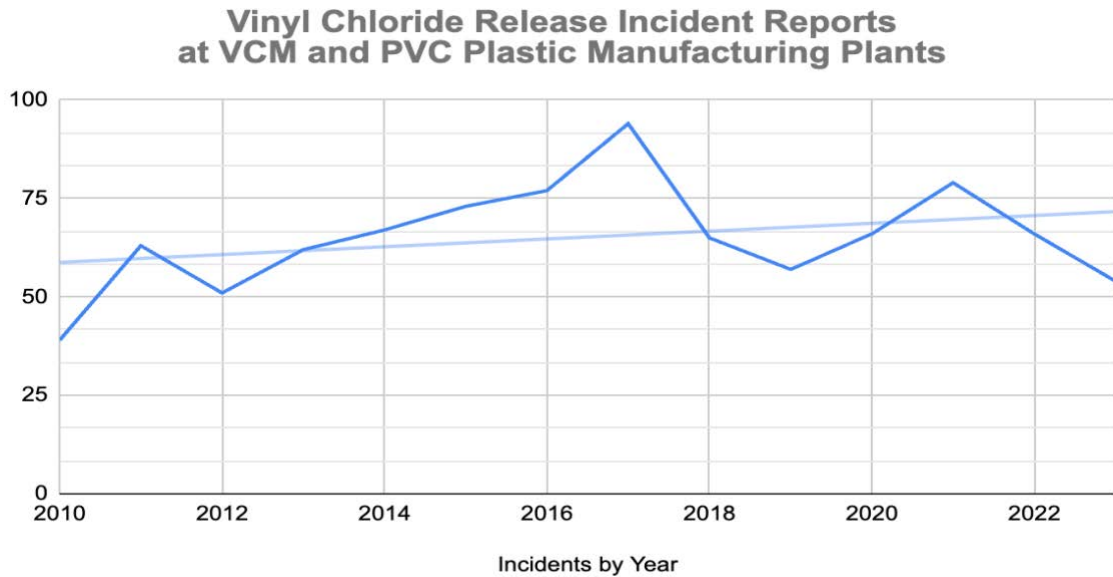
Table. Number of Vinyl Chloride Incident Reports at VCM and PVC factories, 2010 to 2023

Company	Location	Number of reported incidents
Westlake	Westlake, La. (North and South Plants)	148
Occidental	Deer Park, Texas	105
Formosa	Point Comfort, Texas	105
Occidental	La Porte, Texas	102
Formosa	Baton Rouge, Louisiana	81
Occidental	Pasadena, Texas	70
Westlake	Plaquemine, Louisiana	61
Occidental	Ingleside (Gregory), Texas	42
Westlake	Calvert City, Kentucky	34
Westlake	Geismar, Louisiana	28
Shin-Etsu	Plaquemine, Louisiana	24
Olin	Freeport, Texas	19
Berkshire Hathaway (Lubrizol)	Louisville, Kentucky	16
Formosa	Delaware City, Delaware	16
Occidental	Pedricktown, New Jersey	16
Orbia	Henry, Illinois	15
Shin-Etsu	Freeport, Texas	10
Westlake	Aberdeen, Mississippi	5
Orbia	Pedricktown, New Jersey	3
Olin	Plaquemine, Louisiana	3
Shin-Etsu	Addis, Louisiana	2

This table number does not include incidents involving rail cars and seaborne vessels at these facilities.



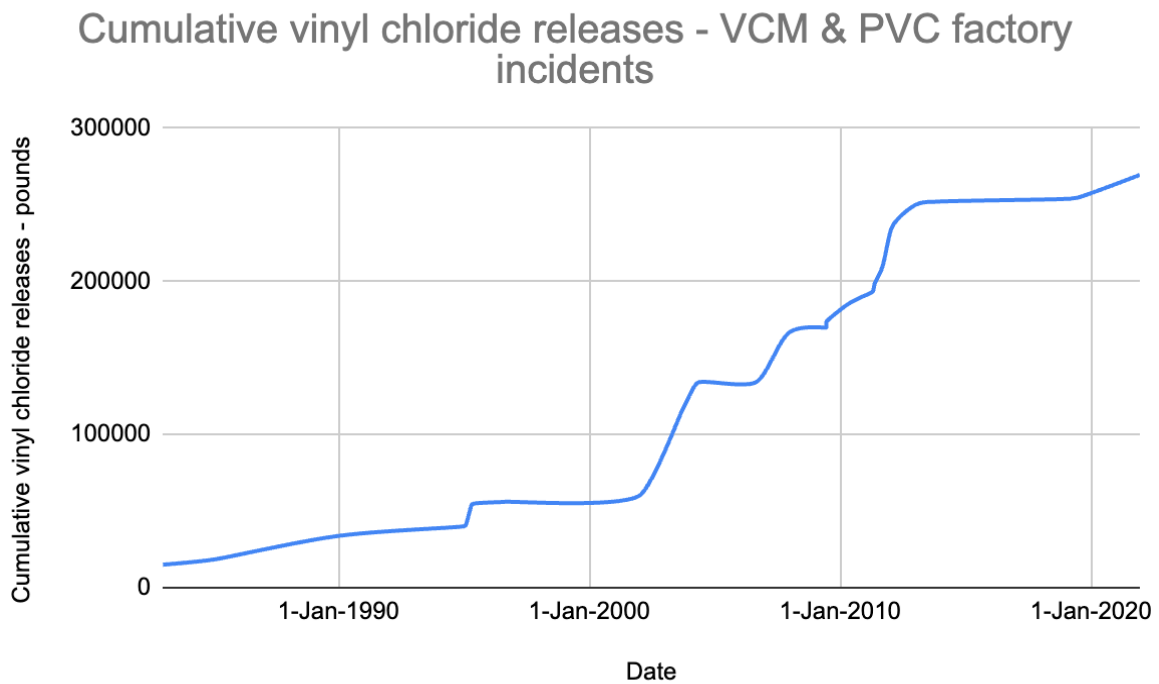
Westlake in Geismar, Louisiana. (Google Street View, [April 2021](#))



Sources: National Response Center reports via Skytruth Alerts, Risk Management Plan accident reports, local news.

The trendline reflects increasingly frequent reporting over this period. Appendix 3 provides details of these reports.

Since 2000, there have been at least nine major incidents at vinyl chloride and PVC facilities, releasing more than 200,000 pounds of vinyl chloride, combined.



III.D.3. Storage Tank Incidents

Storage spheres at manufacturing facilities contain millions of pounds of vinyl chloride and pose a particularly large threat. For example, Shin-Etsu's VCM/PVC plastic manufacturing facility in Plaquemine, the largest in the U.S., has as much as 28 million pounds of vinyl chloride on hand at any given time.

In nearby Addis, Louisiana, in 1997, "a 500,000-gallon storage tank at the Borden Chemical & Plastics polyvinyl chloride plant blew off its top with a detonation heard for miles around," reported the Baton Rouge Advocate. Louisiana Route 1 was closed and neighbors evacuated the area.⁵⁴

There have been no incidents quite as dramatic since, but releases from storage tanks occur on a regular basis. From 2010 to 2023, there were at least 18 reports of vinyl chloride releases from storage units in VCM and PVC factories. On Feb. 21, 2013, a disc ruptured on a storage tank at Shin-Etsu's PVC factory in Freeport, leading employees to shelter in place. Gaskets fail. Lines leak. And valves get opened up, according to reports logged at the National Response Center. (See Appendix 3 for further incident details)

Worst Case Scenario

The catastrophic release of 9.5 million gallons of vinyl chloride from a storage tank at OxyVinyls' Deer Park, Texas operations, could impact 28,599 people in a 1.3 mile radius, according to the chemical company. This is the worst of the vinyl chloride scenarios on file with EPA as of May 2023. Appendix 1 provides graphical representations of this and all other worst case scenarios involving vinyl chloride on file with EPA.

Releases of vinyl chloride from other infrastructure are addressed in subsequent sections regarding transportation and disposal.

III.D.4. Chronology of Vinyl Chloride Release Incidents at VCM and PVC manufacturing facilities

Note: This lists the most significant incidents at facilities that produce vinyl chloride and/or polyvinyl chloride plastics. See Appendix 3 for additional incident reports.

January 12, 1964, Attleboro, Massachusetts. Vinyl chloride leaked from equipment at the Thompson Chemical Company PVC plant. An unknown "outside source of ignition" unleashed a fireball "seen from Woonsocket." People in Boston, 30 to 40 miles away, heard the blast.⁵⁵ Three out of six buildings at the facility were destroyed. Seven employees died, six instantly, from extensive burns.⁵⁶ Another 40 people were injured by the blast or while fighting the fire. Surrounding homes had windows "blown out, doors and door frames ripped from the walls, and houses moved on their foundations," according to a University of Delaware Disaster Research Center account.⁵⁷ Chronic or delayed health problems linked to this and all other releases in this list are unknown.

1966, New Jersey: According to the U.S. Chemical Safety Board’s summary of “PVC manufacturing accidents involving inadvertent reactor discharge,” an operator of a plant in New Jersey opened the wrong reactor bottom valve, discharging the contents. One person was killed and the plant was destroyed.⁵⁸

August 12, 1969, Raritan, New Jersey. A worker fell against a valve and died in a vinyl chloride fire that followed at the Tenneco Polymers PVC manufacturing facility. Thirty homes were evacuated.⁵⁹ It was later reported that an additional worker had been killed.⁶⁰

1972, Raritan, New Jersey: “An explosion in 1972 injured three workers” at the Tenneco PVC manufacturing facility, according to the Hunterdon County Democrat newspaper.⁶¹

September 1, 1980, Fitchburg, Massachusetts: “A blast ripped through a vinyl chloride reactor” at the Great American Chemical PVC plant, “injuring two employees and sending noxious fumes throughout the area,” reported United Press International.⁶² An operator had opened the wrong bottom valve in a reactor, discharging a fresh batch of vinyl chloride.⁶³

December 24, 1997, Geismar, Louisiana: “A 500,000-gallon storage tank at Borden Chemicals & Plastics in Ascension Parish, Louisiana blew off its top ‘with a detonation heard for miles around, forcing the closure of Louisiana Route 1 and the voluntary evacuation of some neighbors,’” according to Center for Health, Environment and Justice (CHEJ).

January 29, 2002, Calvert City, Kentucky: A fire and explosion at Westlake’s vinyl chloride manufacturing facility reportedly released up to 1,238 pounds of vinyl chloride. The heat from the fire ruptured a chlorine pipeline, which leaked chlorine gas.⁶⁴ Around 750 people sheltered in place.⁶⁵ A portion of a state road was shut down.⁶⁶

June 2003, Baton Rouge, Louisiana: An operator at the Formosa plant in Baton Rouge, Louisiana, opened the bottom valve on the wrong reactor. This released 8,000 pounds of vinyl chloride into the air.⁶⁷

September 27, 2003, Plaquemine, Louisiana: A power failure led to the release of 55,656 pounds of vinyl chloride. The plant’s owner at the time, Georgia Gulf, reported in a Risk Management Plan accident report, “No deaths or injuries occurred on or offsite. Shelter in place from the community was not necessary.”⁶⁸ The facility is now owned by Westlake.

April 23, 2004, Illiopolis, Illinois. Five workers were killed and four others seriously injured when Formosa Plastics’ PVC manufacturing facility in Illiopolis, Illinois, exploded. The U.S. Chemical Safety Board reported, “The explosion followed a release of highly flammable vinyl chloride, which ignited. The explosion forced a community evacuation and lit fires that burned for several days at the plant.”⁶⁹ Formosa closed the plant permanently.



Vinyl Chloride Explosion, Formosa Plastics, Illiopolis, April 23, 2004. [Chemical Safety Board](#) photo.

May 2005, Delaware City, Delaware. According to the U.S. Chemical Safety Board, “an operator mistakenly transferred the contents of an operating reactor, resulting in a VCM release of about 2,500 pounds.” at Formosa’s PVC plant.⁷⁰

November 18, 2008, Deer Park, Texas: KTRK-TV Houston reported that a fire that “started around 7:15 am inside a furnace at the Oxy Vinyl plant on Tidal Road near Highway 225. Plant officials say as a precaution, they called for a shelter-in-place in nearby communities. It has since been lifted. We’re told the fire was quickly contained and posed no threat to anyone.” Occidental later said that ethylene dichloride, hydrogen chloride, and VCM ignited after being accidentally vented from a cracking furnace.⁷¹

April 27, 2011, Ingleside/Gregory, Texas: A power failure led to the release of 8,400 pounds of vinyl chloride to the air through the emergency vent scrubber at Occidental’s VCM plant. Occidental’s report cited “unusual weather” as a factor.⁷²

May 21, 2011, Henry, Illinois: A power outage caused by human error led to a spill of 5,155 pounds of vinyl chloride from a process vessel at the PVC plant owned by Orbia (called Mexichem at the time).⁷³

September 12, 2011, Calvert City, Kentucky: An uninspected pipe developed a leak and caused 11,000 pounds of vinyl chloride to be emitted from the plant.⁷⁴

January 20, 2012, Plaquemine, Louisiana: A caller to the National Response Center reported that a steam valve leak released 25,000 pounds of vinyl chloride at the plant. It was then owned by Axiall Corporation.⁷⁵ This reported incident does not appear in Axiall’s RMP report for that time. (Westlake acquired Axiall in 2016.)

March 22, 2012, Geismar, Louisiana: A VCM reactor column collapsed and released vinyl chloride and other toxic chemicals. “Residents were told to shelter in place and a 45 mile stretch of the Mississippi River was shut down,” said local environmental researcher Paul Orr.⁷⁶ Local news reported that a “massive fire” released “a huge plume of smoke that was sitting over Westlake Chemicals.”⁷⁷ In an incident report to the state and Ascension Parish officials, Westlake said the incident released 238.79 pounds of vinyl chloride. It said a VCM reactor column had “collapsed.” Westlake marked **the incident as “not preventable.”**⁷⁸

Later in 2012, OSHA announced that it had “cited Westlake Vinyls Co. LP in Geismar for 10 serious safety and health violations, primarily related to OSHA’s process safety management standards. Proposed penalties total \$67,000.... A serious violation occurs when there is substantial probability that death or serious physical harm could result from a hazard about which the employer knew or should have known.”⁷⁹



Screenshot of WAFB-TV report on Westlake vinyl chloride incident in Geismar, La., March 22, 2012.⁸⁰

December 24, 2012, Westlake, Louisiana: An estimated 15,000 pounds of vinyl chloride was released from a burning pipe at the plant then-owned by Axiall.⁸¹ “In a report to the state Department of Environmental Quality, Axiall concluded that a pipe breached in the quench tower area of the PHH production unit and released a mixture of vinyl chloride and ethylene dichloride that ignited, causing the Dec. 24 fire. The incident sent one worker to West Calcasieu Cameron Hospital for observation,” reported American Press.⁸²

February 21, 2013, Freeport, Texas: A caller informed the National Response Center that vinyl chloride was released after a disc ruptured on a storage tank at Shin-Etsu’s PVC plant in Freeport, Texas. Employees sheltered in place but no immediate injuries were reported.⁸³

December 20, 2013, Westlake, Louisiana: A second fire within a year occurred in the vinyl chloride manufacturing facility then owned by Axiall.⁸⁴ According to an Axiall accident report, the incident released 2,400 pounds of vinyl chloride. The company “has concluded that the incident was caused by a pipe rupture attributed to conditions that exceeded the safe operating limits during furnace restart, without timely intervention to stem due to extreme temperature event.” It said that one person was hospitalized and 27 others sought medical treatment. Five thousand people were told to shelter in place, and 130 personnel were evacuated from the adjacent PPG Silicas plant.⁸⁵

July 29, 2017, Plaquemine, Louisiana: A pipe ruptured at Shintech’s manufacturing facility and released vinyl chloride, ethylene dichloride, and hydrochloric acid.⁸⁶

August 22, 2018, Westlake, Louisiana: A valve failure at Westlake Chemical’s North Plant released 1,530 pounds of vinyl chloride. During the event, 117 personnel sheltered in place.⁸⁷

June 22, 2019, Plaquemine, Louisiana: A caller to the National Response Center said “a pressure relief device on a PVC reactor lifted and released 1,000 pounds of vinyl chloride into the air.”⁸⁸ This reported incident is not listed in Westlake’s RMP report filed February 21, 2020.⁸⁹

December 14, 2021, Westlake, Louisiana: A leak in piping in Westlake’s North Plant released 14,869 pounds of vinyl chloride. During the event, a caller to the National Response Center said, “the release is not secure at this time.” Three hundred people sheltered in place.⁹⁰

March 17, 2022, Freeport, Texas: A caller to the National Response Center reported an incident at Olin’s VCM manufacturing facility. The caller said “due to a pump seal failure on a piece of equipment there was a release of 5 pounds of vinyl chloride to the atmosphere. Caller stated **four employees were exposed to the release.**”⁹¹

March 4, 2023, Louisville, Kentucky: An agitator valve broke at the Lubrizol chlorinated PVC manufacturing facility in Louisville, Kentucky, resulting in a fire. The building and an unknown number of people outside the facility were evacuated.⁹²

March 13, 2023, Point Comfort, Texas: Formosa reports a 58 pound gas leak to the Texas Commission on Environmental Quality. “This is the second vinyl chloride emissions report Formosa has filed to TCEQ this month,” reported the Victoria Advocate. “The other occurred on March 2, when the company reported a concentration of over 193 pounds per billion” in the air.⁹³

III.E. Other Exposures from Processing Vinyl Chloride

The vast majority of vinyl chloride is used in PVC plastic manufacturing, but it is also used

by manufacturers in the processing of certain specialty chemicals, mainly biocides and fluorochemicals.

Facilities using vinyl chloride were identified through various datasets including Environmental Protection Agency records of Chemical Data Reports (2016 to 2019), Risk Management Plan Reports (2000 to present, via Data Liberation Project), Toxic Release Inventory “Chemicals In Use” data, Federal Railroad Administration incident reports, National Response Center data, and Coast Guard Incident data.

III.E.1. Table. Other Companies That Process Vinyl Chloride

Facility	Evidence of potential exposure to vinyl chloride
BASF (biocides), Palmyra, Missouri	2 incident reports to the National Response Center (NRC); Released an average 101 pounds per year vinyl chloride to air, 2010 to 2022 (Toxics Release Inventory, TRI)
Chemours (fluorochemicals), Gregory/Ingleside, Texas	981 pounds per year releases to air (TRI average, 2010 to 2022)
Corteva (biocides), Freeport, Texas (began reporting in 2019)	183 pounds per year releases to air (TRI average, 2010 to 2022)
Daikin (fluorochemicals), Decatur, Alabama	2 incident reports; 1,831 pounds per year vinyl chloride to air (TRI average, 2010 to 2022)
Huntsman (ethyleneamine), Freeport, Texas	2 incidents; 50 pounds per year releases to air (TRI average, 2010 to 2022)
One Rock Capital/Kensing (specialty chemicals), Kankakee, Illinois	1 incident report. No TRI report.
Orbia (specialty chemicals), Avon Lake, Ohio	1 incident report; 5 pounds per year releases to air (TRI average, 2010 to 2022)
Rowmark (laminates), Trenton, NJ	153 pounds per year releases to air (TRI average, 2010 to 2022)
Spartech (plastic sheet manufacturing facility), Greenville, SC	96 pounds per year releases to air (TRI average, 2010 to 2022)
Wacker (Vinyl chloride-based polymers),	3 incident reports; no TRI release report.

Facility	Evidence of potential exposure to vinyl chloride
Calvert City, KY	
Weylchem (vinylmagnesium chloride), Elgin, SC	Consumes vinyl chloride at its specialty chemicals site in Elgin, South Carolina. (2020 Chemical Data Report).

III.E.2. Imports for Processing

Imports for domestic processing are minimal relative to the processing of vinyl chloride manufactured in the United States.

Until the mid-2000s, Canada was a minor source of vinyl chloride for U.S. chemical manufacturing facilities, supplying an average 1 million pounds of VCM per year between 1989 and 2006. The last vinyl chlorine manufacturer in Canada closed in 2009.⁹⁴ Then, until 2005, China provided roughly the same amount, which is only 0.01% of what is made in the United States.

The vinylmagnesium chloride producer Weylchem was the only U.S. importer in 2023. It imported 30,000 pounds of vinyl chloride from the port of Shanghai, China, in 2023. Weylchem also imported 12,000 pounds from Germany.⁹⁵ Vinylmagnesium chloride is prepared by reacting vinyl chloride with tetrahydrofuran and active magnesium. It is a reagent used mainly in the pharmaceutical industry.⁹⁶ There are no published studies of this chemical in the National Library of Medicine.

Most vinyl chloride in China is manufactured in a very different process than what is used in U.S. industry: manufacturing facilities react coal with chlorine using mercury catalysts, resulting in massive carbon dioxide and mercury air pollution. Ten percent of the world's PVC is made in the Xinjiang region by companies that participate in forced labor programs.⁹⁷ In September 2023, due to its extensive use of forced Uyghur labor, the U.S. banned all imports from one of the world's biggest PVC manufacturers, Xinjiang Zhongtai Chemical.⁹⁸

IV. Transporting Vinyl Chloride

Half of the dozen vinyl chloride manufacturing plants connect to railways that deliver their product to polyvinyl chloride (PVC) plastic manufacturing facilities. Some routes are thousands of miles long. This is because decades ago, the industry established plastic manufacturing facilities far from the vinyl chloride plants, but close to pipe and flooring manufacturing facilities and other major consumers, especially in the Upper Midwest and Northeastern U.S.

The practice of shipping unreacted, volatile vinyl chloride long distances continues a half century later. An estimated 30% of all vinyl chloride produced in the United States is transported in chemical tanks by rail or in boats to eight PVC plants in the U.S. and abroad.

IV.A. Table. VCM and PVC transportation connections

Manufacturing Facility	VCM Capacity, U.S. pounds	PVC Capacity, U.S. pounds	VCM transport method
TOTAL	21,581,164,000	22,410,776,000	
VCM ONLY			
Occidental VCM - Deer Park, Texas	1,600,000,000		Rail and pipeline to multiple destinations
Occidental - Ingleside (Gregory), Texas	2,403,036,000		Rail and vessel to multiple destinations
Occidental - La Porte, Texas	2,403,036,000		Rail and pipeline to multiple destinations
Olin Blue Cube - Freeport, Texas	1,840,858,000		Pipeline to Shintech - Freeport
Westlake- Lake Charles North Plant, Louisiana	1,131,500,000		Rail to Aberdeen, Mississippi
Westlake - Lake Charles South Plant, Louisiana	967,992,000		Rail and boat to multiple destinations
VCM + PVC		9,889,926,000	
Formosa - Baton Rouge, Louisiana	1,439,616,000	1,130,970,000	Onsite
Shin-Etsu - Plaquemine, Louisiana	4,188,778,000	2,425,082,000	Onsite, pipeline, and train (balance goes to Shin-Etsu Freeport and Westlake Plaquemine)

Westlake - Plaquemine, Louisiana	1,598,350,000	1,973,134,000	Onsite and pipeline (from Shin-Etsu)
Westlake - Geismar, Louisiana	848,778,000	1,102,310,000	onsite
Formosa - Point Comfort, Texas	1,660,066,000	1,759,286,000	onsite
Westlake - Calvert City, Kentucky	1,499,142,000	1,499,142,000	onsite
PVC ONLY		12,520,852,000	
OxyVinyls PVC - Deer Park, Texas		550,000,000	Pipelines from Deer Park and La Porte
Occidental - Pasadena, Texas		1,980,000,000	Pipelines from Deer Park and La Porte
Shin-Etsu (Shintech)- Addis, Louisiana		1,800,000,00	Pipeline from Plaquemine
Shin-Etsu (Shintech) - Freeport, Texas		2,900,000,000	50% rail (Shin-Etsu Plaquemine, 50% pipeline from Olin - Freeport
Occidental - Pedricktown, N.J.		480,000,000	Rail from Occidental - Texas plants
Orbia - Pedricktown, New Jersey		148,920,000	Rail from Occidental - Texas plants
Orbia - Henry, Illinois		107,120,000	Rail from Occidental - Texas plants
Westlake - Aberdeen, Mississippi		1,400,000,000	Rail Westlake - Louisiana plants
<i>Vinyl chloride export destinations</i>			
Occidental - Niagara Falls, Ontario, Canada		375,888	Rail from Occidental - Texas plants
Orbia - Altamira, Mexico		760,594	95% vessel, 5% rail from Occidental - Ingleside, all from the U.S.
Orbia - Mamonal, Colombia		440,924	Vessel from the U.S. - Occidental - Ingleside and Westlake - Westlake South

These methods of transportation potentially expose millions of U.S. residents to the dangers of vinyl chloride.

Five stranded PVC facilities in the U.S. depend upon vinyl chloride by rail. Three PVC manufacturing facilities outside the U.S. - Occidental's plant in Niagara Falls, Ontario, Canada, and Orbia's plants in Mexico and Colombia - get all of their vinyl chloride from the U.S. Most shipments to Mexico and Colombia are by sea.

Each boat typically carries at least 10 million pounds of vinyl chloride. Given this volume (combined with the flammability of vinyl chloride), if there were an explosion of a tank vessel at a chemical dock, it would be even more catastrophic than incidents on trains. This is not mere speculation, as there have been several close calls in Corpus Christi Bay where Occidental's Ingleside vinyl chloride manufacturing facility is located. In 1995, a vinyl chloride ship collided with a chemical barge. In 2008, a vinyl chloride leak from a vessel docked at Occidental's Ingleside vinyl chloride manufacturing facility reached explosive levels and sickened crew members and first responders. A shift in the wind spared the neighboring town of Ingleside from the vapors. Further details are found below in Section **IV.C.4**.



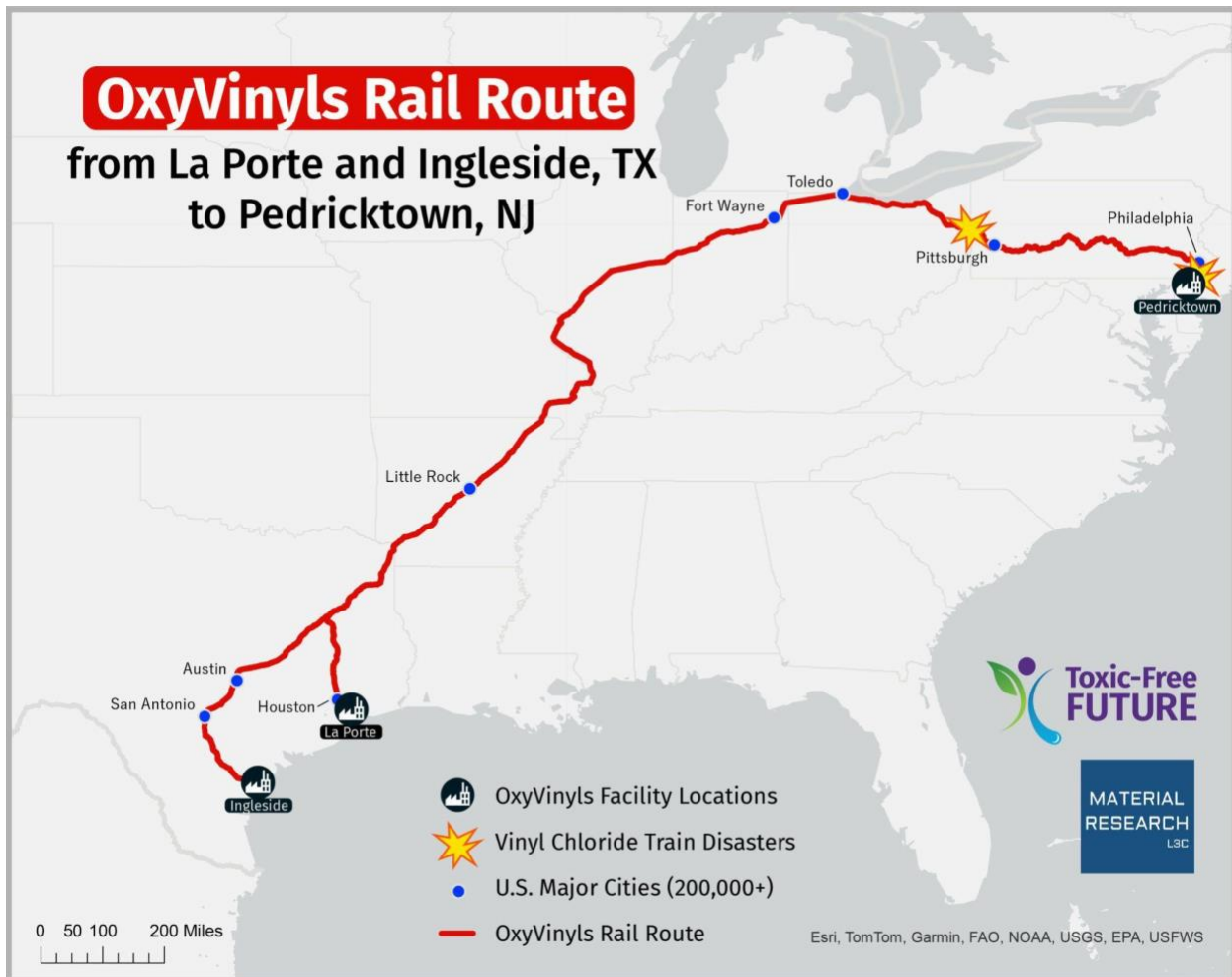
Occidental Petroleum's chemical production facility on Corpus Christi Bay is a major supplier of vinyl chloride to PVC plants throughout the Americas, from Canada to Colombia. It delivers vinyl chloride in refrigerated boats (seen at left) and rail tank cars (seen at right). [Google Earth photo](#).

IV.B. Rail Tank Car Transportation

Five PVC plants in the United States receive vinyl chloride by rail. The PVC plastic manufacturing facilities are in New Jersey, Illinois, Mississippi, and Texas. They have a combined demand by rail of 3,586,040,000 pounds, which is equivalent to 16.6% of estimated U.S. vinyl chloride production capacity.

All the vinyl chloride companies use railways to deliver VCM to customers. The destination is usually the manufacturers' own PVC plants. Formosa ships vinyl chloride from Baton Rouge, Louisiana, to Point Comfort, Texas. Westlake ships it from Lake Charles, Louisiana, to Aberdeen, Mississippi. Shintech depends upon its Plaquemine, Louisiana vinyl chloride manufacturing facility for half of its PVC production in Freeport, Texas. (The other half comes from Olin, next door in Freeport.) Occidental ships vinyl chloride by rail from its Texas plants to plants that it owns in Geismar, Louisiana, Pedricktown, New Jersey, and Niagara Falls, Ontario, Canada. It also ships vinyl chloride by rail to plants run by its partner, Orbia, in Altamira, Tamaulipas, Mexico; Henry, Illinois; and Pedricktown, New Jersey.

A January 2024 Toxic-Free Future/Material Research L3C investigation into OxyVinyls' rail route from Texas to New Jersey found that more than 3 million residents live within a mile of the tracks. Two major vinyl chloride disasters occurred in recent years on this course: the November 2012 Paulsboro, New Jersey derailment and vapor cloud that sickened hundreds, and the February 2023 East Palestine, Ohio conflagration that has a toll that is only beginning to emerge. Both involved OxyVinyls' VCM, made in Texas and headed for New Jersey.⁹⁹



The Paulsboro disaster was the highest casualty event in the history of vinyl chloride railcar deliveries in the U.S., but there are others.

Since 1968, a dozen (12) derailments have resulted in the release of vinyl chloride from twenty-eight (28) tank cars. Combined, the tanks contained approximately five million pounds of vinyl chloride¹⁰⁰ before they were punctured, burned, exploded, and/or rocketed into crowds and buildings. Details are in the Chronology below.

Vinyl chloride rail tank car disasters have contaminated the environment, killed two people, and injured more than 350 people since 1969. There is little to no information available about long-term health effects of these incidents.

Not all derailments result in disaster, but because of this potential, when they occur, mass evacuations follow. Since 1968, there have been at least twenty-eight incidents in which vinyl chloride tank cars left the tracks, including the 12 in which the cars were compromised and their vinyl chloride cargo leaked out. This is a rate of one derailment every other year. They resulted in orders to evacuate more than 40,000 people. Entire towns like Edgewood and Tamaroa, Illinois,

and Dunreith, Indiana, have been evacuated. Schoolchildren, hospital patients, retirement home residents, have all fled the scene of vinyl chloride tank car derailments.

A review of National Response Center reports since 2010 reveals that vinyl chloride releases from tank cars also are common inside VCM and PVC plants. There were 13 separate reports of releases from tank cars in recent years. The first incident was a deadly explosion at a DuPont plant in Tonawanda, New York. Six of the other 12 were at Occidental plants (4 in La Porte, Texas, one in Pedricktown, New Jersey, and one in Geismar, Louisiana). Compromised tank cars also released vinyl chloride at Westlake’s PVC plant in Aberdeen, Mississippi, two at the Westlake/Shintech complex in Plaquemine, Louisiana, one each at Formosa’s Baton Rouge and Point Comfort operations, and one at Orbia’s PVC plant in Henry, Illinois. There were reports of vapor clouds and leaks from vent lines, nuts, hoses, gaskets and valves.



*“View of a dense, low lying vapor cloud over Mantua Creek (Private citizen photo).”
NTSB Railroad Accident Report (Paulsboro NJ 2012 disaster)*

IV.B.1. Chronology of Vinyl Chloride Rail Tank Car Incidents

The following lists train derailments involving vinyl chloride tank cars. Not all of the incidents resulted in releases. For the period until 2010, the chronology's primary sources are the records of the Federal Railroad Administration, National Transportation Safety Board, and public news reports. It probably is not a complete list. For the period since 2010, this list includes reports to the National Response Center regarding vinyl chloride releases from tank cars.

January 1, 1968 (Dunreith, Indiana). An empty tank car derailed from a broken rail. A collision followed "with cars of hazardous materials moving in the opposite direction... and puncturing several tank cars.... A large-scale fire ensued, followed about 45 minutes later by a violent explosion of a tank car of ethylene oxide... The fire and explosion destroyed a cannery and several residences and businesses. Three firemen and two policemen were slightly injured by the fire and explosion. One of the tank cars, GATX 30751, was carrying up to 33,500 gallons of vinyl chloride. This is where the fire started, after it "came to rest in an upright position almost parallel to the right of way. Approximately 15 percent of the leading head of the tank was torn away in the collision. Its contents of vinyl chloride spilled at a rapid rate and ignited almost instantaneously." The entire population of Dunreith, Indiana, was evacuated.¹⁰¹

Sept. 11, 1969 (Glendora, Mississippi). Federal Railroad Administration (FRA) report: "A derailment of 15 train cars involved eight that were carrying Vinyl Chloride. One tank car of vinyl chloride was punctured by the coupler of another car. Vapor escaped from this car but did not immediately ignite. A series of flashes and explosions occurred at sundown, injuring a power company employee. About 6:45 a.m. the following day, CATX 86069 of Vinyl chloride exploded, as a result of heat impingement from the burning SHPX 85212. Parts of this second car landed from 350 to 850 feet away. SHPH 85144, also of Vinyl chloride, was punctured as a result of the second car's explosion and burned for 12 days. A total of three cars of Vinyl chloride burned or exploded."¹⁰² Between 17,000 and 21,000 people were evacuated. There were two reported acute injuries. We are not aware of any studies of long-term harm from such incidents.

May 17, 1970 (Cromby, Pennsylvania). "The 19th car of a freight train derailed in the Pennsylvania village of Cromby, a small town nestled along a horseshoe curve in the Schuylkill River about 30 miles from Philadelphia," reported Kiley Bense, much later, in InsideClimate News. The train was carrying thousands of gallons of vinyl chloride from Freeport, Texas. "Twenty families in Cromby were evacuated from their homes, and two police officers and a volunteer who was helping to evacuate people were taken to the hospital after being exposed to the toxic fumes. To avoid a catastrophic explosion, firefighters sprayed water on the leaking car for 24 hours, emptying its contents into the Schuylkill even as some of the gas escaped into the air. The town's municipal water treatment plant had to be shut down. 'If somebody would have been careless with a match,' the local chief of police said, 'all hell would have broken loose.'"¹⁰³

1971 (Corbin, Louisiana). Three hundred families were evacuated "because of a derailment that occurred after vandals broke a lock on a switch box and opened it, causing the train to go onto a spur line. A car of vinyl chloride left the tracks, ruptured and caught fire," reports

Firehouse.com.¹⁰⁴

Oct. 19, 1971 (Houston, Texas). A train with 20 cars derailed near the Mykawa siding. Six of the cars were loaded with vinyl chloride. Two of the VCM cars were punctured and immediately ignited and burned. Forty-five minutes later, the two cars ruptured. One “rocketed” hundreds of feet. Reports of the distance vary from 300 to 600 feet. A firefighter was killed. Sixty people were injured, twenty of whom were hospitalized. Casualties included 39 firefighters, 8 journalists, and 3 spectators.¹⁰⁵ There was no reporting of evacuations.

Feb. 20, 1973 (Pecos, Texas). A train was traveling at 61 miles per hour when 14 cars derailed. One of the cars was carrying vinyl chloride. The FRA reports, “After the derailment, an intense fire burned at the dome of the overturned car GATX 50555 containing vinyl chloride.” Fire fighters poured water onto the burning car and extinguished the fire. While there were no immediate casualties, two workers clearing the wreckage “received chemical burns.” One of the workers was hospitalized. A two block area was evacuated.¹⁰⁶



House Destroyed by Blast-Propelled Tanker

The home that was destroyed from the explosion. Credit: News-Sentinel

July 20, 1973 (Fort Wayne, Indiana). A broken coupler separated cars on a train. Four vinyl chloride tank cars derailed, one of which exploded and caught fire. A nearby dwelling was destroyed. “The quantity of material released could not be determined from the available reports” according to the FRA.¹⁰⁷

June 29, 1974 (Climax, Texas). The lead locomotive in a 37-car train derailed. A tank car (DUPX 9967) of vinyl chloride exploded within a minute. A second vinyl chloride tank car (DUPX 9901)

exploded from the intense heat. Other hazardous cargoes also exploded, including tank cars containing tetraethyl lead fuel additives. Four firefighters and two state troopers were hospitalized for inhalation of toxic fumes.¹⁰⁸

June 16, 1977 (Neelyville, Missouri). A tank car of vinyl chloride exploded and burned after two trains collided at a switch between a siding and main track.¹⁰⁹

March 29, 1978 (Lewisville, Arkansas). An engineer applied emergency brakes as a speeding train rounded a curve. Four locomotives and 43 cars, including five containing vinyl chloride, derailed. FRA reported, “one tank car containing vinyl chloride was hit broadside by the coupler of another tank car and ruptured, releasing its total contents of 26,114 gallons. The resulting vapor cloud ignited and a 1000 foot fireball formed.” The engineer and two brakemen were hospitalized with second and third degree burns and other injuries. About 1,700 people within a two mile perimeter were evacuated, including thirty patients in a nearby hospital.¹¹⁰

July 26, 1980 (Muldraugh, Missouri). Four locomotives and 17 cars, including four tank cars of vinyl chloride, derailed. Two of the vinyl chloride cars were punctured and burned. “Flames impinged two other tank cars of vinyl chloride, causing one to vent toxic fumes, but neither car ruptured. About 6,500 persons were evacuated from Muldraugh and the U.S. Army installation at Fort Knox.” Four train crewmembers were injured. “They ran from the wreckage as the gas cloud ignited. Although not burned, the crew members felt a heat wave and a subsequent concussion,” according to a National Transportation Safety Board investigation.¹¹¹

Sept. 28, 1982 (Livingston, Louisiana). Thirty-six cars of a 101-car train derailed. Six cars containing vinyl chloride were blown up and allowed to burn. More than 3,000 people were evacuated for more than two weeks. The Miami Herald reported that sporadic fires and explosions kept people from their homes.¹¹²

July 30, 1983 (Baton Rouge, Louisiana). A loading hose came loose at Formosa’s VCM manufacturing facility. A worker, “seeing pressurized VCM pouring from the liquid valve nipple and knowing that VCM is combustible, is carcinogenic, and freezes the skin on contact, ran to the end of the tank car and slid down the side of the car to the ground below,” according to NTSB’s accident report. VCM “was ignited by an undetermined source; a large billowing fire ensued.” The loader was severely burned. Another worker nearby “smelled the VCM, turned toward the VCM loading rack, and was struck by a fireball.” He was seriously burned. “No one else was injured.” One car sprayed burning VCM “like a torch” onto another car, which continued to burn for 120 hours. 250 people were evacuated from “a small community on the west bank of the Mississippi River” and the FAA closed the nearby Baton Rouge airport.¹¹³

Dec. 13, 1987 (Round Rock, Texas). More than 5,000 people were evacuated after an 88-car train caught fire. Eight of the cars contained vinyl chloride but escaped the flames.¹¹⁴

May 12, 1989 (Chunky, Mississippi). Two hundred people, including 22 residents of a retirement home, were evacuated after 18 rail cars, including one carrying vinyl chloride, derailed.¹¹⁵

Nov. 9, 1990 (Pleasure Ridge Park, Jefferson County, Kentucky). Ten rail cars, at least one containing vinyl chloride, derailed. A car containing 1,3-butadiene caught fire; the car with vinyl chloride did not. Three elementary schools were evacuated. More than 1,000 people were ordered from their homes.¹¹⁶

April 15, 1991 (Edgewood, Illinois). 28 rail cars derailed; five contained vinyl chloride. The entire town of Edgewood (population: 500) was evacuated. No releases were reported.¹¹⁷

Feb. 24, 1994 (Jackson, Mississippi). Around 100 families were evacuated “after a train carrying hazardous vinyl chloride gas derailed,” according to the *LA Times*. No releases were reported.¹¹⁸

May 25, 1995 (Flomaton, Alabama). Two trains collided in a rail yard near the Florida-Alabama border. One train had eight cars containing 26,000 gallons each of vinyl chloride. While the wreckage was being cleared, a tank car with vinyl chloride ruptured. It vented but did not burn.¹¹⁹ A “seven-inch tear in the tanker grew to a two-foot gash as the crane pulled,” reported *Birmingham News*. “White plumes of vinyl chloride billowed into the air... and dozens of people ran from the train yelling, ‘It’s gonna blow! It’s gonna blow!’ ... Some officials wanted to speed things up and blow up the tanker when it contained 7,000 gallons of liquified vinyl chloride, Smith said. But that idea was junked when experts calculated that the explosion of 7,000 gallons would have destroyed everything within 500 yards, caused heavy damage within another 1,500 yards and set fires all around the damage zone.”¹²⁰

August 30, 1997 (Dallas, Texas). Nine vinyl chloride tank cars were among 13 cars that derailed. Sixty-six people were evacuated. No releases were reported.¹²¹

May 17, 2001 (Baton Rouge, Louisiana). Two vinyl chloride tank cars containing residues of vinyl chloride derailed and plowed into a car. One worker was overcome by fumes.¹²²

Feb. 9, 2003 (Tamaroa, Illinois). A tank car containing vinyl chloride was among 22 tank cars that derailed from a broken rail, leading officials to evacuate 850 residents including the entire village of Tamaroa. The vinyl chloride tank car leaked but did not catch fire. A worker was injured in the cleanup.¹²³ Federal Railroad Safety data states that the UTLX28451 car released 7,000 gallons of vinyl chloride.¹²⁴

Dec. 24, 2004 (Jacksonville, Arkansas). Seven vinyl chloride cars derailed. 150 people living within a half mile were evacuated. No releases were reported.¹²⁵

Nov. 10, 2010 (DuPont, Tonawanda, New York). A vinyl chloride tank car exploded at a DuPont plant. A contract worker was killed, another injured. Residents were advised to shelter in place.¹²⁶

July 15, 2011 (Poly One [now Orbia], Henry, Illinois). A rail car carrying vinyl chloride, while inside the gates of a PVC facility, blew a gasket. The caller said the vinyl chloride was released into the air

creating a “vapor cloud,” and onto the ground. The PVC plant receives vinyl chloride from OxyVinyls in Texas.

August 3, 2012 (Occidental, La Porte, Texas). The National Response Center received a report that “a railcar dome is leaking vinyl chloride monomer at the loading rack” in OxyVinyls’ La Porte VCM plant.

Nov. 30, 2012 (Paulsboro, New Jersey, en route to Occidental, Pedricktown, New Jersey). Seven cars from a Conrail train derailed on a bridge over Mantua Creek. According to federal investigators, “Three of the derailed tank cars that entered the creek contained vinyl chloride and one contained ethanol. One tank car (OCPX 80234) was breached and released about 20,000 gallons of vinyl chloride. Eyewitnesses reported a vapor cloud engulfed the scene immediately following the accident.” According to the medical records reviewed by ATSDR, more than 250 individuals (residents and emergency responders) visited hospital emergency departments as a result of the incident. “Paulsboro residents were exposed to vinyl chloride by breathing it in, as a result of the train derailment and gas leak. The train derailment caused a leak of vinyl chloride from one ruptured tank car. Based on limited air monitoring data and computer models, it is likely that most of the vinyl chloride was released quickly. Exposures were likely to have been highest in the first hour or two after the derailment and in the areas closer to the site. Were exposures high enough to cause symptoms? Yes. In much of Paulsboro, exposures to vinyl chloride were likely to have been high enough to cause reversible, short-term health effects,” according to a New Jersey Department of Health review.¹²⁷ In 2012, there were 6,035 residents of Paulsboro.¹²⁸ According to Federal Railway Safety Data, 680 people living within a 27-block area were evacuated for seven days.¹²⁹

August 3, 2013 (Lawtell, Louisiana). One hundred homes were evacuated when a train with cars of hazardous materials derailed. Two of the cars were carrying vinyl chloride. Louisiana Governor Bobby Jindal said neither car was leaking but one had “serious damage to its outer jacket.” The train originated in Lake Charles and was headed for Livonia.¹³⁰

Nov. 19, 2013 (Occidental, La Porte, Texas). The National Response Center received a call “reporting a release of 1 pound of vinyl chloride monomer from a rail car while unloading vent lines.”

June 15, 2015 (Occidental, La Porte, Texas). The National Response Center received a call stating “that there was a leak in a rail car loading arm...causing a release of vinyl chloride monomer to the atmosphere.”

Dec. 17, 2015 (Occidental, Geismar, Louisiana). The National Response Center received a call stating “they had a packing nut leak on a rail car valve which caused the release of vinyl chloride into the atmosphere.”

April 13, 2016 (Westlake, Aberdeen, Mississippi). The National Response Center received a call stating “that a tank car derailed in the yard as it was being pulled from the tank farm back to the

main rail. The tank was labeled vinyl chloride monomer. It is believed that the tank is empty with the exception of the residual water solution which was released from the tank onto the ground.”

Nov. 11, 2016 (Formosa, Point Comfort, Texas). The National Response Center received a report of “a release of vinyl chloride to the atmosphere from a hose leak on a railcar.”

Jan. 19, 2017 (Occidental, Pedricktown, New Jersey). The National Response Center received a report that “there was a small leak of vinyl chloride from a rail car due to an unknown relief valve issue.”

Sept. 20, 2020 (Occidental, La Porte, Texas). The National Response Center received a report that “they had an operator disconnecting a [vinyl chloride] rail car and bumped a valve open on a loading arm.”

March 18, 2021 (Formosa, Baton Rouge, Louisiana). The National Response Center received a report that “they were doing a pressure test on a railcar when they unhooked the hose from the rail car and released vinyl chloride into the atmosphere.”

Sept. 7, 2022 (Westlake, Plaquemine, Louisiana). The National Response Center received a report of a vapor release of about a pound of vinyl chloride from a tanker rail car due to gasket failure.”

Oct. 26, 2022 (unknown origin and destination, New Orleans, Louisiana). A caller to the National Response Center said a “white substance” is leaking from the bottom of a train and that “‘PVC - Contains Vinyl Chloride’ is written on the side of the car.”

Feb. 3, 2023 (East Palestine, Ohio). A train carrying vinyl chloride, polyvinyl chloride, butyl acetate and benzene residues derailed, causing a massive fire and fears that a “catastrophic failure” of at least one of the containers would release toxic compounds and shrapnel into the area. Five of the 20 cars that derailed carried vinyl chloride headed from OxyVinyls’ La Porte VCM plant to its PVC plant in New Jersey. Three of the cars belonged to Occidental; the other two were leased. After three days, officials conducted a “controlled release” of the chemicals in the train cars to mitigate the danger of an uncontrolled explosion. A cloud of toxic pollution lingered for hours over a wide region in stagnant air. Officials ordered a mandatory evacuation of residents in a one-mile radius of the facility, which lasted five days. Local schools were closed for a week. The pollution reportedly killed tens of thousands of animals. The Federal Railroad Safety database lists the number of injured from the disaster as 16 people and the number of evacuated people as 2,100. Local residents have reported serious health concerns which they say have not been adequately addressed by the state or federal government agencies.¹³¹

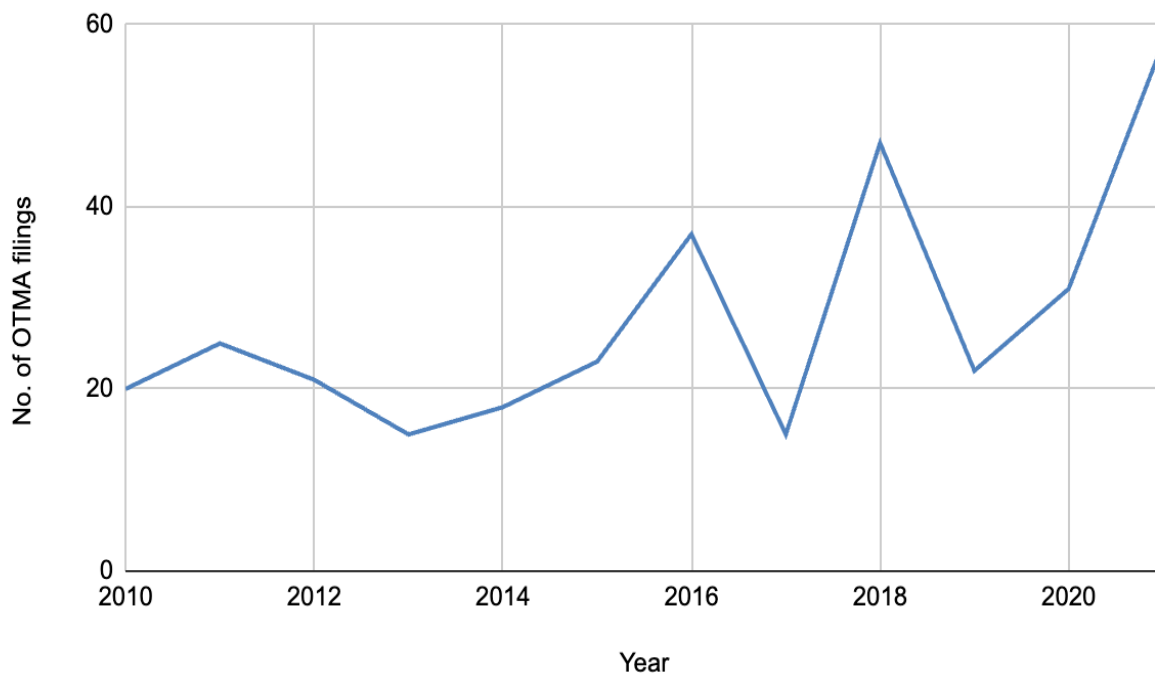
Dec. 6, 2023 (Shintech, Plaquemine, Louisiana). The National Response Center received a report that “a railcar at a loading rack had a leaking flange, which released an unknown amount of vinyl chloride into the atmosphere.”

IV.B.2. Non-Conforming Tank Cars/Tank Car Service Facilities

Between 2010 and 2021, the Federal Railroad Administration issued 337 one-time movement approvals (OTMAs) for vinyl chloride tank cars that did not conform with its hazardous materials regulations. The FRA explains, “OTMAs are required for movement of nonconforming tank cars.”¹³² These approvals applied to 344 different non-conforming vinyl chloride tank cars between 2010 and 2021. (Some OTMAs apply to multiple tank cars; some tank cars had multiple issues over time.)

OTMA approvals for non-conforming vinyl chloride tank cars nearly tripled between 2010 (20 reports) and 2021 (58 reports).

OTMA filings per year, vinyl chloride tank cars



The most common non-conformities for which FRA issued OTMAs are faulty valves and fittings (more than 100 approvals). There were twelve reports of damaged jackets (the metal containers), mainly from corrosion. Most of the reports came after the tank cars were largely emptied of vinyl chloride. Some were fully loaded and en route to customers. On November 24, 2021, a dent was reported in the jacket of a fully loaded OxyVinyls tank car at the Conway rail yard near Pittsburgh, Pennsylvania. Dents may impair a tank car’s thermal protection system and insulation.¹³³ The tank car originated in OxyVinyls’ La Porte, Texas, vinyl chloride manufacturing facility. The FRA approved its continued journey over 430 additional miles of track to the company’s PVC plant in Pedricktown, New Jersey. On Sept. 10, 2020, FRA approved the continued travel of another dented tank car. The damaged tank car was reported in Union Pacific’s railyard in Kinder, Louisiana. The chemical tank car was allowed to complete the trip from Shintech’s vinyl chloride manufacturing facility in Plaquemine, Louisiana, to its PVC plant in Freeport, Texas.

Nonconformities often are found while cars are parked in rail yards in densely populated areas. Locations where non-conforming tank cars were reported since 2010 include the Union Pacific rail yard in North Little Rock, Arkansas; the Kansas City Southern yard in Mossville, Louisiana; the Port Terminal Railroad Association North Yard in Houston, Texas; the Indiana Harbor Belt Railroad outside Chicago; and Fort Worth & Western Railway in Fort Worth, Texas.

Most non-conforming tank cars belong to leasing companies. All of the vinyl chloride producers use leased tank cars. OxyVinyls, Formosa, and Shintech also have their own tank cars. Between 2010 and 2021, 30 OxyVinyls tank cars had nonconformities requiring FRA approval. FRA issued 13 OTMAs for Shintech-owned tank cars and eight for Formosa-owned tank cars.

The movement of damaged tank cars to **rail car service facilities** may expose additional populations to vinyl chloride. Tank cars are repaired at rail service facilities in Georgia, Texas, and Kentucky. The Vopak Logistics Services (VLS) yard in Hockley, Texas, is the most common destination for cars with OTMAs. VLS' yard in Fitzgerald, Georgia also services damaged vinyl chloride tank cars. Other service locations listed in OTMA records include Transco Railway in Sheldon, Texas; CF Rail Services in Waycross, Georgia; Eagle Railcar Service in Elkhart, Orange, Roscoe, and Channelview, Texas; Rail Services in Calvert City, Kentucky; Paducah & Louisville Railway in Louisville, Kentucky; American Railcar Services in Longview, Texas; Fort Worth & Western RR in Fort Worth, Texas; Trinity Industries in Saginaw, Texas; GATX in Waycross and Hearne, Georgia; Alpha Technical Services in Pasadena, Texas; and Union Tank Car in Valdosta, Georgia. GATX and Union Tank own most of the tank cars leased by vinyl chloride manufacturers.

GATX's tank car facility in Waycross, Georgia, filed a Risk Management Plan in 2016. It stated that the facility may have had as much as 28,434 pounds of vinyl chloride in rail cars that were being cleaned and repaired. "The Facility's operations include painting and sandblasting and railcar interior cleaning. Specialized equipment includes a **flare system for venting cars containing flammable gases,**" reads the July 5, 2016 filing (emphasis added).¹³⁴

In 2022, the Rail Services facility in Calvert City, Kentucky, reported the receipt of three pounds of vinyl chloride waste from Westlake's Calvert City VCM/PVC plant. The management method listed in Westlake's TRI report is "unknown offsite disposal."¹³⁵

Also in 2022, the Union Tank car repair facility in Valdosta, Georgia, received 0.4 pounds of vinyl chloride waste from Westlake's Calvert City facility.¹³⁶



The GATX railcar repair and service facility in Norcross, Georgia, may have onsite, as much as 28,434 pounds of vinyl chloride in tank cars, according to its Risk Management Plan. Google Earth photo.

IV.C. VCM Exports by Land and Sea

IV.C.1. Map. VCM exports by sea



Between 2010 and 2023, U.S. vinyl chloride monomer producers exported an average of 3 billion pounds of vinyl chloride monomer per year.¹³⁷ Some of those exports were by rail, including about half a billion pounds shipped per year to OxyVinyls' PVC plant in Niagara Falls, Ontario, Canada.

The OxyVinyls/Orbia' vinyl chloride manufacturing facility in Ingleside/Gregory, Texas, which is on Corpus Christi Bay, is a joint venture with Orbia. This facility exports products by ship and rail to Orbia PVC manufacturing facilities in Altamira, Tamaulipas, Mexico, and to the port of Mamonal, Cartagena, Colombia. Westlake in Lake Charles also ships vinyl chloride by vessel to Orbia PVC plants in Mexico and Colombia.

Vinyl chloride is carried on large liquid petroleum gas ships. Certain vessels appear to be dedicated to vinyl chloride exports. The typical weight of vinyl chloride per delivery is 10 million pounds or more.¹³⁸

A fleet of vessels - currently including the M/V Huntegas,¹³⁹ M/V Zita Shulte,¹⁴⁰ and M/V Pilargas , make weekly deliveries of vinyl chloride from Occidental’s Corpus Christi VCM manufacturing facility to PVC manufacturing facilities in Colombia and Mexico. They also bring vinyl chloride from Westlake’s chemical dock in Lake Charles to the same destinations.¹⁴¹

IV.C.2. Table. Vinyl Chloride Annual Exports from the U.S. (2010 to 2022)

Destination	Average (Pounds/Year)	Shipping Method
Mexico	1,130,671,415	Vessel (>95%), rail
Colombia	796,000,576	Vessel
Canada	457,713,298	Rail
Rest of world	171,643,433	Vessel
OVERALL	2,727,672,156	

Source: U.S. International Trade Commission DataWeb

IV.C.3. Table. Orbia (Altamira, Mexico) Vinyl Chloride Imports from the U.S., 2023 (full year)

	<u>Orbia/Occidental (Ingleside, TX)</u>	<u>Westlake (Lake Charles, LA)</u>	<u>Total (lbs)</u>
<u>Vessel</u>	1,190,055,291	38,691,127	1,228,746,418
<u>Rail</u>	12,599,892		12,599,892
			1,241,346,310

Source: Mexico Pedimentos Imports, HS Code 290321, via Datamyne.

The process of transferring vinyl chloride to vessels at plant-side docks has well-known risks.

According to the U.S. Coast Guard, shipping vinyl chloride in refrigerated chemical sea-going tankers has “several concerns.” These same concerns are also found in the transportation of vinyl chloride in refrigerated rail tank cars:

- “‘Brittle fracture’ occurs when metal is rapidly cooled and loses its ductility and impact strength. The metal is then prone to cracking. This is common with steel. Due to low temperatures, ice can form from moisture in the tank system and block pumps, valves, and lines, causing damage,” reports the Coast Guard.
- “When VCM is shipped in pressurized tanks, several issues can arise that are common among all pressurized cargoes, including pressure surges, condensation of trapped vapors, and a liquid free-surface ‘sloshing’ effect (which can decrease stability).”¹⁴²

Several vinyl chloride release incidents have occurred at chemical loading docks and aboard refrigerated chemical tankers in U.S. waters near the cities of Corpus Christi, Lake Charles, and Baton Rouge.

IV.C.4. Chronology of Vinyl Chloride Vessel Incidents

The following chronology is drawn from U.S. Coast Guard records (including National Response Center report) and news reports.

April 21, 1995 (Corpus Christi Bay, Texas): The **Maersk Shetland**, a 507-foot tanker ship carrying vinyl chloride, struck a barge containing cumene. According to San Patricio County Sheriff Leroy Moody, “The ship was having difficulty. It rammed the side of the barge.” The collision damaged the tanker’s bow and a chemical tank. Three hundred residents and 2,400 employees of the Naval station in Corpus Christi were evacuated. The Coast Guard closed the Corpus Christi and La Quinta ship channels.

Officials said “twenty people were treated for minor respiratory problems as traces of the chemical were detected up to four miles away from the site of the accident,” according to the Houston Chronicle. (It is not clear from the report whether the chemical was cumene or vinyl chloride or both.) “A shift in wind direction late Thursday afternoon minimized the danger to the Ingleside area.”¹⁴³

July 11, 2008 (Ingleside/Corpus Christi Bay, Texas): According to a U.S. Coast Guard incident report, a vinyl chloride leak was discovered on July 10 aboard the **Venus Gas**. Numerous first responders, chemical plant workers, and ship crewmembers were exposed to the vapors. A Coast Guard incident report states, “The problem was thought to have been mitigated, but today, 11 July, **levels above the LEL [Lower Explosive Limit] were detected in the compressor room.** The USCG is on-scene. Responders are attempting to passively ventilate the space to below explosive levels to allow access to identify and correct the problem. The source of the leak is unknown at present.”¹⁴⁴ According to news reports, the Coast Guard was “investigating why air monitor alarms aboard the Venus Gas and near the Occidental Chemical Corp.’s plant in Ingleside did not sound.”¹⁴⁵

A Coast Guard newsletter in 2009 reported, “Recently there have been several incidents involving VCM leaks aboard foreign LPG carriers in U.S. ports, including one aboard the T/V Venus Gas, a Type 2G LPG/gas carrier, at the Port of Corpus Christi, Texas. During the response to an ongoing leak of VCM in the compressor room, several Coast Guard marine inspectors, **local law enforcement personnel, facility workers, and ship crewmembers were exposed to vapors and required medical attention and decontamination.** The leak was caused by fractured stainless steel indicator lines.”¹⁴⁶

August 23, 2010 (Plaquemine/Mississippi River, Louisiana): According to the National Response Center, a “caller stated there was a release of vinyl chloride due to a bleed valve that was left open on a process line at the [Dow Chemical] dock facility on the Mississippi River, River Mile 209.9.”¹⁴⁷

Feb. 16, 2011 (Westlake/Calcasieu River, Louisiana): A “caller is reporting a release of vinyl chloride from a vapor line and a liquid line onboard a vessel due to a leaking packing gland on the valve,” according to the National Response Center. A packing gland reinforces seals.

August 5, 2011 (Ingleside/Corpus Christi Bay, Texas): According to the National Response Center, a caller “stated due to residual cargo in the compressor stack onboard a chemical tanker vessel there was a release of vinyl chloride to the atmosphere.”¹⁴⁸

November 12, 2018 (Ingleside/Corpus Christi Bay, Texas): According to the National Response Center, a “caller is reporting that a vessel released VCM from a leaking loading line.”¹⁴⁹

January 26, 2019 (location unknown): The U.S. Coast Guard ordered the **M/V Huntegas’** operator to “rectify deficiencies prior to departure.” “Each flammable gas detection system must have an audible and visual alarm for power failure and loss of gas sampling flow. Unable to test low flow alarm from sample points on fixed gas detection system,” reads the notice.¹⁵⁰



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V. Vinyl Chloride in Products

Some unreacted vinyl chloride remains in PVC plastic pellets, and in turn, in products made from these plastics.

V.A. Processing PVC plastics into products

EPA has warned that residual entrapped vinyl chloride monomer in PVC plastics “can be liberated during fabrication, particularly during heating.”¹⁵¹

Vinyl chloride is released into the air during the processing of PVC plastic pellets into plastic products. Processing PVC pellets into products begins with melting the pellets in batches with other additives, a process called compounding. These blends are extruded or molded then cooled into various forms and shapes, from clothing and footwear to carpet backing to pipes that deliver tap water.¹⁵²

V.B. Products with high concentrations of vinyl chloride

Vinyl chloride is found as intentional content in wet-applied coatings, including adhesives, glues, and inks. Some of these types of products contain as much as 25% vinyl chloride.

The toxic chemical also is in children’s products, sometimes at levels far beyond typical residuals. One company, Excelligence Learning Corp, recently disclosed to certain states (Oregon, Vermont, Washington) that many of its children’s products - developmental/educational toys and artists accessories - contain more than 0.1% vinyl chloride. Some Excelligence Learning products - including “Fancy Dress Costumes,” baby cots, baby/infant stimulation toys - contain more than 1% (10,000 parts per million) vinyl chloride. The company says the vinyl chloride is present in PVC plastic components of its products.¹⁵³

The screenshot shows the product page for 'Excellerations® My First Dress Up Ladies 9 Pieces' on the Discount School Supply website. The page displays three children modeling different plastic dresses: a yellow one with a leopard print top, a blue one with a matching hat, and a pink one with a matching bag. The product price is \$118.11, and there are 'Add to Cart' and 'Add to Favorites' buttons. The website header includes the logo 'DISCOUNT SCHOOL SUPPLY always low prices always 110% guaranteed' and a navigation menu with categories like 'New', 'Environments®', 'Outdoor Learning', 'Classroom Technology', 'School Supplies', 'Arts & Crafts', 'Furniture', 'STEM/Curriculum', 'Play & Learn', 'Infant/Toddler', 'Bundles', 'Age/Grade', and 'Clearance'. The breadcrumb trail shows 'Home | Play & Learn | Dramatic Play | Costumes & Dress Up | Excellerations® My First Dress Up Ladies 9 Pieces'.

Plastics in “Excellerations” fancy dresses (above) sold by Excelligence Learning Corporation (a/k/a Discount School Supply) contain more than 10,000 parts per million (1%) vinyl chloride. This was disclosed to the Washington State Department of Ecology within the last few years.¹⁵⁴ In 2009, the Consumer Product Safety Commission (CPSC) found this company, Excelligence Learning, had “knowingly” sold hazardous materials in the U.S. market between 2000 and 2007. The CPSC fined Excelligence \$25,000. The company sold brushes, charts, and mats with up to 0.91% lead on the plastic surfaces, well in excess of the 0.06% CPSC limit on lead.¹⁵⁵ In 2023, Excelligence Learning imported at least 8,564,959 pounds of products from a wide variety of suppliers in China.¹⁵⁶

There is no federal regulatory limit on vinyl chloride in children’s products. The intended use of these products leads to dermal absorption of vinyl chloride by young children. The presence of such high concentrations suggests an urgent need for restrictions and product testing, especially for imported plastic children’s products.



The company CCA and B LLC informed the state of Vermont that PVC plastics in *Elves at Play* (above left) contain more than 100 ppm vinyl chloride. Michaels Stores said four models of Creatology dolls - Kaylee, Lauren, Madeleine, and Zoey (above right), contained more than 100 ppm vinyl chloride.¹⁵⁷



Dollar General reported to the state of Vermont that several Bigfun Leisure products contain at least 100 parts per million of vinyl chloride.¹⁵⁸

V.C. Vinyl Chloride Content in Consumer Products (examples)

Manufacturer	Product	VCM content (max. parts per million)	Source
Pacer Technology	Vinyl Leather Mender (Super Glue)	250,000 (25% of the product by weight)	Safety Data Sheet ¹⁵⁹
Thomas Betts / ABB Installation Products	OCAL Spray Patch	100,000 (10%)	Betts Safety Data Sheet ¹⁶⁰ ; ABB Safety Data Sheet ¹⁶¹
Excelligence Learning Corp.	Cushions, Baby/Infant Stimulation Toys, Developmental/Educational Toys, Fancy Dress Costumes	>10,000 (>1%)	Interstate Chemicals Clearinghouse ¹⁶²
Excel Autobody Products	Epoxy Primer Black X-L32001, X-L32004	5,000 (0.5%)	Safety Data Sheet ¹⁶³
Toptec	Holdfast Polystyrene Adhesive	3,000 (0.3%)	Safety Data Sheet ¹⁶⁴
WM Plastics	Sportswear LC White LB textile screen printing ink	1,000 (0.1%)	Safety Data Sheet ¹⁶⁵
Shin-Etsu	VinylBlan (adhesives used in wearable devices)	300 (0.03%)	VinylBlan 715 SDS ¹⁶⁶ , VinylBlan 701/700 ¹⁶⁷
Bendon Inc.	Toys/Games Variety Packs	100 to 500 (0.01-0.05%)	Interstate Chemicals Clearinghouse ¹⁶⁸
Dollar General (outlet)	Big Fun Leisure (7 products)	>100 (>0.01%)	State of Vermont ¹⁶⁹
Mapei Benelux	Elastocolor Primer	100 (>0.01%)	Safety Data Sheet ¹⁷⁰
Vinyl Corp.	Extruded PVC compounds for wall and ceiling accessories	10	Safety Data Sheet ¹⁷¹
Speedline Corp.	Speedline PVC Fitting Covers and Jacketing	8.5	Safety Data Sheet ¹⁷²
Vision Extrusions	Vinyl Profile	<8	Safety Data Sheet ¹⁷³

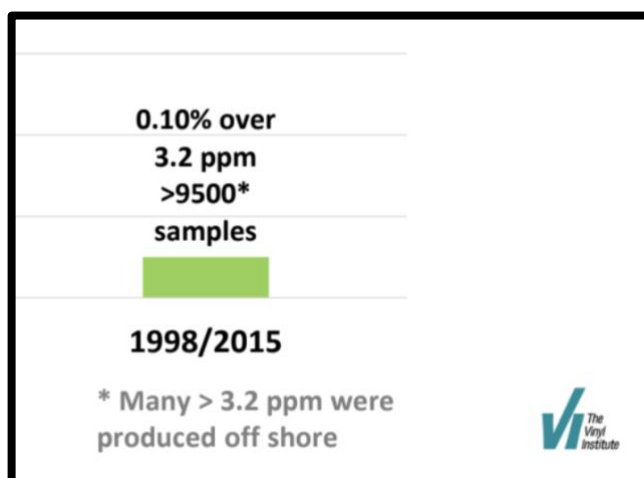
Contech Engineered Solutions	PVC Pipe and Wall Truss	5	Safety Data Sheet ¹⁷⁴
Teknaform	Rigid PVC Edgebanding	5	Safety Data Sheet ¹⁷⁵
JM Eagle	PVC Plastic Pipes	1	Safety Data Sheet ¹⁷⁶
JP Specialties	Earth Shield PVC Waterstop	0.1	Safety Data Sheet ¹⁷⁷
Carlisle Construction	PVC Cut-Edge Sealant	0.1	Safety Data Sheet ¹⁷⁸

Note: While there are variations in the amount of vinyl chloride, according to the state of California, “As a carcinogen, no level of exposure to vinyl chloride is considered as being completely safe and without risk.”¹⁷⁹

V.D. Product testing

Unfortunately, most literature, including articles often cited by EPA, regarding vinyl chloride monomer in products – including articles cited by the agency itself -- is quite dated. Most information is generated by the vinyl industry itself. This is seen in EPA’s response in January 2023 to a petition by the Center for Biological Diversity, which was seeking to classify PVC as a hazardous waste. EPA relied upon a survey of U.S. vinyl producers conducted in the year 2000 for its conclusion that unreacted vinyl chloride is not a significant hazard in products.¹⁸⁰

Additional testing for vinyl chloride monomer in products, including PVC products imported from China and other highly polluting sources of plastic, would help to clarify the amount of this toxic chemical to which consumers are routinely exposed from products . Products made in China may have higher residual VCM than those made in the U.S., warned Plastics News in 2007.¹⁸¹



Plastic pipe standards developed by a private standard-setting entity (NSF/ANSI Standards 14 and 61) require that plastic pipes be monitored for residual VCM, to ensure that levels in potable water pipe products do not exceed 3.2 parts per million.¹⁸² Most published reports of leaching rates of residual VCM in potable water pipes are decades old.

A Vinyl Institute presentation (*screenshot at left*) found that at least 95 pipes sampled between 1998 and 2015 exceeded NSF Standard 61’s limit of 3.2 ppm. It added that many “were produced offshore.”¹⁸³ The main

source of “offshore” pipes sold in the U.S. is Tubosa S.A. of Colombia, which imports millions of pounds of PVC pellets each year from Shintech’s Texas and Louisiana factories.¹⁸⁴

According to the American Chemistry Council, in 2014, 5.3 billion pounds of PVC plastic pellets were used in pipes, fittings and valves in the U.S. and Canada.¹⁸⁵ Assuming a residual vinyl chloride monomer (RVCM) contamination rate of 3.2 ppm, 16,590 pounds of unreacted VCM reside within these products at the beginning of service life.

Over time, unreacted VCM is released into the surrounding environment. It migrates from pipes to drinking water and air. Older pipes will have higher levels of RVCM and thus release higher vinyl chloride concentrations into water, but RVCM in newer pipes also contain VCM that is also released. “Since there was a finite amount of vinyl chloride within the pipe, eventually most of the vinyl chloride will leach from it,” note environmental clinicians William Rea and Kalpana Patel.¹⁸⁶

A 2023 Beyond Plastics study found that, while newer PVC pipe has lower residual VCM than 1970s vintage products, they “may continue to leach vinyl chloride at levels below the EPA Maximum Contamination Level but higher than the NSF criteria of 200 parts per trillion [in water]. A 2011 study conducted by researchers at Cornell University found that vinyl chloride levels tested in the laboratory and in the tap water of consumers’ homes reached in the tens of parts per trillion range after a few days, and hundreds of parts per trillion after two years. Long-term studies in the lab suggested equilibrium concentrations of about 300 parts per trillion.”¹⁸⁷ Any measurable amount of vinyl chloride in drinking water exceeds EPA’s maximum contaminant level goal of 0, which is a health-based level (unlike the maximum contaminant level, which includes feasibility and cost considerations).

Vinyl chloride monomer also becomes a concern when PVC building materials catch fire, particularly as a drinking water contaminant. Scientists found elevated levels of vinyl chloride monomer in drinking water from pipes damaged by two fires in California, the Tubbs Fire of 2017 and the Camp Fire of 2018. “A high level of mass loss, specifically for the vinyl materials, was inversely proportional to leaching. Results should be considered by responders, utility, health and building officials before and after fire events,” noted the research team.¹⁸⁸

V.E. Landfilling post-consumer products containing vinyl chloride

The agency’s consideration of potential exposure to vinyl chloride also should include testing regular garbage landfills’ leachate. As the volume of PVC products increases, so does the amount of discarded post-consumer PVC plastic products in landfills. A 1987 California study noted that “leaching from old PVC could be a minor source of vinyl chloride” from landfills.¹⁸⁹ No recent studies of this potential concern have been identified.

VI. Disposal of Materials that Contain or Degrade to Vinyl Chloride

Vinyl chloride contaminates air, soil and water, far beyond the confines of vinyl chloride and PVC factories and transportation systems. Industrial wastes from vinyl chloride and PVC plastics manufacturing facilities are disposed of in fuel blending plants, cement kilns, hazardous incinerators, municipal landfills, hazardous waste landfills, and wastewater treatment plants around the country.

Vinyl chloride in discarded PVC products— from vinyl siding to rainboots, from drinking water pipes to children’s toys— is released from landfills into leachate and onward to waterways.

Chlorinated solvents – such as trichloroethylene and tetrachloroethylene – also are significant sources of VC contamination in the environment. They degrade into vinyl chloride when they are in media such as soil and water. Chlorinated solvents are behind a considerable share of the vinyl chloride contamination at federal Superfund sites.

VI.A. Disposal of VCM Waste from Industrial Facilities

Air emissions from VCM and PVC manufacturing facilities are the most direct sources of community exposures to vinyl chloride wastes and are discussed at length earlier in this report. VCM and PVC plastic manufacturing processes also generate vinyl chloride-contaminated waste in other forms.

Wastes contaminated by vinyl chloride include ethylene dichloride distillation sludge (regulated as K019 wastes: heavy ends from the distillation of ethylene dichloride in ethylene dichloride production) and vinyl chloride distillation sludge (regulated as K020 wastes: heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production). Off-specification vinyl chloride is considered a hazardous waste and regulated under code U043.¹⁹⁰ K174 wastes are wastewater treatment sludges generated from the production of EDC and VCM.¹⁹¹ Other wastes include carbon filtration media; PVC resin slurry; and equipment, such as vents, which require treatment. At various stages, PVC and vinyl products are washed and cooled with water. Effluent from these operations contain chlorinated organic compounds, including vinyl chloride.¹⁹²

VI.B. Table. Processes That Create Vinyl Chloride-Contaminated Wastes at a VCM-PVC Facility

Production type	Wastes, Byproduct, or Unreacted Material	Process Origin
VCM Plant	Light ends and heavy ends from ethylene dichloride purification	Direct chlorination or oxychlorination reactor
VCM Plant	Heavy ends from VCM purification	Pyrolysis reactor
VCM Plant	Aqueous streams	EDC washing, vent scrubbing, oxychlorination water
VCM Plant	Vent streams	Distillation columns, flash drums, reactor vents, storage tanks, vessel openings
VCM Plant	Leaks & spills	Sampling, pumps, flanges, pipes, loading, unloading, valves
VCM Plant	Equipment cleaning	Tanks, towers, heat exchangers, piping
PVC Plant	Aqueous streams	Centrifuge, VCM stripping, slurry tanks
PVC Plant	Vent streams	VCM recovery systems, dryer stacks, centrifuge vent, blending, storage facilities
PVC Plant	Leaks & spills	Sampling, pumps, valves, loading operations, agitator seals
PVC Plant	Equipment cleaning	Tanks, heat exchangers, PVC reactor, product dryer, recovery system

Adaptation of table by Paul Randall (EPA), Pollution prevention strategies for the minimizing of industrial wastes in the VCM-PVC industry, *Environmental Progress*, November 1994.¹⁹³

VI.C. On-Site Incinerators

Most VCM waste, including large volumes of EDC/VCM distillation waste, is burned on the premises of the petrochemical plants that produce or use them. In 1996, the industry generated an estimated 14,493,189 pounds of EDC/VCM sludge, which it captured from wastewater, most of which it burned in on-site incinerators.¹⁹⁴

EPA's Toxic Release Inventory reporting does not provide clear data for on-site incineration; instead, this data is embedded in the categories of onsite "waste treatment" and "energy recovery." TRI data however indicates that as much as 27.4 million pounds of vinyl chloride was burned in on-site incinerators (table below).

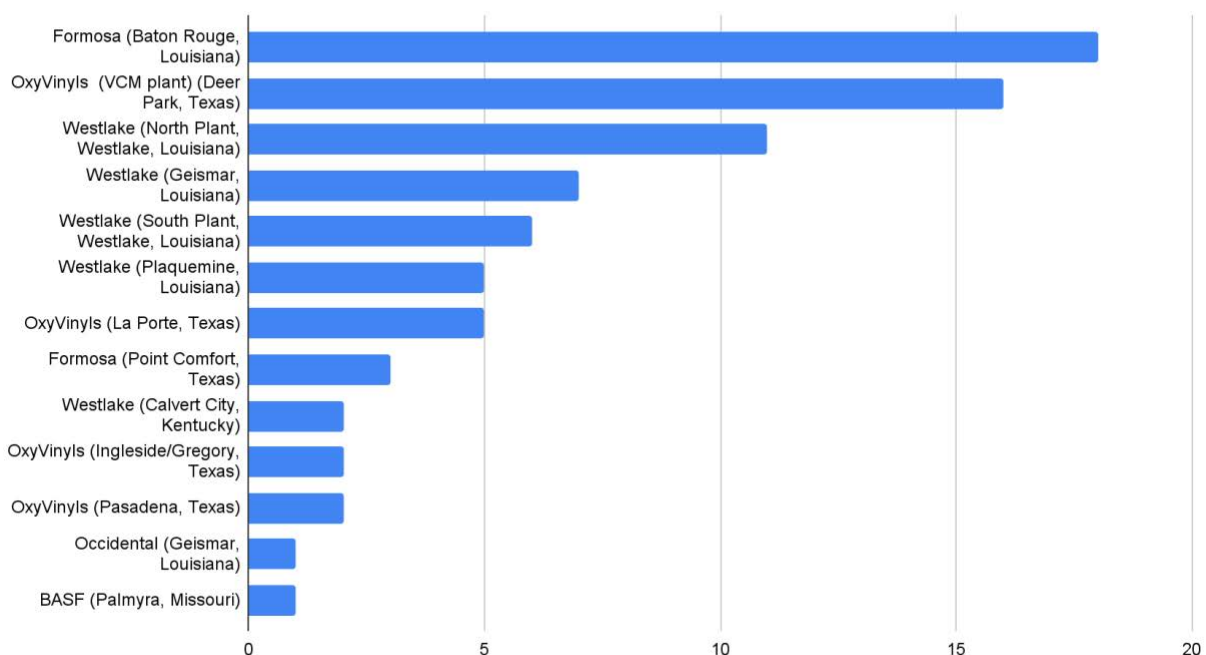
Table. Vinyl chloride wastes "treated" or destroyed in "energy recovery" (2022 TRI data)

Location	Amount (pounds)
Westlake (Geismar, Louisiana)	4,600,000
Westlake (South Plant, Westlake, Louisiana)	4,300,000
Formosa (Point Comfort, Texas)	3,013,529
Westlake (North Plant, Westlake, Louisiana)	2,570,846
Westlake (Calvert City, Kentucky)	2,224,639
Occidental (Ingleside/Gregory, Texas)	1,999,652
Westlake (Plaquemine, Louisiana)	1,957,453
Olin (Freeport, Texas)	1,601,622
Occidental (Pasadena, Texas)	1,340,935
Occidental (La Porte, Texas)	1,162,120
Occidental (VCM plant) (Deer Park, Texas)	1,109,748
Formosa (Baton Rouge, Louisiana)	7,705,40
Shintech (Plaquemine, Louisiana)	667,000
Westlake (Aberdeen, Mississippi)	473,686
Lubrizol (Louisville, Kentucky)	168,000
Occidental (Geismar, Louisiana)	77,902
Daikin (Decatur, Alabama)	55,522
Westlake (Calvert City, Kentucky)	53,216
BASF (Palmyra, Missouri)	19,208
Shintech (Addis, Louisiana)	13,246
Shintech (Freeport, Texas)	4,380
Occidental (PVC plant) (Deer Park, Texas)	348
Orbia (Mexichem) (Pedricktown, New Jersey)	259

Incinerators at vinyl chloride and PVC manufacturing facilities potentially expose workers and surrounding communities to vinyl chloride. At least 79 unplanned releases of vinyl chloride into

the air occurred at 13 onsite incinerators between 2010 and 2021, according to reports filed with the National Response Center.

VCM incinerator incidents (2010 to 2023)



VI.D. Offsite incinerators and cement kilns

Some VCM-contaminated waste is transported to fuel blending facilities, where it is mixed with other hazardous wastes. The mixed waste is transported from these facilities to incinerators and cement kilns across the country. TRI reports do not provide complete accounts of waste transfers from industrial sites, especially after they are transferred to fuel blending plants.

In 2022:

- **Clean Earth of Calvert City, Kentucky** (owned by AES Asset Acquisition Corp.) received 1.62 pounds of VCM waste from Lubrizol (Louisville KY CPVC plant), and 317.5 pounds from Westlake (Calvert City KY VCM plant). The listed disposal methods are “offsite transfer to waste broker for waste treatment” (200 pounds), “offsite transfer to incineration/thermal treatment” (117.5 pounds), and “Energy recovery” (1.67 pounds).
- Formosa sent 153 pounds of VCM waste from its Baton Rouge VCM manufacturing facility to the **Rineco Chemical Industries fuel blending plant in Benton, Arkansas**. It also sent an unknown amount of VCM waste from its Point Comfort, Texas, PVC operation to the TM Deer Park fuel blending facility in Deer Park, Texas.

- **Clean Harbors** sent 4 pounds of VCM waste to its fuel blending facility in **Baltimore, Maryland**.
- Daikin sent 2 pounds of VCM waste from its Decatur, Alabama, fluorochemical plant, to the **Tradebe Treatment fuel blending plant in Shelby, Tennessee**.

The final destinations for these blended wastes could not be determined from TRI filings.

Other waste shipments' final disposition in cement kilns and offsite incinerators could be identified in a zipped spreadsheet (spreadsheet 3a_2022) TRI data as available on July 27, 2023. These are the facilities listed as "off-site receiving facilities" of vinyl chloride hazardous waste. The facility types described below are largely obtained from a national list of hazardous waste facilities.¹⁹⁵

- Cement Kilns

Clean Harbors shipped 79 pounds of VCM waste from its facilities in La Porte, Texas, and Grantsville, Utah, to cement kilns in **Logansport (Essroc) and Greencastle (Lone Star), Indiana, and Chanute, Kansas (Ash Grove)**.

- Offsite incinerators

- **Clean Harbors, Deer Park, Texas** (46,203.39 pounds received in 2022)

Sources of VCM Waste: Occidental chlorinated chemicals manufacturing facility, Geismar, Louisiana (44,139 pounds); Formosa VCM manufacturing facility, Baton Rouge, Louisiana (1,519 pounds); Huntsman ethyleneamines manufacturing facility, Freeport, Texas (176 pounds); Occidental PVC plant, Pasadena, Texas (171.48 pounds); Olin VCM manufacturing facility, Freeport, Texas (80 pounds); Occidental VCM and PVC plants in Deer Park/La Porte, Texas (80 pounds); Formosa VCM/PVC manufacturing facility, Point Comfort, Texas (19 pounds); Westlake PVC and VCM plant, Plaquemine, Louisiana (10.92 pounds); Chemours fluorochemicals plant, Ingleside/Gregory, Texas (3.99 pounds); Occidental VCM plant, Ingleside/Gregory, Texas (3 pounds); Westlake VCM plant (South Plant), Westlake, Louisiana (0.94 pounds) Westlake PVC plant, Aberdeen, Mississippi (0.06 pounds).

- **Clean Harbors, El Dorado, Arkansas** (432.16 pounds received in 2022)

Sources of VCM waste: BASF pesticides plant, Palmyra, Missouri (113 pounds); Olin VCM plant, Freeport, Texas (109 pounds); Oxy Vinyls PVC plant, Pedricktown, NJ (106 pounds); Clean Harbors incinerator, Deer Park, Texas (83 pounds); Occidental chlorinated chemicals manufacturing facility, Geismar, Louisiana (3 pounds); Westlake VCM/PVC plant, Calvert City, Kentucky (0.03 pounds).¹⁹⁶

- **Veolia ES Technical Solutions, Port Arthur, Texas** (189.52 pounds received in 2022)

Sources of VCM waste: Westlake VCM plant (North Plant), Westlake, Louisiana, 102.57 pounds; Westlake PVC and VCM plant, Plaquemine, Louisiana (75.15 pounds); Westlake VCM plant (South Plant), Westlake, Louisiana, (6.8 pounds); Formosa VCM/PVC plant, Point Comfort, Texas (5 pounds)

- **Heritage Thermal, Orange, Texas** (186.13 pounds received in 2022)

Source of VCM waste: Heritage Thermal incinerator, East Liverpool, Ohio (186.13 pounds)

- **Clean Harbors, Kimball, Nebraska** (40 pounds received in 2022)

Sources of VCM waste: Clean Harbors incinerators in Grantsville, Utah (11 pounds) and Deer Park, Texas (16 pounds); BASF pesticides plant, Palmyra, Missouri (13 pounds).

- **Ross Incinerator, Grafton, Ohio** (0.12 pounds received in 2022)

Source of VCM waste: Lubrizol CPVC manufacturing facility, Louisville, Kentucky (0.12 pounds)

VI.E. Landfilling VCM Waste

Industrial VCM wastes are disposed of in landfills, mainly near the facilities that produce them. Five landfills were reported as recipients of VCM waste in 2022. Some are ordinary municipal solid waste (household garbage) landfills; others are designated hazardous waste landfills.

Historically, landfill dumping operations have resulted in widespread contamination of groundwater. In 1980, EPA found that Stauffer Chemical's PVC plastic manufacturing facility in Delaware City, Delaware, dumped more than 15,000 tons of PVC production waste into the Tybouts Corner Landfill in New Castle. It was a simple garbage landfill, closed since 1971. The waste included unknown quantities of vinyl chloride. Contamination from the landfill was "threatening the drinking water for up to 100,000 people," reported the Philadelphia Inquirer.¹⁹⁷

- **Chemical Waste Management, Sulphur, Louisiana**

Chemical Waste Management's landfill near Lake Charles, Louisiana, received 161.6 pounds of VCM waste in 2022, including 153 pounds from Shintech's VCM and PVC manufacturing facility in Plaquemine, Louisiana; 6.06 pounds from Shintech's PVC manufacturing facility in Addis, Louisiana; and, 2.6 pounds from Westlake's South VCM plant in Westlake, Louisiana. This is a hazardous waste landfill.¹⁹⁸

- **Republic Services, McCarty Road Landfill, Houston, Texas**

The McCarty Road Landfill in Houston, a municipal garbage landfill owned by Republic Services¹⁹⁹, has had a troublesome history with OxyVinyls' wastes. "It was 1993 when the dump alerted the TCEQ that sludge containing high levels of PCBs from OxyVinyls 'may' have been disposed of at its site. Debates raged about the amount of contamination released, and an investigation dragged on for years. The volume involved is immense. From 1998 to 2003, the company trashed more than six million pounds of highly contaminated PCB waste from OxyVinyl's La Porte plant and its predecessor GEON Company, according to TCEQ record," reported Houston Press in 2005.²⁰⁰ OxyVinyl regularly reports transferring dioxin- and other contaminated wastes from the VCM plant to McCarty Road, but has not reported any transfers specifically of vinyl chloride wastes since 2019.²⁰¹

Also, in 2022:

- The **Salem County Utilities Authority Landfill in Alloway, New Jersey**, a municipal solid waste landfill, received 12 pounds of VCM waste from the Orbia (Mexichem) PVC plant in Pedricktown, New Jersey.²⁰²
- The **Valley View Landfill, Sulphur, Kentucky** received 0.05 pounds of VCM wastes from Lubrizol's CPVC manufacturing facility in Louisville, Kentucky. While a small amount, as noted earlier, there is no safe amount of vinyl chloride exposure.
- **Republic Services, Blue Ridge Landfill, Fresno, Texas, another municipal solid waste landfill**, received 0.01 pounds of VCM waste from Occidental's VCM manufacturing facility in La Porte, Texas. The landfill is a frequent subject of neighborhood complaints and citations for odor violations.²⁰³

The placement of vinyl chloride production wastes in municipal waste landfills raises an important area of inquiry for EPA.

VI.F. Wastewater Discharges from VCM and PVC Manufacturing Facilities

Vinyl chloride and PVC plastic production facilities discharge vinyl chloride contaminated wastewaters into waterways or transfer them to offsite management systems. Neighboring chemical plants operate most of these wastewater facilities. Some are publicly owned treatment works (POTWs).

Major waterways into which vinyl chloride is discharged include Calcasieu River, Corpus Christi Bay, Delaware River, Houston Ship Channel, Illinois River, Lavaca Bay, Mississippi River, Ohio River, and Tennessee River. These discharges are listed below (with citations).

A 2012 Technical Memorandum from The Eastern Group to EPA notes that there are three categories of wastewater generation from PVC plastic manufacturing facilities: stripper outlets, uncontrolled streams, and maintenance wastewater. They observed, "**Only a small percentage of facilities reported adequate information for each category....** Only a percentage of facilities reported total annual wastewater generation for each wastewater category...Similar to

wastewater generation, only a fraction of facilities reported the vinyl chloride and total non-vinyl chloride organic hazardous air pollutant concentrations in each wastewater category ”²⁰⁴

Vinyl chloride wastewater discharge reports to the Toxics Release Inventory remain sporadic, as the following list reveals. Six facilities have been found to be in violation of the Clean Water Act (CWA) since January 2021. Occidental was out of compliance at one facility because it failed to provide any reporting at all for a period of time in 2023. At least two Westlake manufacturing facilities are out of compliance with the CWA because they are operating without wastewater permits.

The inadequacy of industry self-reported information suggests that the agency should undertake extensive testing of waters and sediments around discharge points. This will provide the necessary data for determining potential exposures to vinyl chloride from industrial wastewater discharges.



Tennessee River, downstream from Westlake’s Calvert City, Kentucky, VCM/PVC complex. Westlake does not currently hold a wastewater discharge permit, and is in non-compliance with the Clean Water Act. Photo by Jim Vallette/Material Research, July 25, 2019.²⁰⁵

Vinyl chloride / PVC manufacturing facility wastewater reports include:

- **Formosa - Point Comfort, Texas, VCM/PVC facility.** Vinyl chloride reported in wastewater discharges into Lavaca Bay (most recent report was 1 pound, in 2013).²⁰⁶
- **Occidental - Ingleside/Gregory, VCM facility.** There is no TRI report of vinyl chloride wastewater releases for this facility.²⁰⁷ The facility holds a National Pollutant Discharge Elimination System (NPDES) wastewater discharge permit to discharge, on average, 1.07 pounds of vinyl chloride per day (390 pounds per year). There are three outfalls, one is a pipe into Corpus Christi Bay, and two are outfalls to Chemours' adjacent fluorochemicals manufacturing facility.²⁰⁸
- **Occidental - Deer Park, Texas, VCM facility.** Vinyl chloride is in wastewater that is treated at Shell Chemical (reported as less than 2.5 pounds per year since 2010). Shell's complex surrounds the OxyVinyls plant.²⁰⁹ Shell discharges wastewater into Houston Ship Channel. Its TRI reported releases do not include vinyl chloride.²¹⁰
- **Occidental - La Porte, Texas, VCM facility.** Vinyl chloride reported in wastewater discharges into the Houston Ship Channel (reported as less than 3.5 pounds per year since 2013).²¹¹ The facility has been in non-compliance with CWA regulations since November 2022, according to EPA's Enforcement and Compliance History Online database. Violations include exceeding permitted limits on dioxins in wastewater. In the third quarter of 2023, the non-compliance was a "significant/Category 1" violation for "failure to report."²¹²
- **Occidental - Pasadena, Texas, PVC facility.** Vinyl chloride reported in wastewater discharges into the Houston Ship Channel (reported as less than 1.5 pounds per year since 2005).²¹³
- **Occidental - Pedricktown, New Jersey, PVC facility.** Vinyl chloride is in wastewater that is treated by its partner, Orbia, in the same complex. Reports 17 pounds of transfers, almost every year. No associated POTW.²¹⁴ Fined \$24,450 for violating the Clean Water Act (CWA) on October 3, 2023.²¹⁵
- **Orbia - Pedricktown, New Jersey, PVC facility.** Since 2010, Orbia has reported between 10 and 16 pounds of vinyl chloride in water releases each year. It discharges the VCM-contaminated water into the Delaware River.²¹⁶ Orbia has been out of compliance with Clean Water Act regulations since at least January 2021.²¹⁷
- **Orbia - Henry, Illinois, PVC facility.** In 2022, Orbia reported releasing 470 pounds of vinyl chloride in wastewater to the nearby Emerald Performance Materials adhesives plant in Henry. This is around the average report from the facility since 2010.²¹⁸ Emerald discharges wastewater into the Illinois River but it has not reported any vinyl chloride releases since 1992.²¹⁹

- **Shin-Etsu (Shintech) - Addis, Louisiana PVC facility.** Starting in 2015, Shin-Etsu reported releasing between zero and 5.43 pounds of vinyl chloride into the Mississippi River.²²⁰
- **Shin-Etsu (Shintech) - Plaquemine, Louisiana VCM/PVC facility.** There is no TRI report of vinyl chloride wastewater releases for this facility.²²¹ Shin-Etsu was out of compliance with the Clean Water Act for 30 out of 36 months between January 2021 and December 2023.²²²
- **Shin-Etsu (Shintech) - Freeport, Texas PVC facility.** Shin-Etsu on occasion reports discharges of vinyl chloride into the Brazos River. In 2019, it reported discharging 13 pounds.
- **Westlake - Calvert City, Kentucky VCM/PVC facility.** Westlake occasionally reports discharges of vinyl chloride into the Tennessee River. In six of 13 reports between 2010 and 2022, it reported between 1 and 23 pounds of discharges. The other years had no wastewater data.²²³ The facility was out of compliance with Clean Water Act regulations in 10 of 12 quarters between October 2020 and September 2022. The non-compliance is significant: its permit has expired.²²⁴
- **Westlake - Geismar, Louisiana VCM/PVC facility.** Westlake filed one report of vinyl chloride water releases since 2010. It reported discharging 1 pound of vinyl chloride into the Mississippi River in 2015.
- **Westlake, Lake Charles (North plant), Louisiana VCM facility.** Westlake reported discharging vinyl chloride into the Calcasieu River in nine out 13 years between 2010 and 2022. The reported amounts ranged between two and 40 pounds.²²⁵ Westlake was fined \$14,600 for non-compliance with the CWA within the last five years. It has been operating without a water discharge permit since at least 2020.²²⁶
- **Westlake, Plaquemine, Louisiana VCM/PVC facility.** Westlake reported discharging vinyl chloride into the Calcasieu River in five out 13 years between 2010 and 2022. Reported amounts ranged between one and eight pounds.²²⁷
- **Westlake, Aberdeen, Mississippi PVC facility.** Plant managers reported transferring vinyl chloride contaminated wastewater to the City of Aberdeen’s treatment works (POTW) until 2010. There is no record of vinyl chloride wastewater releases since that year.²²⁸

In addition to the Westlake Aberdeen PVC facility, another plastics producer, the Lubrizol chlorinated PVC manufacturing facility in Louisville, discharges vinyl chloride-contaminated wastewater to a POTW. In 2022, according to Lubrizol’s TRI Form R, vinyl chloride was discharged to the Morris Forman treatment works on the Ohio River. Lubrizol calculated that these transfers resulted in 1.5 pounds of vinyl chloride being present in sludge used for agricultural applications, 1.7 pounds in sludge that is landfilled, and 29.2 pounds that is used in “experimental and estimated treatment.”²²⁹ Biosolids from the Morris Forman POTW are sold in Kentucky and Indiana as “Kentucky Green” fertilizer.²³⁰

EPA's Office of the Inspector General in 2019 found that the federal agency's records on POTW transfers and releases are inadequate. It found discrepancies which "led to the EPA's discovery that total release calculations provided by the publicly available database do not properly include the POTW release amounts," reported Acting Inspector General Charles Sheehan. "The effect for those that query these data, including nearby communities or worldwide researchers, is that they will not always have accurate or consistent information regarding releases of the hazardous substances from POTWs that may significantly impact human health and the environment."²³¹

Due to these chronic deficiencies in wastewater data, EPA should conduct on-site testing of wastewater discharges and sludge from industrial and POTW facilities. This will help understand their potential to expose people and the environment as part of this TSCA evaluation of vinyl chloride.

VI.G. Activated carbon regeneration

Activated carbon is used as a pollution control medium in VCM plants. The carbon comes from the Calgon Carbon manufacturing facility in Kentucky. Calgon takes back spent carbon for processing. This processing involves heating the spent carbon "followed by off-gas treatment," in which, they say, "the adsorbed organic compounds are destroyed and reactivated carbon can be safely and cost-effectively recycled back to facilities for continued use." The facility reports nearly 100,000 pounds of hydrochloric acid releases per year, but no vinyl chloride emissions.²³² In 2022, the Westlake Lake Charles South Plant sent 23 pounds of VCM in waste to **Calgon Carbon's facility in Catlettsburg, Kentucky**. The plant is on the Big Sandy River; West Virginia is on the other side of the river. According to a Kentucky state hazardous waste facility permit, Calgon Carbon manufactures activated carbon used in various petrochemical processes. "Some of the pollutants bound in spent activated carbon are classified as hazardous waste. This spent activated carbon is returned to Calgon and treated in the Carbon Regeneration Unit where pollutants are driven off and destroyed at extremely high temperatures."²³³ However, Calgon Carbon has been in violation of the Clean Water Act within the past 18 months.²³⁴

VI.H. Other chlorinated aliphatic sources of vinyl chloride contamination

Facilities that manufacture vinyl chloride are part of the chlorinated aliphatics industry.

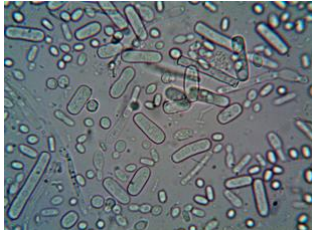
Others sources of chlorinated aliphatics include manufacturers of

- allyl chloride (107-05-1)
- carbon tetrachloride (56-23-5)
- chloroform (67-66-3)
- chloromethane (74-87-3)
- chloroethane (75-00-3)
- chloroprene (126-99-8)
- dichloromethane (75-09-2)
- ethylene dichloride (EDC) (107-06-2)

- hexachlorocyclopentadiene (77-47-4)
- methallyl chloride (513-37-1)
- perchloroethylene (127-18-4; a/k/a PCE or tetrachloroethene)
- trans-1,2-dichloroethylene (156-60-5)
- trichloroethylene (79-01-6)
- vinylidene chloride (75-35-4)
- 1,1,1-trichloroethane (71-55-6)
- 1,1,2-trichloroethane (79-00-5)
- 1,2,3-trichloro-3-butene (2431-50-7)*
- 1,3-dichloro-2-butene (926-57-8)
- 1,3-dichloropropene (542-75-6)
- 1,4-dichloro-2-butene (764-41-0)*
- 2,3-dichloro-1,3-butadiene (1653-19-6)*
- and 3,4-dichloro-1-butene (760-23-6)²³⁵

(*) Chemicals with asterisks are blacked out in EPA’s pdf, but were identified with a simple cut and paste of the list.

In 1996, according to EPA, the industry produced 20.3 billion pounds of chemicals that generated chlorinated aliphatic wastes. EDC/VCM accounted for 86.6% of the industry’s production in 1996. Other sources included producers of chlorinated methanes such as carbon tetrachloride and perchloroethylene (7.5%), methyl chloride (2.9%), chloroprene (1.2%), methyl chloroform (0.6%), vinylidene chloride (0.5%), trichloroethylene (0.3%), hexachlorocyclopentadiene (0.2%), methallyl chloride (0.08%), and allyl chloride (0.05%).²³⁶



Many of these chemicals are chlorinated solvents. They break down into vinyl chloride through various processes of degradation, including being exposed to sunlight or to biological material in soil and landfills. ATSDR in 2024 notes, that vinyl chloride “can enter groundwater after being produced as a byproduct during the bacterial degradation of trichloroethylene, tetrachloroethylene, and 1,1,1-trichloroethane.”²³⁷

Scientists have isolated organisms and their various methods of degrading chlorinated ethenes. Twelve different microorganisms have been identified that can degrade perchloroethylene into vinyl chloride, for example.²³⁸

Occidental Chemical’s chlorinated solvents factory in Wichita, Kansas, is a known point source of vinyl chloride groundwater contamination.²³⁹

EPA’s investigation into sources of vinyl chloride exposure should include sites where chlorinated aliphatic chemicals are disposed of or otherwise released into the environment.

In 2019, according to EPA data, as many as 50 billion pounds of chlorinated aliphatic substances other than vinyl chloride were manufactured in or imported into the United States, as follows:²⁴⁰

- Ethylene dichloride (107-06-2): Up to 40 billion pounds produced. 18 sites manufactured or imported this chemical.
- Chloromethane (74-87-3): 5 billion pounds. 11 sites.
- Allyl chloride (107-05-1): 1 billion pounds. 5 sites.
- 1,1,2-trichloroethane (79-00-5): 1 billion pounds. 1 site.
- 1,1,1-trichloroethane (71-55-6): 1 billion pounds. 1 site.
- Chloroform (67-66-3): 500 million pounds. 10 sites.
- Perchloroethylene (127-18-4): 500 million pounds. 25 sites.
- Carbon tetrachloride (56-23-5): 250 million pounds. 8 sites.
- Dichloromethane (75-09-2): 250 million pounds. 41 sites.
- Trichloroethylene (79-01-6): 250 million pounds. 20 sites.
- 1,3-dichloropropene (542-75-6): 100 million pounds. 3 sites.
- Chloroethane (75-00-3): 100 million pounds. 2 sites.
- Vinylidene chloride (75-35-4): 100 million pounds. 1 site.
- 1,3-dichloro-2-butene (926-57-8): 20 million pounds. 1 site.
- 2,3-dichloro-1,3-butadiene (1653-19-6): 117,876 pounds. 2 sites.

At least 13 chlorinated aliphatic chemical manufacturing facilities, other than vinyl chloride manufacturers, are listed in 2020 Chemical Data Reporting. These are potential sources of vinyl chloride contamination of soil and water.

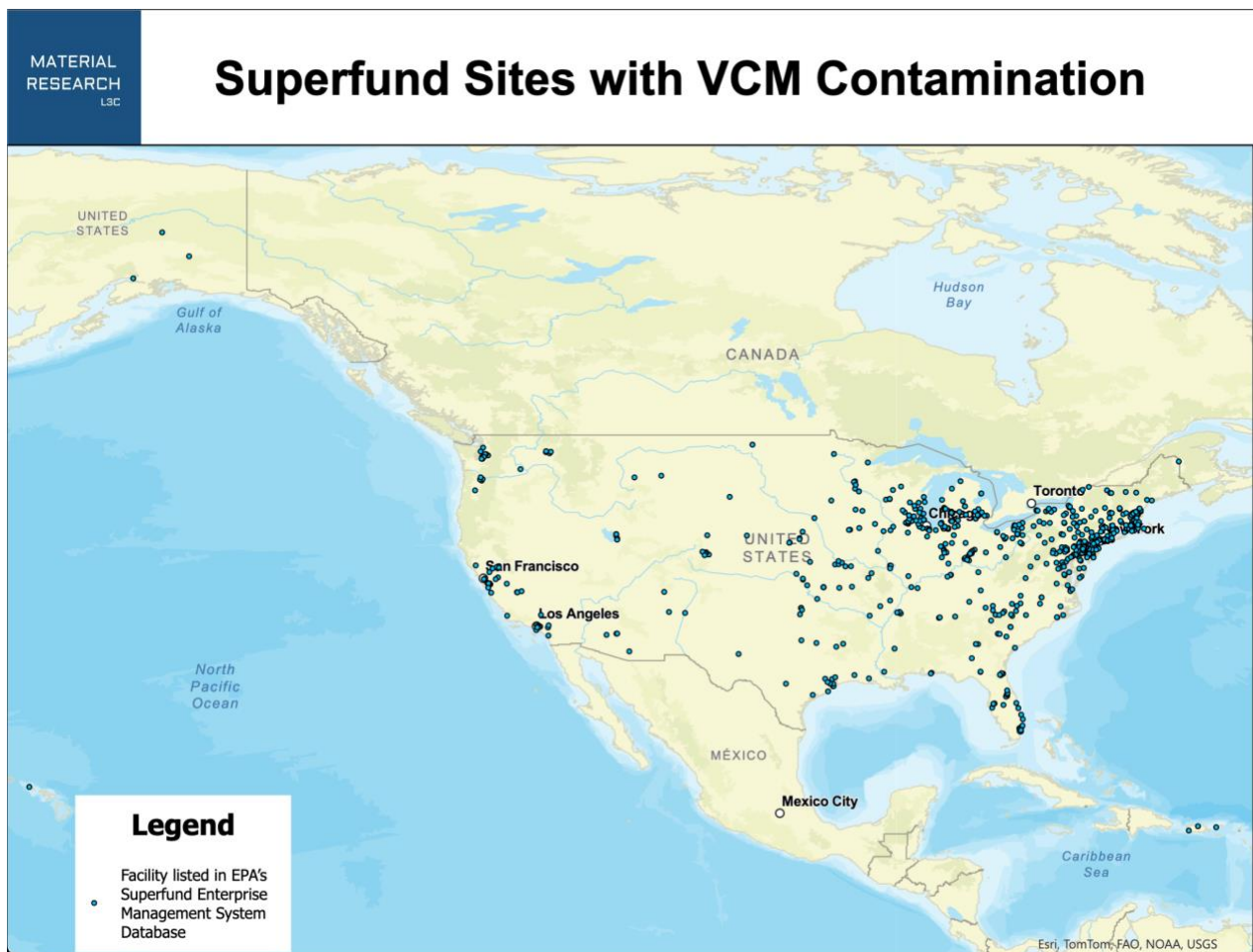
VI.H.1. Table. Other Chlorinated Aliphatics Manufacturing Facilities

Manufacturer	Location	Chlorinated Aliphatic Products
Chemical Solvents Inc.	Cleveland, Ohio	Trichloroethylene
Corteva (formerly Dow Agrosiences)	Pittsburg, California	Carbon tetrachloride
Dow Corning Corp.	Carrollton, Kentucky	Chloromethane
Dow Corporation	Freeport, Texas	1,3-dichloropropene
Hexion	Norco, Louisiana	Allyl chloride
Lanxess	North Charleston, South Carolina	Ethylene dichloride
Koura (f/k/a Mexichem Fluor)	Saint Gabriel, Louisiana	Trichloroethylene
Momentive Performance Materials	Waterford, New York	Chloromethane
Occidental Chemical	Convent, Louisiana	Ethylene dichloride
Occidental Chemical	Wichita, Kansas	Chloromethane, 1,1,2-trichloroethane, Trichloroethylene,

		Dichloromethane, Carbon tetrachloride
Solvents & Chemicals	Pearland, Texas	Dichloromethane, Perchloroethylene
Syngenta Crop Protection	St. Gabriel, Louisiana	Carbon tetrachloride
Zeon Chemicals	Louisville, Kentucky	Hexachlorocyclopentadiene

Source: Chemical Data Reports (2020).

VI.I. Map. Superfund Sites with VCM Contamination



VI.J. Vinyl Chloride Contamination of Soil, Water, and Buildings

The national distribution of vinyl chloride and other chlorinated aliphatic chemicals leads to widespread contamination of soil and groundwater.

Little to no testing of soil occurs when fill is brought in for new construction. The New Jersey State Commission of Investigation found that contaminated fill was being used in playgrounds and flower beds. In 2016, Lee Seglem, acting executive director for the New Jersey State Commission of Investigation, found that “rogue dirt brokers” with “criminal ties” were “passing off” toxic dirt as “properly recycled topsoil.” One of these companies, Pure Earth Recycling Inc., had its permit revoked in 2012.²⁴¹ It had received more than 11 million tons of waste, including contaminated soil. In 2010, the New York City Business Integrity Commission denied its trade waste license because Pure Earth Recycling Inc. “lacked good character, honesty and integrity” and “knowingly associated with convicted racketeers.” Pure Earth Recycling then abandoned acres of contaminated soil in Vineland, New Jersey.²⁴²

Contaminated soil can lead to vinyl chloride emissions into indoor air through vapor intrusion. It is of enough concern that the U.S. Housing and Urban Development Office of Multifamily Housing requires a “vapor intrusion assessment” if “there is a potential for vapors to occur in the subsurface below existing and/or proposed on-site structures.”²⁴³

Superfund site data reveals widespread vinyl chloride contamination of soil and water. In 2024, there are at least 699 federally-listed sites with vinyl chloride contamination. See Appendix 4 for this list. This is 38% of the number of locations on, deleted from, or proposed for the National Priorities List (1833).²⁴⁴

While many sites’ vinyl chloride contamination comes from the degradation of other chlorinated chemicals, vinyl chloride and sites that process vinyl chloride into PVC create their own substantial legacy pollution that has contaminated drinking water. For example:

- Price’s Pit in Egg Harbor Township, New Jersey, was the burial site for nine million gallons of toxic wastes from 49 companies, resulting in vinyl chloride contamination of groundwater. “People who live near Price's Pit - so dubbed because the owner is named Charles Price - depend on the wells for water and have complained of headaches, nausea, skin rashes and seizures,” reported Public Broadcasting System in 2023. Private and public drinking water wells were contaminated. Thirty-seven households switched from well to utility water.²⁴⁵
- Formosa Plastics’ PVC manufacturing facility in Delaware City, Delaware, closed in 2018. This location has been a Superfund site since 1983 because vinyl chloride and other chlorinated substances contaminate the groundwater. “Groundwater which was used locally for drinking water and agricultural purposes, was heavily contaminated,” according to ToxicSites.org. “About 50 people live within one mile of the site.”²⁴⁶

- In 1980, EPA alleged that the prior owner of the Delaware City plant, Stauffer Chemical, dumped about 15,100 tons of waste in the Tybouts Corner Landfill, “threatening the drinking water for up to 100,000 people,” according to the Philadelphia Inquirer.²⁴⁷
- Borden closed its VCM plant in Geismar, Louisiana in 2001, but not before it paid a record \$7 million fine for contaminating groundwater with vinyl chloride.²⁴⁸
- Petro-Chemical Systems’ landfill in Liberty, Texas, was never authorized to receive hazardous wastes, including vinyl chloride. However, Tenneco Chemicals for years shipped sludge and other wastes from its vinyl chloride manufacturing facility in Pasadena, Texas. In 2007, EPEC Polymers (successor to Tenneco) reached a \$23.4 million settlement with the U.S. Department of Justice for penalties and remediation costs.²⁴⁹ Vinyl chloride is contaminating a shallow aquifer that could otherwise be used for drinking water.²⁵⁰

Of the 699 federal sites with vinyl chloride contamination in EPA’s Superfund Enterprise Management System²⁵¹:

- 211 sites have soil contaminated with vinyl chloride.
- 198 have groundwater contaminated with vinyl chloride.
- 96 have vinyl chloride in surface water.
- 33 have vinyl chloride detected in the air.
- 33 have vinyl chloride in sediment.
- 28 have vinyl chloride in soil gas.
- 27 have vinyl chloride in leachate, mainly landfills.
- 15 release landfill gases contaminated with vinyl chloride.
- 9 have vinyl chloride in sludge.
- 7 have vinyl chloride-contaminated debris.
- 3 have buildings that are contaminated with vinyl chloride.

The federal list is a subset of the widespread vinyl chloride contamination of water, air, buildings, soil and biota across the United States. EPA should also look at state-listed sites for a more robust baseline understanding of the geographic spread of vinyl chloride and potential exposures. For example, tissue in fish in Portland Harbor (Oregon) have been found with elevated vinyl chloride. The cause was contaminated sediment, with no identified origin of the vinyl chloride. EPA should seek to identify where else (and how) fish have vinyl chloride in their tissue; this information is critical to understanding whether subsistence fishing populations are more highly exposed than the general population.

Endnotes

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- ¹ This summary of findings is based on data and analysis cited elsewhere in this report.
- ² Estimate based on average tank capacity of 177,000 pounds.
- ³ EPA is conducting a risk evaluation of ethylene dichloride (EDC) after designating it as a TSCA high priority substance. Prior to this designation, in November 2019, Earthjustice submitted a technical report by Material Research. The agency references this report in a recent regulatory impact assessment on EDC.
https://www.epa.gov/system/files/documents/2023-04/Proposed_HON_RIA_final_2023-03.pdf
- ⁴ "VCM/PVC Process." Pall Fuels and Chemicals, Field Applications HCP-8c.
- ⁵ The actual production estimate is based upon
- U.S. and Canadian PVC plastic production as reported by the American Chemistry Council's [2021 Resin Review](#). (One unit of PVC plastic requires an equal amount vinyl chloride), plus:
 - U.S. vinyl chloride exports to Mexico and Colombia, as reported in the International Trade Commission's DataWeb site (HTS Code 3920.43).
- ⁶ The general accuracy of Material Research's estimates as listed in the table below is reflected in the "optimal" capacity utilization rate of 85% as stated in "What Is Production Capacity and How to Calculate It?" MTD MFG, July 23, 2021. <https://web.archive.org/web/20210727142046/https://www.mtdmfg.com/articles/what-is-production-capacity-and-how-to-calculate-it/>.
- ⁷ ChemOrbis Editorial Team, ed. "Shintech Granted Permits for PVC Expansion in US." ChemOrbis, July 1, 2018. <https://web.archive.org/web/20240227161237/https://www.chemorbis.com/en/plastics-news/Shintech-granted-permits-for-pvc-expansion-in-us/2018/07/02/727861&isflashhaber%3Dtrue#reportH>.
- ⁸ Bowen, Bill. "Chemical Profile: US VCM." ICIS Chemical Business, January 25, 2018. <https://web.archive.org/web/20240212115121/https://www.icis.com/subscriber/icb/chemicalprofile?commodityId=10197®ionId=10011>.
- ⁹ Bowen, Bill. "Chemical Profile: US VCM." ICIS Chemical Business, January 25, 2018. <https://web.archive.org/web/20240212115121/https://www.icis.com/subscriber/icb/chemicalprofile?commodityId=10197®ionId=10011>.
- ¹⁰ Figueroa, Gabreilla. "EDC Prices Fall in Europe and USA Due to Pessimistic Downstream Demand." EDC prices fall in Europe and USA due to pessimistic downstream demand, August 7, 2023. <https://web.archive.org/web/20240227162325/https://www.chemanalyst.com/NewsAndDeals/NewsDetails/edc-prices-fall-in-europe-and-usa-due-to-pessimistic-downstream-demand-19056>.
- ¹¹ Hays, Kristen. "Formosa to Restart Texas VCM Plant next Week Post-Maintenance." Edited by Jennifer Pedrick. S&P Global Commodity Insights, July 3, 2019. <https://web.archive.org/web/20240227162929/https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/chemicals/070319-formosa-to-restart-texas-vcm-plant-next-week-post-maintenance>.
- ¹² Munn, Josh and Delgado, Eric. "OxyChem Houston Overview." November, 2022. <https://web.archive.org/web/20240227163445/https://www.deerparktx.gov/DocumentCenter/View/11741/OxyChem-Overview-112922>
- ¹³ "Westlake Chemical Restarting Its PVC Complexes in Louisiana Post Hurricane Ida." MRC Hub, September 10, 2021. <https://web.archive.org/web/20240227164524/https://www.mrchub.com/news/392595-us-oil-refineries-must-wait-weeks-for-power-and-water-to-be-restarted-after-hurricane-ida>.
- ¹⁴ Hays, Kristen. "Westlake's Kentucky PVC Complex Spared Damage from Violent Storms: Spokesman." S&P Global Commodity Insights, December 13, 2021. <https://web.archive.org/web/20240227170545/https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/chemicals/121321-westlakes-kentucky-pvc-complex-spared-damage-from-violent-storms-spokesman>.
- ¹⁵ Hays, Kristen. "Formosa Plastics USA Declares Force Majeure on US Chlor-Alkali." Edited by Valerie Jackson. S&P Global Commodity Insights, February 18, 2021. <https://web.archive.org/web/20240227170941/https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/chemicals/021821-formosa-plastics-usa-declares-force-majeure-on-us-chlor-alkali>.

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- ¹⁶ Air permit lists "rated capacity" as 1131.5 million pounds halogenated hydrocarbons. Louisiana Department of Environmental Quality, Air Permit Routing/Approval Slip-Permits, Westlake Chemicals & Vinyls LLC, Lake Charles North, Permit No., 0520-00012-V, November 10, 2022.
- ¹⁷ Based on balance of 952,318 metric tons of combined capacity with North plant, as reported in "Force Majeure on Lake Charles Polymer Units of Westlake Polymer Remains in Force." MRC Hub, October 19, 2020.
<https://web.archive.org/web/20231129163549/https://www.mrchub.com/news/377912-force-majeure-on-lake-charles-polymer-units-of-westlake-polymer-remains-in-force> .
- ¹⁸ "Westlake Chemical Restarting Its PVC Complexes in Louisiana Post Hurricane Ida." MRC Hub, September 10, 2021.
<https://web.archive.org/web/20240227164524/https://www.mrchub.com/news/392595-us-oil-refineries-must-wait-weeks-for-power-and-water-to-be-restarted-after-hurricane-ida>.
- ¹⁹ Sources for multiple facilities: Dell, Linda D. "Letter to Mr. Edward L. Beeler, Director, Environmental, Health & Safety." Applied Epidemiology Inc., January 25, 1996.
<https://www.toxicdocs.org/d/4vNvEeNdGqgQ6OkkdmzJwk5wj?lightbox=1#>; Kuzmack, Arnold M., and Robert E. McGaughy. "Quantitative Risk Assessment for Community Exposure to Vinyl Chloride." Office of Planning and Evaluation and Office of Health and Ecological Effects. U.S Environmental Protection Agency, Washington, D.C. 20460, December 5, 1975.
<https://web.archive.org/web/20240229225238/https://nepis.epa.gov/Exe/ZyPDF.cgi/94002J0J.PDF?Dockey=94002J0J.PDF> .; "Briefing Report: Environmental Aspects of Vinyl/Polyvinyl Chloride (External Review Draft)." Research Triangle Park, North Carolina, 27711: National Environmental Research Center. U.S. Environmental Protection Agency, October 15, 1974.
<https://web.archive.org/web/20240229181838/https://nepis.epa.gov/Exe/ZyPDF.cgi/94000JMA.PDF?Dockey=94000JMA.PDF> ; "Calvert City," BF Goodrich, undated internal document published at ToxicDocs, <https://cdn.toxicdocs.org/85/85EypJ50R7MD6N0Rev99DVNgB/85EypJ50R7MD6N0Rev99DVNgB.pdf>
- ²⁰ "Briefing Report: Environmental Aspects of Vinyl/Polyvinyl Chloride (External Review Draft)." Research Triangle Park, North Carolina, 27711: National Environmental Research Center. U.S. Environmental Protection Agency, October 15, 1974.
<https://web.archive.org/web/20240229181838/https://nepis.epa.gov/Exe/ZyPDF.cgi/94000JMA.PDF?Dockey=94000JMA.PDF>.
- ²¹ "Dow to Shut VCM Sites." Plastic News, February 14, 2011.
<https://web.archive.org/web/20220811185602/https://www.plasticsnews.com/article/20110214/NEWS/302149974/dow-to-shut-vcm-sites> .
- ²² "Ethyl Shutdown." *The New York Times* (New York, New York), September 13, 1983.
<https://timesmachine.nytimes.com/timesmachine/1983/10/13/229602.html?pageNumber=88>.
- ²³ "Westlake Chemical to Begin Phased Start-up of Geismar PVC Operations." Westlake, April 15, 2021.
<https://web.archive.org/web/20230718131101/https://www.westlake.com/news/westlake-chemical-begin-phased-start-geismar-pvc-operations>.
- ²⁴ Blum , Jordan. "SunEdison to Close Pasadena Plant, Cut 180 Jobs." Houston Chronicle, February 18, 2016.
<https://web.archive.org/web/20240227201439/https://www.houstonchronicle.com/business/energy/article/SunEdison-opts-to-shutter-Pasadena-plant-6840625.php>.
- ²⁵ "Stauffer Chemical." *Section D, Page 4. The New York Times* (New York, New York), March 17, 1982.
<https://www.nytimes.com/1982/03/17/business/stauffer-chemical.html>.
- ²⁶ "Dow to Shut VCM Sites." Plastic News, February 14, 2011.
<https://web.archive.org/web/20220811185602/https://www.plasticsnews.com/article/20110214/NEWS/302149974/dow-to-shut-vcm-sites>.
- ²⁷ Nystrom, Jennifer, and Booz A. Hamilton. "RCRA Corrective Action, Environmental Indicator (EI) RCRAInfo Code (CA725) Current Human Exposures Under Control, PPG Discontinued Operations Site." U.S. Environmental Protection Agency, August 10, 2005.
<https://web.archive.org/web/20240229182808/https://www.epa.gov/sites/default/files/2017-08/documents/ppg725.pdf>.
- ²⁸ "SHELL CHEMICAL STATEMENT TO OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION CONCERNING POSSIBLE HAZARDS OF VINYL CHLORIDE MANUFACTURE AND USE." Hearings on Vinyl Chloride for Dr. Cumin, Docket #1964, Book #2 (of 3), published on ToxicDocs.org,

<https://web.archive.org/web/20240229183227/https://www.toxicdocs.org/d/6BGbd0VQXbM911QaJXm4veoeR?lightbox=1>.

²⁹ "Briefing Report: Environmental Aspects of Vinyl/Polyvinyl Chloride (External Review Draft)." Research Triangle Park, North Carolina, 27711: National Environmental Research Center. U.S. Environmental Protection Agency, October 15, 1974.; "SYNTHETIC ORGANIC CHEMICALS United States Production and Sales, 1990 (Investigation No. 332-135)." USITC PUBLICATION 2470. United States International Trade Commission Washington, DC 20436, December 1, 1991. <https://web.archive.org/web/20221010214224/https://www.usitc.gov/publications/332/pub2470.pdf>.

³⁰ Bowen, Bill. "Chemical Profile: US VCM." ICIS Chemical Business, January 25, 2018.

<https://web.archive.org/web/20240212115121/https://www.icis.com/subscriber/icb/chemicalprofile?commodityId=10197®ionId=10011>. and ChemOrbis Editorial Team, ed. "Shintech Granted Permits for PVC Expansion in US." ChemOrbis, July 1, 2018. <https://web.archive.org/web/20240227161237/https://www.chemorbis.com/en/plastics-news/Shintech-granted-permits-for-PVC-expansion-in-US/2018/07/02/727861&isflashhaber%3Dtrue#reportH>

³¹ Bowen, Bill. "Chemical Profile: US VCM." ICIS Chemical Business, January 25, 2018.

<https://web.archive.org/web/20240212115121/https://www.icis.com/subscriber/icb/chemicalprofile?commodityId=10197®ionId=10011>. and ChemOrbis Editorial Team, ed. "Shintech Granted Permits for PVC Expansion in US." ChemOrbis, July 1, 2018. <https://web.archive.org/web/20240227161237/https://www.chemorbis.com/en/plastics-news/Shintech-granted-permits-for-PVC-expansion-in-US/2018/07/02/727861&isflashhaber%3Dtrue#reportH>.

³² United States Security and Exchange Commission, Form 10-k, Commission File Number 1-9210, Occidental Petroleum Corporation, Delaware. December 1999.

<https://web.archive.org/web/20221108134418/http://www.sec.gov/Archives/edgar/data/797468/00009501480000407/0000950148-00-000407-d10.pdf>

³³ "Westlake Chemical Restarting Its PVC Complexes in Louisiana Post Hurricane Ida." MRC Hub, September 10, 2021.

<https://web.archive.org/web/20240227164524/https://www.mrchub.com/news/392595-us-oil-refineries-must-wait-weeks-for-power-and-water-to-be-restarted-after-hurricane-ida> .

³⁴ Mosbrucker, Kristen. "U.S. Subsidiary of World's Largest Producer of PVC Begins Iberville Ethylene Production." The Advocate, February 18, 2020.

https://web.archive.org/web/20240227202707/https://www.theadvocate.com/baton_rouge/news/business/u-s-subsidiary-of-worlds-largest-producer-of-pvc-begins-iberville-ethylene-production/article_62c59b3a-5287-11ea-b301-f7df4c13fb92.html.

³⁵ Hays, Kristen. "Formosa to Restart Texas VCM Plant next Week Post-Maintenance." Edited by Jennifer Pedrick. S&P Global Commodity Insights, July 3, 2019.

<https://web.archive.org/web/20240227162929/https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/chemicals/070319-formosa-to-restart-texas-vcm-plant-next-week-post-maintenance>.

³⁶ Hays, Kristen. "Westlake's Kentucky PVC Complex Spared Damage from Violent Storms: Spokesman." S&P Global Commodity Insights, December 13, 2021.

³⁷ "State of Mississippi Air Pollution Control Title 5 Permit: To Operate Air Emissions Equipment." Permit No.: 1940-00014. State of Mississippi, June 14, 2021.

³⁸ Hays, Kristen. "Formosa Plastics USA Declares Force Majeure on US Chlor-Alkali." Edited by Valerie Jackson. S&P Global Commodity Insights, February 18, 2021.

<https://web.archive.org/web/20240227170941/https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/chemicals/021821-formosa-plastics-usa-declares-force-majeure-on-us-chlor-alkali>.

³⁹ "Westlake Chemical Restarting Its PVC Complexes in Louisiana Post Hurricane Ida." MRC Hub, September 10, 2021.

<https://web.archive.org/web/20240227164524/https://www.mrchub.com/news/392595-us-oil-refineries-must-wait-weeks-for-power-and-water-to-be-restarted-after-hurricane-ida>.

⁴⁰ Munn, Josh and Delgado, Eric. "OxyChem Houston Overview." November, 2022.

<https://web.archive.org/web/20240227163445/https://www.deerparktx.gov/DocumentCenter/View/11741/OxyChem-Overview-112922>

⁴¹ "State of Mississippi Air Pollution Control Title 5 Permit: To Operate Air Emissions Equipment." DEP DataMiner. State of New Jersey.

<https://web.archive.org/web/20240305173957/https://njems.nj.gov/DataMiner/Report/ReportCriteria?APIKEY=DEP123&showheader=y&isExternal=y&getCriteria=y&BOReportName=Community%20Corner%20-%20Effective%20Permits&Enter%20PI%20Number:=65530>.

-
- ⁴² Mexichem Specialty Resins Inc (65494), Air permit modification, January 30, 2020. NJ DEP DataMiner, <https://njems.nj.gov/DataMiner/Report/ReportCriteria?APIKEY=DEP123&showheader=y&isExternal=y&getCriteria=y&BOReportName=Community%20Corner%20-%20Effective%20Permits&Enter%20PI%20Number:=65494> (downloaded Jan. 4, 2024)
- ⁴³ Material Research L3C. "Methodology for research Toxic Cargo report." Toxic Free Future. January 2024.
- ⁴⁴ "Orbia Closing New Jersey E-PVC Plant in 2024." Argus Media. February 16, 2024. <https://www.argusmedia.com/en/news-and-insights/latest-market-news/2539118-orbia-closing-new-jersey-e-pvc-plant-in-2024>.
- ⁴⁵ "PVC Plastic and Environmental Justice." Research Report. Toxic Free Future, April 13, 2023. <https://web.archive.org/web/20230604170423/https://toxicfreefuture.org/research/pvc-poison-plastic/pvc-plastic-and-environmental-justice/>.
- ⁴⁶ Rogers, Heather. "Erasing Mossville: How Pollution Killed a Louisiana Town." The Intercept, November 4, 2015. <https://web.archive.org/web/20240206133819/https://theintercept.com/2015/11/04/erasing-mossville-how-pollution-killed-a-louisiana-town/>.
- ⁴⁷ Orr, Paul. "Rivergator Appendix 8 Baton Rouge to Gulf of Mexico Environmentally Impacted Communities and Legacy Sites for Rivergator." Rivergator Lower Mississippi River Water Trail. <https://web.archive.org/web/20240305175342/https://www.rivergator.org/riverlog-page/baton-rouge-to-venice-appendixbr-v-9/>
- ⁴⁸ "Environmental Justice & the PVC Chemical Industry, PVC Factsheet." Center for Health, Environment, & Justice, <https://web.archive.org/web/20240305175506/https://chej.org/wp-content/uploads/PVC%20&%20Environmental%20Justice%20-%20REP%20026.pdf>.
- ⁴⁹ Kittner, Sam. *Reveilletown, La. / Sam Kittner*. 1988. Photograph. *Library of Congress Prints and Photographs Division Washington, D.C. 20540 USA*, November 1, 1988. <https://web.archive.org/save/https://www.loc.gov/item/201264540/>
- ⁵⁰ "Myrtle Grove Trailer Park." Louisiana Environmental Action Network. <https://web.archive.org/web/20230329104112/https://leanweb.org/community-atlas/communities/myrtle-grove-trailer-park>.
- ⁵¹ Wkms. "Air Monitoring Study near Calvert City Industrial Complex Reveals Increased Emissions Levels." WKMS, January 26, 2024. <https://web.archive.org/web/20240228143900/https://www.wkms.org/environment/2024-01-26/air-monitoring-study-near-calvert-city-industrial-complex-reveals-increased-emissions-levels>
- ⁵² <https://s3.documentcloud.org/documents/21986349/calvert-city-qapp-report.pdf>
- ⁵³ CAS Science Team. "The Science behind Dioxins, Vinyl Chloride, and Proven Remediations." CAS, March 17, 2023. <https://web.archive.org/web/20230402090627/https://www.cas.org/resources/cas-insights/safety/science-behind-dioxins-vinyl-chloride-and-proven-remediations>.
- ⁵⁴ "Addis PVC Storage Tank Blows Top *** Explosion," Advocate, The (Baton Rouge, LA), December 26, 1997
- ⁵⁵ Kirby, Mike. "Kirby: Explosion Resurrected." The Sun Chronicle, February 21, 2010. https://web.archive.org/web/20240227210328/https://www.thesunchronicle.com/opinion/columns/kirby-explosion-resurrected/article_2bb7bbe7-f0ec-56aa-85a6-d7d55c6674d3.html .
- ⁵⁶ "BLAST KILLS FIVE; SEVERAL MISSING; 40 Hurt as Chemical Plant in Massachusetts Explodes." NY Times. January 13, 1964. <https://web.archive.org/web/20240112131809/https://www.nytimes.com/1964/01/13/archives/blast-kills-five-several-missing-40-hurt-as-chemical-plant-in.html>.
- ⁵⁷ Yutzy, Daniel. "SOME ORGANIZATIONAL AND COMMUNITY ACTIVITIES AFTER AN EXPLOSION AT THE THOMPSON CHEMICAL COMPANY, ATTLEBORO, MASSACHUSETTS." RESEARCH NOTE #2, Department of Sociology. University of Delaware Disaster Research Center, April 14, 1964. <https://web.archive.org/web/20240229184924/https://udspace.udel.edu/server/api/core/bitstreams/6ff2154b-a86d-4bc6-bc09-240aef44a962/content>.
- ⁵⁸ "Investigation Report: Vinyl Chloride Monomer Explosion, Formosa Plastics Corp. Illiopolis, Illinois." U.S. CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD, April 23, 2004. https://web.archive.org/web/20240228210635/https://www.csb.gov/assets/1/20/formosa_il_report.pdf?13838.
- ⁵⁹ "Tenneco Says Fire Started When Worker Fell Against Valve", *The Courier-News* (Bridgewater, New Jersey), August 26, 1969. <https://www.newspapers.com/newspage/221923790/>
- ⁶⁰ Hunterdon County Democrat. "Fish Will Benefit from Dam Removal on the Raritan River, Paid for by past Owner of Tenneco Plant in Raritan Twp." NJ.Com True New Jersey. Advance Local, January 30, 2011.

<https://web.archive.org/web/20240228213611/https://www.nj.com/hunterdon-county-democrat/2011/01/fish-will-benefit-from-dam-rem.html>.

⁶¹ Hunterdon County Democrat. "Fish Will Benefit from Dam Removal on the Raritan River, Paid for by past Owner of Tenneco Plant in Raritan Twp." NJ.Com True New Jersey. Advance Local, January 30, 2011.

<https://web.archive.org/web/20240228213611/https://www.nj.com/hunterdon-county-democrat/2011/01/fish-will-benefit-from-dam-rem.html>.

⁶² "Citing the Chaotic State of the Polyvinyl Chloride Industry,..." UPI Archives. United Press International, Inc., June 2, 1982. <https://web.archive.org/web/20240228213611/https://www.nj.com/hunterdon-county-democrat/2011/01/fish-will-benefit-from-dam-rem.html>.

⁶³ Investigation Report: Vinyl Chloride Monomer Explosion, Formosa Plastics Corp. Illiopolis, Illinois." U.S. CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD, April 23, 2004.

⁶⁴ Kamalick, Joe. "Westlake Chemical's Kentucky Vinyl Chloride Plant Downed by Blast." ICIS News, January 29, 2002. <https://www.icis.com/resources/news/2002/01/29/155715/westlake-chemical-s-kentucky-vinyl-chloride-plant-downed-byblast/>

⁶⁵ Westlake Vinyls, Inc, Risk Management Plan, August 10, 2004, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:36325>

⁶⁶ "FIRE, CHEMICAL RELEASE IN MARSHALL CONTAINED," Lexington Herald-Leader (KY) -, https://www.csb.gov/assets/1/20/formosa_il_report.pdf?13838https://www.csb.gov/assets/1/20/formosa_il_report.pdf, January 30, 2002.

⁶⁷ "Investigation Report: Vinyl Chloride Monomer Explosion, Formosa Plastics Corp. Illiopolis, Illinois." U.S. CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD, April 23, 2004.

https://web.archive.org/web/20240228210635/https://www.csb.gov/assets/1/20/formosa_il_report.pdf?13838.

⁶⁸ <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:43960>

⁶⁹ "Accident Summary Nr: 200271294 - Five Employees Killed In Explosion; Four Injured." Department of Labor. Occupational Safety and Health Administration, April 23, 2004.

https://web.archive.org/web/20240228210635/https://www.csb.gov/assets/1/20/formosa_il_report.pdf?13838. and

"Formosa Plastics Vinyl Chloride Explosion." U.S. Chemical Safety Board, April 23, 2004.

<https://web.archive.org/web/20240228212542/https://www.csb.gov/formosa-plastics-vinyl-chloride-explosion/>.

⁷⁰ "Investigation Report: Vinyl Chloride Monomer Explosion, Formosa Plastics Corp. Illiopolis, Illinois." U.S. CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD, April 23, 2004.

https://web.archive.org/web/20240228210635/https://www.csb.gov/assets/1/20/formosa_il_report.pdf?13838.

⁷¹ "Fire Breaks out at Deer Park Plant." ABC 13 Eyewitness News, November 18, 2008.

<http://abc13.com/archive/6511676/> Landress, Leela. "Brief Fire Flares at Oxy Vinyl VCM Plant in Texas." ICIS News, November 19, 2008. <https://www.icis.com/resources/news/2008/11/19/9173052/brief-fire-flares-at-oxy-vinyl-vcm-plant-in-texas/> (subscription required)

⁷² National Response Center via SkyTruth Alerts and Occidental RMP: Occidental Chemical Corporation Ingleside Plant, Risk Management Plan, June 12, 2014, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:1000043327>

⁷³ Mexichem Specialty Resins, Inc., Risk Management Plan, June 13, 2014, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:1000044330>

⁷⁴ "Civil Enforcement Case Report, Case Number: 04-2019-8004, Case Name: WESTLAKE VINYLs, INC." Enforcement and Compliance History Online. United States Environmental Protection Agency, <https://echo.epa.gov/enforcement-case-report?id=04-2019-8004>.

⁷⁵ National Response Center via SkyTruth Alerts

⁷⁶ "The Lower Mississippi River Water Trail." Rivergator.

<https://web.archive.org/web/20210922110749/https://www.rivergator.org/river-log/baton-rouge-to-venice/baton-rouge-to-new-orleans/pg/16/>.

⁷⁷ "PVC Chemical Plant Explodes in Louisiana." CHEJtv. April 11, 2012. Video,

<https://web.archive.org/web/20240305182246/https://www.youtube.com/watch?v=Db9491ys9A8&t=1s>

⁷⁸ "Unauthorized Discharge Notification Report." Company Report. Westlake Vinyls Company LP, March 18, 2012.

<https://web.archive.org/web/20130412210537/http://chej.org/wp-content/uploads/WestlakeReporttoLADEQ.pdf>.

⁷⁹ Todd, Elizabeth, and Juan Rodriguez. "US Labor Department's OSHA Cites Westlake Vinyls in Geismar, La., for Multiple Process Safety Management Violations." United States Department of Labor, September 20, 2012. <https://web.archive.org/web/20231004143645/https://www.osha.gov/news/newsreleases/region6/09212012>

⁸⁰ "PVC Chemical Plant Explodes in Louisiana." CHEJtv. April 11, 2012. Video, <https://web.archive.org/web/20240305182246/https://www.youtube.com/watch?v=Db9491ys9A8&t=1s>.

⁸¹

Eagle US 2 LLC, Lake Charles Plant, Risk Management Plan, January 14, 2016, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:1000055178>

⁸² American Press Staff. "Axiall Issues Final Report on 2012 Fire." American Press. April 4, 2014. <https://web.archive.org/web/20240304152113/https://www.americanpress.com/2014/04/04/axiall-issues-final-report-on-2012-fire/>

⁸³ National Response Center via SkyTruth Alerts

⁸⁴ OGI Editors. "Second Fire within a Year Hits Louisiana Complex." Oil and Gas Journal. December 26, 2013. <https://web.archive.org/web/20240229205952/https://www.ogi.com/refining-processing/petrochemicals/article/17258769/second-fire-within-a-year-hits-louisiana-complex>.

⁸⁵ Eagle US 2 LLC, Lake Charles Plant, Risk Management Plan, submitted January 14, 2016, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:1000055178>

⁸⁶ Thomas, Rachel. "Emergency Officials Respond to Chemical Leak near Shintech in Plaquemine." WAFB-9, July 29, 2017. <https://web.archive.org/web/20221108134028/https://www.wafb.com/story/36002236/emergency-officials-respond-to-chemical-leak-near-shintech-in-plaquemine/>

⁸⁷ Westlake, Lake Charles North, Risk Management Plan, submitted January 4, 2023, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:1000074841>

⁸⁸ National Response Center via SkyTruth Alerts

⁸⁹ Westlake Chemicals & Vinyls LLC - Plaquemine, Risk Management Plan, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/facility:100000140714>

⁹⁰ Westlake, Lake Charles North, Risk Management Plan, submitted January 10, 2024, as published by Data Liberation Project, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:1000108825> and National Response Center via SkyTruth Alerts

⁹¹ National Response Center via SkyTruth Alerts

⁹² National Response Center via SkyTruth Alerts

⁹³ Bertucci, Leo . "Vinyl Chloride Emission from Formosa Plant Exceeds State Limit." Victoria Advocate. March 15, 2023. https://web.archive.org/web/20230316075516/https://www.victoriaadvocate.com/news/environment/vinyl-chloride-emission-from-formosa-plant-exceeds-state-limit/article_db3d4f5e-c1e7-11ed-b68a-7f37b4ea9ba8.html.

⁹⁴ In 2023, there were only two shipments of vinyl chloride to the U.S., as seen in official U.S. trade statistics (International Trade Commission Dataweb) and bills of lading available in the Datamyne commercial database. The sole consumer was Weylchem which consumes vinyl chloride at its specialty chemicals site in Elgin, South Carolina (see "other vinyl chloride consumers" below).

⁹⁵ In 2023, there were only two shipments of vinyl chloride to the U.S., as seen in official U.S. trade statistics (International Trade Commission Dataweb) and bills of lading available in the Datamyne commercial database. The sole consumer was Weylchem which consumes vinyl chloride at its specialty chemicals site in Elgin, South Carolina.

⁹⁶ "High-Quality Vinylmagnesium Chloride 1.6M Tetrahydrofuran (3536-96-7-476552)." Procurenent. <https://web.archive.org/web/20240305190146/https://procure-net.com/product/vinylmagnesium-chloride-1-6m-tetrahydrofuran-3536-96-7-476552/>; and, OGI Editors. "Organic Intermediates: Vinylmagnesium Chloride." Guide Chem Chemical Training Guide. <https://web.archive.org/web/20240229210748/https://www.guidechem.com/encyclopedia/vinylmagnesium-chloride-dic11843.html>.

⁹⁷ Murphy, Laura, Jim Vallette, and Nyrola Elima. "Built on Repression: PVC Building Materials' Reliance on Forced Labor and Environmental Abuses in the Uyghur Region." Project Report. Sheffield Hallam University, Helena Kennedy Centre for International Justice, June, 2022. <https://web.archive.org/web/20240227223830/https://www.shu.ac.uk/helena-kennedy-centre-international-justice/research-and-projects/all-projects/built-on-repression>.

- ⁹⁸ "DHS Announces Three Additional PRC-Based Companies as a Result of Forced Labor Enforcement." Homeland Security. U.S. Department of Homeland Security, September 26, 2023. <https://web.archive.org/web/20240227134456/https://www.dhs.gov/news/2023/09/26/dhs-announces-three-additional-prc-based-companies-result-forced-labor-enforcement>.
- ⁹⁹ "Toxic Cargo" (Toxic Free Future and Material Research, January 22, 2024), <https://toxicfreefuture.org/research/toxic-cargo/>.
- ¹⁰⁰ Estimate based on average tank capacity of 177,000 pounds.
- ¹⁰¹ OGI Editors. "RAILROAD ACCIDENT REPORT: PENNSYLVANIA RAILROAD TRAIN PR-11A, EXTRA 2210 WEST AND TRAIN SW-6, EXTRA 2217 EAST DERAILMENT AND COLLISION DUNREITH, INDIANA." The National Academies of Sciences, Engineering, and Medicine, January 1, 1968. <https://web.archive.org/web/20230203171456/https://trid.trb.org/view/20761>.
- ¹⁰² "Major Railway Accidents Involving Hazardous Material Release" (US Department of Transportation, July 1980), https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/18852/dot_9675_DS1.pdf.
- ¹⁰³ Bense, Kiley. "From Fracked Gas in Pennsylvania to Toxic Waste in Texas, Tracking Vinyl Chloride Production in the U.S." Inside Climate News. December 5, 2023. <https://web.archive.org/web/20240101061640/https://insideclimatenews.org/news/05122023/appalachia-fracking-boom-vinyl-chloride-production-in-the-us/>.
- ¹⁰⁴ Robert Burke, "Hazmat Studies: Livingston, LA, Train Derailment—36 Years Later," *Firehorse*, April 1, 2018, <https://www.firehouse.com/rescue/hazardous-materials/article/12398893/livingston-la-train-derailment36-years-later-hazmat-studies-robert-burke>
- ¹⁰⁵ "Major Railway Accidents Involving Hazardous Material Release" (US Department of Transportation, July 1980), https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/18852/dot_9675_DS1.pdf, and "Post Accident Procedures for Chemicals and Propellents" (Systems Laboratory Inc., September 1982), <https://apps.dtic.mil/sti/tr/pdf/ADA127505.pdf>.
- ¹⁰⁶ "Major Railway Accidents Involving Hazardous Material Release" (US Department of Transportation, July 1980), https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/18852/dot_9675_DS1.pdf.
- ¹⁰⁷ "Remembering the 1973 Fort Wayne Train Derailment," February 4, 2023, <https://web.archive.org/web/20230228022233/https://www.wane.com/news/local-news/remembering-the-1973-fort-wayne-train-derailment/> and "Major Railway Accidents Involving Hazardous Material Release" (US Department of Transportation, July 1980), https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/18852/dot_9675_DS1.pdf.
- ¹⁰⁸ "Major Railway Accidents Involving Hazardous Material Release" (US Department of Transportation, July 1980), https://railroads.dot.gov/sites/fra.dot.gov/files/fra_net/18852/dot_9675_DS1.pdf.
- ¹⁰⁹ Ibid
- ¹¹⁰ Ibid
- ¹¹¹ "Railroad Accident Report" (US Department of Commerce: National Transportation Safety Board, February 3, 1981), <https://www.nts.gov/investigations/AccidentReports/Reports/RAR8101.pdf>.
- ¹¹² "Evacuees Fret As Train Burns in Their Town," *Miami Herald*, October 10, 1980. and Robert Burke, "Hazmat Studies: Livingston, LA, Train Derailment—36 Years Later," *Firehorse*, April 1, 2018, <https://web.archive.org/web/20240229211710/https://www.firehouse.com/rescue/hazardous-materials/article/12398893/livingston-la-train-derailment36-years-later-hazmat-studies-robert-burke>
- ¹¹³ "Railway Incident Report," NTSB RAR 85-08 (National Transportation Safety Board, May 14, 1985), <https://www.nts.gov/investigations/AccidentReports/Reports/RAR8508.pdf>.
- ¹¹⁴ "Three Derailed Cars Continue to Burn," *UPI*, December 14, 1987, <https://www.upi.com/Archives/1987/12/14/Three-derailed-cars-continue-to-burn/6698566456400/>; and Clay Robison, "Firefighters Hoping to Prevent Release of Toxin," *Houston Chronicle*, December 13, 1987, and "Thousands Return to Homes After Texas Derailment," *The Philadelphia Inquirer*, December 14, 1987.
- ¹¹⁵ "Chemical Train Derails; 200 Evacuated," *UPI*, May 12, 1989.
- ¹¹⁶ Bruce Schreiner, "Kentucky Evacuation Indefinite as Chemical Tanker Burns," *USA Today*, November 2, 2012, <https://web.archive.org/web/20230525204536/https://www.usatoday.com/story/news/nation/2012/11/02/kentucky-derailed-train-chemical-fire/1677227/> and DAVID KLIGMAN, "KENTUCKY RESIDENTS FLEE HOMES IN TRAIN DERAILMENT -," *Akron Beacon Journal* (OH), November 4, 1993.
- ¹¹⁷ "Train Derailment Turns Community into Ghost Town," *Pantagraph*, The (Bloomington, IL) -, April 16, 1991.

- ¹¹⁸ "Train Hauling Gas Derails," *Los Angeles Time*, February 25, 1994, <https://www.latimes.com/archives/la-xpm-1994-02-25-mn-26953-story.html>.
- ¹¹⁹ "CSX Called Slow to Respond in Rail Accident," *Tampa Bay Times*, May 27, 1995, <https://www.tampabay.com/archive/1995/05/27/csx-called-slow-to-respond-in-rail-accident/>.
- ¹²⁰ David White, "WHEN FLOMATON ESCAPED DISASTER," *Birmingham News (AL)* ., September 15, 1995.
- ¹²¹ Justin Bachman, "66 in Dallas Evacuated after Train Derails," *Fort Worth Star-Telegram (TX)* -, August 30, 1997.
- ¹²² "Tank cars derail near Formosa Plastics" - *Advocate, The (Baton Rouge, LA)* - May 17, 2001
- ¹²³ "Derailment of Canadian National Freight Train M33371 and Subsequent Release of Hazardous Materials in Tamaroa, Illinois." National Transportation Safety Board, Washington D.C., February 9, 2003. <https://web.archive.org/web/20201018000827/https://www.nts.gov/investigations/AccidentReports/Reports/RAR0501.pdf>.
- ¹²⁴ Railroad Safety Data
- ¹²⁵ "Nine train cars hauling chemicals derail - 150 in Jacksonville evacuated for four hours" *Arkansas Democrat-Gazette (Little Rock, AR)*, December 24, 2004
- ¹²⁶ "Tanker Explodes at DuPont; One Person Killed -November 10, 2010 | Ken-Ton Bee (Kenmore, NY) | DARLENE M. DONOHUE Editor."
- ¹²⁷ "Paulsboro Train Derailment and Vinyl Chloride Release," *New Jersey Department of Health*, n.d., https://www.nj.gov/health/ceohs/documents/eohap/haz_sites/gloucester/train_derail/factsheet.pdf
- ¹²⁸ "Paulsboro, NJ Population by Year," *Neilsberg*, September 18, 2023, <https://web.archive.org/web/20240229222149/https://www.neilsberg.com/insights/paulsboro-nj-population-by-year/>
- ¹²⁹ Railroad Safety Data as downloaded from the Office of Safety Analysis, Federal Railroad Administration, Dec. 20, 2023, https://web.archive.org/web/20231001223318/https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/on_the_fly_download.aspx (Railroad Safety Data)
- ¹³⁰ Bidwell, Allie. "Derailed Louisiana Train Spewed Hazardous Materials." *U.S. News and World Report*. U.S. News and World Report L.P., August 5, 2013. <https://web.archive.org/web/20230214164219/https://www.usnews.com/news/newsgram/articles/2013/08/05/derailed-louisiana-train-spewed-hazardous-materials>.
- ¹³¹ Saberi, Roxana. "East Palestine, Ohio, Residents Still Suffering Health Issues a Year after Derailment: "We Are All Going to Be Statistics"." *CBS News*. CBS Interactive Inc., February 6, 2024. <https://web.archive.org/web/20240225061137/https://www.cbsnews.com/news/east-palestine-ohio-train-derailment-residents-health-issues-norfolk-southern/>.
- ¹³² "Movement Approvals - Federal Railroad Administration," *US Department of Transportation*, 2024, <https://web.archive.org/web/20231201025921/https://railroads.dot.gov/divisions/hazardous-materials/movement-approvals#:~:text=FRA%20has%20the%20authority%20to,in%2049%20CFR%20C2%A7%20174.50>.
- ¹³³ "Assessment Best Practices: Tank Car Tank Damage. ESi Project No: 45117A, Client File No: 09-025-SAF-12." Report Prepared For: Hazardous Materials Committee. Engineering Systems Inc, May 11, 2021. <https://web.archive.org/web/20230923231550/https://www.aar.org/wp-content/uploads/2021/05/45117A-Tank-Car-Damage-Assessment-Best-Practices-Ver2021-05-12.pdf>.
- ¹³⁴ "RMP Submission Viewer - GATX Waycross GA Tank Car Facility," *Data Liberation Project*, 2024, <https://data-liberation-project.github.io/epa-rmp-viewer/#/submission:1000058459>.
- ¹³⁵ Spreadsheet 3a_2022 from zip file of 2022 TRI release data downloaded July 27, 2023
OFF-SITE RECEIVING FACILITIES OF RCRA HAZARDOUS WASTE - 1/11/2024
- ¹³⁶ Spreadsheet 3a_2022 from zip file of 2022 TRI release data downloaded July 27, 2023
OFF-SITE RECEIVING FACILITIES OF RCRA HAZARDOUS WASTE - 1/11/2024
- ¹³⁷ ITC DataWeb
- ¹³⁸ Based on review of shipping records in the Datamyne database (subscription required).
- ¹³⁹ "Shipnext Fleet Monitor - Huntegas," *Shipnext*, 2023-2024, <https://web.archive.org/web/20240229223035/https://shipnext.com/vessel/9103403-huntegas>. Note: The bulk carrier M/V Huntegas, which was built in 2000, is the oldest of the known active vessels delivering VCM to Colombia and Mexico.

-
- ¹⁴⁰ "Shipnext Fleet Monitor - Zita Schulte," Shipnext, 2024 2023, <https://shipnext.com/vessel/9694385-zita-schulte>.
- ¹⁴¹ "Shipnext Fleet Monitor- Pilargas," Shipnext, 2024 2023, <https://shipnext.com/vessel/9441685-pilargas>.
- ¹⁴² "Interagency Success Stories," Proceedings of the Marine Safety and Security Council (Coast Guard Journal of Security and Safety at Sea: US Coast Guard, Spring 2009), https://web.archive.org/web/20220309053252/https://www.dco.uscg.mil/Portals/9/DCO%20Documents/Proceedings%20Magazine/Archive/2009/Vol66_No1_Spr2009.pdf?ver=2017-05-31-120604-430.
- ¹⁴³ "Naval port evacuated after hazardous vapors released" - Houston Chronicle (TX) - April 21, 1995, <https://web.archive.org/web/20240229223404/https://houstonchronicle.newsbank.com/sign-up?docref=doc/news/OED7B45FCBD294CA%3Fpdate%3D1995-04-21%2520>.
- ¹⁴⁴ "Raw Incident Data," National Oceanic and Atmospheric Administration, *Incident News*, (n.d.), <https://incidentnews.noaa.gov/raw/index>.
- ¹⁴⁵ "Coast Guard Probes Gas Leak off Texas Coast," *Chron.Com*, July 13, 2008, <https://www.chron.com/news/houston-texas/article/coast-guard-probes-gas-leak-off-texas-coast-1556203.php>.
- ¹⁴⁶ "Interagency Success Stories," Proceedings of the Marine Safety and Security Council (Coast Guard Journal of Security and Safety at Sea: US Coast Guard, Spring 2009), https://www.dco.uscg.mil/Portals/9/DCO%20Documents/Proceedings%20Magazine/Archive/2009/Vol66_No1_Spr2009.pdf?ver=2017-05-31-120604-430.
- ¹⁴⁷ "SkyTruth Alerts," National Response Center Data, *SkyTruth Alerts*, (n.d.), <https://alerts.skytruth.org/issue/big-spills>.
- ¹⁴⁸ Ibid
- ¹⁴⁹ Ibid
- ¹⁵⁰ MISLE Deficiency Data Reports, Office of Commercial Vessel Compliance, United States Coast Guard, U.S. Department of Homeland Security, 2018-2023. <https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Inspections-Compliance-CG-5PC-/Commercial-Vessel-Compliance/MISLE-DEF-DATA-REPORT/>
- ¹⁵¹ Kuzmack, Arnold M., and Robert E. McGaughy. "Quantitative Risk Assessment for Community Exposure to Vinyl Chloride." Office of Planning and Evaluation and Office of Health and Ecological Effects. U.S Environmental Protection Agency, Washington, D.C. 20460, December 5, 1975. <https://web.archive.org/web/20240229225238/https://nepis.epa.gov/Exe/ZyPDF.cgi/94002J0J.PDF?Dockey=94002J0J.PDF>.
- ¹⁵² Rodriguez, F.. "Plastic: The processing and fabrication of plastics." *Encyclopedia Britannica*, February 16, 2024. <https://web.archive.org/web/20230411180548/https://www.britannica.com/science/plastic/The-processing-and-fabrication-of-plastics>
- ¹⁵³ Interstate Chemicals Clearing House (n.d.). *Search Product Category Data*. High Priority Chemicals Data System (HPCDS). <https://web.archive.org/web/20240229180843/https://hpcds.theic2.org/Search>
- ¹⁵⁴ Screenshot of Discount School Supplies website, <https://web.archive.org/web/20230324114553/https://www.discountsschoolsupply.com/play-learn/dramatic-play/costumes-dress-up/excellerations-my-first-dress-up-ladies-9-pieces/p/37828>, accessed February,29, 2024.
- ¹⁵⁵ "Excelligence Learning Corporation, D/B/a Discount School Supply, Provisional Acceptance of a Settlement Agreement and Order." Federal Register. U.S. Consumer Product Safety Commission, December 16, 2009. <https://web.archive.org/web/20210325134235/https://www.federalregister.gov/documents/2009/12/16/E9-29943/excelligence-learning-corporation-dba-discount-school-supply-provisional-acceptance-of-a-settlement>.
- ¹⁵⁶ U.S. Customs and Border Protection records accessed via Datamyne (subscription required).
- ¹⁵⁷ "Chemical Disclosure Program for Children's Products." Vermont Department of Health, December 16, 2009. <https://web.archive.org/web/20240226012913/https://www.healthvermont.gov/environment/childrens-environmental-health/chemical-disclosure-program-childrens-products>.
- ¹⁵⁸ "Chemical Disclosure Program for Children's Products." Vermont Department of Health, December 16, 2009. <https://web.archive.org/web/20240226012913/https://www.healthvermont.gov/environment/childrens-environmental-health/chemical-disclosure-program-childrens-products>.
- ¹⁵⁹ "Safety Data Sheet, Product Code: 11710393_T-VL12, Product Description: VINYL-LEATHER MENDER 1OZ TUBE (12)." Pacer Technology, December 7, 2012. https://web.archive.org/web/20240229231628/https://supergluemsds.com/Docs/11710393_T-VL12%20-%20VINYL-LEATHER%20MENDER%201OZ%20TUBE%20%2812%29%20-%20SDS%20-%20rev%206%20-%202023.pdf

- ¹⁶⁰ "Safety Data Sheet, SDS Number: SDS-00051." Thomas and Betts Corporation. April 18, 2016. <https://web.archive.org/web/20240229232046/https://rexel-cdn.com/Products/OC588C13-2A88-40D7-A105-F4A99553AB53/OC588C13-2A88-40D7-A105-F4A99553AB53.pdf>.
- ¹⁶¹ "Safety Data Sheet, SDS Number: SDS - 00024." ABB Installation Products Inc. December 8, 2015. https://web.archive.org/web/20240229232516/https://insite-commerce-sandbox-mcrey-89b2dcb2.s3.us-east-1.amazonaws.com/ProductDocuments/TBCOSPRAYG/MSDS_47650425_MSDS.pdf.
- ¹⁶² Interstate Chemicals Clearing House (n.d.). *Search Product Category Data*. High Priority Chemicals Data System (HPCDS). <https://web.archive.org/web/20240229180843/https://hpcds.theic2.org/Search>
- ¹⁶³ "Safety Data Sheet, Product Code: X-L32001, X-L32004." Excel Autobody Products. <https://web.archive.org/web/20220518132853/https://excelproducts.net/media/import/MFRXL/SDS/x-l32001-sds.pdf>.
- ¹⁶⁴ "Safety Data Sheet, Code: 19328." Top Tec. <https://web.archive.org/web/20220224021032/https://soudal.co.nz/wp-content/uploads/19328-Toptec-Galvanised-Sealer-SDS-2018Sept13-SDS.pdf>.
- ¹⁶⁵ "Safety Data Sheet, Sportswear LC White LB, Product Code: I199060." W.M. Plastics. June 18, 2021. <https://mtnscreenprintingsupplies.com/Documents/MSDS%20Sheets/Ink%20PDF%20SDS/White%20inks/Sprtswear%20SDS.pdf>.
- ¹⁶⁶ "Safety Data Sheet, Product Names: VinylBlan 715." ShinEtsuMicroSi, March 18, 2019. <https://web.archive.org/web/20240301141959/https://www.microsi.com/wp-content/uploads/2019/07/VINYBLAN-715.pdf>.
- ¹⁶⁷ "Safety Data Sheet, Product Names: VINYL BLAN 701 / 700." Shin-Etsu MicroSi, Inc. ShinEtsuMicroSi, March 1, 2012. <https://www.microsi.com/wp-content/uploads/2016/08/VINYBLAN-701-700-20160629.pdf>.
- ¹⁶⁸ Interstate Chemicals Clearing House (n.d.). *Search Product Category Data*. High Priority Chemicals Data System (HPCDS). <https://web.archive.org/web/20240229180843/https://hpcds.theic2.org/Search>
- ¹⁶⁹ "Chemical Disclosure Program for Children's Products." Vermont Department of Health, December 16, 2009. <https://web.archive.org/web/20240226012913/https://www.healthvermont.gov/environment/childrens-environmental-health/chemical-disclosure-program-childrens-products>. (see downloadable spreadsheets).
- ¹⁷⁰ "Safety Data Sheet, Trade Name: ELASTOCOLOR PRIMER, Trade Code: 9025595." Mapei Benelux SA/NV. ShinEtsuMicroSi, March 23, 2023. https://web.archive.org/web/20240301142856/https://www.mapei.com/docs/librariesprovider16/products-documents/2_9025595_en_eaf132a34bdf4697a2697aaedcba7c4b.pdf?sfvrsn=7ef05fcb_0.
- ¹⁷¹ "Safety Data Sheet, Product Name: Extruded Polyvinyl Chloride Compounds." VINYL CORP, February 2, 2017. https://web.archive.org/web/20230406043350/https://clarkdietrich.com/sites/default/files/media/documents/CD_DS_Vinyl.pdf.
- ¹⁷² "Safety Data Sheet, Product Name: Speedline PVC Fitting Covers and Jacketing, Last Revised: 02/14/2018." Speedline Corporation, May 29, 2012. <https://speedlinepvc.com/wp-content/uploads/2018/02/2018-Speedline-PVC-Fittings-SDS.pdf>.
- ¹⁷³ "Safety Data Sheet, Product Identifier Used on the Label: Vinyl Profile." Visions Extrusions Group, Ltd., July 25, 2016. <https://web.archive.org/web/20240301143502/https://ameriluxinternational.com/wp-content/uploads/2023/ez-slatwall/Vinyl-Profile-SDS-July-2016.pdf>.
- ¹⁷⁴ "Safety Data Sheet, Product Identifier: PVC TRUSS & SOLID WALL PIPE, SDS Number: 5, Product Code: 370, 371, 372." ConTech Engineered Solutions, LLC, August 8, 2013. https://web.archive.org/web/20240301143843/https://www.southernpipe.com/ASSETS/DOCUMENTS/CMS/EN/TPV_MSDS.pdf.
- ¹⁷⁵ "Safety Data Sheet, RIGID PVC EDGEBANDING." Teknaform, Inc., April 1, 2019. <https://web.archive.org/web/20220625043847/https://www.dc-dist.com/wp-content/uploads/2022/03/Safety-Data-Sheet-PVC.pdf>.
- ¹⁷⁶ "Safety Data Sheet, Product Identifier: Polyvinyl Chloride, Product Use: PVC Plastic Pipes." JM Eagle, April 1, 2019. <https://web.archive.org/web/20230511211255/http://www.jmeagle.com/sites/default/files/SDS%20Sheets-PVC%20PDF.pdf>.
- ¹⁷⁷ "Safety Data Sheet, CHEMICAL NAME: Flexible Polyvinyl Chloride, Mixture CAS-no: Mixture, TRADE NAME: Earth Shield PVC Waterstop." J P Specialties, Inc / Earth Shield Waterstop. June 15, 2018.

<https://web.archive.org/web/20240301145712/https://www.lodgelumber.com/wp-content/uploads/2023/06/PVC-Waterstop-Safety-Data-Sheet.pdf>.

¹⁷⁸ SDS: "Safety Data Sheet, Material Name: PVC Cut-Edge Sealant." Carlisle SynTec. June 1, 2018.

<https://web.archive.org/web/20211207004827/https://www.buildsite.com/pdf/carlislesyntec/Sure-Flex-PVC-Cut-Edge-Sealant-SDS-1839990.pdf>.

¹⁷⁹ "Vinyl Chloride and Health." California Air Resources Board.

<https://web.archive.org/web/20231216232026/https://ww2.arb.ca.gov/resources/vinyl-chloride-and-health#:~:text=Then%20in%201990%2C%20the%20Board,completely%20safe%20and%20without%20risk>.

¹⁸⁰ Response To Petition To Classify Discarded Polyvinyl Chloride as RCRA Hazardous Waste, vol. EPA-HQ-OLEM-2022-0971 FRL-10181-01-OLEM. 2023. <https://www.federalregister.gov/documents/2023/01/12/2023-00478/response-to-petition-to-classify-discarded-polyvinyl-chloride-as-rcra-hazardous-waste>

¹⁸¹ Esposito, Frank. "Analyst: China to Dominate Pvc by 2011." Plastic News. Crain Communications, Inc., April 9, 2007. <https://web.archive.org/web/20210614212613/https://www.plasticsnews.com/article/20070409/NEWS/304099965/analyst-china-to-dominate-pvc-by-2011>.

¹⁸² "Revisions to the 2016 California Plumbing Code to Allow the Use of Perfluoroalkoxy in Dialysis Branch Lines and Plastic Pipe in Plumbing Applications in OSHPD 1, 2, 3, and 4 Facilities." Draft Environmental Impact Report, SCH# 2015042077, Horizon Water and Environment. August 1, 2015.

<https://web.archive.org/web/20240229225836/https://hcai.ca.gov/wp-content/uploads/2020/10/CEQA-California-Plumbing-Code-CPC-Draft-Environmental-Impact-Report.pdf>.

¹⁸³ Wade, Susan. "Branded Performance." Presented at the Vinyl360, Ponte Vedra Beach, Florida, November 9, 2017. Pdf available upon request. Previously accessed from www.vinylinfo.org/sites/default/files/8.45%20Susan%20Wade%20Branded%20Performance%20Presentation%202.pdf (link no longer available)

¹⁸⁴ Colombia customs records via Datamyne (subscription required).

¹⁸⁵ Whitfield, Ron, Fran Brown, and Lisa Wood. "The Economic Benefits of Polyvinyl Chloride in the United States and Canada." IHS Economics Report, Prepared for the American Chemistry Council. July 1, 2016.

<https://www.americanchemistry.com/content/download/11429/file/The-Economic-Benefits-of-Polyvinyl-Chloride-in-the-United-States-and-Canada.pdf>

¹⁸⁶ William J. Rea, Kalpana D. Patel, *Reversibility of Chronic Disease and Hypersensitivity, Volume 5: Treatment Options of Chemical Sensitivity*, CRC Press, 2017, p. 475.

¹⁸⁷ Wilcox, Meg, Eve Fox, and Melissa Valliant. "The Perils of PVC Plastic Pipes." Beyond Plastics, Plastic Pollution Coalition, Environmental Health Sciences, April 1, 2023.

https://web.archive.org/web/20240214102927/https://static1.squarespace.com/static/5eda91260bbb7e7a4bf528d8/t/6491ce414930f2385aedb80c/1687277125680/The_Perils_of_PVC_Plastic_Pipes-April_2023_Digital.pdf.

¹⁸⁸ Isaacson, Kristofer & Proctor, Caitlin & Wang, Q. & Edwards, Ethan & Noh, Yoorae & Shah, Amisha & Whelton, Andrew. "Drinking water contamination from the thermal degradation of plastics: implications for wildfire and structure fire response." *Environmental Science: Water Research & Technology*. 7. 10.1039/D0EW00836B. January 2021.

<https://web.archive.org/web/20240229231409/https://pubs.rsc.org/en/content/articlehtml/2021/ew/d0ew00836b#cit33>

¹⁸⁹ "Study of Vinyl Chloride Formation at Landfill Sites in California." Final Report. Battelle Pacific Northwest Laboratories, January 1, 1987.

https://web.archive.org/web/20240305193139/https://archive.epa.gov/epawaste/hazard/web/pdf/final_lb.pdf

¹⁹⁰ 40 CFR Chapter I, Chapter J, Part 302.4, List of Hazardous Substances and Reportable Quantities, as amended as of March 4, 2023. <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-J/part-302>

¹⁹¹ "Defining Hazardous Waste: Listed, Characteristic and Mixed Radiological Wastes." Hazardous Waste. Environmental Protection Agency,

<https://web.archive.org/web/20240302175221/https://www.epa.gov/hw/defining-hazardous-waste-listed-characteristic-and-mixed-radiological-wastes>

¹⁹² "Vinyl Chloride (VCM) and Polyvinyl Chloride (PVC)." PlasticsEurope / The European Council of Vinyl Manufacturers (ECVM). May 1, 2015. https://pvc4pipes.com/wp-content/uploads/2018/02/PlasticsEurope_Eco-profile_VCM_PVC_2015-05.pdf

- ¹⁹³ Randall, Paul M. "Pollution Prevention Strategies for the Minimizing of Industrial Waste in the VCM-PVC Industry." Environmental Progress, Vol. 13, No. 4, Pg. 269 - 277. Risk Reduction Engineering Laboratory, Pollution Prevention Research Branch. U.S. Environmental Protection Agency, November 1, 1994.
https://www.researchgate.net/profile/Paul-Randall/publication/229628217_Pollution_prevention_strategies_for_the_minimizing_of_industrial_wastes_in_the_VCM-PVC_industry/links/5bc2448c92851c88fd69a429/Pollution-prevention-strategies-for-the-minimizing-of-industrial-wastes-in-the-VCM-PVC-industry.pdf
- ¹⁹⁴ Science Applications International Corporation Environmental and Health Sciences Group. "Listing Background Document for the Chlorinated Aliphatics Listing Determination (Proposed Rule)." United States Environmental Protection Agency, Office of Solid Waste Washington, D.C., 20460. July 30, 1999.
https://web.archive.org/web/20240305193139/https://archive.epa.gov/epawaste/hazard/web/pdf/final_lb.pdf
- ¹⁹⁵ "OFF-SITE RECEIVING FACILITIES OF RCRA HAZARDOUS WASTE." United States Environmental Protection Agency, Ohio, January 11, 2024.
<https://web.archive.org/web/20230403203624/https://epa.ohio.gov/static/Portals/32/annualreport/NTSD.pdf>
- ¹⁹⁶ This and subsequent summaries of waste transfers from 2022 TRI data published in spreadsheet 3a downloaded July 27, 2023.
- ¹⁹⁷ "THE 2D-WORST DUMP IN THE U.S. - NO SIGN WARNS OF TYBOUTS CORNER'S POISONS December 23, 1982 | Philadelphia Inquirer, The (PA); see also
<https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.redevel&id=0300035>
- ¹⁹⁸ <https://www.wmsolutions.com/locations/details/id/176>
- ¹⁹⁹ <http://montaukenegy.com/operations/mccarty/> and
<https://locator.wastebits.com/location/mccarty-road-landfill>
- ²⁰⁰ Harman, Greg. "A Mighty Wind." Texas Campaign for the Environment Fund. October 6, 2005.
<https://web.archive.org/web/20240211072836/https://www.texasenvironment.org/fund/a-mighty-wind/>
- ²⁰¹ https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=77571LPRTC2400M
- ²⁰² <https://locator.wastebits.com/location/salem-county-solid-waste-facility>
- ²⁰³ Olabi, Nora. "Blue Ridge Landfill near Pearland Cited for 'nuisance' Odor Violation." Community Impact, December 1, 2016. <https://web.archive.org/web/20220924184811/https://communityimpact.com/houston/pearland-friendswood/city-county/2016/12/01/blue-ridge-landfill-near-pearland-cited-nuisance-odor-violation/>.
- ²⁰⁴ "Technical Memorandum: Revised Baseline Emission Estimates for Major Sources in the Poly." Final Report. Eastern Research Group, Inc., February 8, 2012. <https://web.archive.org/web/20240217021545/https://earthjustice.org/wp-content/uploads/pvcemissions.pdf>
- ²⁰⁵ "Westlake OPCO, FRS ID: 110027373072." Enforcement Case Report, Enforcement and Compliance History Online. United States Environmental Protection Agency, <https://echo.epa.gov/detailed-facility-report?fid=110027373072#>.
- ²⁰⁶ "Envirofacts Report: FORMOSA PLASTICS CORP TEXAS." Environmental Protection Agency.
https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=77978FRMSPOBOX.
- ²⁰⁷ "Envirofacts Report: Occidental Chemical Corp." United States Environmental Protection Agency, extracted October 13, 2023. https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=78359CCDNTHWY36.
- ²⁰⁸ Waste Water Permit WQ0003083000 for OXYCHEM INGLESIDE PLANT, Texas Department of Environmental Quality, June 2, 2021. https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=iwr.permitlist&addn_id=536468092003059
- ²⁰⁹ "Envirofacts Report: OXY VINYL LP DEER PARK-VCM PLANT." United States Environmental Protection Agency.
https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=77536CCDNTTIDAL
- ²¹⁰ "Envirofacts Report: SHELL CHEMICAL LP." United States Environmental Protection Agency,
https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=77536SHLLLHIGHW
- ²¹¹ "Envirofacts Report: OXYVINYL LP LA PORTE VCM PLANT." United States Environmental Protection Agency,
https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=77571LPRTC2400M
- ²¹² "Detailed Facility Report: OXY VINYL LA PORTE PLANT, FRS ID: 110017769734." Enforcement and Compliance History Online. United States Environmental Protection Agency, <https://echo.epa.gov/detailed-facility-report?fid=110017769734>.
- ²¹³ "Envirofacts Report: OXY VINYL LP PASADENA PVC PLANT." United States Environmental Protection Agency.
https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=77501CCDNT4403L.
- ²¹⁴ "Envirofacts Report: OXY VINYL LP." Environmental Protection Agency.
https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=08067XYVNYRTE13.

-
- ²¹⁵ "Facility Profile: OxyVinyls LP." Fencelinedata.Org.
<https://web.archive.org/web/20240301170352/https://fencelinedata.org/facilities/9ac57c8c-6fca-4668-8478-46c0cf35a32a>.
- ²¹⁶ "Envirofacts Report: MEXICHEM SPECIALTY RESINS INC, FRS ID: 110041022274." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=08067THGNCUSRTE
- ²¹⁷ "Detailed Facility Report: MEXICHEM - SPECIALTY RESINS INC." Enforcement and Compliance History Online. United States Environmental Protection Agency, <https://echo.epa.gov/detailed-facility-report?fid=110041022274>.
- ²¹⁸ "Envirofacts Report: MEXICHEM SPECIALTY RESINS INC." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=61537THGNCRURAL
- ²¹⁹ "TRI Facility Report: EMERALD PERFORMANCE MATERIALS LLC (61537BFGDRRR1BO), Water Releases Reported to TRI." United States Environmental Protection Agency, <https://enviro.epa.gov/facts/tri/ef-facilities/#/Water/61537BFGDRRR1BO>.
- ²²⁰ "Envirofacts Report: SHINTECH LOUISIANA LLC - ADDIS PLANT A." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=70710SHNTC9750L.
- ²²¹ "Envirofacts Report: SHINTECH PLAQUEMINE PLANT." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=70764LLMNXHWY40
- ²²² "Detailed Facility Report: SHINTECH PLAQUEMINE PLANT." Enforcement and Compliance History Online. United States Environmental Protection Agency, <https://echo.epa.gov/detailed-facility-report?fid=110000572675>.
- ²²³ "Envirofacts Report: WESTLAKE VINYL INC." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=42029WSTLK2468L.
- ²²⁴ "Detailed Facility Report: WESTLAKE OPCO." Enforcement and Compliance History Online. United States Environmental Protection Agency, <https://echo.epa.gov/detailed-facility-report?fid=110027373072#>.
- ²²⁵ "Envirofacts Report: WESTLAKE US 2 LLC." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=70669PPGNDCOLUM
- ²²⁶ "Detailed Facility Report: EAGLE US 2 LLC - LAKE CHARLES COMPLEX." Enforcement and Compliance History Online. United States Environmental Protection Agency, <https://echo.epa.gov/detailed-facility-report?fid=110000494894#>
- ²²⁷ "Envirofacts Report: WESTLAKE CHEMICALS & VINYL LLC." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=70765GRGGLHIGHW
- ²²⁸ "Envirofacts Report: WESTLAKE CHEMICALS & VINYL LLC." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tris_control_v2.tris_print?pPrev=1&tris_id=70765GRGGLHIGHW
- ²²⁹ "Form R Reports: LUBRIZOL ADVANCED MATERIALS INC." United States Environmental Protection Agency, https://enviro.epa.gov/enviro/tri_formr_partone_v2.get_thisone?rpt_year=2022&dcn_num=1322220754574&ban_fl_ag=Y.
- ²³⁰ "Morris Forman Water Quality Treatment Center." MSD Safe, Clean Waterways, <https://louisvillemsd.org/programs/pretreatment-and-hazmat-program/morris-forman-water-quality-treatment-center>.
- ²³¹ Sheehan, Charles J. "Management Alert: Certain Toxic Release Inventory Data Disclosed to the Public Are Inaccurate Report No. 19-N-0115." Memorandum, Office of Inspector General, United States Environmental Protection Agency. April 8, 2019.
https://web.archive.org/web/20230811162213/http://www.epa.gov/sites/default/files/2019-04/documents/epaog_20190408-19-n-0115.pdf.
- ²³²
https://enviro.epa.gov/enviro/P2_EF_Query.p2_report?FacilityId=39520CLGNC13121&ReportingYear=2021&DocCtrlINum=&Opt=0&preport=2
- ²³³ "Public Notice: Calgon Carbon." HAZARDOUS WASTE MANAGEMENT PERMIT. The Kentucky Energy and Environment Cabinet (Cabinet), Division of Waste Management. <https://eec.ky.gov/Environmental-Protection/Waste/DWM%20Public%20Notices%202/Public%20Notice%20CC.docx> (Word Document)
- ²³⁴ "Facility Profile: CALGON CARBON CORP." Fencelinedata.Org.
<https://web.archive.org/web/20240306185315/https://fencelinedata.org/facilities/9ac54779-32fa-4805-a604-755fc36b80f1>.
- ²³⁵ "Listing Background Document for the Chlorinated Aliphatics Listing Determination (Proposed Rule)." EPA Archive Document. United States Environmental Protection Agency, Office of Solid Waste Washington, D.C. 20460, July 30,

1999.

https://web.archive.org/web/20240305193139/https://archive.epa.gov/epawaste/hazard/web/pdf/final_lb.pdf.

²³⁶ "Listing Background Document for the Chlorinated Aliphatics Listing Determination (Proposed Rule)." EPA Archive Document. United States Environmental Protection Agency, Office of Solid Waste Washington, D.C. 20460, July 30, 1999.

https://web.archive.org/web/20240305193139/https://archive.epa.gov/epawaste/hazard/web/pdf/final_lb.pdf.

²³⁷ ATSDR Toxicological profile for vinyl chloride, Jan 2024,

<https://web.archive.org/web/20230307085113/https://www.atsdr.cdc.gov/TOXPROFILES/TP20.PDF>

²³⁸ Yoshikawa M, Zhang M, Toyota K. Biodegradation of Volatile Organic Compounds and Their Effects on Biodegradability under Co-Existing Conditions. *Microbes Environ.* 2017;32(3):188-200. September 27, 2017.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5606688/>

²³⁹ "Occidental Chemical Corporation, Inc. Facility, Wichita, Sedgwick County, Kansas - Fact Sheet, June 2018." EPA in Kansas. United States Environmental Protection Agency, July 30, 1999.

<https://web.archive.org/web/20221005034615/https://www.epa.gov/ks/occidental-chemical-corporation-inc-facility-wichita-sedgwick-county-kansas-fact-sheet-june-2018>.

²⁴⁰ Nationally aggregated production volumes as published in Chemical Data Reports. Production is defined as manufacture and import.

²⁴¹ "DEP Bulletin." Department of Environmental Protection, New Jersey, October 4, 2023.

https://web.archive.org/web/20240306190102/https://dep.nj.gov/wp-content/uploads/bulletin/bu2023_1004.pdf.

²⁴² Vallette, James. "Filled with Uncertainty: Toxic Dirt in Building & Construction." Healthy Building Network. June 13, 2016. <https://web.archive.org/web/20231003151245/https://healthybuilding.net/blog/460-filled-with-uncertainty-toxic-dirt-in-building-construction> .

²⁴³ "Multifamily Accelerated Processing (MAP) Guide, Chapter 9: Environmental Review and Requirements." Final Revisions for Drafting Table, U.S. Department of Housing and Urban Development. January 31, 2020.

<https://web.archive.org/web/20240306190616/https://www.hud.gov/sites/dfiles/Housing/documents/2020mapguid.edraftchpt9.pdf>.

²⁴⁴ "Superfund: National Priorities List (NPL)." United States Environmental Protection Agency, January 31, 2020.

<https://web.archive.org/web/20240229085634/https://www.epa.gov/superfund/superfund-national-priorities-list-npl>.

²⁴⁵ "The Resurrection of Price'S Pit." Peril & Promise, Hazard NJ,. Public Broadcasting Service, January 27, 2023.

<https://web.archive.org/web/20230401202459/https://www.pbs.org/wnet/peril-and-promise/2023/01/the-resurrection-of-prices-pit/>

²⁴⁶ https://www.toxicsites.us/site.php?epa_id=DED980551667

²⁴⁷ "THE 2D-WORST DUMP IN THE U.S. - NO SIGN WARNS OF TYBOUTS CORNER'S POISONS December 23, 1982 | Philadelphia Inquirer, The (PA)

Author/Byline: BOB DROGIN"

²⁴⁸ "AFTER TWO DAYS AT TRIAL IN BATON ROUGE, BORDEN AGREES TO SETTLE FEDERAL POLLUTION CHARGES." United States Department of Justice, March 11, 1998.

<https://web.archive.org/web/20170529014620/https://www.justice.gov/archive/opa/pr/1998/March/113.htm.html>

²⁴⁹ "EPEC Polymers Agrees to Settlement Worth \$23.4 Million to Clean Up Texas Superfund Site." United States Department of Justice, Environment of Natural Resources Division, March 21, 2007.

https://web.archive.org/web/20170528054237/https://www.justice.gov/archive/opa/pr/2007/March/07_enrd_170.htm.

²⁵⁰ "EXPLANATION OF SIGNIFICANT DIFFERENCES PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU) SUPERFUND SITE." United States Environmental Protection Agency, SUPERFUND DIVISION REGION 6, September, 2010.

<https://semspub.epa.gov/work/06/9124852.pdf> and "Superfund Site Information: PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU)." United States Environmental Protection Agency, September 1, 2010.

<https://web.archive.org/web/20240306192726/https://cumulis.epa.gov/supercpad/cursites/cscdocument.cfm?id=0602957&doc=Y&colid=70101>, and Miller, James . "CASE DEVELOPMENT PLAN SECTION IV Thru VIII THIRD DRAFT."

Stauffer Chemical Company. United States Environmental Protection Agency Region 3, Enforcement Division, May 12, 1980. <https://web.archive.org/web/20240306193641/https://semspub.epa.gov/work/03/144608.pdf>.

²⁵¹ Superfund data from the Superfund Enterprise Management System (SEMS) database in Envirofacts, <https://enviro.epa.gov/envirofacts/sems/search>. Accessed January 16, 2023.

Appendix 1. Worst Case Scenarios

“Vulnerability zones” are facility owners’ estimates under EPA’s Risk Management Planning program. They calculate the radius of the area where people could be harmed by a worst-case release of certain toxic or flammable chemicals including vinyl chloride.

“Who’s in Danger? A Demographic Analysis of Chemical Disaster Vulnerability Zones” (Environmental Justice and Health Alliance for Chemical Policy Reform, 2014) studied thousands of vulnerability zones. It found that residents “are disproportionately African American or Latino, have higher rates of poverty than the U.S. as a whole, and have lower housing values, incomes, and education levels than the national average. The disproportionate or unequal danger is sharply magnified in the ‘fenceline’ areas nearest the facilities.”¹

The following graphics by Material Research portray the “worst-case” spread of vinyl chloride from each facility into surrounding areas. The underlying data were obtained from the EPA Reading Room in Washington DC in April and May 2023. Each graphic is at the identical scale for comparison.

Note: Worst-Case Scenario data do not yet consider potential incidents aboard ships that load vinyl chloride at chemical docks.

1

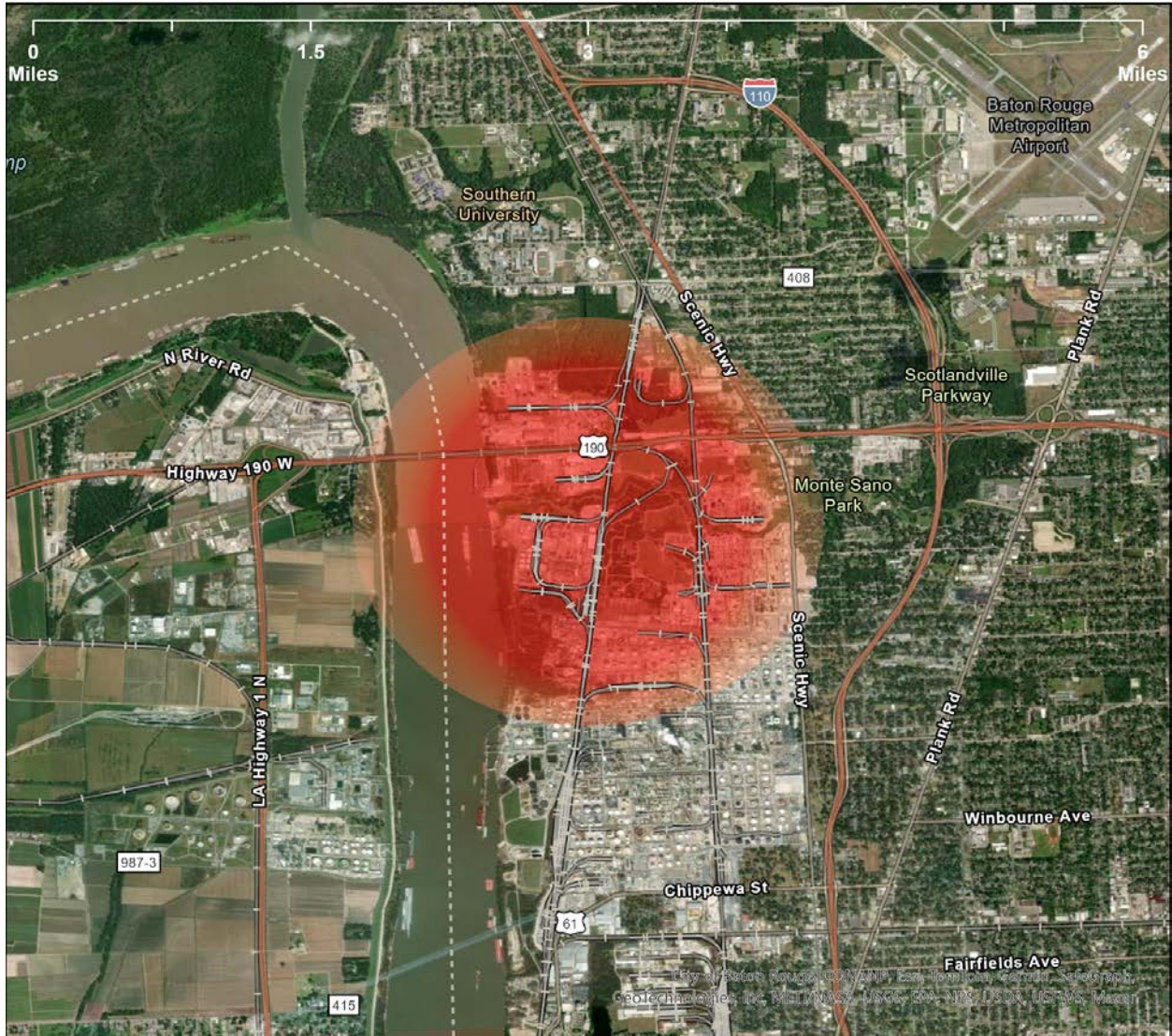
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LOUISIANA

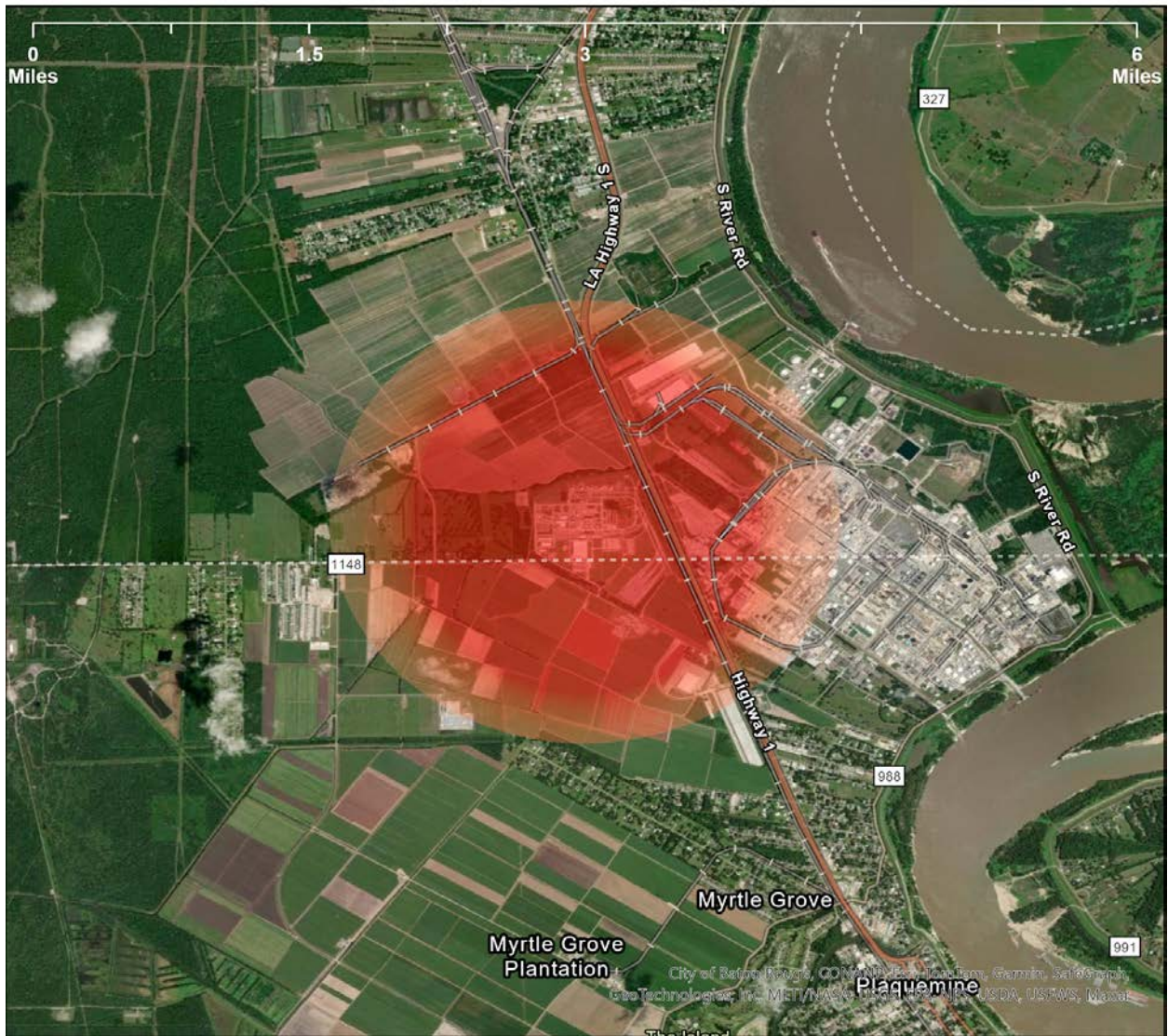
Baton Rouge area facilities

Formosa Plastic Corporation in Baton Rouge, LA

Vinyl Chloride Worst Case Scenario Radius: **1.1 miles**

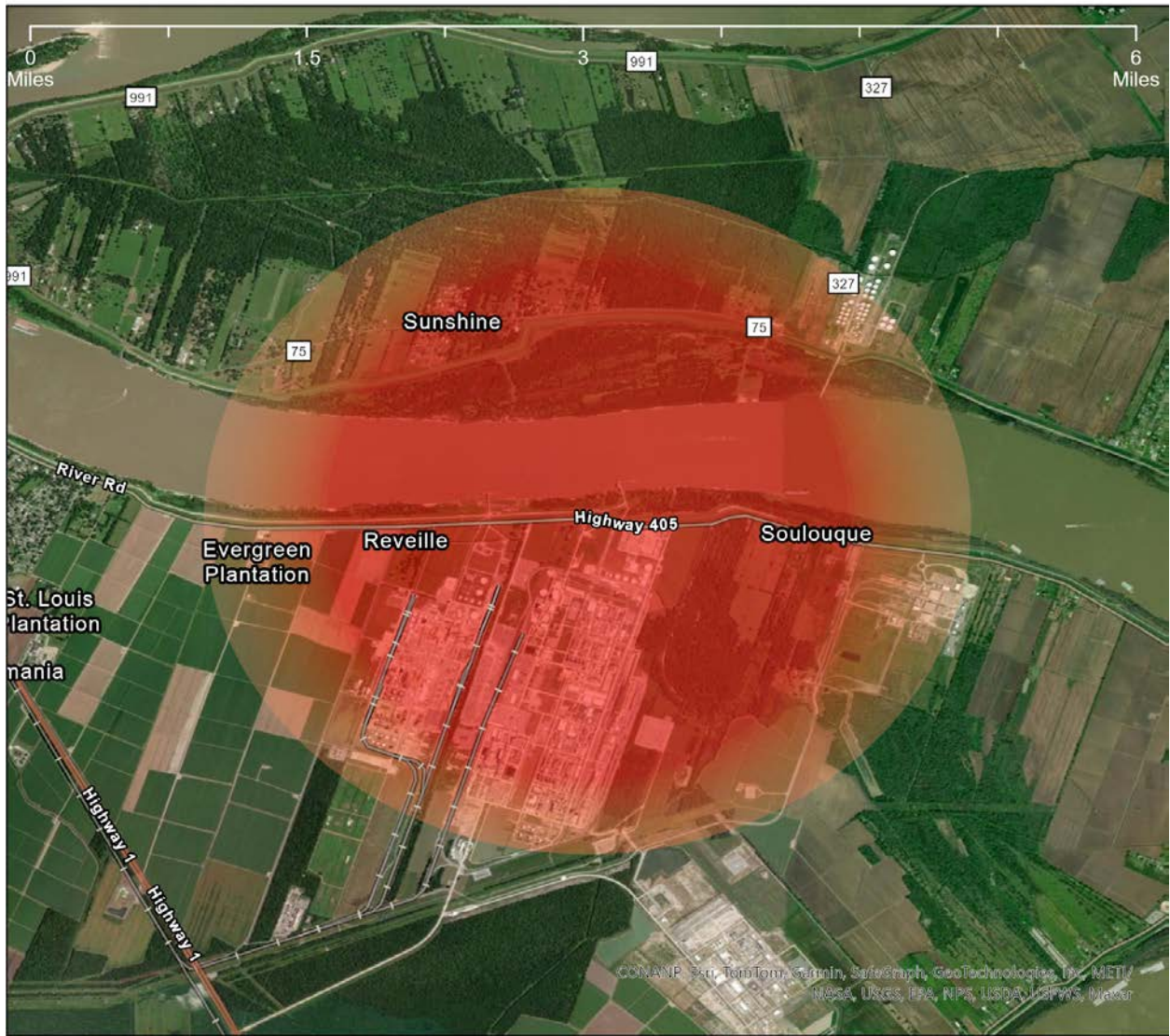


C-K Tech, Inc. / Shintech in Addis, LA
Vinyl Chloride Worst Case Scenario Radius: **1.2 miles**



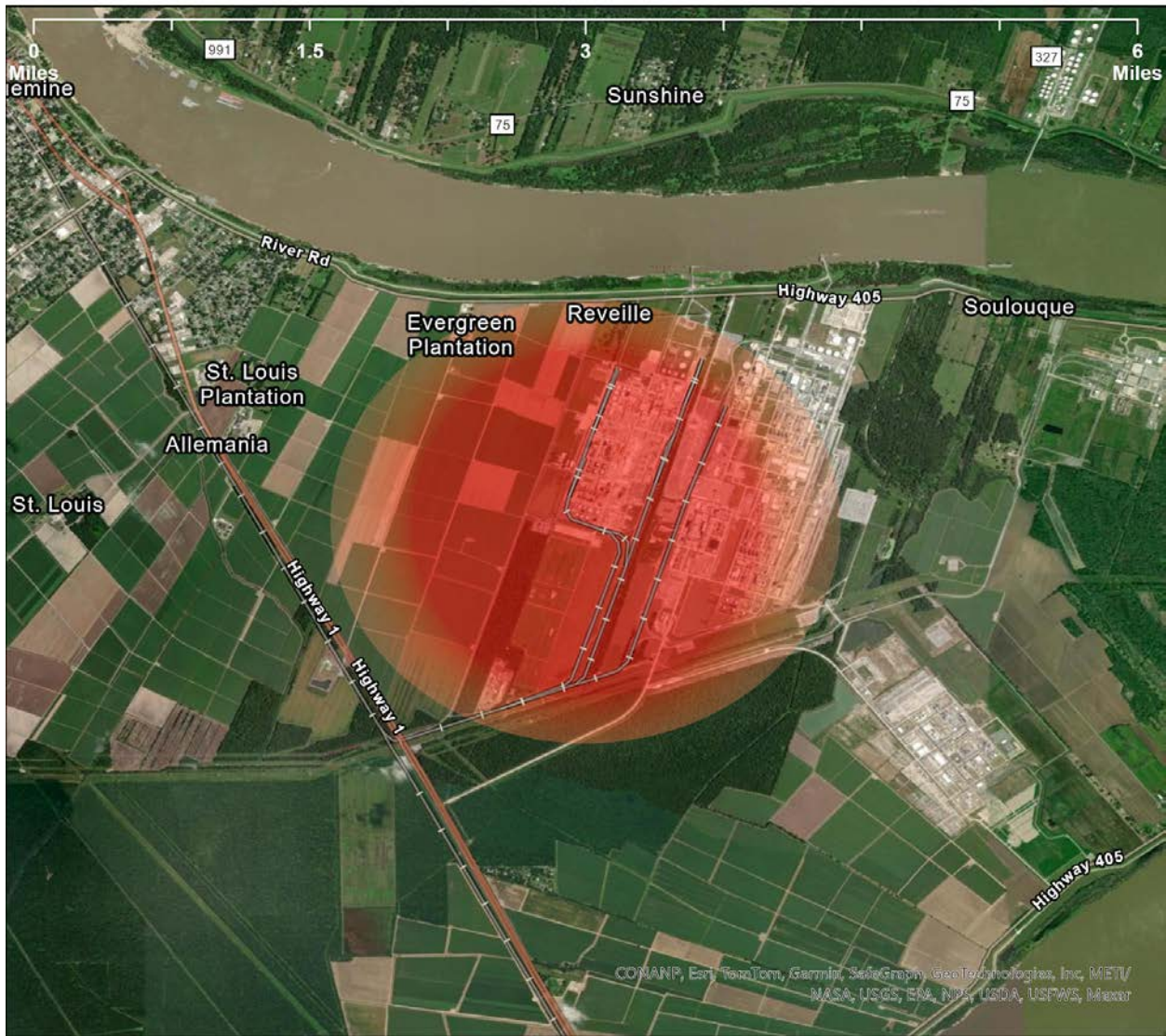
Shintech Plaquemine Plant in Plaquemine, LA

Vinyl Chloride Worst Case Scenario Radius: **1.8 miles**



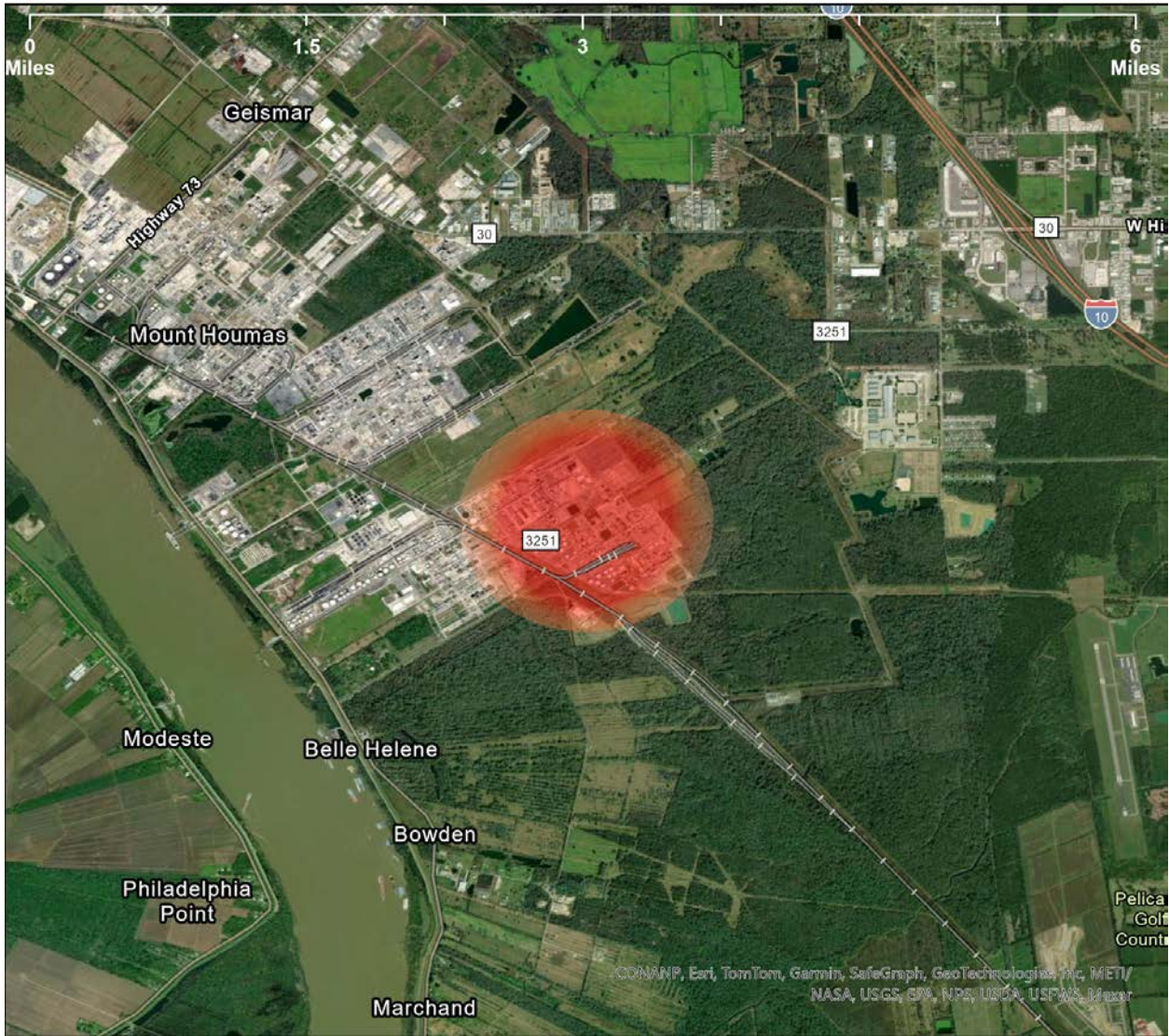
Westlake Chemicals & Vinyls LLC in Plaquemine, LA

Vinyl Chloride Worst Case Scenario Radius: **1.2 miles**



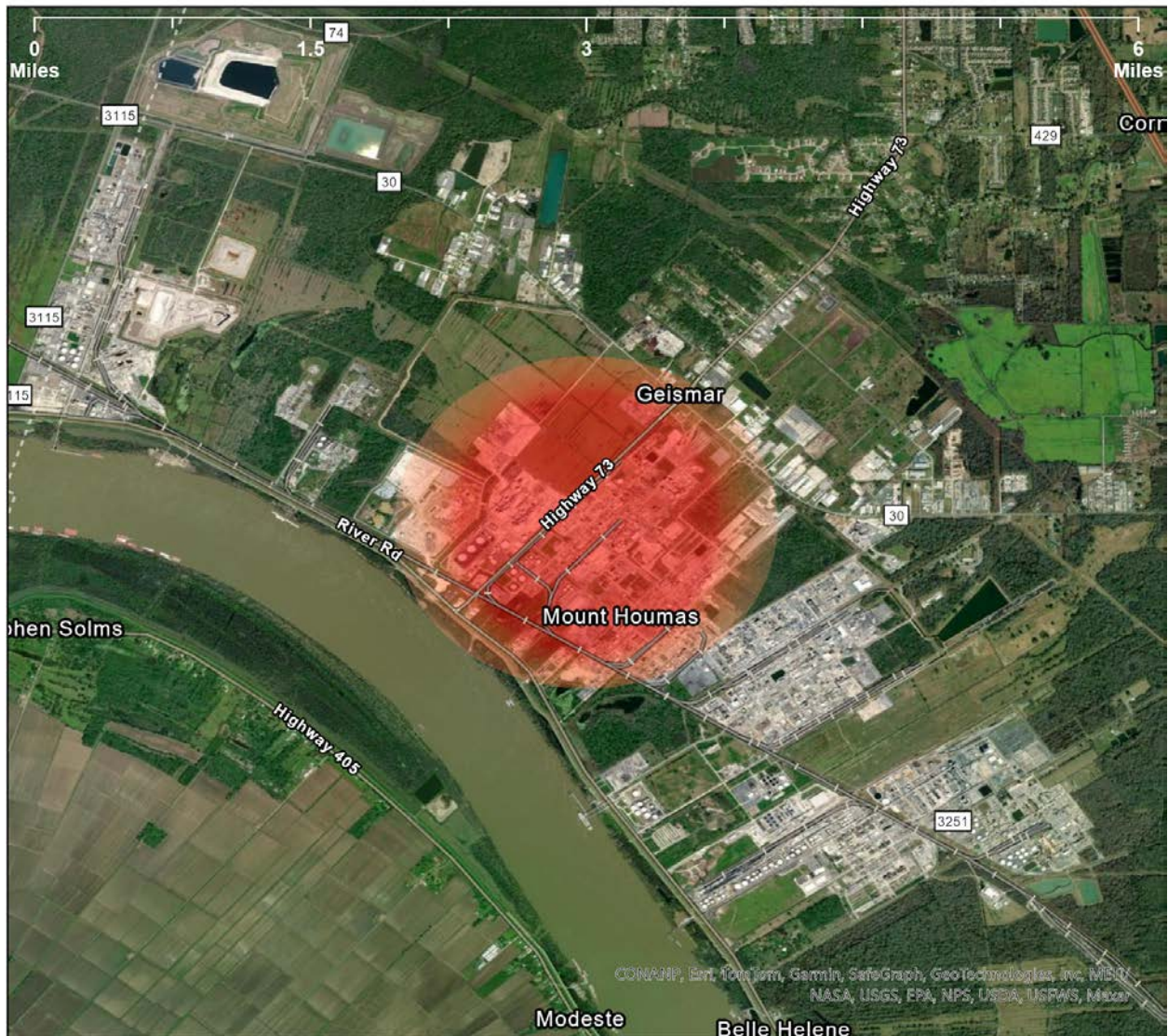
Occidental Chemical Corporation in Geismar, LA

Vinyl Chloride Worst Case Scenario Radius: **0.6 miles**



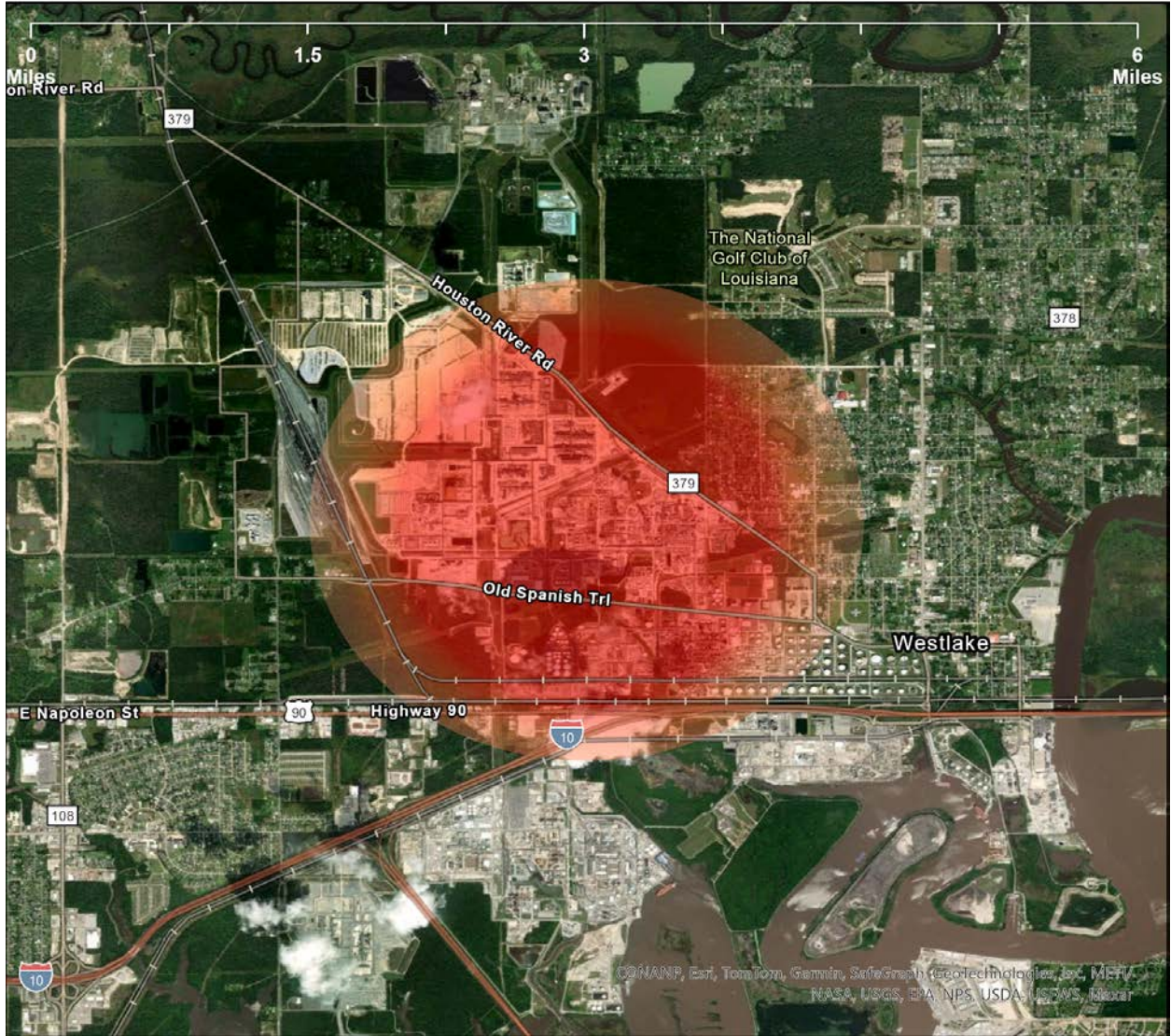
Westlake Vinyls Company in Geismar, LA

Vinyl Chloride Worst Case Scenario Radius: **0.9 miles**



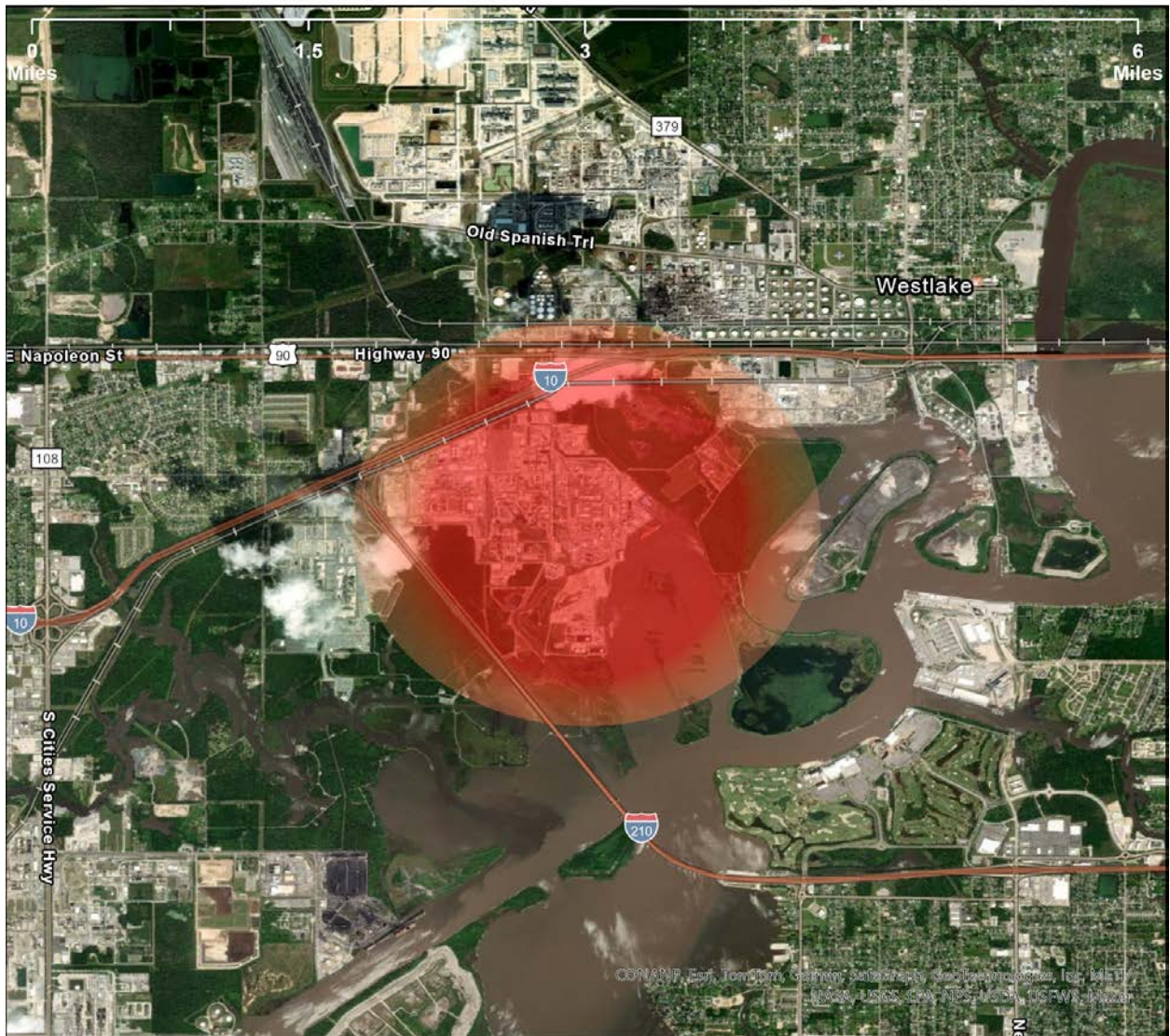
Lake Charles facilities

Westlake Lake Charles North in Westlake, LA
Vinyl Chloride Worst Case Scenario Radius: **1.3 miles**



Westlake US 2 LLC Plant in Westlake, LA

Vinyl Chloride Worst Case Scenario Radius: **1.1 miles**

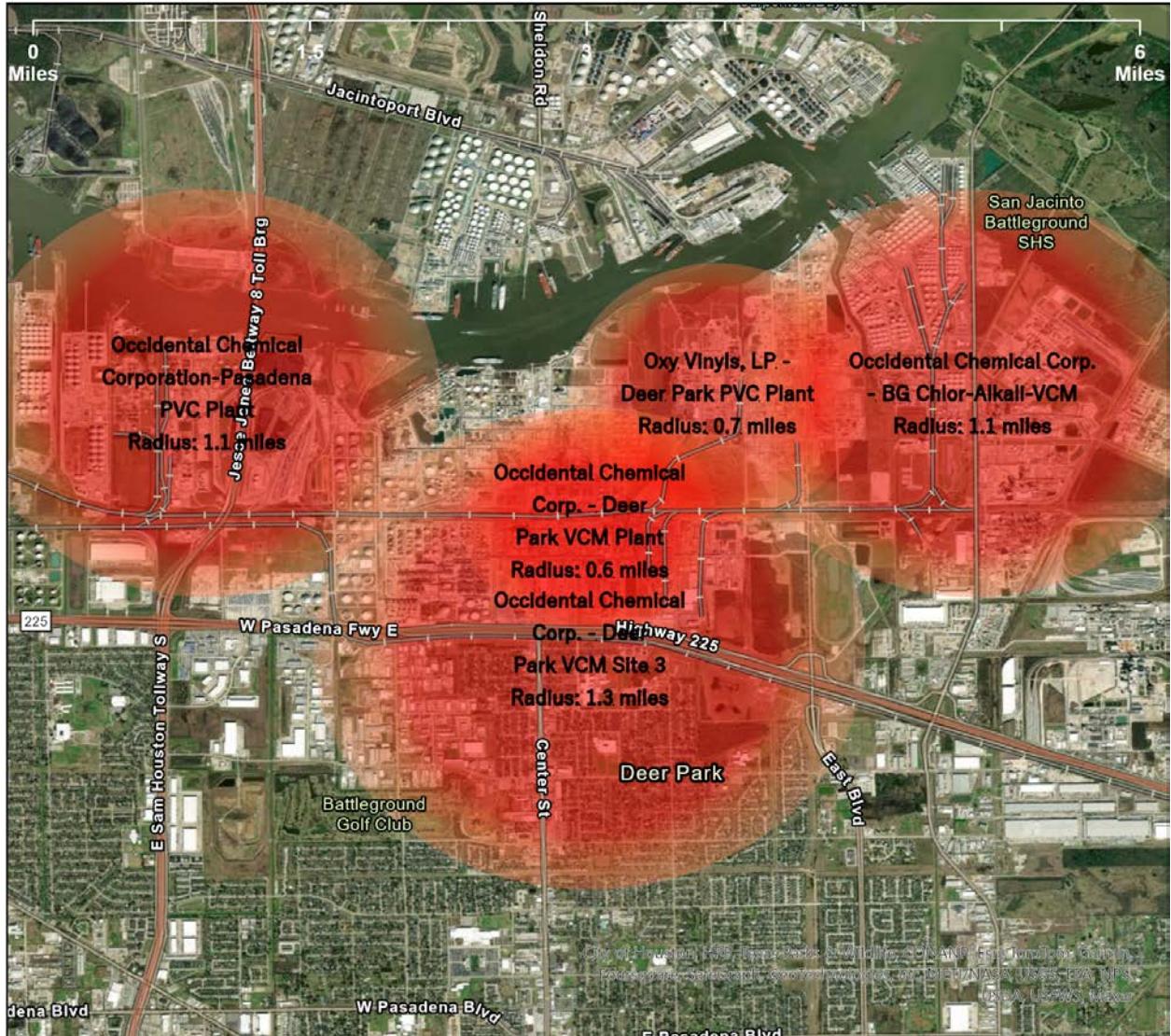


TEXAS

Houston area facilities

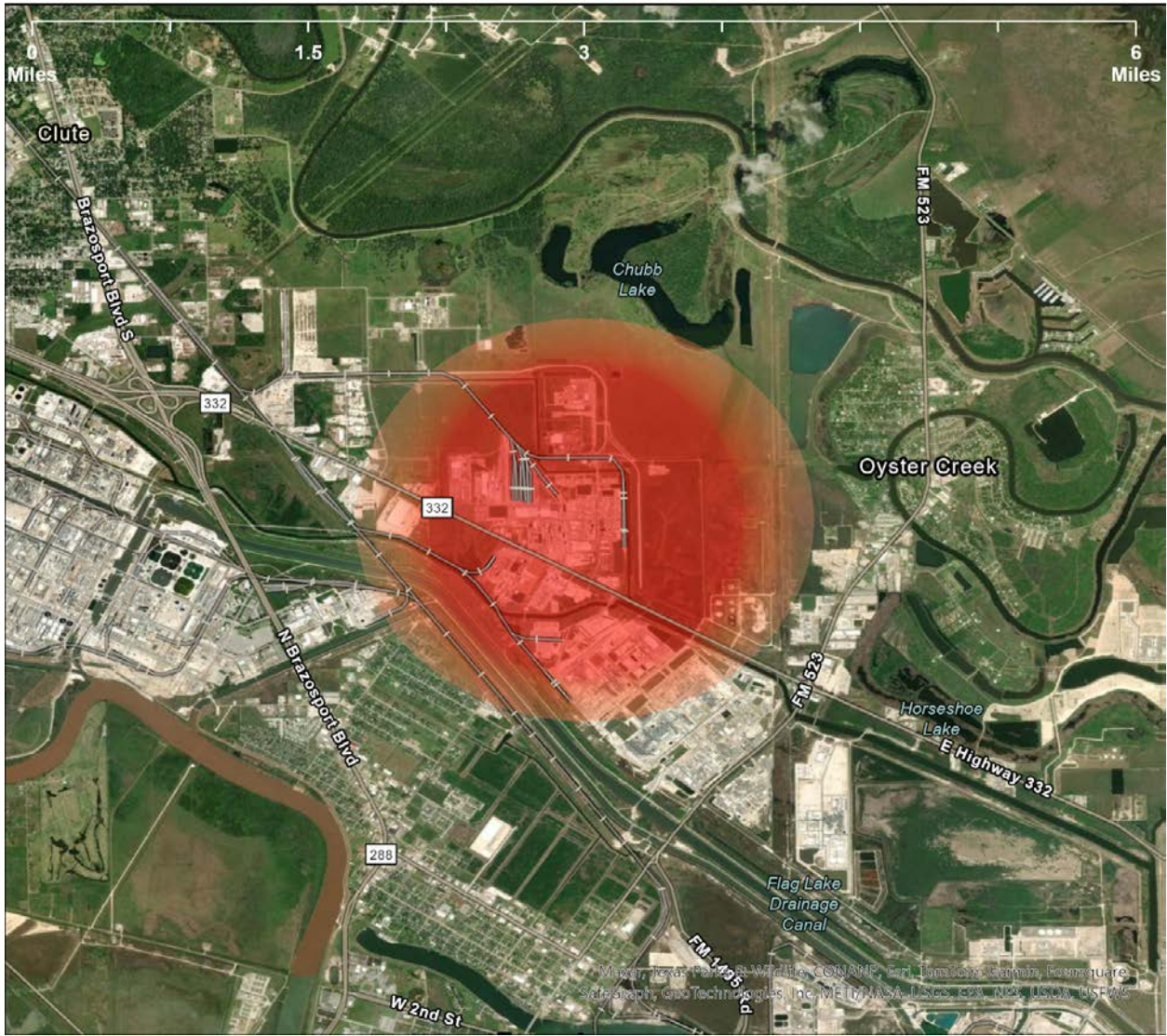
Deer Park, TX

Vinyl Chloride Worst Case Scenarios



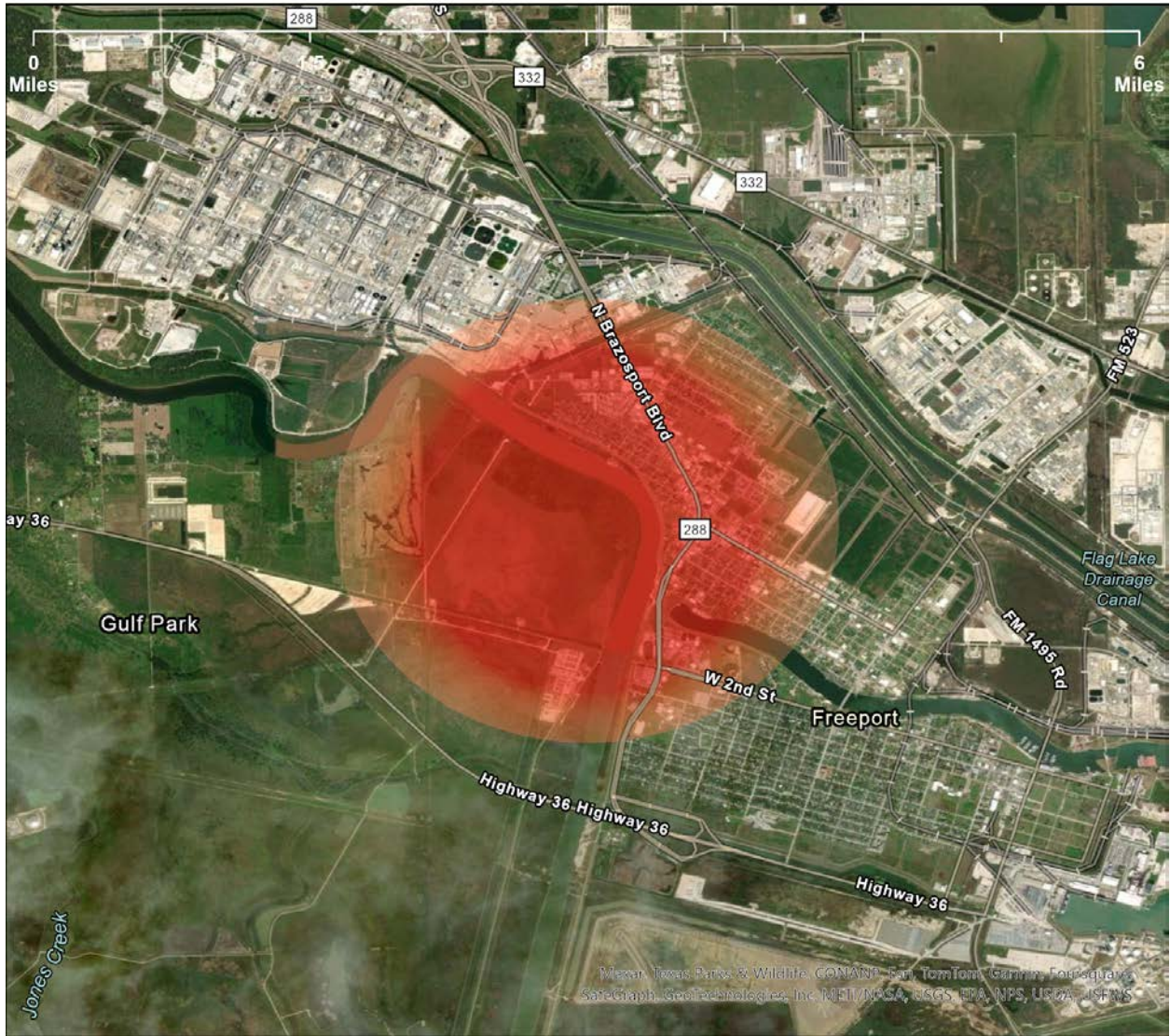
Shintech in Freeport, TX

Vinyl Chloride Worst Case Scenario Radius: **1.09 miles**



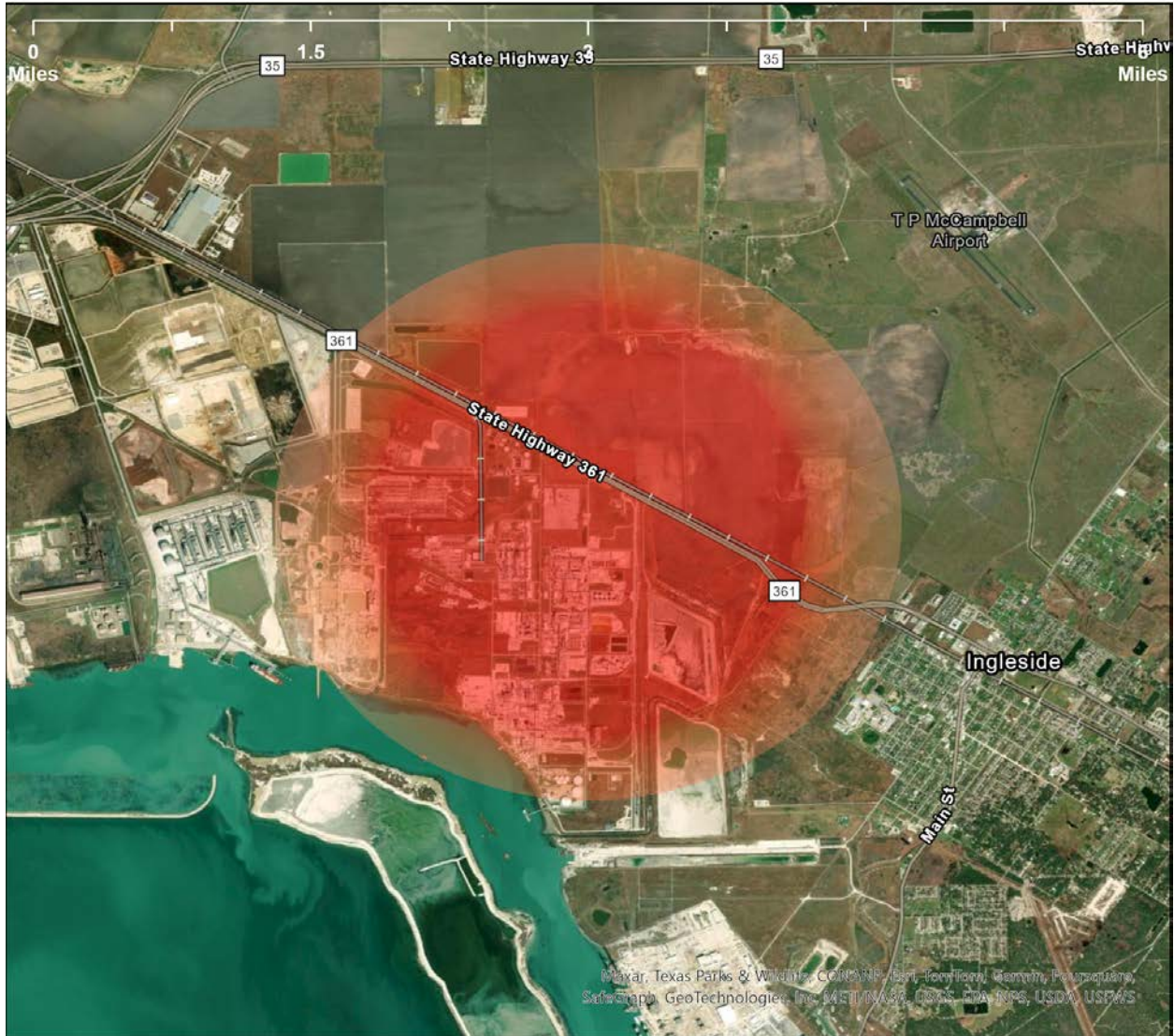
Blue Cube Operations LLC in Freeport, TX

Vinyl Chloride Worst Case Scenario Radius: **1.2 miles**



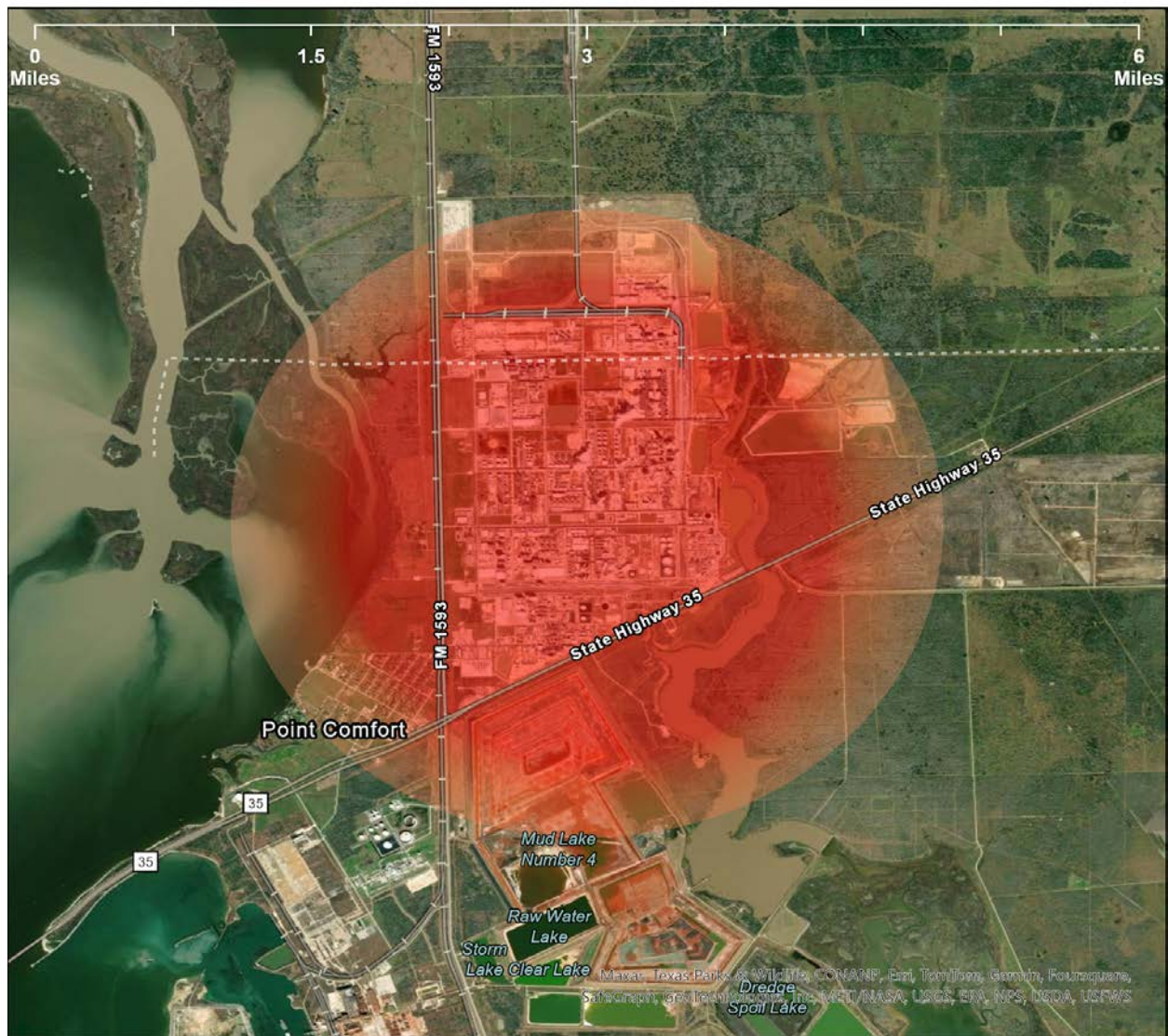
Other Texas facilities

Occidental Chemical Corporation in Ingleside, TX
Vinyl Chloride Worst Case Scenario Radius: **1.5 miles**



Formosa Plastics Corporation in Point Comfort, TX

Vinyl Chloride Worst Case Scenario Radius: **1.7 miles**



KENTUCKY

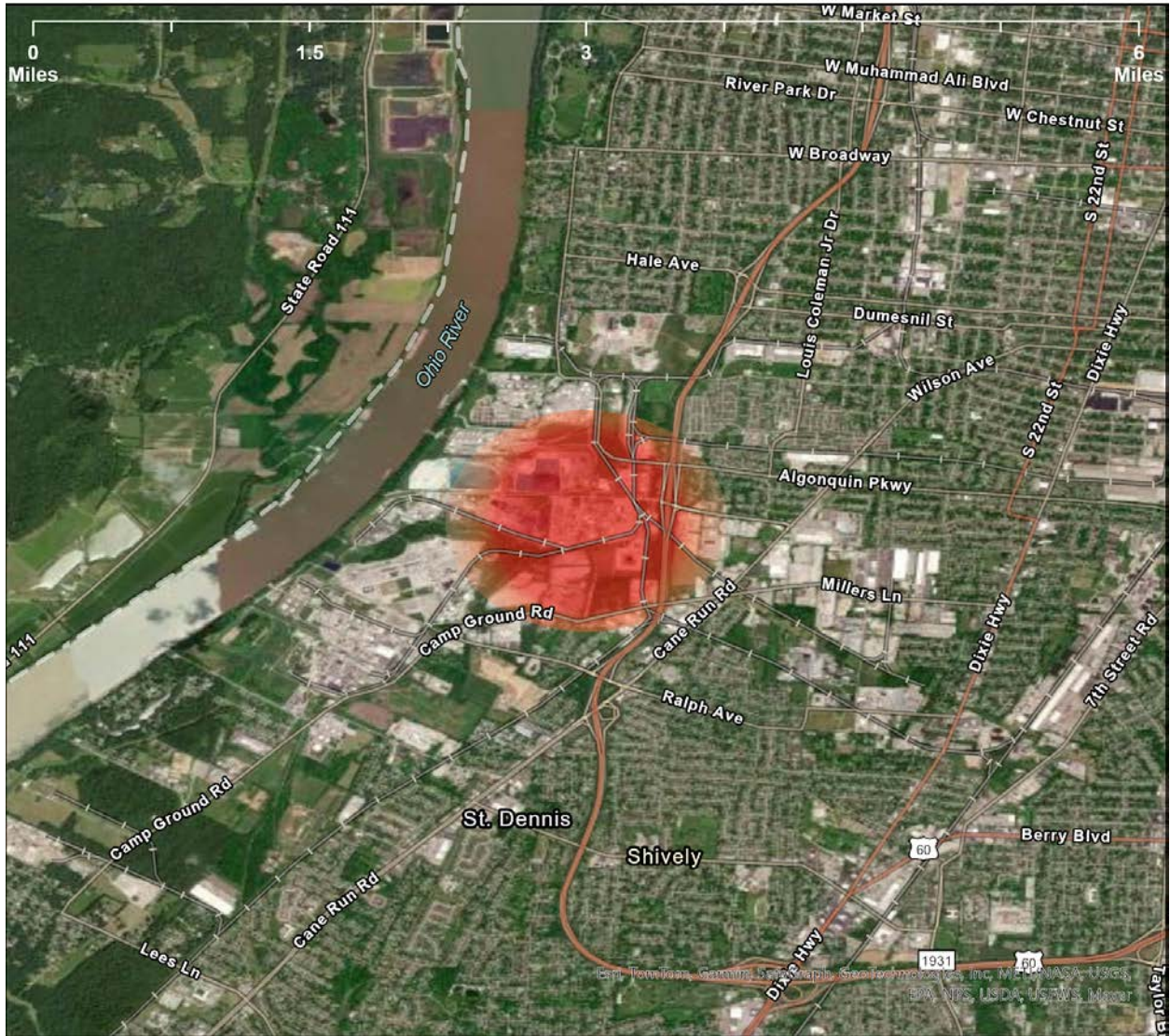
Westlake PVC Corporation in Calvert City, KY

Vinyl Chloride Worst Case Scenario Radius: **0.3 miles**



Lubrizol Advanced Materials, Inc. in Louisville, KY

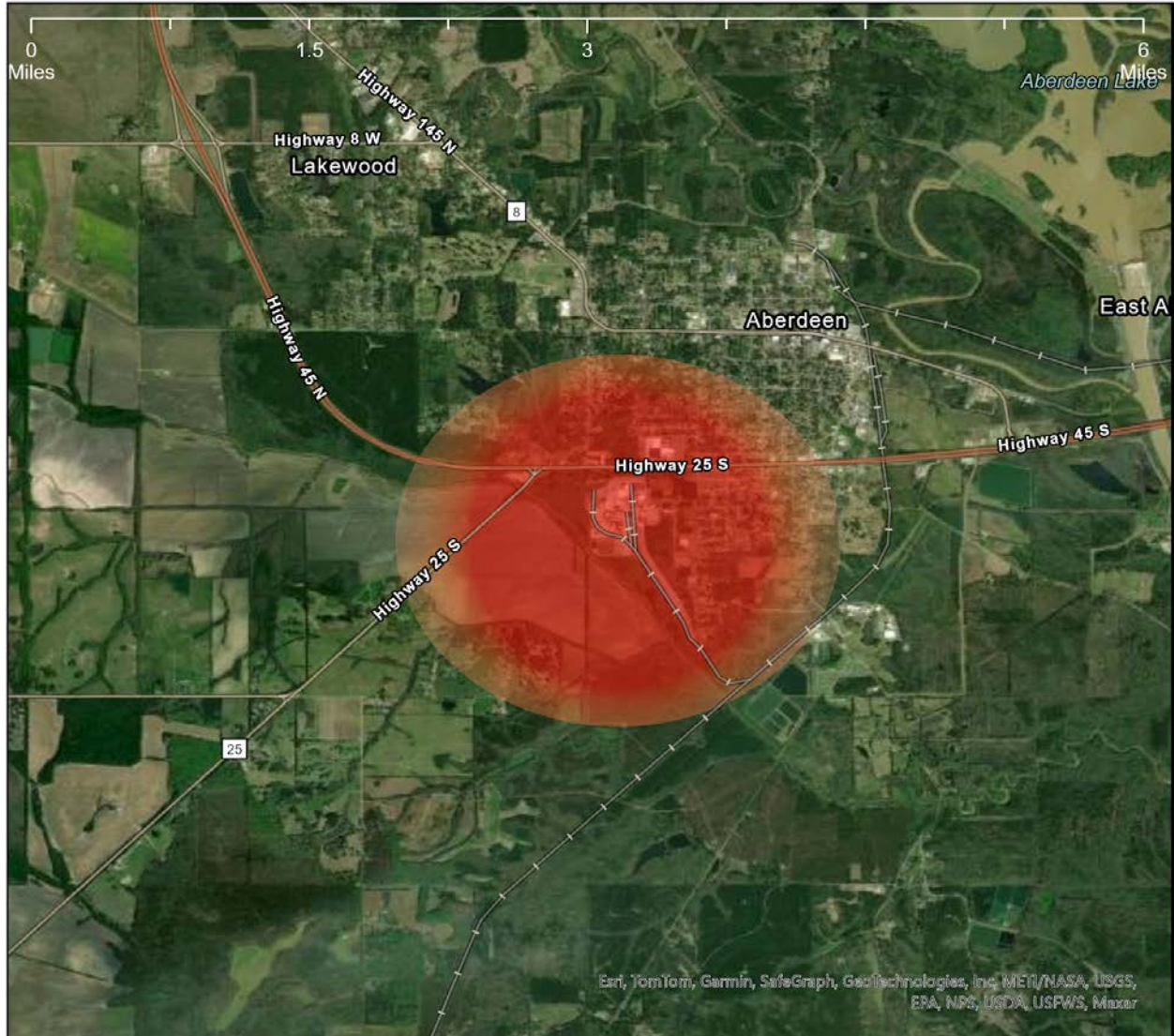
Vinyl Chloride Worst Case Scenario Radius: **0.6 miles**



OTHER STATES

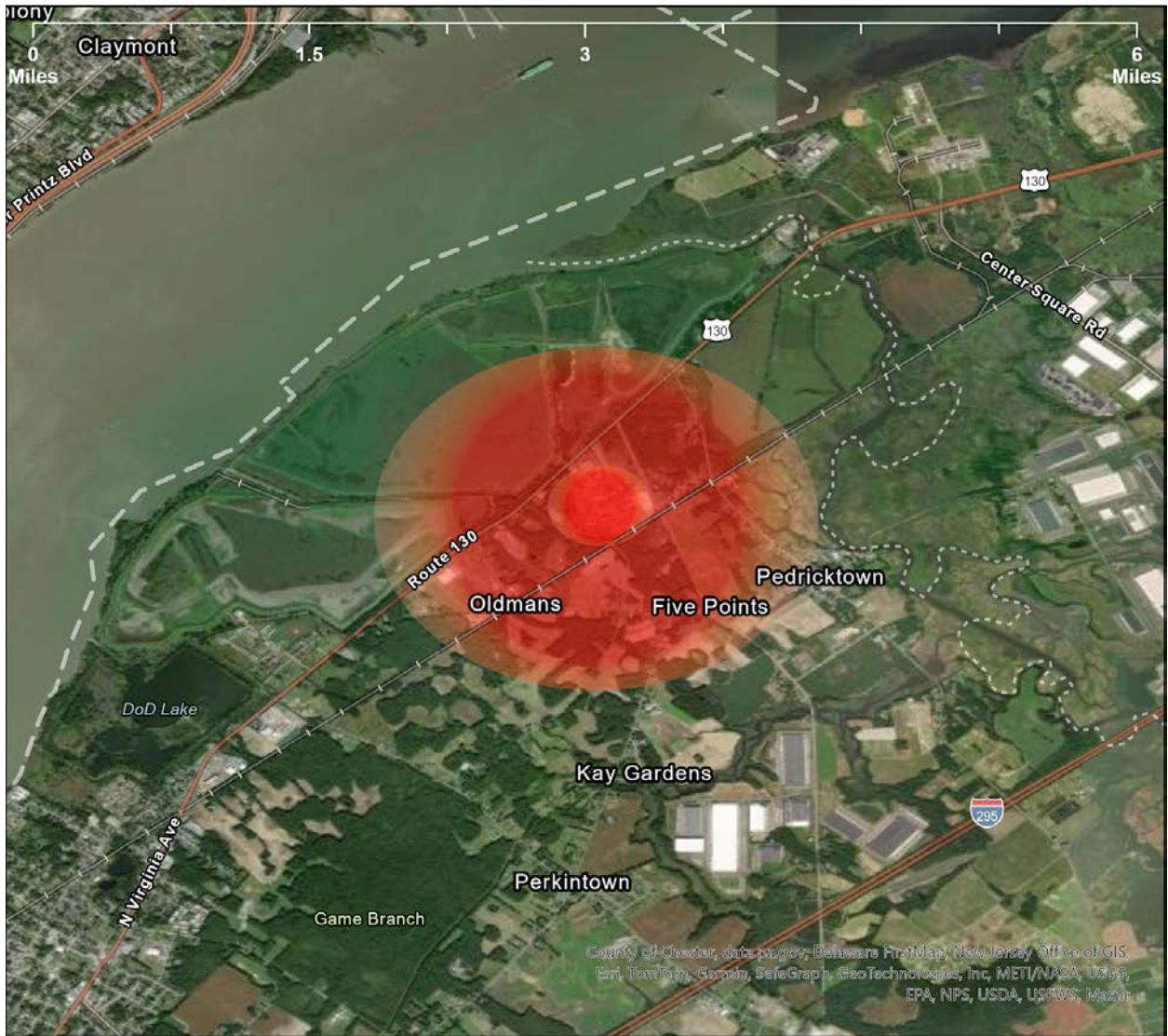
Westlake Chemicals & Vinyls LLC- Aberdeen, MS

Vinyl Chloride Worst Case Scenario Radius: **1 mile**



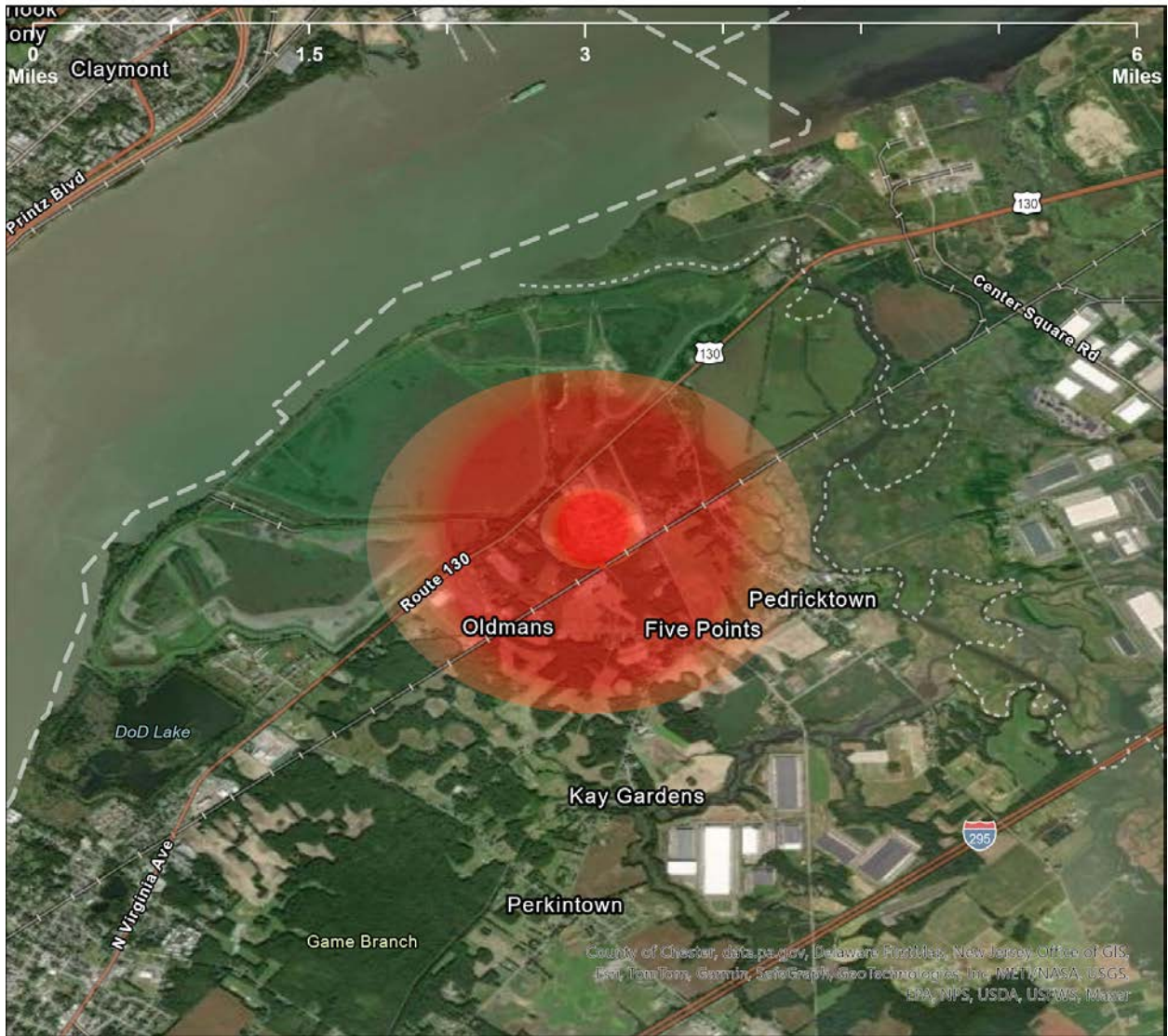
OxyVinyls LP in Pedricktown, NJ

Vinyl Chloride Worst Case Scenario Radius: **0.93 miles**



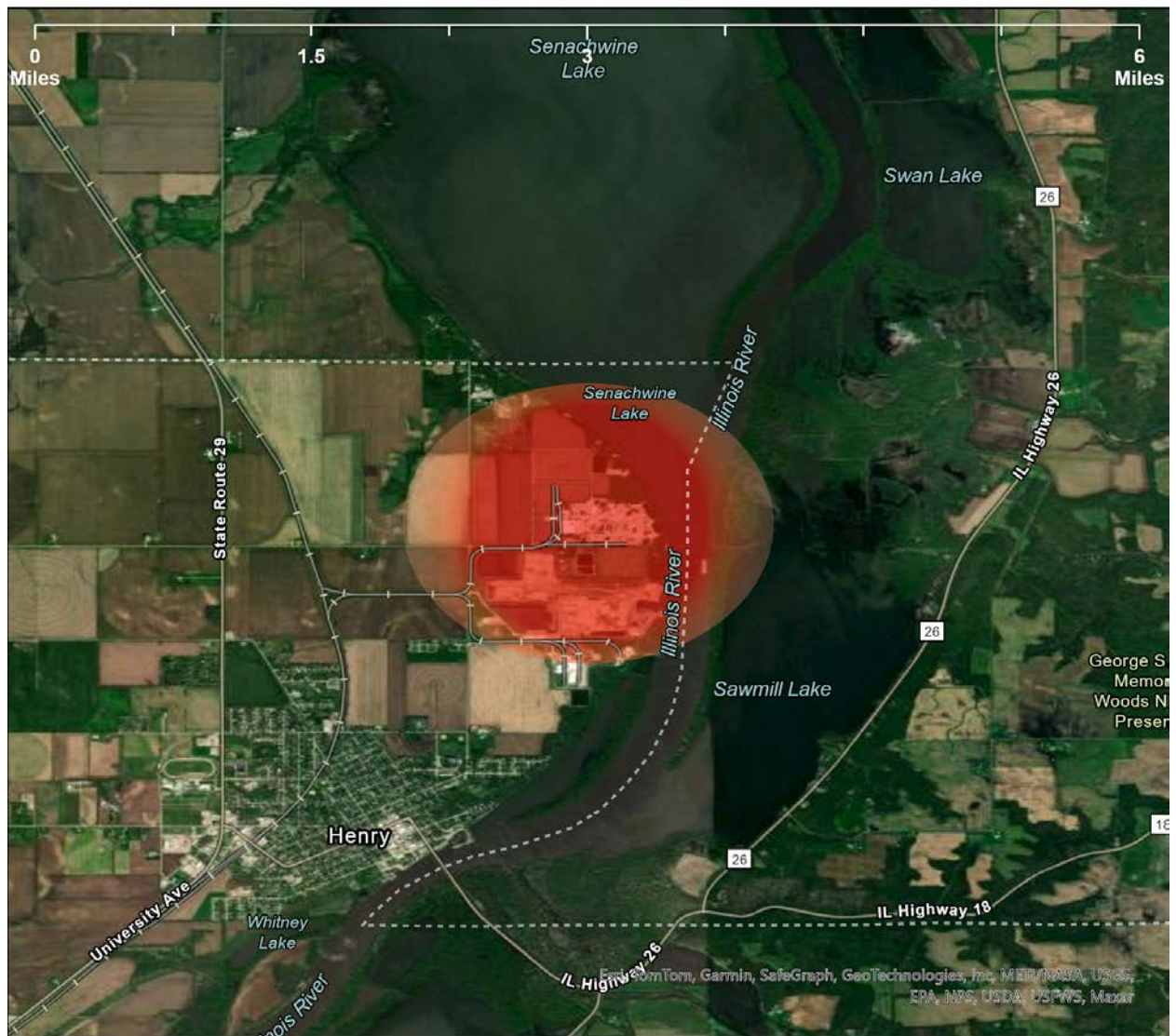
Mexichem Specialty Resin in Pedricktown, NJ

Vinyl Chloride Worst Case Scenario Radius: **0.22 miles**

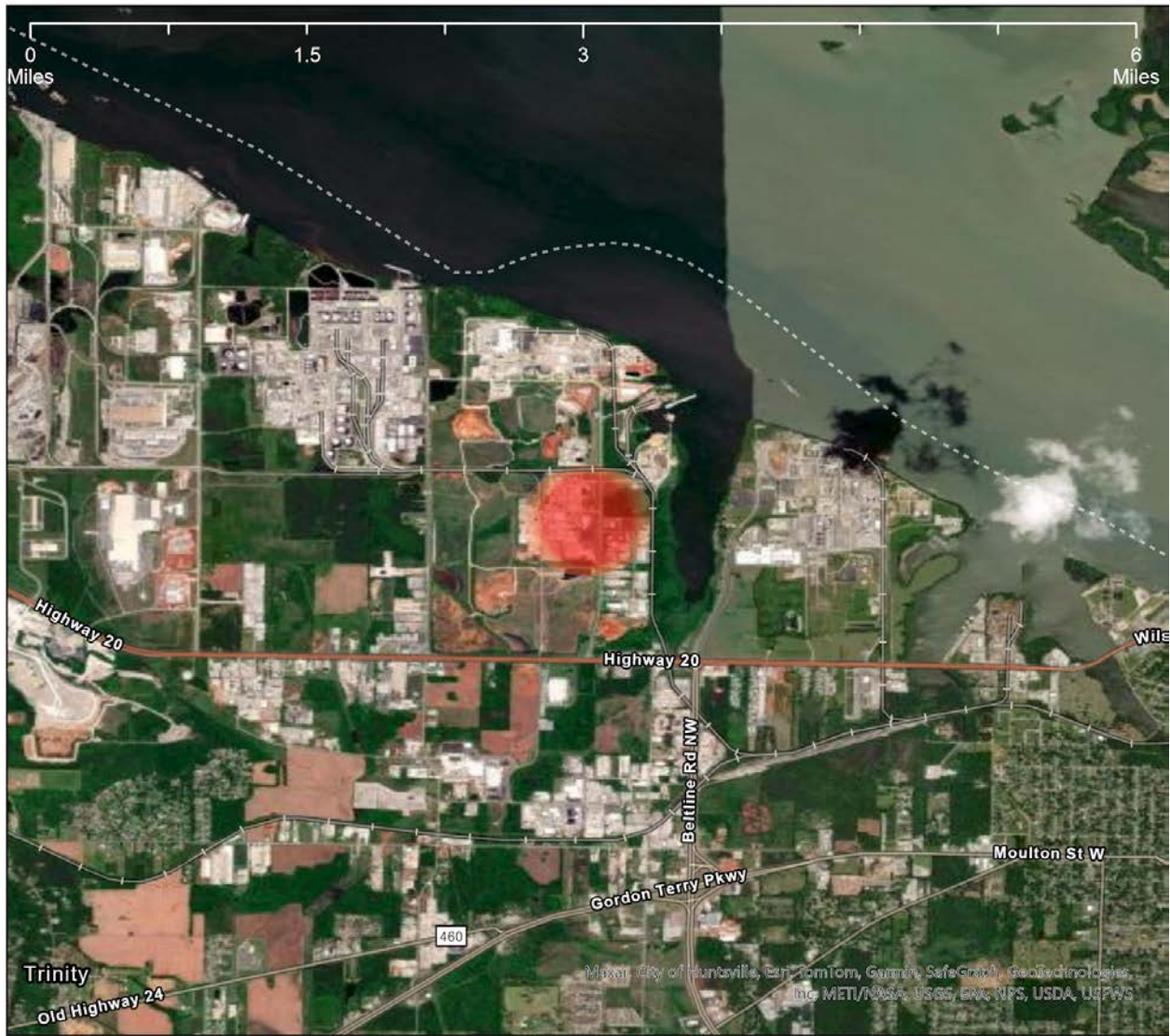


Mexichem Specialty Resin, Inc. - Henry, IL

Vinyl Chloride Worst Case Scenario Radius: **0.76 miles**



Daikin America Inc in Decatur, AL
Vinyl Chloride Worst Case Scenario Radius: **0.3 miles**



Appendix 2. Air Releases of Vinyl Chloride. Toxics Release Inventory, 2010-2022

	<i>Vinyl Chloride Air Releases, pounds per year</i>														
Facility / Year	Avg/ year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	note
TOTAL	485640	442606	440046	485891	443604	569874	537134	570604	497598	536735	420929	471111	428131	469060	
Westlake - Calvert City VCM	58559	16730	28740	16512	16425	91930	89521	93115	96507	122949	48856	58220	59329	22432	
Formosa - Delaware City	46874	56155	57564	59260	47277	49262	42710	40946	45949	22740	closed	closed	closed	closed	
Westlake - Calvert City PVC	46625	49187	43211	39632	30143	40725	52810	49020	34153	47848	45583	48181	57053	68577	
Formosa - Point Comfort	45737	8355	21841	14923	22676	33444	37951	36194	47689	84540	75959	99615	68346	43042	
Shintech - Plaquemine	44244	30000	43000	73000	64290	87107	83716	64879	33221	25615	22981	12299	16265	18799	
Westlake - Geismar	36077	59966	53814	49300	36900	60200	18500	29000	22700	21500	19500	30500	19300	47820	
Shintech - Addis	30447	9500	10600	43900	51585	50493	47671	61466	25789	25065	26579	16891	15192	11080.	
Orbia - Henry	20031	21600	25340	22700	22300	20666	15777	17375	15864	21956	18468	20518	19114	18728.	
Westlake - Plaquemine	19050	30000	18889	18895	21868	16399	17008	23917	15555	13747	12832	12265	18914	27357	
Westlake - Aberdeen	17795	19100	18492	23959	19118	16784	10292	9902	9286	11204	9619	8727	4779	70077	
Shintech - Freeport	17299	13945	8861	9737	17098	10480	17413	19304	31734	21552	19571	17149	17721	20320	
Formosa - Baton Rouge	16144	16792	15519	17840	15521	15320	14629	14998	16988	15670	16374	14912	18249	17061	
Orbia - Pedricktown	15829	12640	17539	13907	14573	16274	15246	16190	14374	15747	16336	14455	20478	18020	
OxyVinyls - Pasadena	14866	14575	11692	12692	15443	13649	15920	14542	13280	13245	18573	18237	15598	15818	
Westlake - Westlake (South)	13588	18300	9400	28200	15160	6100	5370	4120	7760	10400	6370	41097	5270	19097	
OxyVinyls - Gregory/Ingleside	13171	3060	11471	4202	4144	4438	15785	23969	19298	19582	20952	16965	15008	12351	
OxyVinyls - Deer Park PVC	10288	7779	6330	6706	7608	10379	9639	12318	15585	11321	12262	13160	10580	10071	
OxyVinyls - La Porte	7968	10239	9510	7597	6820	7300	7574	8433	9779	8095	7545	7200	7347	6146	
Westlake - Westlake (North)	6226	7366	5639	5785	1473	3302	4642	13041	2602	3589	2798	2526	21137	7036	
OxyVinyls - Deer Park VCM	4288	5708	6120	3950	2010	4434	3777	4140	5532	4324	4287	3690	3976.	3800	
OxyVinyls - Pedricktown	2811	1931	1453	1756	2937	2610	2371	3203	3160	2703	3901	3864	3929	2729	
Dow - Freeport	2103	13767	4396	2765	1956	2312	529	447	539	630	ceased VCM production				

Daikin - Decatur	1831	1727	1814	1756	2074	1761	1767	1798	1853	1818	1853	1820	1820	1945	
Occidental - Geismar	1823	1021	819	916	604	1526	479	737	1746	4007	4136	3962	3226	521	
Certainteed - Westlake	1580	3300	2540	1830	1500	800	2600	3550	2790	1632	closed				
Olin - Freeport	1332						996	1956	2030	2680	2541	1990	2418	2700	
Chemours - Gregory/Ingleside	981	1025	978	979	974	940	938	940	938	938	939	942	942.46	1275	
Dow - Plaquemine	965	8058	3993	150	93	156	5	38	48	ceased VCM production					
Lubrizol - Louisville	567	288	187	175	191	170	397	670	580	640	750	1040	1144	1141	
Dow - Midland	254	124	no report	2610	570	no reports after									
Corteva - Freeport	183	no reports before									523	450	613	796	
Rowmark - Trenton	153	no earlier reports				750	750	108	101	98	98	68.2	14		
BASF - Hannibal (Palmyra)	101	no reports earlier			40	33	91	189	46	181	74	98	287	278	
Spartech - Greenville SC (plastic sheet factory)	96									500	500	250	no report		
Huntsman - Freeport	50	118	85	100	87	38	0	15	0	118	62	0	15	10	
Heritage Thermal - East Liverpool	32	52	127	123	52	60	0	0	0	0	0	0	0.05	0.05	
Clean Harbors - Deer Park	29	1	8	5	10	1	123	21	40	no report	101	7	25	30.3	
Waste Management (ChemWaste) - Arlington OR	18						66	55	54	63					landfill; received 14190 lb in 2015, 29112 lb in 2016, 21601 lb in 2017, 13627 lb in 2018

Clean Harbors - El Dorado	18	191	1				5	1	1	23	no report	2	6.3	no report		
Clean Harbors - Kimball	5			4	37	3							23			
Orbia - Avon Lake	5				17	9	5	5	5	no report	5	10	10	no report		
Unilin MDF - Mt Gilead NC	5	1	8	11	12	15	16	no further reports								
Bayer - Kansas City	5		59													
Ross Incineration - Grafton OH	3	3	4	14	5	3	3	2	2	1	no report	0	0.002	no report		
Safety Kleen - Smithfield KY	3								20	14						
Weylchem - Elgin	2						21									
Clean Harbors - Grantsville	1	1	1	1	3	0	10	no reports					0.01	0.01		
Blue Cube - Plaquemine	1						11									
Veolia - Beaumont	1				10											
Norlite - Cohoes	0												0.0000	26		
Duracote - Ravenna OH (fabric coating factory)	0														no air releases, but transferred 21200 lb waste offsite in 2010, 30300 lb in 2011 and 32800 lb in 2012	

APPENDIX 3: VINYL CHLORIDE INCIDENT REPORTS, 2010 to 2023

Date	Parent Company	City	State	Location description	Description of incident	Source
12-Dec-23	Westlake	Westlake	LA	VCM factory	CALLER REPORTED A SEAL POT BLEW ON ONE OF THEIR INCINERATORS RELEASING VINYL CHLORIDE VAPOR INTO THE ATMOSPHERE. IT IS UNKNOWN IF THE REPORTING THRESHOLD WAS REACHED. THERE WERE NO OFF SITE IMPACTS. NO INJURIES OR FIRES REPORTED	National Response Center via SkyTruth Alerts
6-Dec-23	Shin-Etsu	Plaquemine	LA	Vinyl chloride tank car	THE CALLER STATED THAT A RAILCAR AT A LOADING RACK HAD A LEAKING FLANGE, WHICH RELEASED AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE. THIS INCIDENT OCCURRED AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
6-Dec-23	Berkshire Hathaway	Louisville	KY	CPVC factory	THE CALLER STATED THAT (20) GALLONS OF VINYL CHLORIDE MIXED WITH LATEX RELEASED FROM A BLEED OFF FROM A STRIPPER AT CHEMICAL FACILITY. THE MATERIAL RELEASED INTO A CONTAINMENT DYKE AT THE FACILITY.	National Response Center via SkyTruth Alerts
29-Nov-23	Occidental	Pasadena	TX	PVC factory	CALLER STATED DUE A GASKET LEAK ON A VALVE ON A REACTOR AT THE MANUFACTURING FACILITY THERE WAS A RELEASE OF ONE POUND OF VINYL CHLORIDE MONOMER TO THE AIR.	National Response Center via SkyTruth Alerts
25-Oct-23	Westlake	Westlake	LA	VCM factory	CALLER STATES UNKNOWN AMOUNTS OF VINYL CHLORIDE, HYDROCHLORIC ACID (GAS), ETHYLENE DICHLORIDE ARE CURRENTLY BEING RELEASED INTO THE ATMOSPHERE FROM PROCESS FACILITY PIPING. A PIPE FAILURE IS CAUSING THE RELEASE.	National Response Center via SkyTruth Alerts
18-Oct-23	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING THEY HAD AN INCINERATOR THAT TRIPPED OFFLINE AND THOSE EMISSIONS WENT TO ANOTHER VENT. THIS CAUSED THEM TO RELEASE ETHYLENE DICHLORIDE AND VINYL CHLORIDE INTO THE AIR. THE MATERIALS RELEASED MAY REACH THE REPORTABLE QUANTITY AMOUNT.	National Response Center via SkyTruth Alerts
8-Oct-23	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE AND DICHLOROETHANE FROM A STORAGE TANK. THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts

3-Oct-23	Westlake	Westlake	LA	vinyl chloride factory	<p>/// THIS IS AN UPDATE TO NRC REPORT # 1380747 ///</p> <p>UPDATED INFO IS AS FOLLOWS: EMISSIONS REPORTED DID NOT MEET THE RQ AND THEREFORE NOT SUBJECT TO REPORTING RULES.</p> <p>INITIAL REPORT: CALLER IS REPORTING THE RELEASE OF UNKNOWN AMOUNTS OF VINYL CHLORIDE, CHLOROFORM, ETHYLENE DICHLORIDE FROM PIPING INSIDE THE CHEMICAL FACILITY. THE RELEASED MATERIAL WENT ONTO THE FACILITY FLOOR AND AN UNKNOWN AMOUNT WENT INTO A STORM DRAIN.</p>	National Response Center via SkyTruth Alerts
3-Oct-23	Westlake	Westlake	LA	vinyl chloride factory	<p>CALLER IS REPORTING THE RELEASE OF UNKNOWN AMOUNTS OF VINYL CHLORIDE, CHLOROFORM, ETHYLENE DICHLORIDE FROM PIPING INSIDE THE CHEMICAL FACILITY. THE RELEASED MATERIAL WENT ONTO THE FACILITY FLOOR AND AN UNKNOWN AMOUNT WENT INTO A STORM DRAIN.</p>	National Response Center via SkyTruth Alerts
29-Sep-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	<p>THE CALLER STATED THAT AN INCINERATOR SHUT DOWN AT A MANUFACTURING FACILITY DUE TO UNKNOWN CAUSES. BECAUSE OF THIS INCIDENT, AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED TO THE ATMOSPHERE.</p>	National Response Center via SkyTruth Alerts
19-Sep-23	Westlake	Westlake	LA	vinyl chloride factory	<p>CALLER REPORTED AN INCINERATOR BYPASS, RESULTING IN A PRESSURE RELIEF VALVE OPENING INTO THE ATMOSPHERIC SCRUBBER. CALLER STATES THAT AN UNKNOWN AMOUNT OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE. CALLER STATES THEY ARE UNSURE IF THE REPORTABLE QUANTITY WAS MET.</p>	National Response Center via SkyTruth Alerts

17-Sep-23	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE (UNKNOWN AMOUNT) RELEASING FROM A PUMP SEAL. THE CAUSE OF THE RELEASE WAS DUE TO SEAL FAILURE. CALLER STATED THE RELEASE IS SECURED AS THEY ARE WORKING TO RESOLVE THE ISSUE.	National Response Center via SkyTruth Alerts
7-Sep-23	Occidental	Deer Park	TX	PVC factory	CALLER STATED 1 POUND OF VINYL CHLORIDE MONOMER RELEASED IN TO THE AIR AT THE FACILITY. THE CAUSE OF RELEASE WAS DUE TO A FAILED SEAL ON A REACTOR. NO INJURIES WERE REPORTED.	National Response Center via SkyTruth Alerts
20-Aug-23	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATES A VENT HEADER DEVELOPED A HOLE WHICH CAUSED VINYL CHLORIDE TO RELEASE INTO THE AIR.	National Response Center via SkyTruth Alerts
19-Aug-23	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE IN THE AMOUNT OF LESS THAN 10 POUNDS STEMMING FROM A PRESSURE RELEASE VALVE DUE TO UNKNOWN CAUSES. THE MATERIALS RELEASED INTO THE ATMOSPHERE AND IS NOW SECURED AT THIS TIME.	National Response Center via SkyTruth Alerts
2-Aug-23	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF HYDROGEN CHLORINE AND VINYL CHLORIDE FROM PIPING INSIDE THE FACILITY. THE RELEASED MATERIALS WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
14-Jul-23	Orbia	Henry	IL	PVC resin factory	CALLER STATES 35 POUNDS OF VINYL CHLORIDE WAS RELEASED INTO THE AIR FROM A REACTOR AT THE INCIDENT LOCATION. THE CAUSE OF THE RELEASE IS UNKNOWN.	National Response Center via SkyTruth Alerts
12-Jul-23	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATES AN UNKNOWN AMOUNT OF ETHYLENE DICHLORIDE (LIQUID ONTO SOIL/GRAVEL), VINYL CHLORIDE (VAPOR INTO AIR), AND CHLOROFORM (VAPOR INTO AIR) WAS RELEASED FROM A TRANSFER PIPELINE. THE PIPELINE HAD A CRACK IN IT CAUSING THE RELEASE.	National Response Center via SkyTruth Alerts
11-Jul-23	Westlake	Westlake	LA	VCM factory	CALLER STATES A TANK FAILURE OCCURRED RESULTING IN A RELEASE OF VINYL CHLORIDE AND HYDROGEN CHLORIDE LIQUID. THE CHEMICALS WENT INTO CONTAINMENT BUT VAPORS INTO AIR.	National Response Center via SkyTruth Alerts

4-Jul-23	Westlake	Westlake	LA	VCM factory	<p>THE CALLER DISCOVERED A LEAK ON A VENT HEADER RELEASING ETHYLENE DICHLORIDE, VINYL CHLORIDE, AND CHLOROFORM.</p> <p>THE CALLER IS REPORTING IN CASE THEY MEET THE REPORTABLE QUANTITY.</p>	National Response Center via SkyTruth Alerts
4-Jul-23	Westlake	Westlake	LA	VCM factory	<p>/// THIS IS A 48 HOUR UPDATE TO ORIGINAL NRC REPORT # 1372122 ///</p> <p>UPDATE AS FOLLOWS: RELEASE WILL BE REPORTED THROUGH LDAR REPORTING PROGRAM.</p> <p>ORIGINAL REPORT: THE CALLER DISCOVERED A LEAK ON A VENT HEADER RELEASING ETHYLENE DICHLORIDE, VINYL CHLORIDE, AND CHLOROFORM.</p> <p>THE CALLER IS REPORTING IN CASE THEY MEET THE REPORTABLE QUANTITY.</p>	National Response Center via SkyTruth Alerts
24-Jun-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	VCM RELEASED FROM THE PVC AREA (700 AREA OF THE UNIT) ON THE EMISSION EQUIPMENT NUMBER PB304C DUE TO A CRACK ON THE INLET LINE.	National Response Center via SkyTruth Alerts
23-Jun-23	Westlake	Geismar	LA	PVC factory	<p>THE CALLER STATED THAT AN INCINERATOR TRIPPED AT A CHEMICAL FACILITY, WHICH CAUSED VINYL CHLORIDE TO RELEASE INTO THE ATMOSPHERE. THE CAUSE OF THE RELEASE IS UNKNOWN TO THE CALLER. THE AMOUNT OF MATERIAL THAT RELEASED IS UNKNOWN TO THE CALLER AND UNDER INVESTIGATION.</p>	National Response Center via SkyTruth Alerts
23-Jun-23	Occidental	La Porte	TX	VCM factory	<p>THE CALLER STATES A DUAL INCINERATOR TRIPPED (SHUTDOWN) CAUSED A VAPOR RELEASE OF 1 POUND VINYL CHLORIDE MONOMER AND 100 POUNDS OF ETHYLENE DICHLORIDE.</p> <p>THESE RELEASE AMOUNTS MEET REPORTABLE QUANTITIES.</p>	National Response Center via SkyTruth Alerts

22-Jun-23	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING THE RELEASE OF VINYL CHLORIDE (UNKNOWN AMOUNT) RELEASING FROM A LOAD HOSE AT A FACILITY. THE CAUSE OF THE RELEASE IS UNKNOWN AS THERE WAS A PIN HOLE LEAK DETECTED IN THE HOSE. NO WATERWAYS IMPACTED. CALLER STATED THE MATERIALS EVAPORATED ONCE EXPOSED TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
22-Jun-23	Westlake	Westlake	LA	VCM factory	///THIS IS AN UPDATE TO INCIDENT REPORT NUMBER 1370931./// THE REPORTING PARTY STATED AN ADDITIONAL MATERIAL WAS RELEASED DUE TO THIS INCIDENT: HYDROCHLORIC ACID PREVIOUS INCIDENT DESCRIPTION: THE CALLER STATED THAT LOCAL WEATHER CONDITIONS KNOCKED OUT POWER TO A CHEMICAL FACILITY, WHICH CAUSED A VALVE IN THE FACILITY TO RELEASE VINYL CHLORIDE. THE MATERIAL RELEASED INTO THE ATMOSPHERE IN UNKNOWN AMOUNTS.	National Response Center via SkyTruth Alerts
5-Jun-23	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	VINYL CHLORIDE, ETHYLENE DICHLORIDE AND HYDROGEN CHLORIDE RELEASED FROM THEIR VCM 1 EMERGENCY VENT STACK DUE TO A LOSS OF POWER TO THE CONTROLS.	National Response Center via SkyTruth Alerts
30-May-23	Occidental	Pedricktown	NJ	PVC factory	CALLER STATES 1 TO 5 POUNDS OF VINYL CHLORIDE WAS RELEASED INTO THE AIR DUE TO AN UNKNOWN REASON. NO OTHER INFORMATION PROVIDED.	National Response Center via SkyTruth Alerts
20-May-23	Occidental	La Porte	TX	VCM factory	CALLER IS REPORTING THE RELEASE OF 1 POUND OF VINYL CHLORIDE RELEASING FROM A 2 INCH PIPE WITHIN A PRODUCTION PROCESS. CALLER STATED THE MATERIALS RELEASED DUE TO CORROSION ON THE PIPE. THE MATERIALS RELEASED ONTO THE CONCRETE. NO WATERWAYS IMPACTED. CALLER STATED THE MATERIALS WILL EVAPORATE AND THE RELEASE IS NOW SECURED.	National Response Center via SkyTruth Alerts
17-May-23	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED DUE TO A COMPRESSOR TRIP FAILURE THERE WAS A RELEASE OF VINYL CHLORIDE TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
16-Apr-23	Westlake	Westlake	LA	VCM factory	CALLER IS REPORTING A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL PLANT DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts

13-Apr-23	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING THEY HAD A DETECTION OF VINYL CHLORIDE IN THEIR REACTOR BUILDING DUE TO A RELEASE OF VINYL CHLORIDE INTO THE AIR. CALLER STATES THIS MAY EXCEED THE REPORTABLE QUANTITY AMOUNT OF ONE POUND BUT THIS IS STILL UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
13-Apr-23	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATES AN UNKNOWN AMOUNT OF VINYL CHLORIDE IS BEING RELEASED INTO THE ATMOSPHERE FROM AN EXHAUST STACK. AIR MONITORING IS UNDERWAY. CURRENTLY MONITORING TRENCHES IN THE AREA. THEY HAVE ALSO DOUBLE BLOCKED ALL VENT FEEDS TO THE INCINERATOR. THE CAUSE OF THE RELEASE IS UNKNOWN. THE INITIAL HIGH ALARM READING WAS 290 PPM.	National Response Center via SkyTruth Alerts
12-Apr-23	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED AN INCINERATOR IS OUT OF SERVICE AND THE B INCINERATOR IS IN SERVICE. BUT THEY RECEIVED AN ALARM ON A DISCHARGE STACK THAT COULD POTENTIALLY MEAN A RELEASE HAPPENED..	National Response Center via SkyTruth Alerts
10-Apr-23	Occidental	East Palestine	OH	waste disposal truck	Truck carrying contaminated soil from the East Palestine disaster rolls over and releases "an unknown amount of vinyl chloride and butyl acrylate from storage totes... The released materials went onto the soil and asphalt." (news reports and National Response Center)	National Response Center via SkyTruth Alerts
5-Apr-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER STATED THAT THERE WAS A GASKET FAILURE ON A LATEX GASKET LINE AT A CHEMICAL MANUFACTURING FACILITY. THE CAUSE OF THE EQUIPMENT FAILURE IS UNKNOWN AND UNDER INVESTIGATION. BECAUSE OF THIS INCIDENT AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED INTO THE ATMOSPHERE	National Response Center via SkyTruth Alerts
1-Apr-23	Orbia	Henry	IL	PVC resin factory	THE CALLER STATES A VENT VALVE WAS OPENED ON THE VINYL CHLORIDE (BLOW DOWN) TANK. THE CALLER BELIEVES THEY EXCEEDED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts

29-Mar-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	UPDATE: THERE WAS NOT A REPORTABLE QUANTITY (RQ) FOR HYDROCHLORIC ACID BUT THERE WAS AN EXCEEDANCE OF VINYL CHLORIDE. ORIGINAL REPORT: CALLER IS REPORTING THERE WAS A VALVE LEAK AT THEIR FACILITY WHICH CAUSED A RELEASE OF HYDROCHLORIC ACID INTO THE AIR. THE CAUSE OF THE RELEASE IS UNKNOWN. LIMITED INFORMATION WAS PROVIDED AT THIS TIME.	National Response Center via SkyTruth Alerts
19-Mar-23	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	THE CALLER STATED THAT THERE WAS A FURNACE FIRE AT A CHEMICAL FACILITY, WHICH RELEASED UNKNOWN AMOUNTS OF VINYL CHLORIDE, AND ETHYLENE DICHLORIDE. THE CAUSE OF THE FIRE WAS ATTRIBUTED TO A POSSIBLE TUBE FAILURE. THE MATERIAL RELEASED INTO THE ATMOSPHERE AS A RESULT.	National Response Center via SkyTruth Alerts
12-Mar-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF APPROXIMATELY 250 POUNDS OF VINYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM THE REACTOR SYSTEM, DUE TO MECHANICAL ISSUES.	National Response Center via SkyTruth Alerts
9-Mar-23	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING AN INCIDENT THAT OCCURRED ON 08-MAR-2023 AT 2010 HOURS AND WAS DISCOVERED ON 09-MAR-2023 AT 1630 HOURS. CALLER STATED THERE WAS A BY-PASS PROCESS VENT TO THE AIR AT THE CHEMICAL FACILITY DUE TO A PROCESS UPSET. THIS RESULTED IN A RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
8-Mar-23	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATES AN UNKNOWN AMOUNT VINYL CHLORIDE (VCM) WAS RELEASED FROM A TEMPERATURE ELEMENT. THE TEMPERATURE ELEMENT FAILED CAUSING THE RELEASE.	National Response Center via SkyTruth Alerts
4-Mar-23	Berkshire Hathaway	Louisville	KY	CPVC factory	THE CALLER STATES VINYL CHLORIDE RELEASED WHEN AN AGITATOR VALVE BROKE. THE INCIDENT RESULTED IN A FIRE. BUILDING 121 OF THE FACILITY WAS EVACUATED (UNKNOWN NUMBER OF CITIZENS.)	National Response Center via SkyTruth Alerts

4-Mar-23	Westlake	Geismar	LA	PVC factory	<p>\\ DUE TO NETWORK PROBLEMS OUTSIDE OF NRC CONTROL, NRC SYSTEMS WERE DOWN WHEN THIS INCIDENT WAS REPORTED. THE INCIDENT WAS REPORTED ON 04MAR2023 AT 0843 EST \\</p> <p>CALLER STATES AN UNKNOWN AMOUNT OF ETHYLENE DICHLORIDE, HYDROCHLORIC ACID, AND VINYL CHLORIDE WAS RELEASED FROM A VENT ON THE INCINERATOR. A POWER OUTAGE CAUSED THE INCINERATOR TO SHUT OFF AND VENT THE MATERIALS.</p>	National Response Center via SkyTruth Alerts
3-Mar-23	Westlake	Westlake	LA	VCM factory	<p>** DUE TO NETWORK PROBLEMS OUTSIDE OF NRC CONTROL, NRC SYSTEMS WERE DOWN WHEN THIS INCIDENT WAS REPORTED. THE INCIDENT WAS REPORTED ON 04MAR2023 AT 08:50 ET. **</p> <p>CALLER STATES AN UNKNOWN AMOUNT OF VINYL CHLORIDE WAS RELEASED TO THE ATMOSPHERE. RELEASE WAS FROM A SAFETY RELIEF VALVE ON A TANK AT THE TANK FARM.</p>	National Response Center via SkyTruth Alerts
25-Feb-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT DUE TO A SUMP PUMP FAILURE OR FLANGE MALFUNCTION AN UNKNOWN QUALITY OF VINYL CHLORIDE WAS RELEASED INTO A CONTAINMENT AREA.	National Response Center via SkyTruth Alerts
10-Feb-23	Berkshire Hathaway	Louisville	KY	CPVC factory	VINYL CHLORIDE AND ETHYL ACRYLATE RELEASED FROM A FLANGE ON A SMALL FEED LINE INSIDE THE FACILITY DUE TO START UP ACTIVITIES AFTER MAINTENANCE.	National Response Center via SkyTruth Alerts
10-Feb-23	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE DUE TO VINYL CHLORIDE LADEN WATER AT A CHEMICAL PLANT THAT LEAKED FROM A STORAGE TANK. CALLER STATED THE SPILL WENT TO CONTAINMENT AND THERE IS NO OFFSITE IMPACT. CALLER STATED THE SPILL IS STILL GOING INTO CONTAINMENT.	National Response Center via SkyTruth Alerts
5-Feb-23	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A PSV RELIEF FROM ONE OF THEIR REACTORS THAT CAUSED A RELEASE OF MATERIALS TO THE FLARE. THE RELEASE IS SECURED AND THERE ARE NO OFF SITE IMPACTS.	National Response Center via SkyTruth Alerts

A train carrying vinyl chloride, polyvinyl chloride, butyl acetate and benzene residues derailed causing a massive fire and fears of “catastrophic failure” of at least one of the containers, which would release toxic compounds and shrapnel into the area. Five of the 20 cars that derailed carried vinyl chloride, a carcinogenic compound used to make PVC plastic. Three of those vinyl chloride tank cars belong to Occidental Petroleum’s Oxy Vinyls subsidiary; the other two were leased. In addition, there were 4 cars carrying PVC resin, including three produced by Shintech, a subsidiary of Shin-Etsu of Japan. After three days officials conducted a “controlled release” of the chemicals in train cars to mitigate the danger of an uncontrolled explosion. A cloud of toxic pollution lingered for hours over a wide region in stagnant air. Officials ordered a mandatory evacuation of residents in a one-mile radius of the facility, which lasted five days. Local schools were closed for a week. Tens of thousands of animals were reportedly killed from the pollution. It was the fourth serious incident in the U.S. involving Occidental’s vinyl chloride since January 2022.

3-Feb-23	Occidental	East Palestine	OH	Vinyl chloride tank car		
2-Feb-23	Westlake	Westlake	LA	VCM factory	CALLER IS REPORTING AN OPERATIONAL UPSET WHICH RELEASED VINYL CHLORIDE MIXED WITH HYDROCHLORIC ACID INTO A SCRUBBER. CALLER STATED THEY BELIEVE THE RELEASE WAS DUE TO A DROP IN AIR PRESSURE FROM AN AIR COMPRESSOR. THE RELEASE WAS SECURED AT 3:07 PM.	National Response Center via SkyTruth Alerts
1-Feb-23	Westlake	Westlake	LA	VCM factory	CALLER IS REPORTING THE RELEASE OF VINYL CHLORIDE FROM A TRANSFER HEADER. THE CAUSE OF THE RELEASE IS POSSIBLY BEING ATTRIBUTED TO CORROSION. THE RELEASE WAS SECURED AT 1:05 PM.	National Response Center via SkyTruth Alerts
1-Feb-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED A VENT VALVE WAS DISCOVERED OPEN ON A VESSEL THAT WAS BEING PUT IN SERVICE AT THE CHEMICAL COMPLEX. THIS RESULTED IN A RELEASE OF VCM (VINYL CHLORIDE MONOMER) TO THE AIR.	National Response Center via SkyTruth Alerts

24-Jan-23	Westlake	Westlake	LA	VCM factory	THE CALLER STATES A PRESSURE RELEASE DEVICE OPENED DUE TO SYSTEM UPSET. THIS EVENT CAUSED A RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, CHLOROFORM, AND CARBON TETRACHLORIDE. THE EVENT BEGAN AT 0704 HOURS.	National Response Center via SkyTruth Alerts
16-Jan-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	VINYL CHLORIDE RELEASED FROM AN EARLY RELEASE PIPING DUE TO A HOLE IN THE PIPING. CALLER WAS NOTIFIED AT 1600.	National Response Center via SkyTruth Alerts
4-Jan-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THE PACKING ON THE VALVE AT THE FACILITY LEAKED CAUSING AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO RELEASE INTO THE AIR. THE CAUSE OF RELEASE WAS DUE TO AN EQUIPMENT FAILURE. NO INJURIES WERE REPORTED.	National Response Center via SkyTruth Alerts
3-Jan-23	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THERE WAS A SMALL LEAK OF VCM (VINYL CHLORIDE MONOMER) TO THE AIR.	National Response Center via SkyTruth Alerts
23-Dec-22	Westlake	Calvert City	KY	VCM/PVC factory	CALLER STATED THEY HAD AN AIR RELEASE FROM THEIR HIGH POINT VENT, DUE TO UNKNOWN CAUSES. THE MATERIALS RELEASED TO THE AIR WERE VINYL CHLORIDE AND ETHYLENE DICHLORIDE.	National Response Center via SkyTruth Alerts
12/12/22	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A LEAK ON A PSV, CAUSING VINYL CHLORIDE TO RELEASE INTO THE ATMOSPHERE. CALLER STATED THE RELEASE IS ISOLATED BUT THE AMOUNT RELEASED IS UNKNOWN.	National Response Center via SkyTruth Alerts
10-Dec-22	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THERE WAS A MISALIGNMENT ON A TRANSFER HEADER WHICH CAUSED A RELEASE OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
8-Dec-22	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED A NIPPLE BROKE AT THE BOTTOM OF THE REACTOR, CAUSING THE RELEASE OF PVC (POLYVINYL CHLORIDE), AMOUNT UNKNOWN, NO WATER IMPACT. THE RELEASE IS CONTINUING AT THE MOMENT.	National Response Center via SkyTruth Alerts

4-Dec-22	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING THEY HAD A LINE AT THEIR FACILITY THAT HAD CORROSION AND DEVELOPED A LEAK. THIS CAUSED A RELEASE OF WATER, ETHYL DICHLORIDE AND VINYL CHLORIDE MONOMER ONTO THE GROUND.	National Response Center via SkyTruth Alerts
26-Nov-22	Westlake	Calvert City	KY	VCM/PVC factory	THE CALLER STATED THAT A CHEMICAL FACILITY HAD A POWER OUTAGE DUE TO UNKNOWN CAUSES, WHICH HAS CAUSED A RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE TO RELEASE INTO THE ATMOSPHERE. THE AMOUNT OF MATERIAL THAT HAS RELEASED IS CURRENTLY UNKNOWN TO THE CALLER.	National Response Center via SkyTruth Alerts
21-Nov-22	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER STATED THAT THEY DISCOVERED A RELEASE OF ETHYLENE DICHLORIDE, CARBON TETRACHLORIDE, CHLOROFORM, AND VINYL CHLORIDE INTO THE ATMOSPHERE. THE CAUSE OF THE RELEASE WAS ATTRIBUTED TO A PIPE LEAK AT THE FACILITY. THE AMOUNTS OF MATERIALS THAT RELEASED DURING THIS INCIDENT ARE CURRENTLY UNKNOWN.	National Response Center via SkyTruth Alerts
18-Nov-22	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT AN UNKNOWN AMOUNT OF VINYL CHLORIDE IS BEING RELEASED INTO THE AIR. THE CAUSE OF THE RELEASE IS UNKNOWN AND THE EMERGENCY RESPONSE TEAM IS TRYING TO STOP THE LEAK AT THIS TIME.	National Response Center via SkyTruth Alerts
14-Nov-22	Formosa	Baton Rouge	LA	VCM/PVC factory	VINYL CHLORIDE RELEASED FROM AN INCINERATOR DUE TO AN UNKNOWN CAUSE AT THIS TIME. CALLER STATES THE TOTAL AMOUNT RELEASED IS UNKNOWN BUT THEY SUSPECT IT HAS REACHED ABOVE THE REPORTABLE QUANTITY (RQ).	National Response Center via SkyTruth Alerts
12-Nov-22	Westlake	Calvert City	KY	VCM/PVC factory	VINYL CHLORIDE AND ETHYLENE DICHLORIDE RELEASED FROM A FLARE STACK DUE TO A PLANT SHUTDOWN.	National Response Center via SkyTruth Alerts
11-Nov-22	Occidental Petroleum	La Porte	TX	vinyl chloride factory	ETHYLENE DICHLORIDE, VINYL CHLORIDE MONOMER AND HYDROGEN CHLORIDE RELEASED FROM A FURNACE DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts

9-Nov-22	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	THE CALLER IS REPORTING AN AIR RELEASE FROM A FURNACE THAT CONTAINED MULTIPLE MATERIALS, WITH VINYL CHLORIDE AND ETHYLENE DICHLORIDE REACHING A REPORTABLE QUANTITY. THE CAUSE OF THE INCIDENT WAS DUE TO SCAFFOLDING HITTING THE FLOW TRANSMITTER TUBING AND DISLODGING IT. THE CALLER STATES THAT THERE IS MONITORING OCCURRING AT THE FACILITY AND THE CLEAN UP IS COMPLETE AT THIS TIME.	National Response Center via SkyTruth Alerts
8-Nov-22	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTED THE POTENTIAL RELEASE OF VINYL CHLORIDE AND EDC12 (ETHYLENE DICHLORIDE). THESE MATERIALS CAN POSSIBLY RELEASE FROM A HIGH POINT VENT. THE CAUSE OF THE POTENTIAL RELEASE IS CURRENTLY UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
4-Nov-22	Westlake	Geismar	LA	PVC factory	THE CALLER STATED THAT A CHEMICAL MANUFACTURING FACILITY HAD A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE. ALTHOUGH THE AMOUNT OF MATERIAL THAT RELEASED IS UNKNOWN THE CALLER SUSPECTS OVER (1) POUND OF THE MATERIAL MAY HAVE RELEASED. THE CAUSE OF THE RELEASE WAS ATTRIBUTED TO A TUBING LEAK. THE CALLER STATED THAT (2) EMPLOYEE ON SITE WERE TREATED ONSITE FOR INHALATION.	National Response Center via SkyTruth Alerts
4-Nov-22	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED 1 POUND OF VINYL CHLORIDE RELEASED FROM THE A-TECH TANK INTO THE AIR AT THE FACILITY, DUE TO A PIN HOLE LEAK IN A VAPOR LINE	National Response Center via SkyTruth Alerts
29-Oct-22	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED A PACKING ON A RELIEF VALVE STARTED LEAKING ON MC 204 AT THE PROCESSING CHEMICAL PLANT. THIS RESULTED IN A RELEASE OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
26-Oct-22	Not reported	New Orleans	LA	Vinyl chloride tank car	CALLER IS REPORTING A WHITE SUBSTANCE LEAKING FROM THE BOTTOM OF A TRAIN THAT IS STOPPED ON THE RAILROAD TRACKS AT THE LOCATION PROVIDED. CALLER STATED 'PVC - CONTAINS VINYL CHLORIDE' IS WRITTEN ON THE SIDE OF THE CAR.	National Response Center via SkyTruth Alerts
22-Oct-22	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VYNL CHLORIDE FROM THE INCINERATOR AT THE FACILITY.	National Response Center via SkyTruth Alerts

20-Oct-22	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER DISCOVERED A PINHOLE IN A VALVE WHICH RELEASED VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
17-Oct-22	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER IS REPORTING THERE IS A RELEASE OF VINYL CHLORIDE INTO THE AIR FROM A FACILITY. THE CAUSE OF THE RELEASE IS UNKNOWN AND EVERYTHING IS UNDER INVESTIGATION CURRENTLY WITH VERY LITTLE INFORMATION TO REPORT AT THIS TIME. THE AMOUNT RELEASED IS CURRENTLY UNKNOWN BUT WILL LIKELY BE MORE THAN 1 POUND.	National Response Center via SkyTruth Alerts
11-Oct-22	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THE VENTING OF VINYL CHLORIDE MONOMER THROUGH A VENT STACK AT THE INCIDENT LOCATION, DUE TO OPERATOR ERROR. THE RELEASE WAS DISCOVERED TODAY AT 1300.	National Response Center via SkyTruth Alerts
30-Sep-22	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER STATED OPERATOR NOTICED DISCOLORATION ON INSTALLATION PIPING ON THE VCM 3 UNIT. MAINTENANCE WAS CALLED AND PULLED THE INSULATION OFF AND FOUND A HOLE IN THE PIPING. THERE WAS A RELEASE VINYL CHLORIDE, ETHYLENE DICHLORIDE AND HYDROCHLORIC ACID INTO CONTAINMENT.	National Response Center via SkyTruth Alerts
22-Sep-22	Westlake	Westlake	LA	vinyl chloride factory	VINYL CHLORIDE, ETHYL CHLORIDE, HYDROGEN CHLORIDE AND DICHLOROETHANE RELEASED FROM AN EMERGENCY VENT STACK ON THE HCL COLUMN DUE TO A TEMPORARY POWER FAILURE.	National Response Center via SkyTruth Alerts
20-Sep-22	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER STATES ETHYLENE DICHLORIDE AND VINYL CHLORIDE WAS RELEASED INTO THE ATMOSPHERE AT THE INCIDENT LOCATION. THE RELEASE WAS FROM A CHEMICAL PRODUCTION UNIT VCM2 DUE TO A WASTE GAS CONTROL DEVICE THAT WENT DOWN.	National Response Center via SkyTruth Alerts

19-Sep-22	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTS THAT DURING MAINTENANCE ON A FACILITY FURNACE, A FLANGE BROKE, RESULTING IN THE RELEASE OF UNKNOWN AMOUNTS OF LIQUID VINYL CHLORIDE AND DICHLOROETHANE ONTO A CONCRETE CONTAINMENT PAD. THERE WAS NO WATERWAY OR DRAIN IMPACT REPORTED. ABOUT 1 GALLON OF THESE MATERIALS ESCAPED CONTAINMENT AND IMPACTED THE SURROUNDING GRAVEL.	National Response Center via SkyTruth Alerts
8-Sep-22	Orbia	Henry	IL	PVC resin factory	CALLER STATES 10 POUNDS OF VINYL CHLORIDE WAS RELEASED INTO THE ATMOSPHERE. RELEASE WAS FROM A REACTOR DUE TO AN AGITATOR SEAL FAILURE.	National Response Center via SkyTruth Alerts
7-Sep-22	Westlake	Plaquemine	LA	Vinyl chloride tank car	CALLER REPORTED THE VAPOR RELEASE OF ABOUT A POUND OF VINYL CHLORIDE FROM TANKER RAIL CAR DUE TO GASKET FAILURE, INSIDE A CHEMICAL FACILITY RAIL AREA IN THE ADDRESS LOCATION PROVIDED. THE RELEASE IMPACTED THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
2-Sep-22	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THEY DISCOVERED A DRIP ON A FLANGE CONNECTOR, THE MATERIAL RELEASED WAS VINYL CHLORIDE ONTO THE GROUND.	National Response Center via SkyTruth Alerts
11-Aug-22	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED DUE TO HIGH PRESSURE ON A VINYL SPHERE THERE WAS A RELEASE OF VINYL CHLORIDE TO THE AIR AT THE CHEMICAL MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
3-Aug-22	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE. THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
1-Aug-22	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE, CHLOROFORM, ETHYLENE DICHLORIDE FROM A PIECE OF EQUIPMENT AT THE FACILITY. THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts

26-Jul-22	Occidental	Deer Park	TX	VCM factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND CHLOROFORM MIX INTO THE ATMOSPHERE FROM THE INCINERATOR. THE CAUSE OF THE INCIDENT WAS FROM DUEL INCINERATOR SHUT DOWN. THE CALLER STATED THE TEMPERATURE INDICATOR SHUT DOWN, WHICH CAUSED THE SYSTEM TO SHUT DOWN AND SEND THE MATERIAL TO THE EMERGENCY VENT SCRUBBER AND THEN INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
18-Jul-22	Occidental	Deer Park	TX	PVC factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE FROM A HALF INCH THREADED CONNECTION ON THE FACILITIES SYSTEM. THE CAUSE OF THE RELEASE IS CURRENTLY UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
7-Jul-22	Orbia	Henry	IL	PVC resin factory	CALLER IS REPORTING A RELEASE APPROXIMATELY 5.5 POUNDS OF VINYL CHLORIDE. THE CAUSE OF THE RELEASE IS UNKNOWN BUT WAS AT A VALVE OF A VAPORIZER AT THE TANK FARM. THE RELEASE HAS BEEN SECURED, VALVE HAS BEEN REPAIRED.	National Response Center via SkyTruth Alerts
26-Jun-22	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A PRESSURE RELIEF VALVE RELEASE MATERIALS TO THE ATMOSPHERE DUE TO UNKNOWN REASONS.	National Response Center via SkyTruth Alerts
23-Jun-22	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THAT DUE TO A LOSS OF POWER IN THEIR OPERATING UNIT THIS CAUSED THE BACK UP POWER TO ENGAGE. THE BACK UP SYSTEMS DID NOT PROPERLY FUNCTION AND THIS CAUSED A RELEASE OF VINYL CHLORIDE, HYDROCHLORIC ACID AND DICHLOROETHANE INTO THE AIR OUT OF A FLARE STACK.	National Response Center via SkyTruth Alerts

21-Jun-22	Occidental Petroleum	La Porte	TX	vinyl chloride factory	<p>UPDATE: CALLER IS REPORTING THAT INITIAL RELEASE HAS BEEN SECURED. DUE TO FIREFIGHTER WATER THERE WAS A RUN OFF OF ETHYLENE DICHLORIDE TO THE STORM WATER OUTFALL, THEN TO PHILLIP'S DITCH AT 04:30HRS. ADDITIONAL REMEDIAL ACTIONS WERE TAKEN, CREW DAMMED THE OUTFALL TO STOP THE FLOW TO DITCH. TEXAS COMMISSION OF ENVIRONMENTAL QUALITY NOTIFIED (2022-1934-0720).</p> <p>ORIGINAL REPORT: THE CALLER STATES AN ETHYLENE-DICHLORIDE PUMP CAUGHT FIRE CAUSING A RELEASE OF ETHYLENE DICHLORIDE, VINYL CHLORIDE, AND HYDROGEN CHLORIDE. THE CAUSE IS UNKNOWN AT THIS TIME.</p>	National Response Center via SkyTruth Alerts
16-Jun-22	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THEY DISCOVERED A PIN HOLE LEAK IN THE REFLUX LINE CAUSING A RELEASE OF VINYL CHLORIDE AND HYDROCHLORIC GAS INTO THE AIR. THE CAUSE OF THE PIN HOLE IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
16-Jun-22	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THEY HAD A RELEASE OF VINYL CHLORIDE FROM A CORRODED PSV NOZZLE INTO THE AIR. CALLER STATES THE AMOUNT RELEASED IS UNKNOWN BUT WILL LIKELY EXCEED THE REPORTABLE QUANTITY AMOUNT OF ONE POUND.	National Response Center via SkyTruth Alerts
8-Jun-22	Westlake	Geismar	LA	PVC factory	CALLER REPORTED A VAPOR GAS RELEASE OF UNKNOWN QUANTITY OF VINYL CHLORIDE AND HYDROCHLORIC ACID TO THE ATMOSPHERE FROM A CHEMICAL PLANT DUE TO UNKNOWN CAUSES. THE CAUSE OF THE RELEASES WILL BE INVESTIGATED AFTER THE PLANT SHUT DOWN.	National Response Center via SkyTruth Alerts
8-Jun-22	Westlake	Plaquemine	LA	PVC resin factory	VINYL CHLORIDE RELEASED FROM A PRESSURE SAFETY VALVE ATTACHED TO A VINYL CHLORIDE UNIT DUE TO A HIGH PRESSURE ON THE VESSEL.	National Response Center via SkyTruth Alerts
7-Jun-22	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE FROM A COOLING TOWER AT THE FACILITY. THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts

6-Jun-22	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE FROM A PIECE OF EQUIPMENT INSIDE THE CHEMICAL FACILITY. THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE AND THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
1-Jun-22	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER STATED THAT A VENT VALVE AT A CHEMICAL FACILITY RELEASED HYDROCHLORIC ACID, VINYL CHLORIDE , AND DICHLOROETHANE INTO THE ATMOSPHERE. THE AMOUNT OF MATERIAL THAT RELEASED IS CURRENTLY UNKNOWN AT THIS TIME. THE CAUSE OF THE RELEASE WAS ATTRIBUTED TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
25-May-22	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THAT THE PILOT VALVE FROM THE QUENCH COLUMN FAILED, RELEASING VINYL CHLORIDE AND ETHYLENE DICHLORIDE INTO THE VENT HEADER WHICH LEADS TO THE SCRUBBER, AND THEN TO THE STACK. THIS INCIDENT OCCURRED AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
23-May-22	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED A LEAK WAS DISCOVERED ON A COLUMN INSIDE THEIR FACILITY. THEY BELIEVE THIS EMISSION WILL EXCEED THE REPORTABLE QUANTITY. THERE WERE NO EVACUATIONS OR EMERGENCY RESPONSE NEEDED.	National Response Center via SkyTruth Alerts
19-May-22	Occidental	Deer Park	TX	PVC factory	CALLER STATES 1 POUND OF VINYL CHLORIDE MONOMERS WAS RELEASED INSIDE THE FACILITY. THE RELEASE WAS FROM A COMPRESSOR DUE TO AN OVERPRESSURE SITUATION.	National Response Center via SkyTruth Alerts

16-May-22	Orbia	Henry	IL	PVC resin factory	AMOUNT OF VINYL CHLORIDE IS GOING FROM UNKNOWN TO 70 POUNDS. THE INCIDENT CAUSE IS BEING CHANGED FROM EQUIPMENT FAILURE TO OTHER. THE CAUSE WAS DUE TO A RACCOON THAT CHEWED THROUGH A SERVICE LINE THAT TRIPPED A BREAKER AT THE LOCAL SUB STATION AND CUT POWER TO THE FACILITY. THIS CAUSED A PRESSURE BUILD UP IN THE SYSTEM THAT RESULTED IN A SAFETY RELIEF DEVICE OPENING. INITIAL REPORT: CALLER STATED DUE TO A RUPTURED DISC ON A RELIEF VALVE VENT TANK AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
16-May-22	Orbia	Henry	IL	PVC resin factory	CALLER STATED DUE TO A RUPTURED DISC ON A RELIEF VALVE VENT TANK AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
29-Apr-22	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED THE RELEASE OF ABOUT 10 POUNDS OF VINYL CHLORIDE TO THE ATMOSPHERE. THE RELEASE WAS CAUSED BY AN INCINERATOR UNIT SHUT DOWN, THAT RESULTED IN A POWER FLUCTUATION. THE INCIDENT IS UNDER INVESTIGATION TO DETERMINE THE INTERRUPTION AND RESTORE THE UNIT.	National Response Center via SkyTruth Alerts
26-Apr-22	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE AIR FROM A PIPE. THE RELEASE HAS A POTENTIAL TO REACH THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
9-Apr-22	Westlake	Westlake	LA	vinyl chloride factory	ETHYLENE DICHLORIDE AND VINYL CHLORIDE RELEASED FROM A VENT PIPE DUE TO CORROSION.	National Response Center via SkyTruth Alerts
25-Mar-22	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED THE RELEASE OF AN UNKNOWN QUANTITY OF VINYL CHLORIDE TO THE ATMOSPHERE DUE TO A GASKET FAILURE OF THE MANUFACTURING EQUIPMENT WITH NUMBER VF752B. THE RELEASE WAS SECURED AND THE VOLUME OF RELEASE BEING CALCULATED.	National Response Center via SkyTruth Alerts
19-Mar-22	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A RAIL CAR LOADING HOSE HAD A SMALL PIN HOLE LEAK THAT RESULTED IN A RELEASE OF MATERIALS TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
18-Mar-22	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A LEAK OF MATERIALS FROM A DRAIN LINE ON A CONDENSER DUE TO CORROSION.	National Response Center via SkyTruth Alerts

17-Mar-22	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER STATED DUE TO A PUMP SEAL FAILURE ON A PIECE OF EQUIPMENT AT THE FACILITY, THERE WAS A RELEASE OF 5 POUNDS OF VINYL CHLORIDE TO THE ATMOSPHERE. CALLER STATED FOUR EMPLOYEES WERE EXPOSED TO THE RELEASE.	National Response Center via SkyTruth Alerts
16-Mar-22	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE FROM PIPING INSIDE THE FACILITY. THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
12-Mar-22	Westlake	Plaquemine	LA	PVC resin factory	VINYL CHLORIDE RELEASED FROM A PVC UNIT DUE TO A LOSS OF STEAM INJECTION OF THE TRAIN 5 STRIPPER. TIME OF DISCOVERY WAS 1600.	National Response Center via SkyTruth Alerts
1-Mar-22	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	"In March 2022, a 39 minute release of 44.955 pounds of regulated chemicals occurred (5.8 pounds of hydrogen chloride (anhydrous) and 39.155 pounds of vinyl chloride) which resulted in three employee injuries." (RMP)	RMP
24-Feb-22	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER REPORTED THAT WHILE THE FACILITY PROCESS UNIT NO. 1 WAS BEING PREPARED FOR PLANNED MAINTENANCE, THERE WAS A SUDDEN POWER OUTAGE, CAUSING THE LOSS GAS THERMAL OXIDIZERS. THIS RESULTED TO ALLOW THE RELEASE OF 261 POUNDS OF ETHYLENE DICHLORIDE; AND 1.2 POUNDS OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
22-Feb-22	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THEY HAD A GAUGE THAT FAILED AT THEIR FACILITY AND CAUSED A RELEASE OF VINYL CHLORIDE INTO THE AIR. THE CAUSE OF THE RELEASE IS UNKNOWN AND UNDER INVESTIGATION. CALLER STATES THIS MAY EXCEED THE REPORTABLE QUANTITY AMOUNT.	National Response Center via SkyTruth Alerts

17-Feb-22	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTED A POTENTIAL RELEASE OF ETHYLENE DICHLORIDE AND VINYL CHLORIDE, DUE LOSS OF INSTRUMENT AIR FOR THE FACILITY. THE INCIDENT IS UNDER INVESTIGATION, AND THE CAUSE FOR THE LOSS OF THE SYSTEM THAT HANDLING INSTRUMENT AIR FOR THE FACILITY IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
12-Feb-22	Occidental	Pasadena	TX	PVC factory	THE CALLER STATES A PINHOLE LEAK IN A WEIGH TANK, CAUSED A RELEASE OF 1 POUND OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
1-Feb-22	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE FROM A HEAT EXCHANGER INTO THE AIR DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
26-Jan-22	Westlake	Aberdeen	MS	PVC resin factory	CALLER REPORTED A CONDENSER RELIEF DEVICE LIFTED AND RESULTED IN A RELEASE OF MATERIALS. AFTER ON SITE MONITORING IT WAS DISCOVERED THERE WAS NO ON OR OFF SITE IMPACT DUE TO THE RELEASE.	National Response Center via SkyTruth Alerts
25-Jan-22	Westlake	Westlake	LA	VCM and PVC factory	Six employees experienced minor injuries when an empty ethylene dichloride tank exploded and released a “mushroom cloud” of smoke into neighboring areas. A shelter in place for residents and local schools was issued. The cause of the incident is under investigation. Westlake uses ethylene dichloride in the manufacturing of vinyl chloride.	Material Research L3C StoryMap
12-Jan-22	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTS THAT A LEAK IN A 2 INCH PROCESS PIPE RESULTED IN THE RELEASE OF 1 POUND OF VINYL CHLORIDE TO THE ATMOSPHERE. CALLER REPORTS THE RELEASE WAS SECURED BY ISOLATING THE PIPE. CALLER STATES THE PIPE WILL BE DECOMMISSIONED.	National Response Center via SkyTruth Alerts
6-Jan-22	Occidental	Pasadena	TX	PVC factory	CALLER STATES 1 POUND OF VINYL CHLORIDE WAS RELEASED INSIDE THE FACILITY. THE RELEASE WAS FROM A PINHOLE LEAK IN THE INLET PIPING TO THE GAS HOLDER.	National Response Center via SkyTruth Alerts
28-Dec-21	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTED THAT THERE WAS A RELEASE OF AN UNKNOWN QUANTITY OF VINYL CHLORIDE TO THE ATMOSPHERE INSIDE ONE OF THE BUILDINGS IN THE FACILITY. THIS WAS DUE TO AN ACCIDENTAL OPENING OF A QUALITY CONTROL SAMPLE LINE VALVE. ALL PERSONNEL INSIDE THE BUILDING WERE EVACUATED.	National Response Center via SkyTruth Alerts

27-Dec-21	Orbia	Henry	IL	PVC resin factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE AIR FROM A REACTOR DURING A TRANSFER. THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
14-Dec-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATES A LEAK DEVELOPED ON A VINYL FURNACE WITHIN AN OPERATING UNIT, RESULTING IN THE RELEASE OF UNKNOWN AMOUNTS OF VINYL CHLORIDE, HYDROCHLORIC ACID, AND DICHLOROETHANE INTO THE INTERNAL FACILITY AIR. NO IMPACT TO WATER IS REPORTED. CALLER REPORTS THAT THE RELEASE IS NOT SECURE AT THIS TIME, AND THE FACILITY IS SHELTERING IN PLACE. THE FACILITY IS CURRENTLY SHUTTING DOWN THE UNIT TO SECURE IT AND PERFORMING ON-SITE MONITORING. A CHEMICAL MANUFACTURING FACILITY NEXT DOOR IS ALSO SHELTERING IN PLACE AS A RESULT OF THE RELEASE.	RMP
13-Dec-21	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED DUE TO UNKNOWN CAUSES A SILCO OVERFLOWED AND THIS RESULTED IN A SPILL TO THE GROUND (CONCRETE SURFACE) AT THE CHEMICAL PLANT.	National Response Center via SkyTruth Alerts
30-Nov-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A MATERIAL TRANSFER HEADER HAD ITS SAFETY VALVE LIFT AND CAUSE A RELEASE OF MATERIALS TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
25-Nov-21	Westlake	Calvert City	KY	VCM/PVC factory	UPDATE: CALLER WANTED TO ADD A RELEASE OF AN UNKNOWN AMOUNT OF 1,1,2TRICHLOROETHANE TO THE MATERIALS RELEASED. ORIGINAL DESCRIPTION: THE CALLER STATED THAT A CHEMICAL FACILITY RELEASED VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND HYDROGEN CHLORIDE. THE AMOUNT OF MATERIAL THAT RELEASED IS CURRENTLY UNKNOWN AT THIS TIME. THE MATERIAL RELEASED INTO THE ATMOSPHERE. THE CAUSE OF THE RELEASE IS CURRENTLY UNKNOWN.	National Response Center via SkyTruth Alerts
19-Nov-21	Orbia	Henry	IL	PVC resin factory	THE CALLER STATED THAT A CHEMICAL FACILITY HAD A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. THE CAUSE OF THE RELEASE WAS ATTRIBUTED TO A FAILED GASKET AT THE FACILITY. THE AMOUNT OF MATERIAL THAT RELEASED IS UNKNOWN, HOWEVER THE CALLER SUSPECTS 6 POUNDS MAY HAVE RELEASED.	National Response Center via SkyTruth Alerts

18-Nov-21	Occidental	Deer Park	TX	VCM factory	THE CALLER STATED THAT CHEMICAL FACILITY HAD A PROCESS UPSET, WHICH RELEASED VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND CHLOROFORM. THE AMOUNT OF MATERIAL THAT RELEASED IS CURRENTLY UNKNOWN AT THIS TIME. THE MATERIAL RELEASED INTO THE ATMOSPHERE AS A RESULT OF THIS INCIDENT.	National Response Center via SkyTruth Alerts
17-Nov-21	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM FAILED RELIEF DEVISE ON VINYL DRYER. THE CAUSE OF THE INCIDENT IS CURRENTLY UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
15-Nov-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF POLY VINYL CHLORIDE FROM A REACTOR AT THE FACILITY. THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO OPERATOR ERROR.	National Response Center via SkyTruth Alerts
9-Nov-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE FROM A DRAIN LINE ONTO THE CEMENT CONTAINMENT DUE TO EQUIPMENT FAILURE (POSSIBLY CORROSION).	National Response Center via SkyTruth Alerts
9-Nov-21	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER REPORTS A RELEASE ON A VENT LINE DUE TO MALFUNCTION. THIS CAUSED A RELEASE OF VINYL CHLORIDE AND EDC (UNKNOWN AMOUNT.)	National Response Center via SkyTruth Alerts
3-Nov-21	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A PINHOLE LEAK IN SOME FACILITY PIPING, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
25-Oct-21	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A RELEASE OF UNKNOWN AMOUNTS OF VINYL CHLORIDE MONOMER, ETHYLENE, AND HYDROGEN CHLORIDE TO THE OUTSIDE AIR FROM A SCRUBBER DURING A LOSS OF INCINERATORS. THE CAUSE OF THE INCIDENT IS UNKNOWN.	National Response Center via SkyTruth Alerts
8-Oct-21	Orbia	Henry	IL	PVC resin factory	CALLER STATES 4.5 POUNDS OF VINYL CHLORIDE RELEASED INSIDE THE FACILITY. THE RELEASE WAS FROM AN ELBOW PINHOLE LEAK IN THE PIPPING AT THE FACILITY. 4 EMPLOYEES WERE EVACUATED.	National Response Center via SkyTruth Alerts

5-Oct-21	Westlake	Calvert City	KY	VCM/PVC factory	CALLER STATED AN UNKNOWN AMOUNT OF 1,2-DICHLOROETHANE AND VINYL CHLORIDE RELEASED FROM A RELIEF VALVE TO THE VINYL FLARE, DUE TO A RELIEF VALVE DISCHARGE (EXACT CAUSE IS UNDETERMINED AT THIS TIME).	National Response Center via SkyTruth Alerts
26-Sep-21	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL MANUFACTURING FACILITY DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
16-Sep-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE FROM A SAFETY RELEASE VALVE INTO THE AIR DUE TO EQUIPMENT OVERPRESSURE.	National Response Center via SkyTruth Alerts
15-Sep-21	Westlake	Plaquemine	LA	PVC resin factory	VINYL CHLORIDE RELEASED FROM A PSV ON A REACTOR DUE TO OVERPRESSURING CAUSED BY A CONTROL SYSTEMS FAILURE.	National Response Center via SkyTruth Alerts
15-Sep-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF UNKNOWN AMOUNTS OF VINYL CHLORIDE, 1,2 DICHLOROETHANE, AND HYDROGEN CHLORIDE TO THE OUTSIDE AIR DUE TO HIGH PRESSURE DURING START UP CAUSING THE MATERIALS TO GO TO THE SCRUBBER. THE MATERIALS WERE NOT BURNED OFF IN THE SCRUBBER RESULTING IN THE MATREIALS GOING TO THE OUTSIDE AIR. IT IS UNKNOWN IF THE RELEASES MET REPORTABLE QUANTITIES.	National Response Center via SkyTruth Alerts
14-Sep-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE FROM A SCRUBBER STACK INTO THE AIR DUE TO A PLANT UPSET.	National Response Center via SkyTruth Alerts
13-Sep-21	Westlake	Geismar	LA	PVC factory	VINYL CHLORIDE RELEASED FROM A RUPTURED PIPE ON A HEADER.	National Response Center via SkyTruth Alerts
12-Sep-21	Formosa	Baton Rouge	LA	VCM/PVC factory	/// THIS IS AN UPDATE TO NRC REPORT 1316534 /// THE CALLER STATED RELEASE WAS SECURED AS OF 1847 HOURS ON 09-12-2021. // ORIGINAL REPORT BELOW /// /// THIS IS AN UPDATE TO NRC REPORT 1316533 /// THE CALLER STATED THAT THEY ORIGINALLY STATED THAT THE RELEASE WAS SECURE, HOWEVER THE RELEASE IS STILL OCCURRING. /// ORIGINAL REPORT BELOW /// VINYL CHLORIDE RELEASED FROM A 1 INCH HOSE ATTACHED TO A CHEMICAL REACTOR DUE TO AN EQUIPMENT FAILURE (RUPTURE IN THE HOSE).	National Response Center via SkyTruth Alerts

8-Sep-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A PRESSURE GAUGE FAILED THAT RESULTED IN THE RELEASE OF MATERIALS TO THE ATMOSPHERE. THERE WERE NO OFFSITE IMPACTS, FIRES, EVACUATIONS OR INJURIES.	National Response Center via SkyTruth Alerts
27-Aug-21	Orbia	Henry	IL	PVC resin factory	UPDATE IS AS FOLLOWS: - THE CALLER UPDATES THE RELEASE AMOUNT - 9.8 POUNDS. - TE CALLER UPDATES REMEDIAL ACTIONS - SHUT THE VALVE DOWN. THE ENTIRE DURATION WAS LESS THAN 2 MINUTES. ORIGINAL REPORT: CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A PLUG THAT CAME OUT OF A COMPRESSOR, DUE UNKNOWN CAUSES. NO INJURIES WERE REPORTED. ORIGINAL REPORT - CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A PLUG THAT CAME OUT OF A COMPRESSOR, DUE UNKNOWN CAUSES. NO INJURIES WERE REPORTED.	National Response Center via SkyTruth Alerts
11-Aug-21	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE AIR FROM A BYPASS VENT INTO A SECONDARY SCRUBBER. THE EXACT CAUSE OF THE RELEASE IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
7-Aug-21	Occidental	Deer Park	TX	PVC factory	VINYL CHLORIDE RELEASED FROM A CONDENSER DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
2-Aug-21	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER STATED THAT A PROCESS UPSET OCCURRED AT A CHEMICAL FACILITY WHICH CAUSED A RELEASE OF VINYL CHLORIDE. THE MATERIAL RELEASED INTO THE ATMOSPHERE AS A RESULT AND THE AMOUNT THAT RELEASED IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
25-Jul-21	Berkshire Hathaway	Louisville	KY	CPVC factory	THE CALLER STATED THAT A MANUFACTURING FACILITY HAD A RELEASE OF VINYL CHLORIDE DUE TO UNKNOWN REASONS. THE AMOUNT OF MATERIAL IS CURRENTLY UNKNOWN AS WELL. THE MATERIAL RELEASED INSIDE THE BUILDING ONTO CONCRETE AS A RESULT OF THIS INCIDENT.	National Response Center via SkyTruth Alerts

15-Jul-21	Westlake	Plaquemine	LA	PVC resin factory	THE CALLER IS REPORTING A RELEASE OF 1 POUND OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PROCESS SAFETY VALVE LIFT ON A RVCM TRANSFER FILTER IN THE PVC UNIT. THE CAUSE OF THE INCIDENT WAS OVERPRESSURING OF THE THE FILTER, DUE TO UNKNOWN REASONS.	National Response Center via SkyTruth Alerts
5-Jul-21	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE AIR DUE TO THE OXY INCINERATOR THAT TRIPPED AT THE CHEMICAL FACILITY. CALLER STATED THIS RESULTED IN A RELEASE OF VAPORS TO THE AIR.	National Response Center via SkyTruth Alerts
2-Jul-21	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	ETHYLENE DICHLORIDE RELEASED FROM THE VINYL CHLORIDE MONOMER UNIT #1 DUE TO A LIGHTING STRIKE CAUSING THE UNIT TO SHUTDOWN. CALLER STATES A UNIT ALSO CAUGHT ON FIRE AS A RESULT OF THE ELECTRICAL STRIKE.	National Response Center via SkyTruth Alerts
11-Jun-21	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	VINYL CHLORIDE IS RELEASING FLANGE ON THE BOTTOM OF A TOWER DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
30-May-21	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTS THE RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE INSIDE THE FACILITY. THE RELEASE WAS FROM ARAC 602A INCINERATOR DURING AN UPSET CONDITION AT STARTUP.	National Response Center via SkyTruth Alerts
29-May-21	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER STATES A PUNCTURED VALVE ON A PIECE OF EQUIPMENT IS CAUSING A VAPOR RELEASE OF VINYL CHLORIDE AND EDC (DICHLORO-ETHYLENE).	National Response Center via SkyTruth Alerts
27-May-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	A fire occurred when a pipe was being welded. The fire released 312 pounds of vinyl chloride and caused \$4.5 million in property	RMP
12-May-21	Occidental	Deer Park	TX	VCM factory	CALLER STATED IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE AIR DUE TO A LEAK ON THE PRESSURE TRANSMITTER ON THE HCL STRIPPER COLUMN AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts

11-May-21	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THERE IS A RELEASE OF VINYL CHLORIDE MONOMERS INTO THE AIR FROM AN UNKNOWN SOURCE AT THEIR FACILITY. CALLER STATES THEY BELIEVE IT COULD BE RELEASING FROM THEIR INCINERATOR.	National Response Center via SkyTruth Alerts
5-May-21	Orbia	Henry	IL	PVC factory	CALLER REPORTED A BAD CONNECTION ON A BLEED VALVE REACTOR THAT CAUSED A DISCHARGE OF HAZARDOUS MATERIALS. THERE WERE NO WATERWAYS IMPACTED.	National Response Center via SkyTruth Alerts
4-May-21	Occidental	Pasadena	TX	PVC factory	THE CALLER STATED THAT WHILE DOING MAINTENANCE ON A REACTOR AT A CHEMICAL FACILITY A LINE BROKE RELEASING VINYL CHLORIDE MONOMER. ONLY 1 POUND OF THE MATERIAL RELEASED INTO THE ATMOSPHERE AS A RESULT OF THIS INCIDENT.	National Response Center via SkyTruth Alerts
3-May-21	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE AIR DUE TO OVER PRESSURING ON A PRESSURE RELIEF DEVICE AT THE CHEMICAL MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
30-Apr-21	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT THEY DISCOVERED A LEAK IN FACILITY PIPING ON THE NORTH VCM COLUMN WHICH CAUSED A RELEASE OF VINYL CHLORIDE MONOMER AND ETHYLENE DICHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts

29-Apr-21	U.S. Department of Energy	Richland	WA	Plutonium factory (closed)	CALLER REPORTED US DEPT OF ENERGY OFFICE OF RIVER PROTECTION HAS DETERMINED A STORAGE TANK IS LEAKING RADIOACTIVE HAZARDOUS MATERIALS WASTE ON THE SOIL AT THE INCIDENT LOCATION. CALLER STATED THERE IS NO RISK TO THE GENERAL PUBLIC REGARDING THIS RELEASE. CALLER STATED THE CAUSE OF THIS RELEASE IS UNKNOWN. CALLER STATED THIS REPORT IS BASED ON A YEAR LONG STUDY, IN WHICH THE CONCLUSION WAS FINALIZED ON APRIL 29, 2021. THE FOLLOWING RELEASED ITEMS HAVE A RELEASE AMOUNT OF 3.5 GALLONS PER DAY: D004 (WASTE ARSENIC), D009 (MERCURY), D011 (SILVER), D033 (HEXACHLOROBUTADIENE), D043 (VINYL CHLORIDE), F001 (SPENT CHLORINATED SOLVENT), F002 (MULTIPLE SPENT CHLORINATED SOLVENT), D006 (CADMIUM), D007 (CHROMIUM), D008 (LEAD), D010 (SELENIUM), D018 (BENZENE), D019 (CARBON TETRACHLORIDE), D022 (CHLOROFORM), D030 (2,4 DINITROTOLUENE), D041 (2,4, 5-TRICHLOROPHENOL) WHICH ALL EXCEEDED THE REPORTABLE QUANTITIES RELEASED. CALLER STATED NO ASSISTANCE IS NEEDED AT THIS TIME. CALLER STATED NO INJURIES, NO FATALITIES, NO EVACUATIONS HAVE BEEN ISSUED AT THIS TIME. CALLER DID NOT HAVE THE EXACT COORDINATES OF THE INCIDENT LOCATION.	National Response Center via SkyTruth Alerts
25-Apr-21	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED DUE TO A FLANGE LEAK IN A PIPE RACK AT THE CHEMICAL FACILITY THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF ETHYLENE DICHLORIDE AND VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
21-Apr-21	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER IS REPORTING THAT THEY HAD A GASKET LEAK ON A MIXER WHICH CAUSED A RELEASE OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
21-Apr-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A POWER FAILURE THAT RESULTED IN A RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
19-Apr-21	Occidental	Pasadena	TX	PVC factory	CALLER STATED THAT A GASKET FAILED ON A WATER FLUSH LINE FOR PROCESS REACTOR NO. 10 AT THE FACILITY. THIS CAUSED VINYL CHLORIDE MONOMER TO RELEASE TO THE FLARE, DUE TO AN EQUIPMENT MALFUNCTION.	National Response Center via SkyTruth Alerts

18-Apr-21	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF 1 POUND OF VINYL CHLORIDE MONOMER TO THE OUTSIDE AIR FROM A LOW POINT ON A VENT BLOWER. THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
5-Apr-21	Westlake	Geismar	LA	PVC factory	CALLER REPORTED A TWO INCH LINE DISCOVERED LEAKING RESULTING IN A DISCHARGE OF MATERIALS INSIDE OF THE FACILITY.	National Response Center via SkyTruth Alerts
27-Mar-21	Occidental	Pasadena	TX	PVC factory	CALLER REPORTS THE RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE INSIDE THE FACILITY. THE RELEASE WAS FROM A PIPE FLANGE ON PROCESS EQUIPMENT THAT FAILED. 30 EMPLOYEES WERE EVACUATED.	National Response Center via SkyTruth Alerts
19-Mar-21	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A CHEMICAL RELEASE VINYL CHLORIDE MONOMER (VCM) DUE TO A GASKET THAT BLEW OUT ON A VALVE. THIS RESULTED IN A RELEASE OF VINYL CHLORIDE MONOMER TO THE THE ATMOSPHERE AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
18-Mar-21	Formosa	Baton Rouge	LA	Vinyl chloride tank car	THE CALLER STATED THAT THEY WERE DOING A PRESSURE TEST ON A RAILCAR WHEN THEY UNHOOKED THE HOSE FROM THE RAIL CAR AND RELEASED VINYL CHLORIDE INTO THE ATMOSPHERE. THIS EVENT TOOK PLACE AT CHEMICAL FACULTY .	National Response Center via SkyTruth Alerts
17-Mar-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A SITE GLASS FAILURE THAT RESULTED IN A RELEASE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
14-Mar-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMERS TO THE OUTSIDE AIR FROM A RELIEF VALVE ON A REACTOR. THE INCIDENT CAUSE IS OVER PRESSURING IN THE REACTOR.	National Response Center via SkyTruth Alerts
12-Mar-21	Occidental	Deer Park	TX	VCM factory	CALLER REPORTED WHILE THE HCL COLUMN WAS BEING DECONTAMINATED, A VALVE WAS OPENED IN ERROR CAUSING A RELEASE OF VINYL CHLORIDE THROUGH THE EMERGENCY EVENT SCRUBBER AT A CHEMICAL FACILITY. CALLER REPORTED NO AIR MONITORING READINGS WERE GATHERED. THERE WERE NO OFFSITE IMPACTS.	National Response Center via SkyTruth Alerts

12-Mar-21	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE MONOMER FROM A PIPE LEAK ON THE WASTE WATER STRIPPER. THE MATERIAL RELEASED ONTO CONCRETE DUE TO EQUIPMENT FAILURE. THE RQ OF VINYL CHLORIDE MONOMER IS 1 POUND.	National Response Center via SkyTruth Alerts
8-Mar-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER STATES AN UNKNOWN AMOUNT OF VCM (VINYL CHLORIDE) RELEASED FROM A LEAKING 1/2 INCH BLOCK VALVE. THE CAUSE OF THE RELEASE IS EQUIPMENT FAILURE. THE MATERIAL RELEASED INTO THE AIR/ATMOSPHERE.	National Response Center via SkyTruth Alerts
7-Mar-21	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER IS REPORTING THE RELEASE OF 1 POUND OF VINYL CHLORIDE AND 100 POUNDS OF ETHYLENE DICHLORIDE FROM A COOLING UNIT AT THE THE MANUFACTURING FACILITY. THE RELEASED MATERIALS WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
3-Mar-21	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A RELEASE OF 1 POUND OF VINYL CHLORIDE MONOMER FROM PIECE OF EQUIPMENT INTO THE AIR DUE TO A LEAKY VALVE.	National Response Center via SkyTruth Alerts
2-Mar-21	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED VINYL CHLORIDE MONOMER RELEASED FROM TUBING ON A COLUMN AT THE FACILITY INTO THE AIR. THE CAUSE WAS DUE TO A LEAK BETWEEN THE TUBING AND A CONNECTOR.	National Response Center via SkyTruth Alerts
26-Feb-21	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE FROM A STORAGE TANK INTO THE AIR DUE TO OVERPRESSURE.	National Response Center via SkyTruth Alerts
25-Feb-21	Occidental	Pasadena	TX	PVC factory	CALLER STATED DUE TO A PINHOLE IN A PIPE AT A CHEMICAL MANUFACTURING FACILITY THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER TO THE AIR.	National Response Center via SkyTruth Alerts
20-Feb-21	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A RELEASE OF AN ESTIMATED 1 POUND OF VINYL CHLORIDE MONOMER FROM A VACUUM SYSTEM INTO THE AIR. THE CAUSES OF THIS RELEASE IS UNDETERMINED AT THIS TIME.	National Response Center via SkyTruth Alerts
17-Feb-21	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF ETHYLENE DICHLORIDE AND VINYL CHLORIDE FROM A SAFETY RELIEF VALVE DUE TO AN ICE STORM.	National Response Center via SkyTruth Alerts

16-Feb-21	Westlake	Westlake	LA	vinyl chloride factory	<p>THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE AND HYDROGEN CHLORIDE GAS FROM 2 LEAKS IN THE QUENCH CONDENSER. THE INCIDENT OCCURRED DUE UNKNOWN REASONS AT THIS TIME.</p> <p>THE CALLER STATED THAT THERE IS ADDITIONAL AIR MONITORING, AND THERE IS NO OFFSITE IMPACT.</p>	National Response Center via SkyTruth Alerts
16-Feb-21	Westlake	Westlake	LA	vinyl chloride factory	<p>CALLER IS REPORTING A TUBING LEAK ON INSTRUMENTATION LOCATED ON THEIR VINYL FURNACE, DUE TO COLD WEATHER CONDITIONS.</p> <p>THERE IS NO OFFSITE IMPACT AND AIR MONITORING IS BEING CONDUCTED AT THIS TIME.</p>	National Response Center via SkyTruth Alerts
16-Feb-21	Westlake	Westlake	LA	vinyl chloride factory	<p>CALLER IS REPORTING THE ACTIVE RELEASE OF CARBON TETRACHLORIDE, VINYL CHLORIDE, ETHYLENE DICHLORIDE, ETHYL CHLORIDE, HYDROCHLORIC ACID, 1,1,2 DICHLOROETHANE FROM A VENT STACK DUE TO AN ICE STORM. CALLER STATED THAT THE MATERIALS ARE GOING THROUGH A SCRUBBER.</p> <p>AIR MONITORING IS BEING CONDUCTING AND THERE IS NO OFF SITE IMPACT.</p>	National Response Center via SkyTruth Alerts
16-Feb-21	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	<p>CALLER REPORTED DUE TO THE COLD WEATHER THERE WAS A PIN HOLE LEAK ON A PIPE THAT IS CURRENTLY ON GOING.</p>	National Response Center via SkyTruth Alerts

16-Feb-21	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	DICHLOROETHANE AND VINYL CHLORIDE RELEASED FROM A PRESSURE RELIEF VALVE (PSV) DUE TO AN OVERPRESSURE AFTER CUTTING THE NITROGEN TO IT.	National Response Center via SkyTruth Alerts
15-Feb-21	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF ETHYLENE DICHLORIDE, HYDROCHLORIC ACID AND VINYL CHLORIDE FROM A EMERGENCY VENT SCRUBBER DUE TO AN ICE STORM.	National Response Center via SkyTruth Alerts
14-Feb-21	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED VINYL CHLORIDE RELEASED INTO THEIR SCRUBBER SYSTEM, WHEN THE POWER TRIPPED DUE TO BAD WEATHER.	National Response Center via SkyTruth Alerts
10-Feb-21	Westlake	Calvert City	KY	VCM/PVC factory	CALLER STATED DUE TO A COMPLETE POWER FAILURE THERE WAS A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
4-Feb-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	48 HOUR UPDATE TO NRC REPORT 1297316: CALLER PROVIDED A QUANTITY OF 0.0035 POUNDS OF VINYL CHLORIDE MONOMER WERE RELEASED AT THE CHEMICAL FACILITY. ORIGINAL REPORT IS BELOW: CALLER REPORTED A CRACK IN A LINE THAT WAS REPLACED WITHIN A PVC UNIT AT A CHEMICAL FACILITY CAUSED A RELEASE OF VINYL CHLORIDE MONOMER.	National Response Center via SkyTruth Alerts
1-Feb-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	VCM GAS RELEASED FROM A 3 INCH CONTINUOUS RECOVERY LINE INSIDE THE PLANT DUE TO HOLES IN THE PIPING.	National Response Center via SkyTruth Alerts
30-Jan-21	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF APPROXIMATELY 25 POUNDS OF VINYL CHLORIDE AND 470 POUNDS OF 1,2 DICHLOROETHANE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A PRESSURE RELIEF VALVE THAT LIFTED FOR ABOUT 30 SECONDS, DUE TO A PRESSURE BUILD UP.	National Response Center via SkyTruth Alerts

26-Jan-21	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED DUE TO A PIN HOLE LEAK IN THEIR VINYL TANK (BP301), AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER WAS RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
23-Jan-21	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER FROM THE COOLING TOWER AREA INTO THE AIR DUE TO UNKNOWN CAUSES. THIS IS A POTENTIAL RQ.	National Response Center via SkyTruth Alerts
20-Jan-21	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE FROM A STORAGE TANK (KNOCK OUT POT). THE RELEASED MATERIAL WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
6-Jan-21	Westlake	Westlake	LA	vinyl chloride factory	/// THIS IS AN UPDATE TO NRC REPORT 1295558 /// THE CALLER STATED THAT THE RELEASE WAS SECURED AT 0751 HOURS. /// ORIGINAL REPORT BELOW /// THE CALLER STATED THAT THEY LOST STEAM TO A CHEMICAL UNIT, WHICH CAUSED THE RELEASE OF VINYL CHLORIDE, HYDROCHLORIC ACID, ETHYLENE, ETHYL CHLORIDE, AND CHLOROFORM. THE AMOUNT RELEASED OF EACH OF THE CHEMICALS IS CURRENTLY UNKNOWN. AND THE CAUSE OF THIS EVENT IS UNKNOWN.	National Response Center via SkyTruth Alerts
5-Jan-21	Westlake	Geismar	LA	PVC factory	CALLER REPORTED A RELEASE OF MATERIALS DUE TO UNKNOWN REASONS AT THIS TIME FROM A RELIEF DEVICE ON TOP OF A TANK. THE INCIDENT HAS JUST RECENTLY OCCURRED AND DETAILS ARE LIMITED.	National Response Center via SkyTruth Alerts
2-Jan-21	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A LEAKING FLANGE ON A REACTOR CONDENSER, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
30-Dec-20	Westlake	Aberdeen	MS	PVC resin factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE FROM A RUPTURED PORTION OF A PIPE AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
28-Dec-20	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE FROM A PRODUCTION UNIT DUE TO POWER FAILURE.	National Response Center via SkyTruth Alerts

24-Dec-20	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED A REACTOR BLEW A RUPTURE DISC WHICH CAUSED A PRESSURE SAFETY VALVE TO LIFT AND RELEASE VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
11-Dec-20	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	VINYL CHLORIDE RELEASED FROM PIPING WITHIN THE FACILITY DUE TO A PIN HOLE LEAK. CALLER WAS NOTIFIED AT 1900.	National Response Center via SkyTruth Alerts
7-Dec-20	Westlake	Geismar	LA	PVC factory	CALLER REPORTS THE RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. THE RELEASE WAS FROM PIPING ON A PROCESS UNIT THAT DEVELOPED A HOLE DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
30-Nov-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED DUE TO A SYSTEM OVERPRESSURIZATION, A VALVE WAS OPENED WHICH CAUSED A RELEASE OF ETHYLENE DICHLORIDE, VINYL CHLORIDE, CHLOROFORM, CARBON TETRACHLORIDE, AND HYDROGEN CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
27-Nov-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL FACILITY DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
27-Nov-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND HYDROGEN CHLORIDE GAS INTO THE AIR FROM A CONDENSER DRAIN LINE THAT IS CRACKED, DUE TO CORROSION.	National Response Center via SkyTruth Alerts
23-Nov-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTS THE RELEASE OF DICHLOROETHANE AND VINYL CHLORIDE INTO THE ATMOSPHERE FROM A STORAGE TANK THAT HAD HOLES DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
19-Nov-20	Westlake	Geismar	LA	PVC factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A REACTOR THAT OVER PRESSURIZED, CAUSING THE RELIEF VALVE TO DISCHARGE TWO TIMES. THE FIRST TIME WAS FOR 10 SECONDS AND THE SECOND TIME WAS FOR 15 SECONDS. THE SYSTEM IS SECURED AT THIS TIME.	National Response Center via SkyTruth Alerts
19-Nov-20	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED A RELEASE OF MATERIALS WHEN A PRESSURE RELIEF VALVE OPENED.	National Response Center via SkyTruth Alerts
12-Nov-20	Occidental	Deer Park	TX	VCM factory	VINYL CHLORIDE RELEASED FROM A LEAKY SEAL ON A PUMP ATTACHED TO A RUN-DOWN TANK.	National Response Center via SkyTruth Alerts

11-Nov-20	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. THE RELEASE WAS FROM THE DRAIN OF A PIPELINE DUE TO DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
10-Nov-20	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A CRACK ON THE WELD ON A PIPELINE DUE TO UNKNOWN CAUSES AT THIS TIME. THE TYPE OF PIPELINE IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
10-Nov-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, CHLOROFORM, CARBON TETRACHLORIDE, AND ETHYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A FLARE STACK, DUE TO A TRIPPED UNIT. CALLER STATED IT IS UNKNOWN IF THE RELEASE EXCEEDED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
7-Nov-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED A CHEMICAL STORAGE TANK DEVELOPED A LEAK AND DISCHARGED MATERIALS INTO A CONTAINMENT AREA AT THE FACILITY.	National Response Center via SkyTruth Alerts
4-Nov-20	Occidental	Deer Park	TX	VCM factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND CHLOROFORM FROM AN EMERGENCY VENT SCRUBBER. THE CAUSE OF THE RELEASE WAS EQUIPMENT FAILURE. THIS RELEASE WAS TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
1-Nov-20	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THE RELEASE OF 1 POUND OF VINYL CHLORIDE AND 100 POUNDS ETHYLENE DICHLORIDE FROM A VENT SCRUBBER DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
27-Oct-20	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER STATES A PRESSURE VENT VALVE OPENED DUE TO PLANT UPSET, CAUSING A RELEASE OF ETHYLENE, VINYL CHLORIDE, AND ETHYLENE DICHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts

26-Oct-20	Westlake	Westlake	LA	vinyl chloride factory	UPDATE TO NRC REPORT 1290706: CALLER REPORTED THE STOP TIME WAS AT 1301 ON OCTOBER 26, 2020, IN WHICH THE RELEASE WAS STOPPED. NO OTHER CHANGES WERE NOTED WITH THIS INCIDENT. ORIGINAL REPORT IS BELOW: CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, ETHYLENE ETHYLCHLORIDE INTO THE ATMOSPHERE. CALLER REPORTS THE RELEASE WAS FROM A FLARE STACK AT A CHEMICAL FACILITY THAT HAD AN INCINERATOR TRIP.	National Response Center via SkyTruth Alerts
22-Oct-20	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER IS REPORTING A RELEASE OF ETHYLENE DICHLORIDE, AND VINYL CHLORIDE INTO THE ATMOSPHERE FROM A LEAK IN ONE OF THE HEAT EXCHANGER DURING TRANSFER INTO THE COOLING TOWERS. THE CAUSE OF THE INCIDENT IS UNKNOWN AT THIS TIME. THE CALLER STATED THAT THE RELEASE DID NOT HIT THE REPORTABLE QUANTITY AS OF YET, BUT IT IS PART OF THEIR SOP TO REPORT THE INCIDENT, THEN UPDATE AFTER THE INVESTIGATION IS COMPLETE.	National Response Center via SkyTruth Alerts
15-Oct-20	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A PIN HOLE LEAK IN THE TOP OF A DRY VENT KNOCK OUT POT CAUSED A RELEASE OF MATERIALS THAT COULD POSSIBLY REACH THE RQ.	National Response Center via SkyTruth Alerts
27-Sep-20	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER REPORTED AN UNKNOWN AMOUNT OF ETHYL DICHLORIDE AND VINYL CHLORIDE MONOMER FROM A CHEMICAL FACILITY RELEASED INTO THE AIR DUE TO A PINHOLE IN THE LINE.	National Response Center via SkyTruth Alerts
24-Sep-20	Occidental	Deer Park	TX	VCM factory	THE CALLER IS REPORTING A RELEASE OF ABOUT 1 POUND OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM THE #4 FURNACE'S OVERHEAD TRANSMITTER, DUE TO EQUIPMENT FAILURE. THE CALLET STATED THAT THE RELEASE WAS SECURED BY 1240 CENTRAL TIME.	National Response Center via SkyTruth Alerts
24-Sep-20	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A SECTION OF PIPING ON A PRESSURE VALVE DEVELOPED A LEAK. THERE WERE NO EVACUATIONS OR INJURIES.	National Response Center via SkyTruth Alerts
20-Sep-20	Occidental Petroleum	La Porte	TX	Vinyl chloride tank car	CALLER REPORTED THEY HAD AN OPERATOR DISCONNECTING A RAIL CAR AND BUMPED A VALVE OPEN ON A LOADING ARM.	National Response Center via SkyTruth Alerts

15-Sep-20	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FORM A GASKET LEAK ON A VALVE, DUE TO EQUIPMENT FAILURE. CALLER STATED IT IS A SMALL LEAK THAT MAY NOT EXCEED THE RQ BUT WAS MAKING NOTIFICATION JUST IN CASE.	National Response Center via SkyTruth Alerts
14-Sep-20	Westlake	Geismar	LA	PVC factory	CALLER REPORTED VINYL CHLORIDE RELEASED TO THE AIR FROM A CHEMICAL FACILITY DUE TO A PINHOLE LEAK ON BLOCK VALVE BODY.	National Response Center via SkyTruth Alerts
8-Sep-20	Westlake	Westlake	LA	vinyl chloride factory	A process vessel failed, and released 691 pounds of vinyl chloride. 34 people sheltered in place.	RMP
8-Sep-20	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER STATED THAT A DISTILLATION COLUMN OVER PRESSURIZED CAUSING A VALVE TO RELEASE HYDROGEN CHLORIDE GAS (HCL), AND VINYL CHLORIDE MONOMER (VCM) INTO THE ATMOSPHERE. THE CALLER STATED THAT THE RELEASE IS CURRENTLY NOT SECURED. (National Response Center)	National Response Center via SkyTruth Alerts
8-Sep-20	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A RELEASE OF UNKNOWN AMOUNTS OF ETHYLENE DICHLORIDE , VINYL CHLORIDE, AND HYDROCHLORIC ACID INTO THE AIR FROM A CHECK VALVE LEAK DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts

					<p>UPDATE TO NRC REPORT 1286151: CALLER REPORTED THIS IS A RELEASE STILL ONGOING AT THIS LOCATION. CALLER STATED THERE ARE STILL ONGOING EMISSIONS BECAUSE THE COMPANY HAS NOT BEEN ABLE TO REESTABLISH INCINERATIONS DUE TO POWER LOSS DUE TO HURRICANE LAURA. UPDATE TO NRC REPORT 1286140: CALLER REPORTED ADDITIONAL CHEMICALS WERE RELEASED INCLUDING: 1,1- DICHLOROETHYLENE, 1,1,1- TRICHLOROETHANE DUE TO HURRICANE LAURA. ORIGINAL REPORT IS BELOW: ///// UPDATE TO NRC REPORT #1286114 ///// THE UPDATE IS AS FOLLOWS: THE CALLER IS UPDATING THAT AN ADDITIONAL MATERIAL WAS A RELEASED. ADDITIONAL MATERIAL IS ETHYLCHLORIDE (CHLOROETHANE). ORIGINAL REPORT:////////THIS IS AN UPDATE FOR NRC REPORT NUMBER 1285730. CALLER IS ADDING A MATERIAL THAT RELEASED. THE INCIDENT IS ALSO AN ACTUAL RELEASE AND NOT A POTENTIAL. THEY DO NOT KNOW IF IT IS ABOVE THE REPORTABLE QUANTITY AT THIS TIME.//////// UPDATED INFO:</p> <ul style="list-style-type: none"> - ADDING ASBESTOS AS A MATERIAL RELEASE TO THE GROUND. - THE INCIDENT IS AN ACTUAL RELEASE. <p>ORIGINAL REPORT: CALLER IS REPORTING A POTENTIAL RELEASE OF VINYL CHLORIDE AND 1,2 DICHLOROETHANE INTO THE AIR AT THE INCIDENT LOCATION. POTENTIAL RELEASE IS DUE TO THE RE-ROUTING OF THE TANK VENTS TO SECONDARY CONTROL DEVICES WITHOUT AN INCINERATOR, DUE TO A POWER LOSS DURING THE HURRICANE.</p>	
27-Aug-20	Westlake	Westlake	LA	VCM factory		National Response Center via SkyTruth Alerts
20-Aug-20	Occidental	Deer Park	TX	PVC factory	VINYL CHLORIDE IS RELEASING FROM A PROCESS REACTOR DUE TO AN OVERPRESSURE.	National Response Center via SkyTruth Alerts
6-Aug-20	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THEY HAD VENTS THAT BYPASSED THE INCINERATOR WHICH CAUSED A RELEASE OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts

6-Aug-20	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THE RELEASE OF 25 POUNDS OF VINYL CHLORIDE FROM PIPING INSIDE THE CHEMICAL FACILITY. THE RELEASED MATERIAL WENT ONTO THE GROUND AND VAPORIZED INTO THE ATMOSPHERE. THE CAUSE OF THE INCIDENT IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
5-Aug-20	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE AIR INSIDE THE BUILDING FROM A LEAKING STRIPPER DUE TO AN EQUIPMENT FAULT.	National Response Center via SkyTruth Alerts
1-Aug-20	OxyVinyls	Pedricktown	NJ	PVC factory	CALLER REPORTED VINYL CHLORIDE AND VAPORS RELEASED TO THE AIR INSIDE OF A CHEMICAL FACILITY DUE TO A PINHOLE LEAK IN PIPING.	National Response Center via SkyTruth Alerts
1-Aug-20	OxyVinyls	Pedricktown	NJ	PVC factory	CALLER REPORTED VINYL CHLORIDE RELEASED TO THE AIR FROM A CHEMICAL FACILITY DUE TO A RUPTURED DISK FAILURE.	National Response Center via SkyTruth Alerts
28-Jul-20	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A RUPTURED DISK ASSEMBLY FLANGE ON THE #1 FURNACE OVERHEAD PIPE. THE CAUSE OF THE RELEASE IS UNKNOWN, AND THE INVESTIGATION IS UNDERWAY.	National Response Center via SkyTruth Alerts
16-Jul-20	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THEY HAVE A FLANGE THAT IS LEAKING ON THE PVC REACTOR THAT IS CAUSING A RELEASE OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
11-Jul-20	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THAT DUE TO AN OPERATOR OPENING THE WRONG VALVE ON A TANK, IT CAUSED A RELEASE OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
2-Jul-20	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED A RELEASE OF 10 POUNDS OF VINYL CHLORIDE INTO THE AIR FROM A PRESSURE VALVE DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
1-Jul-20	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER IS REPORTING THE RELEASE OF OVER 1 POUND OF VINYL CHLORIDE FROM A CHEMICAL FACILITY DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts

24-Jun-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED DUE TO A HIGH LEVEL IN A TANK THIS CAUSED THE RUPTURE OF A DISK AT THE CHEMICAL FACILITY. THIS RESULTED IN A RELEASE TO THE AIR OF VINYL CHLORIDE GAS.	National Response Center via SkyTruth Alerts
10-May-20	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THE DISCOVERY OF VINLY CHLORIDE FROM THE FACILITY LISTED BELOW IN AN UNKNOWN AMOUNT. THE CALLER IS ALSO REPORTING THE RELEASE OF ETHALYN DICHLORIDE IN AN UNKNOWN AMOUNT. THE RELEASED MATERIALS WENT INTO THE AIR AND ATMOSPHERE. THE CAUSE OF THE INCIDENT IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
5-May-20	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED VINYL CHLORIDE MONOMER RELEASED FROM A VALVE AT THE FACILITY DUE TO AN EQUIPMENT ISSUE (LEAK).	National Response Center via SkyTruth Alerts
26-Apr-20	One Rock Capital Partners	Westlake	LA	PVC resin factory (closed)	CALLER REPORTED THE FACILITY IS UNDERGOING DEMOLITION. THEY WERE CUTTING INTO THE BOTTOM OF A TANK WHEN A SOLID SUBSTANCE STARTED SMOLDERING. THERE WAS A RELEASE OF AN UNKNOWN MATERIAL BUT THE TANK WAS A DECOMMISSIONED OLD 30000 GALLON VINYL CHLORIDE TANK. THERE IS AN ONGOING FIRE.	National Response Center via SkyTruth Alerts
14-Apr-20	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED A SMALL LEAK ON A SLURRY PVC PIPING RELEASED VINYL CHLORIDE AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
12-Apr-20	Occidental	Deer Park	TX	VCM factory	CALLER REPORTED A LEAK IN THE VAPOR FEED LINE TO THE HCL COLUMN RELEASING AT LEAST 1 POUND OF VINYL CHLORIDE INTO THE AIR DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
8-Apr-20	Occidental	Deer Park	TX	PVC factory	CALLER STATED 1 POUND OF VINYL CHLORIDE (VCM) RELEASED FROM A CONDENSER LINE AT THE INCIDENT LOCATION INTO AIR DUE TO A PIN HOLE LEAK.	National Response Center via SkyTruth Alerts
12-Mar-20	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED DUE TO A VALVE THAT WAS LEFT OPEN THERE WAS A RELEASE OF VINYL CHLORIDE TO THE AIR AT THE MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
9-Mar-20	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A RELEASE OF ETHYLENE DICHLORIDE, VINYL CHLORIDE MONOMER, AND ETHYLENE DUE TO EQUIPMENT FAILURE AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts

10-Feb-20	Orbia	North Henry	IL	PVC resin factory	CALLER REPORTED AN AIR RELEASE OF VINYL CHLORIDE FROM A CHEMICAL FACILITY DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
6-Feb-20	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER IS REPORTING APPROXIMATELY 100 POUNDS ETHYLENE DICHLORIDE , 1 POUND OF VINYL CHLORIDE MONOMER, AND 30 POUNDS OF HYDROGEN CHLORIDE WERE RELEASED INTO THE ATMOSPHERE FROM A VENT AT THE FACILITY DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
5-Feb-20	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THAT THERE WAS A PINHOLE LEAK ON A HALF INCH TUBE ON PUMP #NP203B, THAT RELEASED A MIXTURE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE TO THE OUTSIDE AIR.	National Response Center via SkyTruth Alerts
4-Feb-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED VINYL CHLORIDE RELEASED TO THE AIR FROM A CHEMICAL FACILITY DUE TO CORROSION UNDER INSULATION.	National Response Center via SkyTruth Alerts
1-Feb-20	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A RELEASE OF ETHYLENE DICHLORIDE AND VINYL CHLORIDE MONOMER DUE TO AN EQUIPMENT FAILURE (PUMP SEAL) AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
27-Jan-20	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTS A VENT SYSTEM RELEASE FROM THEIR MANUFACTURING FACILITY, DUE TO AN UNKNOWN REASON. CAUSING A RELEASE OF ETHYLENE DICHLORIDE AND VINYL CHLORIDE MONOMER INTO THE AIR.	National Response Center via SkyTruth Alerts
22-Jan-20	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED DUE TO AN OPERATOR ERROR THERE WAS A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
21-Jan-20	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	THE CALLER IS REPORTING UNKNOWN AMOUNTS OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE WERE RELEASED INTO THE AIR FROM A COOLING TOWER DUE TO A HEAT EXCHANGER LEAK. CAUSE IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
15-Jan-20	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF HYDROCHLORIC ACID, ETHYLENE, ETHYL CHLORIDE, VINYL CHLORIDE, AND DICHLOROETHANE INTO THE AIR AT THE INCIDENT LOCATION. DISCHARGE WAS FROM A VENT AT THE FACILITY AFTER AN INCINERATOR TRIPPED. INCIDENT WAS SECURED AT 10:55 AM.	National Response Center via SkyTruth Alerts

13-Jan-20	Occidental	Deer Park	TX	PVC factory	CALLER REPORTED A HOSE BECAME LOOSE WHICH CAUSED VINYL CHLORIDE MONOMER FOAM MATERIAL TO BE RELEASED INSIDE OF A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
7-Jan-20	Occidental	Pasadena	TX	PVC factory	CALLER STATED DUE TO A CRACK TO A WELD THERE WAS SPILL OF VINYL CHLORIDE TO CONTAINMENT AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
5-Jan-20	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTING THE RELEASE OF VINYL CHLORIDE MONOMER DUE TO A PINHOLE LEAK IN A VALVE.	National Response Center via SkyTruth Alerts
3-Jan-20	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THAT A SEAL FAILED ON A FIXED TANK AT A CHEMICAL FACILITY RESULTING IN THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
20-Dec-19	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A RELEASE OF 1 POUND OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A B QUENCH COLUMN DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
11-Dec-19	Westlake	Geismar	LA	PVC factory	CALLER REPORTED THEY LOST CONTAINMENT WHEN A SHAFT SEAL FAILED WHICH RESULTED IN A RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
11-Dec-19	Orbia	Pedricktown	NJ	PVC factory	CALLER REPORTING THE RELEASE OF 46 POUNDS OF VINYL CHLORIDE VAPOR FROM A VALVE DUE TO EQUIPMENT FAILURE	National Response Center via SkyTruth Alerts
27-Nov-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE FROM AN INTERNAL FACILITY LINE. THE CAUSE IS CURRENTLY UNKNOWN.	National Response Center via SkyTruth Alerts
23-Nov-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A RELEASE OF MATERIALS TO THE ATMOSPHERE DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
18-Nov-19	Occidental	Deer Park	TX	VCM factory	ETHYLENE DICHLORIDE, VINYL CHLORIDE AND CHLOROFORM RELEASED FROM AN EMERGENCY VENT SCRUBBER STACK DUE TO A TOTAL PLANT POWER FAILURE. IT IS UNKNOWN WHAT CAUSED THE POWER FAILURE AT THIS TIME.	National Response Center via SkyTruth Alerts

11-Nov-19	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTS A RELEASE OF A POTENTIAL OF OVER 100 POUNDS OF ETHYLENE DICHLORIDE AND A POTENTIAL OF A RELEASE OF OVER 1 POUND OF VINYL CHLORIDE INTO THE AIR CAUSED BY A SHUTDOWN OF AN INCINERATOR RESULTING IN A GROUP ONE PROCESS VENT GOING TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
11-Nov-19	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THE RELEASE OF VINYL CHLORIDE THAT MAY POTENTIALLY EXCEED THE REPORTABLE QUANTITY DUE TO HIGH SAMPLES FROM WATER COOLERS. (RE-SAMPLING EACH EXCHANGER AT THIS TIME)	National Response Center via SkyTruth Alerts
11-Nov-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER INTO THE AIR CAUSED BY A LEAK IN A 3/4' LINE WELD AT A FACILITY.	National Response Center via SkyTruth Alerts
6-Nov-19	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THE RELEASE OF VINYL CHLORIDE MONOMER DUE TO UNKNOWN REASONS.	National Response Center via SkyTruth Alerts
19-Oct-19	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A PIPE LEAK AT A CHEMICAL MANUFACTURING FACILITY WHICH CAUSED A RELEASE OF VINYL CHLORIDE MONOMER.	National Response Center via SkyTruth Alerts
17-Oct-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED VINYL CHLORIDE MONOMER WAS RELEASED TO THE AIR FROM A CHEMICAL FACILITY DUE TO A PINHOLE LEAK IN 2 GASKETS.	National Response Center via SkyTruth Alerts
16-Oct-19	Westlake	Geismar	LA	PVC factory	CALLER REPORTED A RELEASE OF VCM FROM A HOLE FOUND ON A STRIPPER OVERHEAD PIPE AT A PETROCHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
15-Oct-19	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER REPORTS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR INSIDE A BUILDING CAUSED BY AN UNKNOWN REASON.	National Response Center via SkyTruth Alerts
7-Oct-19	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTS AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR CAUSED BY A CRACK IN A NOZZLE ON A VALVE ON PVC REACTOR G.	National Response Center via SkyTruth Alerts
4-Oct-19	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER STATED VINYL CHLORIDE RELEASED ONTO THE GROUND FROM A LEAKING VALVE ON A PIECE OF EQUIPMENT AT THE FACILITY.	National Response Center via SkyTruth Alerts
28-Sep-19	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTS A RELEASE OF UNKNOWN AMOUNT OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE INTO THE AIR CAUSED BY AN OVERPRESSURING SITUATION AT A FACILITY.	National Response Center via SkyTruth Alerts

26-Sep-19	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING AN AIR RELEASE OF APPROXIMATELY 1 POUND OF VINYL CHLORIDE MONOMER. THE RELEASE WAS DUE TO EQUIPMENT FAILURE. THE RELEASE WAS SECURED, REPAIRS ARE UNDERWAY.	National Response Center via SkyTruth Alerts
13-Sep-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM THE SAFETY RELIEF VALVE, DUE TO MECHANICAL FAILURE. SOURCE SECURED AT 1611.	National Response Center via SkyTruth Alerts
11-Sep-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTS THAT THERE IS A FAULTY RELIEF DEVICE ON A TANK. THIS RESULTED IN A RELEASE OF VCM TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
27-Aug-19	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED LESS THAN 2 POUNDS OF VINYL CHLORIDE WAS RELEASED FROM A GASKET INTO THE AIR DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
20-Aug-19	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER IS REPORTING THAT A VALVE FAILED ON THE VINYL CHLORIDE MONOMER 1 UNIT RESULTING IN THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
20-Aug-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT A FILTER FAILURE AT A CHEMICAL FACILITY RESULTED IN THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
19-Aug-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTING A RELEASE OF 1 POUND OF VINYL CHLORIDE INTO THE AIR DUE TO LIFTING OF A PRESSURE RELIEF VALVE OF REACTOR. THE RELEASE WAS SECURED, THE REACTOR WAS DEGASSED AND TAKEN OUT OF SERVICE.	National Response Center via SkyTruth Alerts
15-Aug-19	Occidental	Deer Park	TX	PVC factory	CALLER STATED DUE TO AN EQUIPMENT FAILURE ON A DOUBLE MECHANICAL SEAL ON BLOW DOWN TANK B THERE WAS RELEASE OF MATERIALS AT THE CHEMICAL MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
14-Aug-19	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER A RELEASE OF AN UNDETERMINED AMOUNT OF VINYL CHLORIDE INTO THE AIR CAUSED BY A PRESSURE GAUGE LEAK ON A COMPRESSOR.	National Response Center via SkyTruth Alerts
14-Aug-19	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF APPROXIMATELY 10 POUNDS OF VINYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM AN O RING FAILURE ON A VCM FILTER, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts

3-Aug-19	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A AN UNKNOWN COMPONENT, DUE TO A LOSS OF THE STEAM BOILERS WHICH CAUSED THE PLANT TO SHUT DOWN.	National Response Center via SkyTruth Alerts
2-Aug-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTING THE RELEASE OF VCM FROM A LEAKING PIPE	National Response Center via SkyTruth Alerts
30-Jul-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED AN UNKNOWN AMOUNTS OF ETHYLENE, 1,2-DICHLOROETHANE, VINYL CHLORIDE, ETHYL CHLORIDE, AND CHLOROFORM WAS RELEASED INTO THE ATMOSPHERE FROM A VENT STACK DUE TO OPERATOR ERROR.	National Response Center via SkyTruth Alerts
28-Jul-19	Occidental	Deer Park	TX	VCM factory	CALLER REPORTS THE RELEASE OF THE FOLLOWING: VINYL CHLORIDE - ESTIMATED AT 1 POUND, ETHYLENE DICHLORIDE - ESTIMATED AT 100 POUNDS, AND CHLOROFORM - ESTIMATED AT 10 POUNDS. THE RELEASE WAS INTO THE AIR CAUSED BY A DUAL INCINERATOR SHUTDOWN AT A FACILITY.	National Response Center via SkyTruth Alerts
23-Jul-19	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER REPORTED A CHEMICAL RELEASE OF VINYL CHLORIDE WAS RELEASED TO THE AIR AT A CHEMICAL FACILITY DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
21-Jul-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED VINYL CHLORIDE AND DICHLOROETHANE (UN 2362) RELEASED TO THE AIR FROM A CHEMICAL FACILITY DUE TO CORRODED PIPING.	National Response Center via SkyTruth Alerts
20-Jul-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING AN (RQ) EXCEEDANCE OF VINYL CHLORIDE MONOMER TO ATMOSPHERE AT THE FACILITY DUE TO A HALF IN NIPPLE AND VALVE BREAKING OFF THE DISCHARGE PIPING OF A VACUUM SKID.	National Response Center via SkyTruth Alerts
14-Jul-19	Westlake	Westlake	LA	vinyl chloride factory	//////////THIS IS AN UPDATE FOR NRC REPORT NUMBER 1251881.////////// UPDATED INFO: VINYL CHLORIDE IS BEING ADDED TO THE RELEASE INCIDENT. ORIGINAL REPORT: ETHYLENE DICHLORIDE AND HYDROCHLORIC ACID RELEASED FROM A FURNACE STACK DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts

11-Jul-19	Westlake	Westlake	LA	VCM factory	CALLER STATED THAT A RUPTURE DISK ON A TANK RUPTURED AND THE SUBSEQUENT SAFETY VALVE LEAKED, WHICH DISCHARGED UNKNOWN AMOUNTS OF VINYL CHLORIDE AND 1,2, DICHLOROETHANE	National Response Center via SkyTruth Alerts
7-Jul-19	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTS THAT A CONTAMINATED WATER TANK VENTED TO THE ATMOSPHERE DUE TO OVERPRESSURE.	National Response Center via SkyTruth Alerts
3-Jul-19	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTS A RELEASE OF 25 POUNDS OF VINYL CHLORIDE INTO THE AIR CAUSED BY A BYPASS OF VENTS TO ATMOSPHERE AT A FACILITY.	National Response Center via SkyTruth Alerts
22-Jun-19	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THAT A PRESSURE RELIEF DEVICE ON A POLY VINYL CHLORIDE REACTOR LIFTED AND RELEASED 1000 POUNDS OF VINYL CHLORIDE INTO THE AIR. THE CAUSE OF THE RELEASE IS UNKNOWN.	National Response Center via SkyTruth Alerts
5-Jun-19	Occidental	Deer Park	TX	PVC factory	CALLER REPORTS THAT ONE POUND OF VINYL CHLORIDE LEAKED FROM A POLY REACTOR INTO THE AIR.	National Response Center via SkyTruth Alerts
5-Jun-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF HYDROCHLORIC ACID GAS AND VINYL CHLORIDE GAS TO THE AIR AT THE CHEMICAL FACILITY DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
20-May-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED DUE TO AN EQUIPMENT FAILURE THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER TO THE AIR AT THE INCIDENT LOCATION.	National Response Center via SkyTruth Alerts
4-May-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR CAUSED BY A PINHOLE LEAK ON PIPING AT A FACILITY.	National Response Center via SkyTruth Alerts
28-Apr-19	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A BLOWN RUPTURE DISK ON A SLURRY STRIPPER, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
20-Apr-19	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED A RELIEF VALVE ON THE 202D SLURRY FILTER LIFTED CAUSING VINYL CHLORIDE TO RELEASE TO THE AIR.	National Response Center via SkyTruth Alerts
17-Apr-19	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER REPORTED AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR FROM A A LIFTED RELEASE VALVE DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
16-Apr-19	Occidental	Deer Park	TX	PVC factory	VINYL CHLORIDE MONOMER IS RELEASING FROM A 1 INCH PIPING INSIDE THE FACILITY DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts

13-Apr-19	OxyVinyls	Pedricktown NJ		PVC factory	CALLER REPORTED A BLOWN GASKET INSIDE A MANUFACTURING FACILITY WHICH CAUSED A RELEASE OF VCM (VINYL CHLORIDE MONOMER).	National Response Center via SkyTruth Alerts
1-Apr-19	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE, ETHYLENE DICHLORIDE AND HYDROGEN CHLORIDE RELEASED FROM THE 'E' FURNACE OVERHEAD CONDENSER 1 INCH PLUG DUE TO AN EQUIPMENT MALFUNCTION.	National Response Center via SkyTruth Alerts
31-Mar-19	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED A PVC COOLING TOWER WITH AN AIR RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE WITH HIGHER THAN NORMAL AMOUNTS. THE CAUSE OF THIS RELEASE IS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
13-Mar-19	OxyVinyls	Pedricktown NJ		PVC factory	CALLER IS REPORTING THE 2 GALLON RELEASE OF LIQUID SLURRY, CONTAINING 1 POUND OF VINYL CHLORIDE, DUE TO EQUIPMENT FAILURE OF PIPE.	National Response Center via SkyTruth Alerts
20-Feb-19	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE RELEASED FROM A PIN HOLE LEAK ON STRIPPER PIPING.	National Response Center via SkyTruth Alerts
16-Feb-19	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED DUE TO A PRESSURE RELIEF VALVE THAT LIFTED WHEN THE AUTOMATIC VALVE MALFUNCTIONED, THERE WAS A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
1-Feb-19	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER REPORTS THAT THERE IS A PINHOLE LEAK ON A PIECE OF FACILITY PIPING. VCM IS RELEASING FROM THAT HOLE. REPAIRS ARE UNDERWAY.	National Response Center via SkyTruth Alerts
26-Jan-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED THAT A STORAGE TANK IS LEAKING MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts
24-Jan-19	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED AN UNKNOWN AMOUNT OF VINYL CHLORIDE WAS RELEASED INTO CONTAINMENT FROM A UNIT AT A CHEMICAL PLANT DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
6-Jan-19	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED UNKNOWN AMOUNTS OF GASEOUS HYDROGEN CHLORIDE AND VINYL CHLORIDE INTO THE ATMOSPHERE AND DICHLOROETHANE WAS RELEASED INTO CONTAINMENT DUE TO INTERNAL CORROSION.	National Response Center via SkyTruth Alerts
22-Dec-18	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED VINYL CHLORIDE WAS RELEASED TO THE AIR AND ON A CONCRETE PAD FROM A FAILED GASKET AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts

13-Dec-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE GAS INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS DUE TO A POWER TRIP ON THE SPRINKLER SYSTEM THAT OVERPRESSURED ONE OF THE LINES.	
13-Dec-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED A HANDFUL OF PEOPLE EVACUATED THE LOCAL AREA BUT DID NOT NEED TO LEAVE THE FACILITY.	National Response Center via SkyTruth Alerts
4-Dec-18	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A DEFECTIVE FLANGE OF THE C FURNACE ACCUMULATOR.	National Response Center via SkyTruth Alerts
26-Nov-18	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED THAT A FLANGE LEAKED MATERIAL TO THE AIR DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
25-Nov-18	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING THAT AN RV FAILURE ON A COMPRESSOR AT A CHEMICAL FACILITY RELEASED VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
18-Nov-18	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING DUE TO AN EQUIPMENT FAILURE WITH AN ALARM THERE WAS A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
16-Nov-18	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE ABOVE THE REPORTABLE QUANTITY DUE TO A MALFUNCTION OF A POLLUTION CONTROL DEVICE.	National Response Center via SkyTruth Alerts
16-Nov-18	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND CHLOROFORM INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A FLARE STACK DUE TO AN TRIPPED INCINERATOR THAT SHUT DOWN AND RELEASED THE CHEMICALS INTO THE VENT SCRUBBER.	National Response Center via SkyTruth Alerts
16-Nov-18	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING THE RELEASE OF APPROXIMATELY 1 POUND OF VINYL CHLORIDE MONOMER INTO THE AIR AT THE INCIDENT LOCATION. RELEASE WAS FROM A LEAK IN A FLANGE, DUE TO EQUIPMENT MALFUNCTION.	National Response Center via SkyTruth Alerts

12-Nov-18	Occidental	Ingleside (Gregory)	TX	VCM vessel	CALLER IS REPORTING THAT A VESSEL RELEASED VCM FROM A LEAKING LIQUID LOADING LINE.	National Response Center via SkyTruth Alerts
8-Nov-18	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE THAT COULD POTENTIALLY EXCEED THE REPORTABLE QUANTITY. ESTIMATED AMOUNT RELEASED IS UNKNOWN AT THIS TIME. CALLER STATED THAT INCIDENT CAUSE WAS CORROSION ON PIPING AT THE CHEMICAL MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
7-Nov-18	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER REPORTED THAT A VALVE LEAKED MATERIAL TO THE AIR.	National Response Center via SkyTruth Alerts
5-Nov-18	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE FROM A UNIT EQUIPMENT FAILURE AT A CHEMICAL PLANT.	National Response Center via SkyTruth Alerts
22-Oct-18	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THAT AN UNKNOWN AMOUNT OF VINYL CHLORIDE WAS RELEASED FROM A RELIEF VALVE LIFT ON PF202B FILTER AT A CHEMICAL PROCESSING FACILITY.	National Response Center via SkyTruth Alerts
17-Oct-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTS AN UNKNOWN OF VINYL CHLORIDE AND HYDROGEN CHLORIDE GAS INTO THE AIR CAUSED BY A BLOWN RUPTURED DISC AND A SAFETY RELEASE VALVE AT A FACILITY.	National Response Center via SkyTruth Alerts
15-Oct-18	Westlake	Aberdeen	MS	PVC resin factory	CALLER IS REPORTING THE RELEASE OF VINYL CHLORIDE INSIDE THE 'OLD MODULE RECOVERY SYSTEM' AT A CHEMICAL FACILITY. CALLER REPORTS THE RELEASE WAS AS A RESULT OF NORMAL OPERATIONS AND IT IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
15-Oct-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED THAT WHEN CLEARING LINE TO INCINERATOR AN UNKNOWN AMOUNT OF MATERIAL CAME OUT THROUGH THE STACK.	National Response Center via SkyTruth Alerts

14-Oct-18	Occidental Petroleum	La Porte	TX	vinyl chloride factory	***UPDATE TO REPORT NUMBER 1227457*** CALLER IS UPDATING THE MATERIALS RELEASED. CALLER STATED THAT AN UNKNOWN AMOUNT OF ETHYLENE DICHLORIDE AND 1 POUND OF VINYL CHLORIDE MONOMER WERE RELEASED TO THE AIR. ORIGINAL REPORT DESCRIPTION: CALLER IS REPORTING THE RELEASE OF ETHYLENE DICHLORIDE TO THE AIR AT THE CHEMICAL FACILITY DUE AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
13-Oct-18	Westlake	Westlake	LA	vinyl chloride factory	CARBON TETRACHLORIDE, CHLOROFORM, ETHYLENE, ETHYL CHLORIDE, VINYL CHLORIDE AND DICHLOROETHANE RELEASED A VENT ON A SCRUBBER SYSTEM DUE TO A POWER FAILURE.	National Response Center via SkyTruth Alerts
7-Oct-18	Shin-Etsu	Freeport	TX	PVC factory	CALLER IS REPORTING A RELEASED A REPORTABLE QUANTITY OF VINYL CHLORIDE CAUSED BY OPERATOR ERROR.	National Response Center via SkyTruth Alerts
1-Oct-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT A LOW POINT NEAR AN ISOLATION VALVE ON A SPVC UNIT DISCHARGED AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER INTO THE AIR.	National Response Center via SkyTruth Alerts
26-Sep-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF ETHYLENE (C2H4), HYDROGEN GAS (H2), ETHANE (C2H6), METHANE (CH4), CARBON MONOXIDE (CO), CARBON DIOXIDE (CO2), VINYL CHLORIDE (VCM), 1,2 DICHLOROETHANE (EDC), & HYDROGEN CHLORIDE (HCL) DUE TO A OXY REACTOR SHUTDOWN WHICH RELEASED THE CHEMICALS TO A VENT SCRUBBER THEN INTO THE AIR. THE EVENT STARTED AT 1840 LOCAL TIME AND WAS SECURED AT 1843 LOCAL TIME.	National Response Center via SkyTruth Alerts
20-Sep-18	Westlake	Westlake	LA	vinyl chloride factory	ETHYL DICHLORIDE, ETHYL CHLORIDE, ETHYLENE, CHLOROFORM, VINYL CHLORIDE AND HYDROGEN CHLORIDE GAS RELEASED FROM A STACK DUE TO THE LOSS OF AN INCINERATOR.	National Response Center via SkyTruth Alerts
18-Sep-18	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE WHEN A 2-INCH RELIEF VALVE LIFTED ON A PVC SLURRY FILTER (#202). THE INCIDENT CAUSE IS UNKNOWN AND IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
4-Sep-18	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER TO THE ATMOSPHERE DUE TO AN EQUIPMENT FAILURE ON A COMPRESSOR AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts

1-Sep-18	Westlake	Westlake	LA	vinyl chloride factory	ETHYLENE, ETHYLENE DICHLORIDE, HYDROCHLORIC ACID GAS AND VINYL CHLORIDE RELEASED FROM AN OXY-REACTOR THAT TRIPPED, SENDING THE CHEMICALS TO THE VENT.	National Response Center via SkyTruth Alerts
24-Aug-18	Ford Motor	Livonia	MI	automobile transmission factory	CALLER REPORTED TRICHLOROETHENE (TCE), TETRACHLOROETHENE (PCE), 1-DICHLOROETHENE (DCE), CIS-1,2-DICHLOROETHENE (CDCE), TRANS-1,2-DICHLOROETHENE (TDCE), VINYL CHLORIDE (VC), 1,4-DIOXANE, LNAPL, DNAPL, ARE BEING RELEASED FROM A TRANSMISSION PLANT INTO THE SOIL, WATER, AND AIR DUE TO FORD MOTOR COMPANY DUMPING.	National Response Center via SkyTruth Alerts
22-Aug-18	Westlake	Westlake	LA	vinyl chloride factory	A process vessel failed, and released 691 pounds of vinyl chloride. 34 people sheltered in place.	RMP
17-Aug-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTS THAT WHILE CHARGING A REACTOR, AN AMBIENT AIR ALARM ACTIVATED INDICATING A RELEASE OF MATERIALS INTO THE AIR.	National Response Center via SkyTruth Alerts
9-Aug-18	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED APPROXIMATELY 500 POUNDS OF VINYL CHLORIDE WAS RELEASED TO THE AIR FROM A PSV UNIT AT A CHEMICAL FACILITY, DUE TO AN UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
8-Aug-18	Shin-Etsu	Addis	LA	PVC resin factory	CALLER STATED WHILE PERFORMING MAINTENANCE ON A PVC REACTOR, A RUPTURED DISC WAS DAMAGED AND ALLOWED VINYL CHLORIDE TO RELEASE TO THE AIR.	National Response Center via SkyTruth Alerts
4-Aug-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT A LEAKING HEAD ON A VCM UNIT AT A CHEMICAL PLANT RESULTED IN THE RELEASE OF HYDROCHLORIC ACID, ETHYLENE DICHLORIDE AND VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
17-Jul-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED AN EXCHANGER IN THEIR VCM UNIT DEVELOPED A LEAK AND LEAKED INTO A COOLING TOWER.	National Response Center via SkyTruth Alerts

13-Jul-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE SECONDARY CONTAINMENT FROM A PINHOLE LEAK IN THEIR STORAGE TANK AT THE LOCATION ADDRESS BELOW. THE RELEASE IS MOST LIKELY CAUSED BY CORROSION. DUE TO THE NATURE OF THE CHEMICAL IT QUICKLY TURNS INTO A GAS AFTER IT HITS THE SECONDARY CONTAINMENT.	National Response Center via SkyTruth Alerts
8-Jul-18	Occidental	Deer Park	TX	VCM factory	CALLER REPORTED WHILE SHUTTING DOWN AN INCINERATOR A GC ON A STACK EXCEEDED THE THREE HOUR AVERAGE CAUSING A REPORTABLE RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
7-Jul-18	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTS THAT WHILE ATTEMPTING TO START A PIECE OF EQUIPMENT (PV-304-B) A PINHOLE LEAK WAS DISCOVERED TO BE 'BURPING'. THIS RESULTED IN A REPORTEDLY VERY SMALL RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
25-Jun-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A MANWAY BECAME LOOSE AND RESULTED IN A RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
14-Jun-18	Occidental	Deer Park	TX	VCM factory	CALLER REPORTS THAT DUE TO A GASKET LEAK ON A VINYL CHLORIDE STORAGE SPHERE, THERE HAS BEEN A RELEASE OF VINYL CHLORIDE MONOMERS TO THE ATMOSPHERE. THE CAUSE OF THE INCIDENT IS EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
6-Jun-18	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED DUE TO A LEAKING SAMPLE STATION THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER TO THE AIR AT THE CHEMICAL MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
27-May-18	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	VCM RELEASED FROM AN INLET ON THE SHIP LOADING PIPING, DUE TO A SMALL HOLE IN THE PIPE. THE AMOUNT RELEASED IS UNKNOWN, WITH A POTENTIAL TO EXCEED THE RQ.	National Response Center via SkyTruth Alerts
23-May-18	Westlake	Westlake	LA	vinyl chloride factory	UNKNOWN AMOUNTS OF CHLOROFORM AND VINYL CHLORIDE RELEASED FROM A VENT PIPE, DUE TO A HOLE IN THE PIPE (INITIAL CAUSE UNKNOWN).	National Response Center via SkyTruth Alerts
23-May-18	Occidental	Pasadena	TX	PVC factory	VINYL CHLORIDE MONOMER RELEASED FROM A REACTOR DISCHARGE POT DUE TO POSSIBLE SEAL LEAK.	National Response Center via SkyTruth Alerts

17-May-18	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THAT THE COOLING TOWER IS RELEASING MATERIALS TO THE AIR DUE TO AN UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
16-May-18	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT A WASTE WATER TANK RELIEF VALVE VENTED TO THE ATMOSPHERE DUE TO UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
6-May-18	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	VINYL CHLORIDE MONOMER, ETHYLENE DICHLORIDE AND HYDROCHLORIC ACID ARE RELEASING FROM A LEAK IN THE HEAT EXCHANGER.	National Response Center via SkyTruth Alerts
5-May-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A PIN HOLE LEAK IN A CONDENSER RELEASED AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
29-Apr-18	Occidental	Deer Park	TX	VCM factory	CALLER REPORTED AN UNKNOWN AMOUNT OF VINYL CHLORIDE WAS RELEASED INTO THE ATMOSPHERE FROM A VALVE ON A VENT SYSTEM TO AN OXYGEN ANALYZER DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
24-Apr-18	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER IS REPORTING THE 2 POUND RELEASE OF VINYL CHLORIDE DUE TO EQUIPMENT FAILURE WHEN A FILTER FAILED.	National Response Center via SkyTruth Alerts
24-Apr-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A SEAL ON A TANK FAILED, RESULTING IN A RELEASE OF VINYL CHLORIDE MONOMER. TRANSFER SYSTEM WAS UNDER VACUUM, AND THE PRODUCT WAS IMMEDIATELY CYCLED BACK IN.	National Response Center via SkyTruth Alerts
22-Apr-18	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER REPORTS THAT A SEAL ON THE VINYL PLANT FAILED, RESULTING IN THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
20-Apr-18	Westlake	Plaquemine	LA	PVC resin factory	DURING START-UP AN INCINERATOR TRIPPED AND BYPASSED THE VENT TO THE SCRUBBER. AS A RESULT, VINYL CHLORIDE RELEASED TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
21-Mar-18	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE ATMOSPHERE DUE TO EQUIPMENT FAILURE WHEN THE UNIT OVERPRESSURED AND ACTIVATED THE SAFETY RELIEF VALVE.	National Response Center via SkyTruth Alerts
23-Feb-18	Westlake	Westlake	LA	vinyl chloride factory	UNKNOWN AMOUNTS OF VINYL CHLORIDE AND DICHLOROMETHANE RELEASED FROM VC-8CL STEEL (PROCESS EQUIPMENT), DUE TO CORROSION.	National Response Center via SkyTruth Alerts

19-Feb-18	Dow	Midland	MI	incinerator	CALLER IS REPORTING THAT DURING MAINTENANCE A FACILITY EQUIPMENT RELEASED MATERIAL TO THE AIR.	National Response Center via SkyTruth Alerts
14-Feb-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THAT AN INCINERATOR SHUT DOWN AT A CHEMICAL FACILITY RESULTED IN THE RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, CHLOROFORM, AND ETHYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
11-Feb-18	Orbia	Avon Lake	OH	PVC factory	CALLER IS REPORTING THE RELEASE OF VINYL CHLORIDE VAPOR FROM A FACILITY LINE DUE TO EQUIPMENT FAILURE WHEN THE FACILITY LINE FAILED DUE TO DETERIORATION.	RMP
10-Feb-18	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR CAUSED BY A GASKET FAILURE.	National Response Center via SkyTruth Alerts
29-Jan-18	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE ATMOSPHERE DUE TO A PIN HOLE LEAK.	National Response Center via SkyTruth Alerts
29-Jan-18	Occidental	Pasadena	TX	PVC factory	CALLER STATED THEY HAD A RELEASE OF VINYL CHLORIDE FROM A SURGE POT DUE TO UNKNOWN CAUSES. CALLER STATED THEY ARE A CHEMICAL MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
28-Jan-18	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE TO THE AIR OF VINYL CHLORIDE MONOMER DUE TO A LEAK FROM THE RVCM PUMP. CALLER STATED THE CAUSE OF THE LEAK IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
24-Jan-18	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM THE PVC COOLING TOWER. CAUSE OF THE RELEASE IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
20-Jan-18	Occidental	Pasadena	TX	PVC factory	CALLER STATED THAT THEY SUFFERED A VINYL CHLORIDE RELEASE FROM THE VENT COLLECTION SYSTEM. CAUSE IS STILL UNKNOWN.	National Response Center via SkyTruth Alerts
18-Jan-18	Occidental	Deer Park	TX	PVC factory	CALLER STATED THAT THEY LOST A REACTOR SEAL CAUSING THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE. AMOUNT OF RELEASE IS UNKNOWN HOWEVER IT IS ABOVE THE RQ.	National Response Center via SkyTruth Alerts
17-Jan-18	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER REPORTS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR CAUSED BY A THERMAL OXIDIZER CONTROL DEVICE GOING OFFLINE.	National Response Center via SkyTruth Alerts

17-Jan-18	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER TO THE AIR DUE TO EQUIPMENT MALFUNCTION OF A SEAL.	National Response Center via SkyTruth Alerts
13-Jan-18	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER REPORTS A RELEASE OF AN UNKNOWN (SMALL) AMOUNT OF VINYL CHORIDE MONOMER INTO THE AIR CAUSED BY A PACKING LEAK ON A VALVE.	National Response Center via SkyTruth Alerts
8-Jan-18	Occidental	Deer Park	TX	PVC factory	CALLER STATED THEY HAD A RELEASE OF 1 POUND OF VINYL CHLORIDE FROM A SEAL WATER PIN HOLE LEAK ON A D VACUUM PUMP DUE TO UNKNOWN CAUSES. CALLER STATED THIS IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
2-Jan-18	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED AN UNKOWN AMOUNT OF VINYL CHLORIDE, ETHYL CHLORIDE, DICHLOROETHANE, RELEASED TO THE ATMOSPHERE FROM AN INCINERATOR AT A REFINERY, DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
16-Dec-17	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT WHILE PREPARING THE NO. 3 INCINERATOR FOR START-UP, A VALVE WAS MIS-ALIGNED CAUSING AN OPERATIONAL START UP. THIS RESULTED IN THE RELEASE OF 8 POUNDS OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
13-Dec-17	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER IS REPORTING THAT A HYDROGEN CHLORIDE GAS EXCHANGER DEVELOPED A LEAK CAUSING HYDROGEN CHLORIDE INTO THE AIR. THE CALLER STATES THAT VINYL CHLORIDE MAY HAVE BEEN RELEASED ALSO.	National Response Center via SkyTruth Alerts
13-Dec-17	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A LEAK ON THE BOTTOM OF A VINYL STRIPPER.	National Response Center via SkyTruth Alerts
9-Dec-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE RP IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER (VCM) POSSIBLY DUE TO A PINHOLE LEAK IN PIPING (UNDER INVESTIGATION). NO REPORTED INJURIES OR EVACUATIONS. THE IMPACT IS ATMOSPHERE. **QUANTITY IS CURRENTLY UNKNOWN, POTENTIAL RQ EXCEEDANCE.	National Response Center via SkyTruth Alerts

8-Dec-17	Occidental	Deer Park	TX	PVC factory	CALLER STATED THEY HAD A RELEASE OF VINYL CHLORIDE MONOMER (VCM) FROM A PIPELINE COMPONENT DUE TO UNKNOWN CAUSES. CALLER STATED THEY ESTIMATED A RELEASE OF LESS THAN 1 POUND OF VCM.	National Response Center via SkyTruth Alerts
8-Dec-17	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING THAT DUE TO OVERPRESSURING, THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
2-Dec-17	Occidental	Pasadena	TX	PVC factory	CALLER REPORTS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER INTO AIR CAUSED BY A PINHOLE LEAK IN PIPING OUTSIDE AT A FACILITY.	National Response Center via SkyTruth Alerts
29-Nov-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM THE PACKING ON A VALVE AT THE FACILITY.	National Response Center via SkyTruth Alerts
27-Nov-17	Formosa	Baton Rouge	LA	VCM/PVC factory	THE RP IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO A FILTER (PF401C) OUTLET VALVE WAS DISCOVERED TO HAVE BEEN LEFT OPEN. RP STATED THAT THE CAUSE IS BELIEVED TO BE DUE TO OPERATOR ERROR, HOWEVER THE CAUSE IS CURRENTLY UNCONFIRMED. THE IMPACT IS ATMOSPHERE. **NO REPORTED INJURIES OR EVACUATIONS.	National Response Center via SkyTruth Alerts
19-Nov-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR CAUSED BY A BROKEN SIGHT GLASS ON A TANK.	National Response Center via SkyTruth Alerts
13-Nov-17	Occidental	Pasadena	TX	PVC factory	CALLER STATED VINYL CHLORIDE (VCM) RELEASED INTO THE AIR FROM A DAMAGED VALVE BODY LOCATED ON A PIPE WITHIN THE FACILITY.	National Response Center via SkyTruth Alerts
10-Nov-17	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THE OXY UNIT TRIPPED OFF AND THE VENT VALVE OPENED AT THE CHEMICAL FACILITY. THIS RESULTED IN A RELEASE OF MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts
7-Nov-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT A FLANGE DEVELOPED A LEAK WHICH RESULTED IN THE RELEASE OF VINYL CHLORIDE MONOMERS, HYDROCHLORIC ACID AND POSSIBLY OF ETHYLENE DICHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts

5-Nov-17	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER STATED THAT A THEY HAD A TRANSMITTER FAILURE WHEN A PLUG ON THE TRANSMITTER BLEW OUT CAUSING THE RELEASE OF VINYL CHLORIDE (55 POUNDS), ETHYLENE DICHLORIDE (28 POUNDS), AND HYDROGEN CHLORIDE (25 POUNDS) TO THE ATMOSPHERE. CALLER STATED THAT THE VINYL CHLORIDE WAS THE ONLY MATERIAL WHICH REACHED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
3-Nov-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A RUPTURED DISK ASSEMBLY LEAKING THAT CAUSED A RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
3-Nov-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT A PVC UNIT RELEASED VCM DUE TO UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
30-Oct-17	Occidental	Deer Park	TX	VCM factory	DUE TO A VALVE LEAK AT A STORAGE TANK PUMP (POSSIBLY A PACKING LEAK), VINYL CHLORIDE MONOMER RELEASED TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
27-Oct-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	UPDATE: CALLER REPORTS ONE POUND OF VINYL CHLORIDE MONOMER WAS ALSO RELEASED INTO THE AIR DURING INCIDENT. ORIGINAL REPORT: AN ESTIMATED 100LBS OF ETHYLENE DICHLORIDE RELEASED FROM THE EDC WET-TANK, DUE TO OVERPRESSURING IN THE HEADER WHEN THE INCINERATOR SHUT-DOWN.	National Response Center via SkyTruth Alerts
25-Oct-17	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER IS REPORTING THAT AN OPERATOR OPENED A PIECE OF EQUIPMENT WITH VINYL CHLORIDE INSIDE. THIS RESULTED IN THE RELEASE OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
24-Oct-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTS A RELEASE OF AN ESTIMATED ONE POUND OF VINYL CHLORIDE MONOMER, AND AN ESTIMATED 50 POUNDS OF ETHYLENE DICHLORIDE INTO THE AIR CAUSED BY AN EXCHANGER TUBE LEAK INTO COOLING TOWER WATER.	National Response Center via SkyTruth Alerts
23-Oct-17	Occidental	Pasadena	TX	PVC factory	CALLER STATED THAT AN UNKNOWN AMOUNT OF VINYL CHLORIDE WAS RELEASED TO THE ATMOSPHERE FROM A REACTOR (REACTOR #2), DUE TO AN UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts

17-Oct-17	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THAT THERE IS A LEAK FROM THE K301D COMPRESSOR DUE TO AN UNKNOWN CAUSE. THIS HAS RESULTED IN THE RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
14-Oct-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTS A RELEASE OF 13.85 POUNDS OF VINYL CHLORIDE MONOMER INTO THE AIR CAUSED BY AN OPEN DRAIN VALVE.	National Response Center via SkyTruth Alerts
12-Oct-17	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THAT DUE TO POWER FAILURE, THERE WAS OF INCINERATION. THE MATERIALS WERE VENTED AT THIS POINT TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
10-Oct-17	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORT A RELEASE OF AN UNKNOWN AMOUNT OF 1,2-DICHLOROETHANE (EDC), CHLOROFORM, AND VINYL CHLORIDE, ONTO THE GROUND AT A FACILITY FROM A RUPTURED PIPELINE DUE TO CORROSION AT A FACILITY.	National Response Center via SkyTruth Alerts
4-Oct-17	Occidental	Deer Park	TX	PVC factory	THE CALLER IS REPORTING THAT A FLANGE ON A RUPTURE DISC ON A HEAT EXCHANGER RELEASED VINYL CHLORIDE TO THE AIR. THE CALLER STATES THAT THE START AND STOP TIME OF THE EVENT WAS 0733 - 0736.	National Response Center via SkyTruth Alerts
4-Oct-17	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THAT THERE HAS BEEN A RELEASE OF VINYL CHLORIDE MONOMER DUE TO A FAILED FITTING ON A PUMP. THE PRODUCT RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
4-Oct-17	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE IN THE REACTOR AREA DUE TO UNKNOWN REASONS AT THE TIME.	National Response Center via SkyTruth Alerts
2-Oct-17	Berkshire Hathaway	Louisville	KY	CPVC factory	<p>THE RP IS REPORTING A RELEASE OF WASTE WATER MIXED WITH VINYL CHLORIDE DUE TO A HOSE MALFUNCTION. RP STATED THAT THE HOSE POPPED OFF A PROCESS TANK (FACILITY UNIT). NO REPORTED INJURIES OR EVACUATIONS. THE IMPACT IS INTO SECONDARY CONTAINMENT.</p> <p>**APPROXIMATELY 200 GALLONS OF WASTE WATER SPILLED WITH AN ESTIMATED 1 GALLON OF VINYL CHLORIDE CONTAINED IN THE WATER.</p>	National Response Center via SkyTruth Alerts

15-Sep-17	Occidental	Pasadena	TX	PVC factory	THE RP IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO UNKNOWN CAUSES. RP STATED THERE WAS A LEAK ON A REACTOR. NO REPORTED INJURIES OR EVACUATIONS. THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts
13-Sep-17	Occidental	Deer Park	TX	PVC factory	CALLER STATED DUE TO A CRACK IN A FLANGE ON A PIECE OF PIPE AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
8-Sep-17	Occidental	Pasadena	TX	PVC factory	CALLER STATED DUE TO A LEAK FROM A RELEASE VALVE ON THE K398 KNOCK OUT POT, 1 POUND OF VINYL CHLORIDE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
3-Sep-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT A STORAGE TANK HAD A RELEASE OF CONTAMINATED WATER VAPOR CONTAINING VINYL CHLORIDE MONOMER TO THE AIR DUE TO A TEMPORARY VENT.	National Response Center via SkyTruth Alerts
28-Aug-17	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	A CALLER REPORTED A RELEASE OF 110 POUNDS OF ETHYLENE DICHLORIDE AND 2 POUNDS OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A FAULTY RELEASE DEVICE. THE CALLER STATED THAT THE MALFUNCTION MAY BE DUE TO THE HURRICANE HARVEY.	National Response Center via SkyTruth Alerts
26-Aug-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT A CONTAMINATED WATER STORAGE TANK OVERPRESSURED, LIFTING THE RELIEF DEVICE AND RELEASING VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
15-Aug-17	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A RECYCLE LINE LEADING TO A VINYL TANK EXPERIENCED A LEAK, RESULTING IN A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
13-Aug-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER IS REPORTING THAT THE INCINERATOR SHUT DOWN CAUSING THE RELEASE OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
7-Aug-17	Westlake	Westlake	LA	vinyl chloride factory	A CALLER REPORTED A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A RELIEF VALVE DUE TO AN OVER PRESSURE IN THE SYSTEM.	National Response Center via SkyTruth Alerts

3-Aug-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED FROM A UNIT-LINE (PIPE RACK), DUE TO A LEAK.	National Response Center via SkyTruth Alerts
3-Aug-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED A HOLE DEVELOPED IN A PIPELINE COMING FROM A SPHERE TO ANOTHER AREA WITHIN THE FACILITY. THIS CAUSED A RELEASE OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
1-Aug-17	Formosa	Baton Rouge	LA	VCM/PVC factory	///THIS IS AN UPDATE TO REPORT NUMBER 1185854./// CALLER REPORTED WHILE PICKING UP A SKID OF VINYL CHLORIDE SOME WAS LEAKED DUE TO UNKNOWN REASONS.	National Response Center via SkyTruth Alerts
29-Jul-17	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER STATED THAT AN UNKNOWN AMOUNT OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND HYDROGEN CHLORIDE WERE RELEASED TO THE ATMOSPHERE FROM A PRODUCTION FURNACE, DUE TO EQUIPMENT FAILURE, AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
26-Jul-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THEY HAVE DEVELOPED A LEAK IN A HEAT EXCHANGER NORTH PURIFICATION COLUMN AND IS RELEASING AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE EAST COOLING TOWER. FROM THEIR THE MATERIAL IS BEING RELEASED TO THE ATMOSPHERE. CALLER STATED THAT THEY EXPECT TO BE ABOVE THE REPORTABLE QUANTITY OF 1 POUND. CALLER STATED THEY ALSO HAVE FURNACE TUBE LEAK ALSO RELEASING VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
25-Jul-17	Occidental	Deer Park	TX	PVC factory	CALLER STATED VINYL CHLORIDE RELEASED FROM A 1 INCH PROCESS LINE AT THE FACILITY INTO THE AIR DUE TO UNKNOWN CAUSES AT THIS TIME.	National Response Center via SkyTruth Alerts
24-Jul-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT APPROXIMATELY 1 POUND OF VINYL CHLORIDE WAS RELEASED TO THE ATMOSPHERE, FROM A CONTAMINATED WATER STORAGE TANK, DUE TO OVER PRESSURING.	National Response Center via SkyTruth Alerts
18-Jul-17	OxyVinyls	Pedricktown NJ		PVC factory	CALLER STATED DUE TO A PACKING LEAK ON A VALVE LOCATED ON A VINYL CHLORIDE LINE, THE WAS A RELEASE OF 1-5 POUNDS OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts

13-Jul-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE RP IS REPORTING A RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND HYDROCHLORIC ACID DUE TO A LEAK IN A FLANGE. NO REPORTED INJURIES OR EVACUATIONS. THE IMPACT IS ATMOSPHERE. **RP STATED IT IS CURRENTLY UNKNOWN IF THE RQ HAS BEEN EXCEEDED FOR THE PRODUCTS.	National Response Center via SkyTruth Alerts
3-Jul-17	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER STATED THAT AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED INTO THE ATMOSPHERE FROM AN UNKNOWN SOURCE IN A CHEMICAL MANUFACTURING PLANT. NO WATERWAYS WERE AFFECTED. AN INVESTIGATION BY THE FIRE DEPARTMENT IS CURRENTLY UNDERWAY.	National Response Center via SkyTruth Alerts
29-Jun-17	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THAT A PURITY ANALYZER DEVELOPED AN ICE BALL WHICH SIGNIFIES A RELEASE OF VINYL CHLORIDE. THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
27-Jun-17	Occidental	Deer Park	TX	VCM factory	DUE TO TWO INCINERATOR GOING DOWN, VINYL CHLORIDE, CHLOROFORM AND ETHYLENE DICHLORIDE RELEASED TO THE EMERGENCY VENT SCRUBBERS.	National Response Center via SkyTruth Alerts
26-Jun-17	Occidental	Deer Park	TX	VCM factory	VINYL CHLORIDE RELEASED FROM A FILTER DUE TO MAINTENANCE ACTIVITY.	National Response Center via SkyTruth Alerts
19-Jun-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE MONOMER IS RELEASING FROM A CONTAMINATED WATER STORAGE TANKS PRESSURE SAFETY VALVE, DUE TO ELEVATED PRESSURE.	National Response Center via SkyTruth Alerts
12-Jun-17	Occidental	Pasadena	TX	PVC factory	VINYL CHLORIDE IS RELEASING FROM A REACTOR, DUE TO CRACK IN A .25' NIPPLE AT THE THREADS.	National Response Center via SkyTruth Alerts
12-Jun-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED OPERATORS FOUND A LEAK ON A 90 DEGREE ELBOW THAT LEADS TO COLUMN CV401E. CALLER STATED UNKNOWN AMOUNTS OF ETHYLENE DICHLORIDE, VINYL CHLORIDE AND HYDROCHLORIC ACID WERE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts

11-Jun-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	ETHYLENE DICHLORIDE AND VINYL CHLORIDE ARE RELEASING FROM THE EDC TANK, DUE TO UNKNOWN CAUSES. THE AMOUNT RELEASED IS UNKNOWN WITH A POTENTIAL RQ EXCEEDANCE.	National Response Center via SkyTruth Alerts
7-Jun-17	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	THE CALLER STATES THAT THERE WAS A PIN HOLE LEAK IN THE FIN FAN TUBE CAUSING A RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
2-Jun-17	Westlake	Geismar	LA	PVC factory	THE CALLER STATES THAT THERE IS A INCINERATOR BYPASS THAT IS RELEASING VINYL CHLORIDE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
2-Jun-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER TO THE ATMOSPHERE FROM A RELIEF VALVE ON A CONTAMINATED WATER STORAGE TANK THAT WAS OVERPRESSURED.	National Response Center via SkyTruth Alerts
31-May-17	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING THAT THEY HAVE DETECTED ELEVATED VINYL CHLORIDE SAMPLES IN HEAT TRANSFER MEDIA STREAMS INTO THE ATMOSPHERE. THEY ARE CONDUCTING FURTHER TESTING AT THIS TIME.	National Response Center via SkyTruth Alerts
22-May-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE MONOMER RELEASED FROM A CONTAMINATED WATER STORAGE TANK DUE TO AN ELEVATED PRESSURE IN THE TANK.	National Response Center via SkyTruth Alerts
18-May-17	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING THAT A POWER OUTAGE ON A VCM UNIT AT A CHEMICAL FACILITY CAUSED AN INCINERATOR TO TRIP, WHICH RESULTED IN THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
15-May-17	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A RELEASE OF VINYL CHLORIDE (1 POUND) INTO THE AIR. THE RELEASE WAS CONTAINED TO WITHIN FACILITY. THE CAUSE IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
9-May-17	Occidental	Pasadena	TX	PVC factory	VINYL CHLORIDE RELEASED FROM A SLURRY TANK DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
8-May-17	Westlake	Westlake	LA	vinyl chloride factory	VINYL CHLORIDE RELEASED FROM A COOLER LEAK INSIDE THE PLANT.	National Response Center via SkyTruth Alerts

6-May-17	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THAT A SEAL ON A REACTOR FAILED RESULTING IN THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER. CALLER IS REPORTING THAT THE AMOUNT IS EXPECTED TO EXCEED THE ONE POUND REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
30-Apr-17	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THAT DUE TO A GASKET THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF HYDROCHLORIC ACID, ETHYLENE DICHLORIDE, VINYL CHLORIDE. CALLER IS REPORTING THAT IT IS UNKNOWN IF RQ WILL BE EXCEEDED.	National Response Center via SkyTruth Alerts
23-Apr-17	Occidental	Deer Park	TX	VCM factory	CALLER STATED DUE TO A PROCESS UPSET AT THE FACILITY SEVERAL MATERIALS RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
22-Apr-17	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING HIGH READINGS ON THEIR INCINERATOR STACK AND A RELEASE OF VINYL CHLORIDE INTO THE AIR. THE EXACT CAUSE OF THE RELEASE IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
20-Apr-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING WHILE PERFORMING MAINTENANCE, A RELEASE OF VINYL CHLORIDE OCCURRED FROM A LOW POINT BLEED.	National Response Center via SkyTruth Alerts
17-Apr-17	Occidental	Pasadena	TX	PVC factory	VINYL CHLORIDE MONOMER RELEASED FROM A REACTOR DUE TO MAINTENANCE ACTIVITY.	National Response Center via SkyTruth Alerts
12-Apr-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED DUE TO AN EQUIPMENT FAILURE THERE WAS A RELEASE OF MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts
10-Apr-17	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER STATED VCM PRODUCTION REACTOR DEVELOPED A SMALL LEAK RELEASING AN UNKNOWN AMOUNT OF VINYL CHLORIDE, ETHYLENE , DICHLORO ETHYLENE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
10-Apr-17	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING THAT DUE TO AN UPSET AT THE PLANTS RECOVERY AREA THERE WAS A RELEASE OF ONE POUND OF VINYL CHLORIDE MONOMER TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
9-Apr-17	Occidental	Pasadena	TX	PVC factory	CALLER STATED WHILE FLUSHING EQUIPMENT CONTAMINATED WATER CONTAINING SMALL TRACES OF VINYL CHLORIDE MONOMER RELEASED ONTO THE GROUND.	National Response Center via SkyTruth Alerts

1-Apr-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE RP IS REPORTING A POTENTIAL RQ RELEASE OF VINYL CHLORIDE DUE TO EQUIPMENT MALFUNCTION. RP STATED THAT HIGH PRESSURE ON A WASTE WATER STORAGE TANK RESULTED IN THE RELEASE. NO REPORTED INJURIES OR EVACUATIONS. THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts
31-Mar-17	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING THAT DUE TO A POWER FAILURE THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE ATMOSPHERE FROM A RELIEF VALVE.	National Response Center via SkyTruth Alerts
18-Mar-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT A VINYL CHLORIDE DRIP WAS DISCOVERED FROM PRESSURE TRANSMITTER PT529B ON COLUMN VC503. THE AMOUNT RELEASED IS UNKNOWN. IMPACT IS TO THE AIR.	National Response Center via SkyTruth Alerts
15-Mar-17	Occidental	Deer Park	TX	VCM factory	CALLER REPORTED A PIN HOLE LEAK WAS DISCOVERED ON A FILTER FOR A PUMP.	National Response Center via SkyTruth Alerts
10-Mar-17	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THE DISCOVERY OF A LEAK FROM AN OVERHEAD CONDENSER. THIS RESULTED IN THE RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER AND ETHYLENE DICHLORIDE TO ATMOSPHERE.	National Response Center via SkyTruth Alerts
10-Mar-17	Occidental	Pasadena	TX	PVC factory	VINYL CHLORIDE MONOMER RELEASED FROM A BLIND ON A LINE, THAT WAS BEING CLEARED FOR MAINTENANCE. HOWEVER, ONE OF THE BLOCKS (ISOLATING THE LINE) LEAKED BY. THE AMOUNT RELEASED IS UNKNOWN, WITH A POTENTIAL TO EXCEED THE 1LB RQ.	National Response Center via SkyTruth Alerts
27-Feb-17	Occidental	Deer Park	TX	VCM factory	CALLER STATED DUE TO A TUBING LEAK AT THE FACILITY ONE POUND OF VINYL CHLORIDE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
27-Feb-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A LEAK ON A VALVE THAT MAY LEAD TO A REPORTABLE QUANTITY RELEASE.	National Response Center via SkyTruth Alerts
20-Feb-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A VAPOR COMING FROM A GASKET AT THE FACILITY DUE TO EQUIPMENT FAILURE..	National Response Center via SkyTruth Alerts
29-Jan-17	Occidental	Deer Park	TX	PVC factory	CALLER STATED DUE TO A PIN HOLE LEAK ON A WELD ON A WASTE WATER PIPE THERE WAS A RELEASE OF VINYL CHLORIDE TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
21-Jan-17	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	AN UNCONFIRMED AMOUNT OF VINYL CHLORIDE RELEASED FROM PIPING WITHIN THE PRODUCTION UNIT, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts

21-Jan-17	Occidental	Pasadena	TX	PVC factory	VINYL CHLORIDE MONOMER RELEASED FROM A PINHOLE LEAK ON A LINE, LEADING TO THE REACTOR. THE AMOUNT RELEASED IS AN ESTIMATED 1LB WITH A POTENTIAL TO EXCEED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
19-Jan-17	Occidental	Pedricktown	NJ	Vinyl chloride tank car	CALLER STATED THAT THERE WAS A SMALL LEAK OF VINYL CHLORIDE FROM A RAIL CAR DUE TO AN UNKNOWN RELIEF VALVE ISSUE. THE RELEASE WAS BELIEVED TO BE UNDER THE REPORTABLE QUANTITY OF 1 POUND HOWEVER, THIS REPORT IS BEING GENERATED JUST IN CASE.	National Response Center via SkyTruth Alerts
16-Jan-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE RP IS REPORTING A RELEASE OF HYDROGEN CHLORIDE, ETHYLENE DICHLORIDE AND VINYL CHLORIDE MONOMER DUE TO A LEAK ON THE FLANGE (PROCESS PIPING). NO REPORTED INJURIES OR EVACUATIONS AT THIS TIME. THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts
9-Jan-17	Westlake	Westlake	LA	vinyl chloride factory	VINYL CHLORIDE AND HYDROCHLORIC ACID RELEASED FROM A CONDENSER DUE TO A TUBE LEAK.	National Response Center via SkyTruth Alerts
8-Jan-17	Westlake	Geismar	LA	PVC factory	CALLER REPORTED THAT AN EQUIPMENT PRESSURE RELEASE VALVE RELEASED MATERIAL TO THE ATMOSPHERE DUE TO UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
6-Jan-17	Shin-Etsu	Addis	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A CHEMICAL FACILITY DUE TO A FLANGE LEAK.	National Response Center via SkyTruth Alerts
6-Jan-17	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING AN INCINERATOR TRIP RESULTED IN RELEASE OF MATERIALS FROM THE SCRUBBER UNIT. MATERIALS RELEASED WERE VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND CHLOROFORM.	National Response Center via SkyTruth Alerts
6-Jan-17	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE FROM A CHEMICAL FACILITY DUE TO EQUIPMENT FAILURE. THERE WAS A LEAK ON PIPING ASSOCIATED WITH THE C FURNACE.	National Response Center via SkyTruth Alerts
5-Jan-17	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT THEY DISCOVERED A LEAK ON A VINYL CHLORIDE LINE PUMP, WHICH RELEASED APPROXIMATELY 1 POUND OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
3-Jan-17	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT A RELIEF VALVE LIFTED DUE TO AN OVER PRESSURE IN THE COLUMN WHICH CAUSED A RELEASE OF VINYL CHLORIDE MONOMER (VCM) TO THE AIR.	National Response Center via SkyTruth Alerts

29-Dec-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED A WASTE WATER TANK OVER PRESSURED DUE TO THE PLANT BEING SHUTDOWN EARLIER. THIS CAUSED A RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
28-Dec-16	Huntsman	Freeport	TX	Ethyleneamine factory	CALLER STATED DUE TO A HOLE IN A PIPE THERE WAS A RELEASE OF VINYL CHLORIDE AND AMMONIA AT THE CHEMICAL PLANT TO THE AIR.	National Response Center via SkyTruth Alerts
17-Dec-16	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED THAT EQUIPMENT AT THE FACILITY RELEASED MATERIAL TO THE AIR DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
3-Dec-16	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	VINYL CHLORIDE RELEASED DUE TO A PUMP SEAL LEAK IN THE SOUTH TANK YARD. AMOUNT RELEASED IS UNKNOWN WITH THE POTENTIAL TO EXCEED THE 1LB RQ.	National Response Center via SkyTruth Alerts
22-Nov-16	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	VINYL CHLORIDE MONOMER RELEASED FROM A PIN HOLE LEAK ON A VALVE BODY.	National Response Center via SkyTruth Alerts
21-Nov-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED DUE TO ELEVATED PRESSURE ON A CONTAMINATED WATER STORAGE TANK THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER TO THE AIR.	National Response Center via SkyTruth Alerts
16-Nov-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED THAT THEY HAVE A DRIP OF VINYL CHLORIDE FROM A FILTER BED TO THE AIR. THEY BELIEVE THEY MAY HAVE EXCEEDED THE REPORTABLE QUANTITY BUT DO NOT HAVE A FINAL QUANTITY.	National Response Center via SkyTruth Alerts
11-Nov-16	Formosa	Point Comfort	TX	Vinyl chloride tank car	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE FROM A HOSE LEAK ON A RAILCAR.	National Response Center via SkyTruth Alerts
9-Nov-16	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A FLUSH WATER LINE ON REACTOR 3 DUE TO A CRACK IN THE WELD.	National Response Center via SkyTruth Alerts
8-Nov-16	Westlake	Aberdeen	MS	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE FROM A LINE AT THE CHEMICAL FACILITY DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
7-Nov-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	VCM RELEASED FROM A STORAGE VESSEL DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts

31-Oct-16	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	THE RP IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO A LEAKING FLANGE ON A VINYL CHLORIDE LINE. NO REPORTED INJURIES OR EVACUATIONS DUE TO THE RELEASE. THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts
18-Oct-16	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER REPORTED THAT THEY DETECTED VCM LEVELS IN ONE OF THE REACTORS BUILDING FROM AN UNKNOWN SOURCE. OPERATORS WERE TRYING TO DETERMINE SOURCE AND IT WENT AWAY.	National Response Center via SkyTruth Alerts
18-Oct-16	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THAT THEY FOUND A LEAK ON A FLOW TRANSMITTER ON THE NC203 COLUMN. (THE FLOW TRANSMITTER NUMBER IS FTC203D) CHEMICAL RELEASED IS AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
18-Oct-16	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THE EXCHANGER ON THE VCM UNIT LEAKED VINYL CHLORIDE TO THE AIR DUE TO A POSSIBLE CRACKED TUBE IN THE EXCHANGER.	National Response Center via SkyTruth Alerts
12-Oct-16	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PROCESS UNIT DUE TO EQUIPMENT FAILURE FROM A PINHOLE LEAK.	National Response Center via SkyTruth Alerts
4-Oct-16	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED DUE TO A PIN HOLE LEAK IN A LINE THERE WAS RELEASE OF MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts
2-Oct-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED THERE WAS A RELEASE OF (VCM) VINYL CHLORIDE MONOMER DUE TO CORROSION ON A TWO INCH INCINERATOR HEADER.	National Response Center via SkyTruth Alerts
1-Oct-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF ETHYL DICHLORIDE (OR DICHLOROETHANE), VINYL CHLORIDE, AND HYDROCHLORIC ACID INTO THE ATMOSPHERE AND ONTO THE GROUND FROM A PROCESS UNIT DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
26-Sep-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER REPORTED THAT A FLANGE LEAKED TO THE ATMOSPHERE DUE TO UNKNOWN REASONS.	National Response Center via SkyTruth Alerts
21-Sep-16	Westlake	Plaquemine	LA	PVC resin factory	VINYL CHLORIDE RELEASED FROM A PROCESS SAFETY VALVE (PSV) DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts

20-Sep-16	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED A MANWAY ON A CONDENSER WAS LOOSE. THIS RESULTED IN A RELEASE OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
18-Sep-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A RELEASE OF MATERIALS FROM A FACILITY DURING START UP.	National Response Center via SkyTruth Alerts
15-Sep-16	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF MATERIALS AS A RESULT OF AN EMISSION CONTROL DEVICE ON A THERMAL OXIDIZER SHUTTING DOWN. THE INCIDENT IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
13-Sep-16	Occidental	Pasadena	TX	PVC factory	CALLER STATED THERE WAS A RELEASE OF MATERIALS (VCM) DUE TO A PIN HOLE LEAK IN A WASH WATER LINE.	National Response Center via SkyTruth Alerts
9-Sep-16	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM THE D240 TOPLINE VESSEL AT A CHEMICAL FACILITY DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
6-Sep-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT A RELIEF VALVE LOCATED ON THEIR CONTAMINATED WATER STORAGE TANK VENTED TO ATMOSPHERE FOR A PERIOD OF APPROXIMATELY ONE MINUTE. THIS RESULTED IN THE RELEASE OF APPROXIMATELY ONE POUND OF VINYL CHLORIDE MONOMER AND FIVE POUNDS OF ETHYLENE DICHLORIDE TO ENTER THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
5-Sep-16	Occidental	Deer Park	TX	VCM factory	CALLER REPORTED THAT WHILE DECOMMISSIONING A FURNACE, THE HOSE FAILED DUE TO UNKNOWN REASONS RELEASING VINYL CHLORIDE ONTO THE GROUND AND THEN INTO THE AIR.	National Response Center via SkyTruth Alerts

3-Sep-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE MONOMER IS RELEASING FROM THE VENT HEADER, DUE TO A HOLE IN THE VENT HEADER AT A PIPING CONNECTION. THE QUANTITY RELEASED IS AN ESTIMATE; WITH A POTENTIAL RQ EXCEEDANCE.	National Response Center via SkyTruth Alerts
29-Aug-16	Occidental	Deer Park	TX	PVC factory	CALLER REPORTED THAT TUBING ON THE NUMBER 4 FURNACE DEVELOPED A HOLE CAUSING THE RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
24-Aug-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT A PRESSURE RELIEF VALVE ON A STORAGE TANK VENTED TO ATMOSPHERE RESULTING IN A RELEASE OF 1 POUND OF VINYL CHLORIDE AND 10 POUNDS OF ETHYLENE DICHLORIDE.	National Response Center via SkyTruth Alerts
14-Aug-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A PINHOLE LEAK IN A LOADING HOSE RESULTED IN A RELEASE OF VINYL CHLORIDE MONIMER.	National Response Center via SkyTruth Alerts
4-Aug-16	Formosa	Baton Rouge	LA	VCM/PVC factory	ETHYLENE DICHLORIDE, VINYL CHLORIDE AND HYDROCHLORIC ACID ARE RELEASING FROM A 4 INCH RUPTURED DISC ON A QUENCH COLUMN.	National Response Center via SkyTruth Alerts
2-Aug-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING WHILE TRANSFERRING, A LEAK OCCURRED IN THE TRANSFER HEADER, RESULTING IN A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
26-Jul-16	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED THAT A DRAIN VALVE ON A CONDENSATE TANK WAS LEFT OPEN AND RELEASED A LOW CONCENTRATION OF VINYL CHLORIDE INTO CONTAINMENT.	National Response Center via SkyTruth Alerts
23-Jul-16	Westlake	Westlake	LA	vinyl chloride factory	THE RP IS REPORTING A RELEASE OF VINYL CHLORIDE, ETHYLENE (C2H4), AND HYDROCHLORIC ACID DUE TO A HOLE IN A VENT PIPE. RP STATED THERE WERE NO REPORTED INJURIES OR EVACUATIONS AT THIS TIME. RP STATED THE QUANTITIES ARE UNKNOWN AT THIS TIME AND IT IS ALSO UNKNOWN IF THE PRODUCTS EXCEEDED THE RQ. THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts

8-Jul-16	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTED THAT THE SLURRY STRIPING COLUMNS HAD AN EXCESS EMISSION AT 1117 HRS ON 8 JULY 2016 THAT LASTED UNTIL 2359 WITH A SECOND EVENT STARTING AT 0000 HRS ON 9 JULY AND ENDING AT 2359 HRS ON 9 JULY RELEASING VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
8-Jul-16	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT THERE WAS A PINHOLE LEAK IN A VALVE RESULTING IN A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE.	National Response Center via SkyTruth Alerts
7-Jul-16	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PROCESS UNIT WHEN THE PRESSURE RELIEF VALVE WAS SET OFF AFTER A POWER OUTAGE.	National Response Center via SkyTruth Alerts
26-Jun-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED DUE TO A POWER FAILURE AT THE CHEMICAL FACILITY THERE WAS A RELEASE OF MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts
22-Jun-16	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING THAT THEY WERE BREAKING INTO A CAUSTIC COLUMN (I.E. THERE IS VINYL CHLORIDE IN THE COLUMN) AND A LOCAL AREA AIR MONITOR WENT OFF, INDICATING A RELEASE.	National Response Center via SkyTruth Alerts
16-Jun-16	Westlake	Plaquemine	LA	PVC resin factory	VINYL CHLORIDE, HYDROGEN CHLORIDE AND ETHYLENE DICHLORIDE ARE RELEASING THE VINYL CHLORIDE PRODUCTION UNIT DUE TO A FLANGE LEAK.	National Response Center via SkyTruth Alerts
10-Jun-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A PIN HOLE LEAK IN A VENT LINE THAT RUNS FROM THE VINYL CHLORIDE STORAGE AREA CAUSING AN UNKNOWN AMOUNT OF VINYL CHLORIDE VAPOR TO RELEASE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
8-Jun-16	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT THEY HAD A RELEASE OF VINYL CHLORIDE, 100 POUNDS OF ETHYLENE DICHLORIDE, AND 10 POUNDS OF CHLOROFORM, TO THE ATMOSPHERE FROM THE EMERGENCY VENT GAS SCRUBBER. THIS IS DUE TO MAINTENANCE THAT WAS BEING PERFORMED ON THE INCINERATOR. THE QUANTITY OF VINYL CHLORIDE RELEASED IS UNKNOWN HOWEVER IT MIGHT BE CLOSE TO THE 1 POUND RQ.	National Response Center via SkyTruth Alerts

6-Jun-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT EQUIPMENT FAILURE HAS CAUSED A VENTING OF PRESSURE TO THE ATMOSPHERE CONTAINING THREE DIFFERENT CHEMICALS.	National Response Center via SkyTruth Alerts
29-May-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING THAT TUBING CAME OFF OF A PUMP SEAL RESULTING IN A RELEASE OF HYDROGEN CHLORIDE, ETHYLENE DICHLORIDE, AND VINYL CHLORIDE INTO THE AIR. THE RELEASE IS CONTAINED TO THE FACILITY.	National Response Center via SkyTruth Alerts
25-May-16	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PROCESS UNIT DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
19-May-16	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE, 1,2 DICHLORAL ETHANE AND CHLOROFORM INTO THE ATMOSPHERE FROM AN INCINERATOR FAILING AND GOING TO THE VENT SCRUBBER.	National Response Center via SkyTruth Alerts
17-May-16	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A VINYL CHLORIDE LEAK AT THE METERING STATION. THE MATERIAL RELEASED TO THE OUTSIDE AIR.	National Response Center via SkyTruth Alerts
13-May-16	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT THEY HAVE A PIN HOLE LEAK IN A VENT LINE TO THE INCINERATOR. THIS CAUSED A RELEASE OF NITROGEN, VINYL CHLORIDE, CHLORINE, CARBON TETRACHLORIDE, AND CHLOROFORM. THE EXACT AMOUNT RELEASED IS STILL BEING CALCULATED. IT IS UNKNOWN IF THEY WILL REACH THE REPORTABLE QUANTITIES. THE LEAK IS ON GOING AND THEY ARE IN THE PROCESS OF ISOLATING THE ISSUE.	National Response Center via SkyTruth Alerts
10-May-16	Occidental	Deer Park	TX	PVC factory	CALLER STATED APPROXIMATELY 1 POUND OF VINYL CHLORIDE RELEASED FROM A FLANGE ON A 'B' DROP HEADER INTO THE AIR DUE TO EQUIPMENT PROBLEMS.	National Response Center via SkyTruth Alerts
8-May-16	Westlake	Plaquemine	LA	PVC resin factory	A REPORTED 20LBS. OF VINYL CHLORIDE RELEASED FROM A COOLING TOWER, DUE TO A HEAT EXCHANGER LEAK.	National Response Center via SkyTruth Alerts
7-May-16	OxyVinyls	Pedricktown	NJ	PVC factory	CALLER IS REPORTING THAT THERE WAS A PIN HOLE LEAK IN THE PIPING FOR VAPOR WHICH CAUSED A RELEASE OF VINYL CHLORIDE (LESS THAN 1 POUND).	National Response Center via SkyTruth Alerts
4-May-16	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THAT A LEAK IN A COOLING TOWER RESULTED IN A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts

27-Apr-16	Occidental	Pasadena	TX	PVC factory	CALLER STATED AN ELEVATION OF VINYL CHLORIDE MONOMER WAS DETECTED IN A CHILLED GLYCOL SYSTEM DUE TO UNKNOWN CAUSES AT THIS TIME.	National Response Center via SkyTruth Alerts
21-Apr-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT THERE IS A PIN HOLE LEAK IN D FURNACE VAPORIZER PIPING, CAUSING A RELEASE OF 1 POUND OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
16-Apr-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A BY-PASS OF THE INCINERATION CAUSING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE, ETHYL CHLORIDE, AND ETHYLENE DICHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
15-Apr-16	Orbia	Henry	IL	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM AN ONSITE PIPELINE DUE TO A PINHOLE LEAK.	National Response Center via SkyTruth Alerts
15-Apr-16	Orbia	Henry	IL	PVC factory	Corroded piping failed and released 412 pounds of vinyl chloride.	RMP
13-Apr-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A RELEASE OF MATERIALS TO THE ATMOSPHERE DUE TO A POWER OUTAGE..	National Response Center via SkyTruth Alerts
13-Apr-16	Westlake	Aberdeen	MS	Vinyl chloride tank car	CALLER STATED THAT A TANK CAR DERAILED IN THE YARD AS IT WAS BEING PULLED FROM THE TANK FARM BACK TO THE MAIN RAIL. THE TANK WAS LABELED VINYL CHLORIDE MONOMER. IT IS BELIEVED THAT THE TANK IS EMPTY WITH THE EXCEPTION OF THE RESIDUAL WATER SOLUTION WHICH RELEASED FROM THE TANK ONTO THE GROUND.	National Response Center via SkyTruth Alerts
8-Apr-16	Shin-Etsu	Freeport	TX	PVC factory	CALLER STATED A REACTOR VALVE FAILED CAUSING THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
4-Apr-16	Occidental	Pasadena	TX	PVC factory	CALLER STATED A GAS HOLDER IS BEING CLEARED AND A 'LEL' ALARM WAS TRIGGERED RESULTING IN ONE POUND OF VINYL CHLORIDE EXITING TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
28-Mar-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING CORROSION TO A PIPE RESULTED IN A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
22-Mar-16	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A VALVE MALFUNCTION RESULTED IN A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
22-Mar-16	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING THAT A LEAK AT A THREADED CONNECTION RELEASED VINYL CHLORIDE MONOMER INTO THE OUTSIDE AIR.	National Response Center via SkyTruth Alerts

19-Mar-16	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A 1 INCH LINE FLANGE LEAK.	National Response Center via SkyTruth Alerts
15-Mar-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED VINYL CHLORIDE WAS RELEASED FROM A VENT IN A WATER STORAGE TANK DUE TO OVERPRESSURE.	National Response Center via SkyTruth Alerts
3-Mar-16	BASF	Palmyra	MO	biocides factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE DUE A MALFUNCTION ON THE INCINERATOR. THE IMPACT IS ATMOSPHERE. NO REPORTED INJURIES OR EVACUATIONS. CALLER STATED THE RELEASE OCCURRED APPROXIMATELY BETWEEN 300-330 PM CDT/1500-1530 LOCAL TIME.	National Response Center via SkyTruth Alerts
29-Feb-16	Occidental	Pasadena	TX	PVC factory	CALLER STATED DUE TO A LEAK FROM A FLANGE ON REACTOR NUMBER TWO THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER TO THE AIR.	National Response Center via SkyTruth Alerts
24-Feb-16	BASF	Palmyra	MO	biocides factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO A POWER FAILURE AT THE FACILITY. CAUSE OF THE POWER FAILURE IS UNKNOWN AT THIS TIME. THE CALLER STATED THE PRODUCT IS RELEASING INTO THE ATMOSPHERE. NO REPORTED INJURIES OR EVACUATIONS. CALLER STATED THAT IT IS BELIEVED THE 1 POUND RQ HAS BEEN EXCEEDED, HOWEVER THE AMOUNT RELEASED IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
21-Feb-16	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING THAT THEY COLLECTED A SAMPLE FROM THE WATER COLUMN AND IT WAS ABOVE THE PERMITTED RELEASE LIMITS FOR VINYL CHLORIDE. THE CAUSE IS STILL UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
16-Feb-16	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED THAT VINYL CHLORO MONOMER (VCM) RELEASED FROM PIPING IN A STORAGE AREA AT THE FACILITY INTO THE AIR. CALLER STATED THE RELEASE WAS DUE TO AN EQUIPMENT PROBLEM.	National Response Center via SkyTruth Alerts
15-Feb-16	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THAT WHILE PLACING A PUMP IN SERVICE THEY EXPERIENCED A MECHANICAL FAILURE WHICH CAUSED A RELEASE OF HYDROCHLORIC ACID, VINYL CHLORIDE AND DICHLOROETHANE.	National Response Center via SkyTruth Alerts
15-Feb-16	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED DUE TO A GASKET FAILURE THERE WAS A RELEASE OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts

10-Feb-16	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED A CLAMP ON A PIECE OF PIPING STARTED TO LEAK.	National Response Center via SkyTruth Alerts
5-Feb-16	Occidental	Deer Park	TX	PVC factory	AN ESTIMATED ONE POUND OF VINYL CHLORIDE MONOMER RELEASED FROM A FLANGE ON THE PURGE LINE, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
1-Feb-16	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A DETECTION ON A COOLING WATER SAMPLE INDICATED EQUIPMENT ON THE COOLING TOWER IS LEAKING, RESULTING IN A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
31-Jan-16	Occidental	Pasadena	TX	PVC factory	VINYL CHLORIDE MONOMER RELEASED FROM A PIN HOLE LEAK ON PIPING ON REACTOR 2.	National Response Center via SkyTruth Alerts
20-Jan-16	Huntsman	Freeport	TX	Ethyleneamine factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND AMMONIA GAS DUE A OVERPRESSURE ON A PROCESS EQUIPMENT. THE CALLER STATED THAT THE CAUSE IS BELIEVED TO BE DUE TO OVERPRESSURE WHICH CAUSED A RELIEF VAVLE TO OPEN. THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts
19-Jan-16	Shin-Etsu	Plaquemine	LA	VCM/PVC factory	CALLER STATED A LEAK IN A HEAT EXCHANGER CAUSED VINYL CHLORIDE TO SNEAK PAST THE EXCHANGER AND OUT THROUGH THE VENTS TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
19-Jan-16	BASF	Palmyra	MO	biocides factory	CALLER IS REPORTING THAT THEY ARE VENTING VINYL CHLORIDE FUMES INTO THE ATMOSPHERE DUE TO AN INSTRUMENT ERROR.	National Response Center via SkyTruth Alerts
11-Jan-16	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED A VALVE AT A SAMPLING STATION FAILED RESULTING IN THE RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
6-Jan-16	Westlake	Plaquemine	LA	PVC resin factory	AN ESTIMATED 100 POUNDS OF VINYL CHLORIDE RELEASED FROM A 3.25' BLEED VALVE, DUE TO A CUT IN THE LINE.	National Response Center via SkyTruth Alerts
29-Dec-15	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED A STEAM INJECTION VALVE AND NOZZLE ON A REACTOR FAILED AND RELEASED VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
27-Dec-15	Occidental	Deer Park	TX	PVC factory	THE CALLER IS REPORTING A RELEASE OF VCM (VINYL CHLORINE MONOMER) DUE TO A CRACK IN A WELD ON A PIPELINE (PIPING NETWORK AT THE PLANT). THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts

17-Dec-15	Occidental Petroleum	Geismar	LA	Vinyl chloride tankcar	CALLER STATED THAT THEY HAD A PACKING NUT LEAK ON A RAIL CAR VALVE WHICH CAUSED THE RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. IT IS UNKNOWN AT THIS TIME IF THE RQ HAS BEEN EXCEEDED.	National Response Center via SkyTruth Alerts
9-Dec-15	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A POTENTIAL REPORTABLE QUANTITY EXCEEDANCE OF VINYL CHLORIDE DUE TO A LEAK FROM A RECOVERY COMPRESSOR INTO THE COOLING WATER SYSTEM (COOLING TOWER/AIR RELEASE). CALLER IS ESTIMATING THE AMOUNT RELEASED AT THIS TIME OF 1 POUND OR MORE, CALCULATIONS HAVE NOT BEEN DONE YET.	National Response Center via SkyTruth Alerts
8-Dec-15	Formosa	Baton Rouge	LA	VCM/PVC factory	A MIXTURE OF VINYL CHLORIDE AND WATER RELEASED FROM A CAP ON A 3 INCH LINE INSIDE THE PLANT DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
3-Dec-15	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT THEY HAD A LEAK ON THE 6' LINE CAUSED BY CORROSION.. THE DISCHARGE IMPACTED THE GROUND ONLY. THE MATERIAL IS A MIX MOSTLY OF WATER AND SMALL PARTS OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
15-Nov-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	DUE TO A LEAK IN THE NORTH PURIFICATION LINE AT THE PLANT, VINYL CHLORIDE MONOMER RELEASED TO THE ATMOSPHERE. AMOUNT RELEASED IS UNKNOWN, WITH A POTENTIAL TO EXCEED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
8-Nov-15	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM THE EAST PRODUCT STEEL CONDENSER DUE TO INTERNAL CORROSION.	National Response Center via SkyTruth Alerts
7-Nov-15	Occidental	Deer Park	TX	VCM factory	CALLER STATED VINYL CHLORIDE MONOMER DISCHARGED FROM A PIN HOLE ON PIPING AND FROM A RELIEF VALVE BODY DUE TO A LEAK. CALLER STATED THE MATERIAL RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
1-Nov-15	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING DUE TO A VALVE LEAK THERE WAS A RELEASE OF VINYL CHLORIDE FROM A VINYL CHLORIDE LINE THAT WAS PREP FOR MAINTENANCE.	National Response Center via SkyTruth Alerts

1-Nov-15	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	THE CALLER IS REPORTING A RELEASE OF HYDROCHLORIC ACID, ETHYLENE DICHLORIDE, AND VINYL CHLORIDE DUE TO A RUPTURED DISC ON A WASH COLUMN. THE CALLER STATED THAT THIS CAUSED THE VENT HEADER TO BACK INTO THE 490 SCRUBBER. THE IMPACT IS THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
30-Oct-15	Wacker Family	Calvert City	KY	Vinyl chloride-based polymer factory	VINYL CHLORIDE IS RELEASING FROM A PIPE, AS A RESULT OF TWO PINHOLE LEAKS. THE AMOUNT RELEASED IS UNKNOWN, WITH A POTENTIAL TO EXCEED THE 1LB RQ.	National Response Center via SkyTruth Alerts
30-Oct-15	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A SMALL PINHOLE ON BCM RETURN LINE RESULTING IN THE DISCHARGE OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
29-Oct-15	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A LEAK ON A COOLER DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
28-Oct-15	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE, DUE TO UNKNOWN CAUSES AT THIS TIME.	National Response Center via SkyTruth Alerts
8-Oct-15	Orbia	Pedricktown	NJ	PVC factory	AN UNKNOWN AMOUNT OF VINYL CHLORIDE RELEASED FROM A LEAKING MANWAY ON A REACTOR, DUE TO UNKNOWN CAUSES. POTENTIAL FOR AN RQ EXCEEDANCE.	National Response Center via SkyTruth Alerts
6-Oct-15	Shin-Etsu Berkshire	Plaquemine	LA	VCM/PVC factory	CALLER STATED VINYL CHLORIDE VENTED THROUGH THE STRIPPER TO THE AIR DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
5-Oct-15	Hathaway	Louisville	KY	CPVC factory	CALLER STATED WHILE PRESSURING UP A POLY IT CAUSED THE RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
29-Sep-15	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER IS REPORTING A RELEASE OF ETHYLENE DICHLORIDE AND VINYL CHLORIDE DUE TO UNKNOWN CAUSES. THE CALLER STATED THAT THE LEAK IS ORIGINATING FROM COLUMN NC202 (8' PIPE). THE IMPACT IS THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
26-Sep-15	Formosa	Baton Rouge	LA	VCM/PVC factory	VINYL CHLORIDE RELEASED TO 'INCINERATOR A' DUE TO A TRIP IN THE UNIT. THE AMOUNT RELEASED IS UNKNOWN WITH A POTENTIAL TO EXCEED THE RQ.	National Response Center via SkyTruth Alerts

19-Sep-15	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO AN INCINERATOR TRIP. THE CALLER STATED THAT THE PRODUCT WAS RELEASED TO THE FLARE. THE IMPACT IS THE ATMOSPHERE VIA THE FLARE.	National Response Center via SkyTruth Alerts
13-Sep-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT THERE IS A VINYL CHLORIDE LEAK FROM A CONDENSER. THE MATERIAL IS GOING INTO THE COOLING TOWER.	National Response Center via SkyTruth Alerts
11-Sep-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE IS RELEASING FROM A VALVE OFF A PIPELINE IN THE TANK FARM, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
9-Sep-15	Occidental	Deer Park	TX	VCM factory	VINYL CHLORIDE MONOMER, CHLOROFORM, CARBON TETRACHLORIDE AND ETHYLENE DICHLORIDE RELEASED FROM CONTAMINATED WATER TANKS A & C, DUE TO FAILURE OF A LEVEL TRANSMITTER.	National Response Center via SkyTruth Alerts
3-Sep-15	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A VALVE BODY THAT BROKE.	National Response Center via SkyTruth Alerts
30-Aug-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE MONOMER AND ETHYLENE DICHLORIDE ARE RELEASING FROM POSSIBLY THE CONDENSATE SYSTEM DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
26-Aug-15	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THAT A SPOOL ON A VENT LINE BROKE AND RELEASED VAPORS (EDC, CHLOROFORM, AND VINYL CHLORIDE) INTO THE AIR.	National Response Center via SkyTruth Alerts
23-Aug-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED DUE TO A GASKET LEAK THERE WAS A RELEASE OF MATERIALS AT THE CHEMICAL PROCESSING PLANT.	National Response Center via SkyTruth Alerts
11-Aug-15	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT DUE TO A POWER FAILURE THE TWO INCINERATORS SHUT DOWN CAUSING A RELEASE OF ETHYLENE DICHLORIDE, VINYL CHLORIDE, AND CHLOROFORM. CALLER IS REPORTING THIS AS A POTENTIAL FOR AN RQ EXCEEDANCE.	National Response Center via SkyTruth Alerts
5-Aug-15	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED DUE TO A LEAK ON A O-RING ON A VALVE FLANGE THERE WAS A SPILL OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
3-Aug-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THERE WAS A RELEASE OF MATERIALS TO THE AIR DUE TO A GASKET LEAK FROM A TRANSMITTER. CALLER STATED THERE WAS A SMALL PINHOLE BUBBLE COMING FROM A GASKET.	National Response Center via SkyTruth Alerts

22-Jul-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PROCESS UNIT TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
11-Jul-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING AN AIR RELEASE OF VINYL CHLORIDE MONOMER DUE TO A VALVE LEAK FROM THEIR RAIL CART LOADER.	National Response Center via SkyTruth Alerts
8-Jul-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THERE WAS ELEVATED PRESSURE ON A TANK BECAUSE A CONTROL VALVE CLOSED THE TANK VENT CAUSING A RELEASE OF VINYL CHLORIDE MONOMER.	National Response Center via SkyTruth Alerts
8-Jul-15	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING THAT ON REACTOR #1 THEY HAVE A LEAK ON A GASKET WHICH IS A 1 INCH FLUSH WATER LINE.	National Response Center via SkyTruth Alerts
5-Jul-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED AN 8 INCH GASKET BLEW OUT ON A COLUMN RESULTING IN A RELEASE OF THREE CHEMICALS: HYDROCHLORIC ACID, VINYL CHLORIDE, AND ETHYLENE DICHLORIDE.	National Response Center via SkyTruth Alerts
2-Jul-15	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO SYSTEM OVERPRESSURING.	National Response Center via SkyTruth Alerts
27-Jun-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF 1,2-DICHLOROETHYLENE AND VINYL CHLORIDE TO THE AIR DUE TO MALFUNCTION OF THE VENTING SYSTEM.	National Response Center via SkyTruth Alerts
26-Jun-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE AND 1,2-DICHLOROETHANE RELEASED FROM A CONTAMINATED WATER STORAGE TANK, DUE TO A VENT SYSTEM FAILURE (NOT OPERATING PROPERLY). RELEASE WAS SECURED AT 1500CDT.	National Response Center via SkyTruth Alerts
19-Jun-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT THEY HAD A LEAK IN A SECTION OF PIPING TO THE DECOMMISSIONING TANK WHICH CAUSED THE RELEASE OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
17-Jun-15	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THAT THERE WAS A DISCOVERY THAT A LINE THAT WAS BLOCKED OUT THAT NORMALLY VENTS TO THE DRY VENT TO THE FURNACE RELEASED VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
16-Jun-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THERE IS A LEAK FROM A FLANGE SURFACE ON A 'DECOMMISSIONING' PIPING.	National Response Center via SkyTruth Alerts

15-Jun-15	Occidental Petroleum	La Porte	TX	Vinyl chloride tank car	CALLER STATED THAT THERE WAS A LEAK IN A RAIL CAR LOADING ARM AT THE CHEMICAL MANUFACTURING FACILITY CAUSING A RELEASE OF VINYL CHLORIDE MONOMER TO THE ATMOSPHERE. CALLER STATED THAT THE RELEASE WAS DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
14-Jun-15	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	DUE TO A LEAKING FLANGE ON EQUIPMENT F2420, HYDROCHLORIC ACID, VINYL CHLORIDE MONOMER AND ETHYLENE DICHLORIDE RELEASED.	National Response Center via SkyTruth Alerts
10-Jun-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED DUE TO A PIPE LEAK AT THE CHEMICAL FACILITY THERE WAS RELEASE OF VINYL CHLORIDE MONOMER TO THE AIR.	National Response Center via SkyTruth Alerts
5-Jun-15	Wacker Family	Calvert City	KY	Vinyl chloride-based polymer factory	VINYL CHLORIDE RELEASED FROM THE CALVERT CITY #3 REACTOR DUE TO A BURST RUPTURED DISK. THE AMOUNT RELEASE IS UNKNOWN WITH A POTENTIAL TO EXCEED THE 1LB. RQ.	National Response Center via SkyTruth Alerts
1-Jun-15	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A THREADED PORTION OF A RELIEF VALVE LEAKING MATERIALS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
28-May-15	Shin-Etsu	Freeport	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE GAS INTO THE ATMOSPHERE FROM A PROCESS UNIT DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
25-May-15	Occidental	Deer Park	TX	PVC factory	CALLER STATED DUE TO A LEAK IN AN EVACUATION HEADER ONE POUND OF VINYL CHLORIDE MONOMER RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
24-May-15	OxyVinyls	Pedricktown	NJ	PVC factory	CALLER STATED THAT THERE WAS A PINHOLE LEAK DISCOVERED ON A SMALL TANK/VESSEL USED TO RECOVER MATERIALS. CALLER STATED THAT THIS CAUSED A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE. CALLER STATED THAT THEY ARE ESTIMATING LESS THAN 1 POUND RELEASED.	National Response Center via SkyTruth Alerts
20-May-15	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT WHILE STARTING UP THE UNIT THERE WAS AN OVERPRESSURIZATION CAUSING A RELEASE OF (ETHYLENE DICHLORIDE, VINYL CHLORIDE, ETHYLENE, AND ETHYL CHLORIDE TO ATMOSPHERE FROM A VENT VALVE.	National Response Center via SkyTruth Alerts
20-May-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	VINYL CHLORIDE IS RELEASING FROM AN UNKNOWN SOURCE INTO THEIR COOLING TOWER DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts

18-May-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A PIN HOLE LEAK IN A VENT LINE THAT CAUSED A RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
15-May-15	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THAT THERE WAS A POWER FAILURE AND THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND HYDROGEN CHLORIDE GAS TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
6-May-15	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER DUE TO A VALVE MISALIGNMENT. THE CALLER STATED THAT THE RELEASE WAS NOT DISCOVERED UNTIL 02-MAR-2016 AFTER CONDUCTING A SELF AUDIT. THE IMPACT IS ATMOSPHERE.	National Response Center via SkyTruth Alerts
4-May-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THAT THERE WAS A TUBE LEAK ON A FLOW TRANSMITTER RELEASING AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
30-Apr-15	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE DUE TO EROSION ON A PIECE OF PIPE AT THE FACILITY.	National Response Center via SkyTruth Alerts
26-Apr-15	Occidental	Pasadena	TX	PVC factory	CALLER STATED DUE TO A PINHOLE LEAK ON A GASKET THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER TO THE AIR.	National Response Center via SkyTruth Alerts
22-Apr-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER, HYDROGEN CHLORIDE, AND ETHYLENE DICHLORIDE INTO THE ATMOSPHERE FROM A PROCESS UNIT DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
15-Apr-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING AN UNKNOWN AMOUNT OF ETHYLENE DICHLORIDE, HYDROCHLORIC ACID, AND VINYL CHLORIDE INTO THE ATMOSPHERE. CALLER STATED THAT A GASKET LEAK ON A 8' FLANGE TO THE FLARE HCL COLUMN IS THE CAUSE. CALLER STATED THAT THE CREW ARE TRYING TO TIGHTEN THE FLANGE AND WILL SECURE THE PLANT OPERATIONS IF THEY ARE UNSUCCESSFUL. CALLER STATED THIS IS ONGOING.	National Response Center via SkyTruth Alerts
1-Apr-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED DUE TO A TRIPPED INCINERATOR THERE A RELEASE OF MATERIALS TO THE AIR AT THE PROCESSING PLANT.	National Response Center via SkyTruth Alerts
25-Mar-15	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER STATED THAT WHILE CHARGING A CHEMICAL IN THE REACTOR, A GASKET BLEW OUT CAUSING THE RELEASE APPROXIMATELY ONE POUND OF VINYL CHLORIDE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts

25-Mar-15	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED A BYPASS ON AN INCINERATOR MALFUNCTIONED AND RELEASED VINYL CHLORIDE AND ETHYLENE DICHLORIDE TO A FLARE.	National Response Center via SkyTruth Alerts
25-Mar-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	ONE POUND OF VINYL CHLORIDE MONOMER RELEASED FROM A CONDENSATE TANK, AS A RESULT OF THE VCM FROM THE FURNACE LEAKING INTO THE SYSTEM.	National Response Center via SkyTruth Alerts
9-Mar-15	Occidental	Deer Park	TX	PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF APPROXIMATELY 1 POUND OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM THE E REACTOR DRAIN LINE, DUE TO OVERPRESSURING.	National Response Center via SkyTruth Alerts
1-Mar-15	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING THREE REPORTABLE CHEMICALS, VINYL CHLORIDE, ETHYL CHLORIDE, ETHYLENE THAT WERE RELEASED INTO THE ATMOSPHERE . CALLER STATED THE CAUSE WAS DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
22-Feb-15	Formosa	Delaware City	DE	PVC resin factory (closed)	VINYL CHLORIDE RELEASED FROM PIPING ON A REACTOR DUE TO A BLOWN MECHANICAL GASKET.	National Response Center via SkyTruth Alerts
18-Feb-15	One Rock Capital Partners (Kensing)	Kankakee	IL	specialty chemical factory	CALLER STATED THAT THE CYCLE TIME ENDED ON A CARBON ABSORBER WHICH EMITTED ETHYLENE DICHLORIDE AND VINYL CHLORIDE INTO THE AIR. ///////////////THIS IS ADDITIONAL INFORMATION TO NRC REPORT #1108400.////////	National Response Center via SkyTruth Alerts
16-Feb-15	Westlake	Geismar	LA	PVC factory	AT 2143 CST, A RELEASE OF VINYL CHLORIDE AND ETHYLENE INTO THE ATMOSPHERE. THE CALLER STATED THAT THE CAUSE OF THE RELEASE IS UNKNOWN, TWO (2) INCINERATORS WERE TRIPPED AND BYPASSED CAUSING THE PRODUCTS TO RELEASE INTO THE ATMOSPHERE. NO REPORTED INJURIES OR EVACUATIONS AT THIS TIME.	National Response Center via SkyTruth Alerts
13-Feb-15	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING THAT THE INCINERATOR IN THE V.C.M. UNIT BY-PASSED THE EMERGENCY VENT TANK RESULTING IN A RELEASE OF VINYL CHLORIDE TO THE AIR	National Response Center via SkyTruth Alerts
26-Jan-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THAT AN INCINERATOR TRIPPED CAUSING A RELEASE OF VINYL CHLORIDE TO AIR. CALLER STATED THE MONITORS PICKED UP 17 PARTS PER MILLION AT THE STACKS.	National Response Center via SkyTruth Alerts
24-Jan-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THAT THE 'A' INCINERATOR TRIPPED RESULTING IN A RELEASE OF MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts

20-Jan-15	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A DISCHARGE OF VINYL CHLORIDE FROM THE INCINERATOR DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
16-Jan-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A LEAKING TRANSMITTER AT A TANK FARM.	National Response Center via SkyTruth Alerts
12-Jan-15	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THAT THERE WAS A RELEASE FROM A PLUG OR 'FITTING' ON THE BACK OF AN RELIEF VALVE.	National Response Center via SkyTruth Alerts
7-Jan-15	Westlake	Calvert City	KY	VCM/PVC factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND 1,2-DICHLOROETHANE INTO THE ATMOSPHERE. THE CALLER STATED THAT A FIRE OCCURRED ON A GASKET ON THE NUMBER 5 QUENCH. THE CALLER STATED THAT THE PRODUCTS HAVE A POTENTIAL TO EXCEED THE RQ. NO REPORTED INJURIES OR EVACUATIONS AT THIS TIME.	National Response Center via SkyTruth Alerts
7-Jan-15	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED DUE TO A LEAK IN A PIPE AT THE FACILITY THERE WAS A RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
3-Jan-15	Shin-Etsu	Freeport	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A PRESSURE RELIEF VALVE ON A REACTOR DUE TO OVER PRESSURING.	National Response Center via SkyTruth Alerts
29-Dec-14	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED A PIN HOLE LEAK ON A SIX INCH LINE.	National Response Center via SkyTruth Alerts
27-Dec-14	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A SAFETY VALVE ON A REACTOR, THE CAUSE WAS DUE TO A FAULTY PIECE OF EQUIPMENT INSIDE THE REACTOR.	National Response Center via SkyTruth Alerts
24-Dec-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE. THE CALLER STATED THAT CORROSION AT A SAMPLE STATION LED TO THE RELEASE.	National Response Center via SkyTruth Alerts
23-Dec-14	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THAT THE COMPUTER SYSTEM LOST POWER CAUSING A VENTING OF A REACTOR AND A RELEASE OF VINYL CHLORIDE TO ATMOSPHERE.	National Response Center via SkyTruth Alerts
22-Dec-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THERE WAS A LEAK ON A HALF INCH TRANSMITTER PIPE DISCOVERED AT THE FACILITY CAUSING A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE. CALLER STATED THAT THIS RELEASE WAS DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts

18-Dec-14	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER IS REPORTING A RELEASE OF THE FOLLOWING MATERIALS, 100 POUNDS OF ETHYLENE DICHLORIDE, 1 POUND OF VINYL CHLORIDE FROM A VALVE AT THE FACILITY, THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
18-Dec-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF THE FOLLOWING MATERIALS, VINYL CHLORIDE 1 POUND, ETHYLENE DICHLORIDE 10 POUNDS, AND HYDROGEN CHLORIDE 10 POUNDS FROM A (E) FURNACE BOTTOMS FILTER, THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
16-Dec-14	Occidental	Deer Park	TX	PVC factory	CALLER REPORTED A RELIEF VALVE LIFTED ON A PIECE OF EQUIPMENT.	National Response Center via SkyTruth Alerts
4-Dec-14	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE. CALLER STATED THE CAUSE WAS A POWER LOSS OUTSIDE THE FACILITY. CALLER STATED THE POWER LOSS KILLED ALL THE INSTRUMENTATION WHICH CAUSED THE RELIEF VALVE TO RELEASE THE PRODUCT INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
27-Nov-14	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED A RELEASE OF MATERIALS FROM THE COOLING TOWER DUE TO UNKNOWN REASONS.	National Response Center via SkyTruth Alerts
20-Nov-14	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING 1 LB OF VINYL CHLORIDE INTO THE ATMOSPHERE. CALLER STATED THE CAUSE WAS FROM A SECONDARY VALVE IN THE SYSTEM THAT LEAKED BY AND INTO THE FLARE STACK.	National Response Center via SkyTruth Alerts
18-Nov-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT A LEAK THROUGH A VALVE, LOCATED ON 'C QUENCH COLUMN BOTTOM PUMP', ALLOWED APPROXIMATELY ONE POUND OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
8-Nov-14	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A KNOCK OUT POT, THE CAUSE IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
29-Oct-14	Occidental	Deer Park	TX	PVC factory	CALLER REPORTED A LEAK ON A PIPE TO THE HIGH PRESSURE POLY VENT LINE.	National Response Center via SkyTruth Alerts

28-Oct-14	Westlake	Calvert City	KY	VCM/PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PIECE OF PROCESS EQUIPMENT. THE CAUSE IS UNKNOWN AT THE TIME OF REPORTING.	National Response Center via SkyTruth Alerts
15-Oct-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	POWER LOSS AT THE FACILITY, INCINERATOR TRIPPED, VENTING GAS TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
13-Oct-14	Occidental	Pasadena	TX	PVC factory	THE CALLER IS REPORTING 1 POUND OF VINYL CHLORIDE MONOMER (VCM) THAT HAS RELEASED INTO THE ATMOSPHERE DUE TO PROCESS UPSET AT A FACILITY. THE SOURCE HAS BEEN ISOLATED.	National Response Center via SkyTruth Alerts
9-Oct-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED DUE TO UNKNOWN CAUSES THERE WAS A RELEASE OF VINYL CHLORIDE AT THE CHEMICAL PLANT FACILITY.	National Response Center via SkyTruth Alerts
7-Oct-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER REPORTED A SHUTDOWN OF THE THERMAL OXIDIZERS WHICH CAUSED A VENT BYPASS TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
25-Sep-14	Wacker Family	Calvert City	KY	Vinyl chloride-based polymer factory	THE CALLER REPORTED THAT VINYL CHLORIDE MONOMER IS RELEASING FROM AN UNKNOWN SOURCE WITHIN THE FACILITY. THE AMOUNT RELEASE IS UNKNOWN AS IT IS ONGOING HOWEVER THE RP WANTED TO DOCUMENT THE QUANTITY AT 1.2 POUNDS.	National Response Center via SkyTruth Alerts
21-Sep-14	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED VINYL CHLORIDE RELEASED FROM A RELIEF VALVE INTO THE AIR DUE TO AN ELECTRICAL PROBLEM.	National Response Center via SkyTruth Alerts
17-Sep-14	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED THE LOSS OF POWER TO A UNIT CAUSED A FEEDER LINE BYPASS THAT RESULTED IN A RELEASE OF MATERIALS.	National Response Center via SkyTruth Alerts
14-Sep-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE FROM THE INCINERATORS VENT STACK DUE TO A BYPASS.	National Response Center via SkyTruth Alerts
12-Sep-14	Formosa	Delaware City	DE	PVC resin factory (closed)	THE CALLER IS REPORTING AN UNKNOWN AMOUNT VINYL CHLORIDE DISCHARGE INTO THE WASTE WATER PIT.	National Response Center via SkyTruth Alerts
11-Sep-14	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM THE Z-POLY REACTOR DUE TO A RUPTURED DISK.	National Response Center via SkyTruth Alerts
9-Sep-14	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	VINYL CHLORIDE RELEASED FROM A DISCHARGE PIPING WITHIN THE FACILITY DUE TO A GASKET FAILURE.	National Response Center via SkyTruth Alerts
31-Aug-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT A FAILED CONDENSER LEAKED AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO A COOLING UNIT AND ATMOSPHERE.	National Response Center via SkyTruth Alerts

28-Aug-14	OxyVinyls	Pedricktown	NJ	PVC factory	THE CALLER IS REPORTING A RELIEF VALVE THAT HAD LIFTED ON A HEAT EXCHANGER WHICH RESULTED IN A DISCHARGE OF UNSCRIPT SLURRY (MIXTURE OF VINYL CHLORIDE & PVC RESIN) ONTO THE GROUND.	National Response Center via SkyTruth Alerts
27-Aug-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PUMP WHEN THE SEAL BLEW OUT.	National Response Center via SkyTruth Alerts
26-Aug-14	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT A REACTOR OVER PRESSURED THERE WAS A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
21-Aug-14	Occidental	Pasadena	TX	PVC factory	CALLER STATED THAT THE VCM FILTER IS EMITTING VINYL CHLORIDES INTO THE ATMOSPHERE FROM UNKNOWN CAUSES. THE CALLER STATED THAT THEY BELIEVE THE RELEASE TO HAVE EXCEEDED ONE POUND.	National Response Center via SkyTruth Alerts
17-Aug-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT DUE TO A HOLE IN VENT PIPING AT THE INCINERATOR THERE WAS A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE AT A CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
13-Aug-14	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE RELEASED WHEN RELIEF VALVE NC203 OPENED, SUSPECTED CAUSE OVER PRESSURING.	National Response Center via SkyTruth Alerts
11-Aug-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A LEAK OF HYDROGEN CHLORIDE AND VINYL CHLORIDE MONOMER FROM A FLANGE.	National Response Center via SkyTruth Alerts
8-Aug-14	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED COMPANY REACTOR HAD A GASKET LEAK AND RELEASED VCM.	National Response Center via SkyTruth Alerts
8-Jul-14	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE DUE TO A LEAK IN A PURGE LINE. CALLER ALSO STATED THAT THERE WAS ANOTHER LEAK FOUND ON A FLANGE ON A DECON POT. CALLER STATED THAT BOTH LEAKS ADDED UP TO BE THE REPORTABLE QUANTITY OF APPROXIMATELY 1 POUND.	National Response Center via SkyTruth Alerts
2-Jul-14	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER IS REPORTING A RELEASE OF HYDROCHLORIC ACID (HCL) AND VINYL CHLORIDE(VCM) INTO THE ATMOSPHERE. THE CALLER STATED THAT A CONTRACTOR REMOVED A BOLT FROM A FLANGE CAUSING THE RELEASE. NO INJURIES REPORTED. THE FACILITY CONDUCTED A SHELTER IN PLACE DURING THE EVENT.	RMP

2-Jul-14	Westlake	Westlake	LA	vinyl chloride factory	Human error led to the release of 1 pound of vinyl chloride from a pipe. 34 people sheltered in place.	RMP
2-Jul-14	Shin-Etsu	Freeport	TX	PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE RELEASED FROM A REACTOR DUE TO UNKNOWN CAUSES POSSIBLY A VALVE BEING LEFT OPEN.	National Response Center via SkyTruth Alerts
2-Jul-14	Occidental	Pasadena	TX	PVC factory	CALLER STATED THAT AN RV LIFTED ON ONE OF THEIR UNITS THAT CONTAINS VINYL CHLORIDE AND THE MATERIAL WAS ROUTED TO THE FLARE. THEY ARE NOT SURE OF THE EXACT QUANTITY RELEASE BUT THEY ESTIMATE THAT APPROXIMATELY 1 POUND OF THE PRODUCT WAS RELEASED.	National Response Center via SkyTruth Alerts
30-Jun-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED DUE TO A BLOWN RUPTURE DISC ON A PIECE OF EQUIPMENT AT THE CHEMICAL FACILITY THERE WAS A SPILL OF MATERIALS TO A POND USED FOR COOLING WATER AND FIRE FIGHTING WATER.	National Response Center via SkyTruth Alerts
25-Jun-14	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF APPROXIMATELY 1 POUND OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A DRAIN VALVE ON A PUMP ON THE REACTOR WHEN THE DROP VALVE WAS LEFT OPEN. DURATION WAS 2 MINUTES. CAUSE IS STILL UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
20-Jun-14	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTED A HOLE IN THE PIPE ON #4 QUENCH BOTTOMS LINE.	National Response Center via SkyTruth Alerts
18-Jun-14	Westlake	Aberdeen	MS	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A UNKNOWN SOURCE.	National Response Center via SkyTruth Alerts
16-Jun-14	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A VCM UNIT DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
3-Jun-14	Formosa	Baton Rouge	LA	VCM/PVC factory	ETHYLENE DICHLORIDE, HYDROCHLORIC ACID AND TRACE AMOUNTS OF VINYL CHLORIDE RELEASED FROM A MALFUNCTIONING PRESSURE SAFETY VALVE (PSV).	National Response Center via SkyTruth Alerts
2-Jun-14	Occidental	Deer Park	TX	PVC factory	CALLER STATED DUE TO A LEAKING FLANGE ON A FOAM TRAMP THERE WAS A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts

1-Jun-14	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE AND THE HYDROCHLORIC ACID IS RELEASING FROM THE BODY OF A 2' BLOCK VALVE (NC250) DUE TO HOLE/FAILURE.	National Response Center via SkyTruth Alerts
1-Jun-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE COOLING TOWER DUE TO AN UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
29-May-14	OxyVinyls	Pedricktown	NJ	PVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE FROM A PINHOLE LEAK IN INTERNAL PIPING. CAUSE IS MOST LIKELY FROM CORROSION AND IS NOT BELIEVED TO BE OVER 1 POUND.	National Response Center via SkyTruth Alerts
26-May-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THERE INCINERATOR STACK IS SMOKING WHICH IS CAUSING A POTENTIAL RQ EXCEEDANCE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE. CALLER ALSO STATED THERE IS NO FIRE OR OFFSITE IMPACT.	National Response Center via SkyTruth Alerts
13-May-14	Wacker Family	Calvert City	KY	Vinyl chloride-based polymer factory	VINYL CHLORIDE RELEASED FROM A FLARE STACK DUE TO A MISALIGNMENT OF THE VALVES.	National Response Center via SkyTruth Alerts
13-May-14	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT DUE TO A REACTOR SEAL FAILURE AT A CHEMICAL FACILITY THERE WAS A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE. SR401C IS THE REACTOR NUMBER.	National Response Center via SkyTruth Alerts
3-Apr-14	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER REPORTED THAT VINYL CHLORIDE RELEASED FROM INCINERATOR UNIT SCRUBBER STACK POSSIBLY DUE TO A HIGH LEVEL.	National Response Center via SkyTruth Alerts
31-Mar-14	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER REPORTED THAT VINYL CHLORIDE IS RELEASED FROM A DECOMMISSIONED RELIEF VALVE DUE TO OVERPRESSURING.	National Response Center via SkyTruth Alerts
29-Mar-14	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE ONTO THE GROUND BEFORE VAPORIZING INTO THE ATMOSPHERE. CAUSE IS FROM A FLANGE LEAK THAT RELEASED A FEW DROPS TO THE GROUND.	National Response Center via SkyTruth Alerts

16-Mar-14	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. THE CALLER STATED THAT WHILE TRANSFERRING THE PRODUCT FROM ONE TANK TO ANOTHER THE PRESSURE EXCEEDED THE SAFETY RELIEF VALVE. NO INJURIES OR EVACUATIONS REPORTED AT THIS TIME.	National Response Center via SkyTruth Alerts
10-Mar-14	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A VINYL CHLORIDE RELEASE FROM A PUMP SEAL INTO THE ATMOSPHERE. NO OFFSITE IMPACT REPORTED AT THIS TIME.	National Response Center via SkyTruth Alerts
5-Mar-14	Dow	Midland	MI	incinerator	THE CALLER REPORTED THAT VINYL CHLORIDE IS RELEASING FROM AN UNKNOWN SOURCE WITHIN THE FACILITY. A DETECTOR INDICATED THAT THERE WAS A RELEASE OR SUSPECTED INSTRUMENT MALFUNCTION. THE CALLER STATED THAT THIS REPORT IS A PRECAUTIONARY SHOULD THE RELEASE EXCEED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
3-Mar-14	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER REPORTED THAT VINYL CHLORIDE IS RELEASING FROM A REACTOR (FR401A) DUE TO A BROKEN GASKET.	National Response Center via SkyTruth Alerts
27-Feb-14	OxyVinyls	Pedricktown	NJ	PVC factory	A RELEASE OF VINYL VAPORS DUE TO A METER AT THE FACILITY LEAKING.	National Response Center via SkyTruth Alerts
24-Feb-14	Westlake	Calvert City	KY	VCM/PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE RELEASED FROM A #2 PVD REACTOR (PRESSURE RELIEF VALVE) DUE TO OVER-PRESSURING OF THE ADD-BACK. THE AMOUNT RELEASED IS UNKNOWN WITH A POTENTIAL TO EXCEED THE 1LB. REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
26-Jan-14	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A VCM RELEASE (VINYL CHLORIDE) INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
24-Jan-14	Shin-Etsu	Freeport	TX	PVC factory	CALLER REPORTED A RELEASE OF MATERIALS WHEN A STRIPPER HAD A MALFUNCTION.	National Response Center via SkyTruth Alerts
14-Jan-14	Daikin	Decatur	AL	Fluorochemicals manufacturer	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE (ESTIMATED TO BE GREATER THAN 10 POUNDS/LESS THAN 40 POUNDS) INTO THE ATMOSPHERE. THE CALLER STATED THE MATERIAL WAS DISCOVERED LEAKING FROM AT A GASKET POINT ON A PIPELINE, EXACT CAUSE IS UNKNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts

11-Jan-14	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THAT A SAFETY RELIEF VALVE ON A STORAGE TANK OPENED UP AND RELEASED CHEMICALS INTO THE AIR AND THEN CLOSED BACK UP.	National Response Center via SkyTruth Alerts
10-Jan-14	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE, HYDROCHLORIC ACID AND NITROGEN FROM A FLEX HOSE THAT FAILED ON THE CONNECTION TO NS607, WHICH IS A HIGH PRESSURE INCINERATOR KNOCK-OUT POT.	National Response Center via SkyTruth Alerts
7-Jan-14	Westlake	Plaquemine	LA	PVC resin factory	***WEB REPORT*** VINYL CHLORIDE BACKED UP FROM A PVC REACTOR INTO A HOT WATER CHARGE TANK AND VENTED TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
7-Jan-14	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER REPORTED THAT VINYL CHLORIDE RELEASED FROM THE P745 STORAGE TANK AFTER A RUPTURED DISK BURST. THE AMOUNT RELEASED IS UNKNOWN, POSSIBLY EXCEEDED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
6-Jan-14	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED THAT THEY HAD THE PLANT SHUT DOWN DUE TO COLD WEATHER AND THEY HAD AN AIR RELEASE.	National Response Center via SkyTruth Alerts
6-Jan-14	Westlake - Lake Charles (North)	Westlake	LA	vinyl chloride factory	BOTH THERMAL OXIDIZERS SHUT DOWN, CAUSING VENTS TO BYPASS AND GO TO EMERGENCY SCRUBBER.	National Response Center via SkyTruth Alerts
2-Jan-14	Dow	Midland	MI	incinerator	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE FROM A PROCESS VESSEL DUE TO A LEAK ON AN AGITATOR SEAL.	National Response Center via SkyTruth Alerts
20-Dec-13	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF EDC DICHLOROETHANE, HYDROCHLORIC ACID, AND VINYL CHLORIDE INTO THE ATMOSPHERE FROM THE VINYL UNIT. CAUSE IS UNKNOWN.	RMP

					Company statement: "Axiall Corporation announced that today at approximately 1:40 p.m. Central time, a fire occurred in the vinyl chloride manufacturing area of the company's Lake Charles chemicals complex in Louisiana. The fire was extinguished at approximately 2:38 p.m. Central time. There were no injuries to plant personnel. Authorities issued a shelter in place order and closed I-10. At approximately 2:52 p.m., authorities lifted the shelter in place order, and they reopened I-10 at approximately 2:55 p.m. Axiall's investigation into the cause of the fire is continuing, and we are coordinating with the Louisiana Department of Environmental Quality and other authorities."	
20-Dec-13	Westlake	Westlake	LA	VCM factory		Westlake
18-Dec-13	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	RELEASE OF MATERIALS AT THE FACILITY DUE TO A SEAL LEAK ON AN AGITATOR.	National Response Center via SkyTruth Alerts
17-Dec-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED THAT A COMPRESSOR HAD A CRACK THAT RELEASED 1 POUND OF VINYL CHLORIDE MONOMER INTO THE AIR.	National Response Center via SkyTruth Alerts
15-Dec-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER REPORTED A SEAL FAILURE ON A COMPRESSOR.	National Response Center via SkyTruth Alerts
10-Dec-13	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE FROM A COMPRESSOR ONTO THE GROUND WHICH TO LEADS TO SELF CONTAINED PITS. CAUSE IS A BLOWN SEAL.	National Response Center via SkyTruth Alerts
7-Dec-13	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONOMER INTO THE AIR FROM THE VCM DRYER AT A CHEMICAL FACILITY. CAUSE IS BELIEVED TO BE A FAILURE IN A WELD IN THE PIPE.	National Response Center via SkyTruth Alerts
4-Dec-13	Daikin	Decatur	AL	Fluorochemicals manufacturer	CALLER REPORTED A PIECE OF PIPING LEAK ONTO THE GROUND DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
2-Dec-13	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE VAPORS FROM A BLOWN RUPTURED DISC ON A ACCUMULATION VESSEL.	National Response Center via SkyTruth Alerts
19-Nov-13	Occidental Petroleum	La Porte	TX	Vinyl chloride tank car	CALLER IS REPORTING A RELEASE OF 1 POUND OF VINYL CHLORIDE MONOMER FROM A RAIL CAR WHILE UNLOADING VENT LINES.	National Response Center via SkyTruth Alerts

13-Nov-13	OxyVinyls	Pedicktown	NJ	PVC factory	CALLER IS REPORTING RELEASE OF VINYL CHLORIDE INTO THE COOLING TOWER WATER, NO GROUND WATER WAS CONTAMINATED.	National Response Center via SkyTruth Alerts
6-Nov-13	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A VINYL CHLORIDE RELEASE INTO THE ATMOSPHERE, DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
1-Nov-13	Shin-Etsu	Freeport	TX	PVC factory	CALLER STATED DUE TO UNKNOWN CAUSES THERE WAS RELEASE OF MATERIALS TO THE AIR AT THE MANUFACTURING FACILITY.	National Response Center via SkyTruth Alerts
9-Oct-13	Dow	Midland	MI	incinerator	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A COMPRESSOR, THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
22-Sep-13	Shin-Etsu	Freeport	TX	PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE AT THE FACILITY DUE TO AN UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
16-Sep-13	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE INTO THE ATMOSPHERE. THE CALLER STATED THAT THE RELEASE OCCURRED DUE TO A MALFUNCTION ON A HEAT EXCHANGER.	National Response Center via SkyTruth Alerts
13-Sep-13	Dow	Midland	MI	incinerator	CALLER REPORTED THAT VINYL CHLORIDE WAS RELEASED DUE TO A SHUT DOWN MALFUNCTION.	National Response Center via SkyTruth Alerts
13-Sep-13	OxyVinyls	Pedricktown	NJ	PVC factory	CALLER REPORTED THAT CORROSION ON A PIPE CAUSED A RELEASE OF 10 POUNDS OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
30-Aug-13	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE FROM A COOLANT TOWER DUE TO A LEAK.	National Response Center via SkyTruth Alerts
28-Aug-13	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE IS RELEASING FROM THE INCINERATOR STACK (NC602) DUE TO THE MANUAL VALVE LEAKING BY.	National Response Center via SkyTruth Alerts
23-Aug-13	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING A RELEASE OF 100 POUNDS OF ETHYLENE DICHLORIDE, 1 POUND OF VINYL CHLORIDE AND 10 POUNDS OF CHLOROFORM FROM AN EMERGENCY VENT SCRUBBER, THE CAUSE WAS DUE TO BOTH INCINERATOR'S GOING OFFLINE.	National Response Center via SkyTruth Alerts
22-Aug-13	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF THE FOLLOWING MATERIALS, VINYL CHLORIDE 1 POUND AND ETHYLENE DICHLORIDE 5 POUNDS FROM A THERMAL OXIDIZER, THE CAUSE WAS DUE TO THE INSTALLATION OF A BLOWER AND IT IS SUSPECTED THAT THE SET POINT WAS SET TOO HIGH.	National Response Center via SkyTruth Alerts

18-Aug-13	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING AN INCINERATOR STACK ANALYZER SPIKE AND A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
14-Aug-13	Perma-Fix	Valdosta	GA	Fuel and solvent blending facility	Reports of a chemical explosion at the facility. "Perma-Fix processes and disposes chemicals, such as items in aerosol cans, ink paste and other materials. Due to the chemicals in the plant, more explosions followed in a series of repeated bursts for the next 30-40 minutes, with less occasional explosive sounds well past an hour after the initial call...Perma-Fix processes and disposes of chemicals including arsenic, chloroform, methyl ethyl ketone, vinyl chloride, benzene, etc." "Valdosta Explosion Injures 3," Moultrie Observer, The (GA) -, August 14, 2013.	Local news
8-Aug-13	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A VALVE LIFTED AND RELEASED 430 POUNDS OF VINYL CHLORIDE AND 100 POUNDS OF ETHYLENE DICHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
8-Aug-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE WHEN A PRESSURE GAUGE ON A QUENCH FILTER HAD A DRIPPING CONNECTION.	National Response Center via SkyTruth Alerts
8-Aug-13	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED A 1 POUND RELEASE OF MATERIALS FROM A PIN HOLE LEAK IN A VALVE.	National Response Center via SkyTruth Alerts
31-Jul-13	Westlake	Plaquemine	LA	PVC resin factory	THE CALLER REPORTED THAT VINYL CHLORIDE IS RELEASING FROM A HEAT EXCHANGER DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
30-Jul-13	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
27-Jul-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF 1 POUND OF VINYL CHLORIDE FROM AN INCINERATOR VENT, THE CAUSE WAS DUE TO A COMPUTER PROBLEM.	National Response Center via SkyTruth Alerts
26-Jul-13	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THAT ON THE HCL STRIPPING COLUMN THERE WAS A SLIGHT LEAK ON THE PRESSURE TRANSMITTER. THERE WAS A SMALL LEAK OF VINYL CHLORIDE THAT MAY HAVE REACHED THE RQ OF 1 POUND.	National Response Center via SkyTruth Alerts

25-Jul-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THEY HAD A VALVE LEAK IN THE QUENCH COLUMN, VINYL CHLORIDE, VCM, ESTIMATED RELEASE OF ABOUT 1 LB. THE LEAK IS STOPPED.	National Response Center via SkyTruth Alerts
22-Jul-13	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER IS REPORTING A RELEASE OF HYDROCHLORIC ACID, VINYL CHLORIDE, AND ETHYL DICHLORIDE INTO ATMOSPHERE. THE CALLER STATED IT IS BELIEVED THAT THE MATERIALS ARE LEAKING FROM A FLANGE AT THE FACILITY.	National Response Center via SkyTruth Alerts
21-Jul-13	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED DUE TO A SMALL LEAD VALVE THAT BLEW OUT THERE WAS A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
20-Jul-13	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE RELEASED FROM THE VCM UNIT NF402B, DUE TO A GASKET LEAK.	National Response Center via SkyTruth Alerts
18-Jul-13	Dow	Midland	MI	incinerator	THE CALLER REPORTED THAT LESS THAN ONE POUND OF VINYL CHLORIDE RELEASED FROM A VESSEL DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
18-Jul-13	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A PIECE OF PROCESS EQUIPMENT IS RELEASING VINYL CHLORIDE MONOMER INTO A CHILL WATER TANK (# PTR 01 A & B).	National Response Center via SkyTruth Alerts
14-Jul-13	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A HIGH READING ON A COOLANT TOWER WATER SAMPLE. A HIGH READING INDICATES A RELEASE OF MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts
14-Jul-13	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT A VALVE ON A COMPRESSOR BROKE ALLOWING THE RELEASE OF AN UNKNOWN AMOUNT OF HYDROGEN CHLORIDE AND VINYL CHLORIDE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
12-Jul-13	Occidental	Pasadena	TX	PVC factory	CALLER REPORTED THAT A CRACK ON A WELD CAUSED A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
9-Jul-13	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT A TWO INCINERATOR WENT DOWN CAUSING THE RELEASE OF APPROXIMATELY ONE POUND OF VINYL CHLORIDE, 100 POUNDS OF ETHYLENE DICHLORIDE, AND 10 POUNDS OF CHLOROFORM INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
3-Jul-13	Formosa	Delaware City	DE	PVC resin factory (closed)	****WEB REPORT**** RELEASE OF APPROXIMATELY 1.1 LBS OF VINYL CHLORIDE MONOMER TO THE ATMOSPHERE WHEN AN ERV TEST WAS PERFORMED AND A LINE BREAK WAS IN PROGRESS DOWNSTREAM.	National Response Center via SkyTruth Alerts

30-Jun-13	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED THAT A REACTOR GASKET LEAKED, RELEASING 200 POUNDS OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
27-Jun-13	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THAT THERE WAS A RELEASE ON AN INSTRUMENT LOOP OF VINYL CHLORIDE, ETHYLENE DICHLORIDE AND HYDROCHLORIC ACID INTO THE AIR.	National Response Center via SkyTruth Alerts
26-Jun-13	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED VINYL CHLORIDE RELEASED INTO THE AIR FROM A SMALL SUCTION LINE INTERNAL RV FOR THE NANCY PAUL 414 APPLE.	National Response Center via SkyTruth Alerts
17-Jun-13	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A COOLING TOWER DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
11-Jun-13	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	A SEAL LEAK AT P215-B RESULTED IN A RELEASE OF MATERIAL.	National Response Center via SkyTruth Alerts
8-Jun-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF 1 POUND OF VINYL CHLORIDE FROM A COOLING TOWER, THE CAUSE WAS DUE TO A LEAK.	National Response Center via SkyTruth Alerts
5-Jun-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE. THE CALLER STATED THAT A PIN HOLE LEAK IN A DISCHARGE PIPING OF CORKEN COMPRESSOR.	National Response Center via SkyTruth Alerts
31-May-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER REPORTED THAT VAPORS CONTAINING VINYL CHLORIDE, HYDROCHLORIC ACID AND ETHYLENE DICHLORIDE RELEASED FROM THE OVERHEAD LINE FROM THE F-FURNACE TO THE ECONOMIZER DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
23-May-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF THE FOLLOWING MATERIALS, VINYL CHLORIDE 1 POUND AND ETHYLENE DICHLORIDE 10 POUNDS FROM AN (E) FURNACE ACCUMULATOR ON A VALVE BODY THAT HAD A LEAK.	National Response Center via SkyTruth Alerts
16-May-13	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM REACTOR 11 DUE TO A FAILED GASKET ON A CHARGE HEADER.	National Response Center via SkyTruth Alerts

10-May-13	Occidental	Deer Park	TX	VCM factory	A DUAL INCINERATOR TRIPPED OFFLINE. THIS REQUIRED SENDING THE FEED THROUGH THE EMERGENCY SCRUBBER.	National Response Center via SkyTruth Alerts
8-May-13	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE AND CHLOROFORM TO THE ATMOSPHERE DUE TO AN INCINERATOR TRIP AT THE FACILITY.	National Response Center via SkyTruth Alerts
7-May-13	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND 1,2-DICHLOROETHANE FROM A VINYL CHLORIDE FLARE DUE TO EQUIPMENT MALFUNCTION.	National Response Center via SkyTruth Alerts
22-Apr-13	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER, HYDROGEN CHLORIDE AND ETHYLENE DICHLORIDE FROM THE 'VR401G EMISSION POINT' DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
8-Apr-13	OxyVinyls	Pedricktown NJ		PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A 8' PIPELINE DUE TO A PINHOLE LEAK. CALLER STATED THE RELEASE IS GREATER THAN THE 1 POUND REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
31-Mar-13	Occidental	Pasadena	TX	PVC factory	THE CALLER REPORTED THAT A GASKET LEAKED ON A FLARE HEADER CAUSING A RELEASE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
5-Mar-13	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THAT WHILE TAKING OUT THE PURGE GAS TO THE INCINERATOR UNIT, THE UNITS DROPPED CAUSING A BYPASS THAT ALLOWED APPROXIMATELY 1 POUND VINYL CHLORIDE MONOMER TO BE RELEASED INTO THE STACK.	National Response Center via SkyTruth Alerts
26-Feb-13	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THAT DURING START UP A RELIEF VALVE LIFTED ON THE HCL COLUMN RELEASING VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
21-Feb-13	Shin-Etsu	Freeport	TX	PVC factory	CALLER STATED VINYL CHLORIDE RELEASED FROM A STORAGE TANK INTO THE AIR DUE TO A RUPTURED DISC. EMPLOYEES WERE PUT INTO 'SHELTER IN PLACE' AS A PRECAUTIONARY MEASURE. NO INJURIES WERE REPORTED.	National Response Center via SkyTruth Alerts
12-Feb-13	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE DUE TO A GASKET FAILURE.	National Response Center via SkyTruth Alerts
7-Feb-13	Westlake	Calvert City	KY	VCM/PVC factory	MATERIAL RELEASED FROM PROCESS PIPING. THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts

3-Feb-13	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE IS RELEASING FROM AN INCINERATOR DUE TO A POWER SURGE.	National Response Center via SkyTruth Alerts
1-Feb-13	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE FROM A 3.25 INCH BLEED VALVE ON A PIPELINE DUE TO A PLUG THAT BLEW OUT WHILE THE LINE WAS UNDER DECOMMISSIONING.	National Response Center via SkyTruth Alerts
27-Jan-13	Dow	Midland	MI	incinerator	THE CALLER REPORTED THAT THERE WAS A SMALL LEAK ON A RELIEF DEVICE, RELEASING VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
27-Jan-13	Dow	Midland	MI	incinerator	CALLER STATED THAT THERE WAS A LEAK ON A COMPRESSOR THAT CAUSED A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. CALLER ALSO STATED THAT THE AMOUNT IS UNKNOWN BUT EXPECTED TO EXCEED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
15-Jan-13	Dow	Midland	MI	incinerator	CALLER STATED VINYL CHLORIDE RELEASED FROM A VALVE ON A REACTION VESSEL INTO THE AIR DUE TO A FAULTY VALVE PACKING.	National Response Center via SkyTruth Alerts
12-Jan-13	Occidental	Pasadena	TX	PVC factory	A PINHOLE LEAK ON A 3/4' VAPOR LINE OFF OF A RELIEF VALVE RESULTING IN A RELEASE.	National Response Center via SkyTruth Alerts
7-Jan-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER REPORTED THAT MATERIAL RELEASED DUE TO EQUIPMENT FAILURE ON A FLANGE OF AN HCL UNIT.	National Response Center via SkyTruth Alerts
2-Jan-13	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A 10' VALVE DUE TO LEAKING VALVE BODY. CALLER STATED THAT THE AMOUNT OF RELEASE IS GREATER THAN 1 POUND.	National Response Center via SkyTruth Alerts
29-Dec-12	Dow	Midland	MI	incinerator	THE CALLER REPORTED THAT VINYL CHLORIDE RELEASED FROM A REACTOR GASKET DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
24-Dec-12	Westlake	Westlake	LA	vinyl chloride factory	An estimated 15,000 pounds of vinyl chloride was released from a burning pipe at the plant then-owned by Axiall. "In a report to the state Department of Environmental Quality, Axiall concluded that a pipe breached in the quench tower area of the PHH production unit and released a mixture of vinyl chloride and ethylene dichloride that ignited, causing the Dec. 24 fire. The incident sent one worker to West Calcasieu Cameron Hospital for observation," reported American Press.	RMP

24-Dec-12	Westlake	Westlake	LA	vinyl chloride factory	A CHEMICAL FIRE OCCURRED IN THE VINYL UNIT. USE OF FIREFIGHTING WATER HAS CAUSED MATERIAL TO BE RELEASED. IT IS UNKNOWN AT THIS TIME WHETHER OR NOT THE REPORTABLE QUANTITY HAS BEEN EXCEEDED.	National Response Center via SkyTruth Alerts
21-Dec-12	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER STATED THAT A REACTOR BLEW A RUPTURE DISK CAUSING A RELEASE OF ETHYLENE DICHLORIDE, VINYL CHLORIDE AND ETHYLENE.	National Response Center via SkyTruth Alerts
21-Dec-12	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER REPORTED THAT VINYL CHLORIDE AND ETHYLENE DICHLORIDE RELEASED FROM THE C-FURNACE DUE TO TUBE LEAK (INSIDE THE FURNACE).	National Response Center via SkyTruth Alerts
21-Dec-12	Orbia	Pedricktown	NJ	PVC factory	THE CALLER REPORTED THAT VINYL CHLORIDE VAPORS RELEASED FROM A RELIEF VALVE DUE TO A POWER OUTAGE.	National Response Center via SkyTruth Alerts
13-Dec-12	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED AN HCL VENT SCRUBBER WAS PUT IN TO SERVICE DUE TO A HIGH PRESSURE IN THE SYSTEM AND THE RELEASE CONTAINED VINYL CHLORIDE. LAB ANALYSIS IS UNDERWAY AND THE VENTING EVENT IS OVER. THIS WAS REPORTED ON INCIDENT REPORT NUMBER 1033103 AS A POTENTIAL RELEASE.	National Response Center via SkyTruth Alerts
12-Dec-12	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A LEAKING VALVE ON FLUSH WATER PIPING FOR REACTOR #3 DUE TO CORROSION.	National Response Center via SkyTruth Alerts

30-Nov-12	Occidental	Paulsboro	NJ	Vinyl chloride tank car	<p>Seven cars from a Conrail train derailed on a bridge over Mantua Creek. According to federal investigators, "Three of the derailed tank cars that entered the creek contained vinyl chloride and one contained ethanol. One tank car was breached and released about 20,000 gallons of vinyl chloride. Eyewitnesses reported a vapor cloud engulfed the scene immediately following the accident." According to the medical records reviewed by ATSDR, more than 250 individuals (residents and emergency responders) visited hospital emergency departments as a result of the incident."</p> <p>"Respiratory symptoms, including runny nose, burning sensation in the nose and throat, hoarseness, shortness of breath, chest tightness, wheezing, burning sensation in the lungs, coughing, and increased congestion or phlegm, were reported in first responders, refinery workers, and nearby residents," reports EPA in its January 2023 toxicological profile for vinyl chloride. "The accident happened just after 7 a.m. when a train with two locomotives, 83 freight cars and a caboose made its way from Camden to the industrial town of Paulsboro, just across the river from Philadelphia International Airport. Cars from a train operated by CSX went off the rails on a swing-style bridge, owned by Conrail, over Mantua Creek." "CALLER IS REPORTING THE COLLAPSE OF A RAIL BRIDGE OVER MANTUA CREEK THAT LEADS INTO THE DELAWARE RIVER. THERE ARE FIVE TANK CARS THAT FELL INTO THE CREEK AND AT LEAST ONE OF THE TANK CARS HOLDING 1086 VINYL CHLORIDE HAS BEEN COMPROMISED. PAULSBORO RESIDENTS WITHIN A HALF MILE RADIUS ARE STARTING TO BE EVACUATED. NO TRAIN DETAILS ARE KNOWN. ALL RAIL CREW IS ACCOUNTED FOR AND NO INJURIES OR FATALITIES ARE REPORTED." (National Response Center report-</p>	National Response Center via SkyTruth Alerts
19-Nov-12	OxyVinyls	Pedricktown	NJ	PVC factory	<p>CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM PIPING INSIDE OF A BUILDING DUE TO PINHOLE LEAK. CALLER STATED AS OF NOW THE RELEASE IS GREATER THAN 1 POUND AND LESS THAN 50 POUNDS. A RELEASE TO AIR OF VINYL CHLORIDE, AT THIS TIME THE AMOUNT OF THE RELEASE IS UNKNOWN BUT IS NOT BELIEVED TO BE IN EXCESS OF THE REPORTABLE QUANTITY; HOWEVER THE PIPE IS STILL DRIPPING.</p>	National Response Center via SkyTruth Alerts
16-Nov-12	Dow	Midland	MI	incinerator	<p>CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM PIPING INSIDE OF A BUILDING DUE TO PINHOLE LEAK. CALLER STATED AS OF NOW THE RELEASE IS GREATER THAN 1 POUND AND LESS THAN 50 POUNDS. A RELEASE TO AIR OF VINYL CHLORIDE, AT THIS TIME THE AMOUNT OF THE RELEASE IS UNKNOWN BUT IS NOT BELIEVED TO BE IN EXCESS OF THE REPORTABLE QUANTITY; HOWEVER THE PIPE IS STILL DRIPPING.</p>	National Response Center via SkyTruth Alerts

14-Nov-12	Westlake	Plaquemine	LA	PVC resin factory	THE CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. THE CALLER STATED THAT A NEUTRALIZER TANK (ON A PROCESSOR UNIT) WITH A 3/4' NOZZLE BROKE OFF.	National Response Center via SkyTruth Alerts
10-Nov-12	Dow	Midland	MI	incinerator	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE FROM A REACTOR, THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
25-Oct-12	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT THERE WAS A RELEASE OF 1 POUND OF VINYL CHLORIDE AND 100 POUNDS OF DICHLOROETHANE FROM AN EMERGENCY VENT GAS ABSORBER, THE CAUSE WAS DUE TO TWO HAZARDOUS INCINERATOR'S THAT WENT DOWN.	National Response Center via SkyTruth Alerts
19-Oct-12	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF THE FOLLOWING MATERIALS, VINYL CHLORIDE AND ETHYLENE DICHLORIDE FROM A PLANT COOLING TOWER, THE CAUSE WAS DUE TO A POWER SURGE WHICH CAUSED THE PLANT TO TRIP, CALLER ALSO STATED THAT THERE IS AN ONGOING INVESTIGATION. THIS REPORT IS IN REFERENCE TO NRC REPORT NUMBER 1027831.	National Response Center via SkyTruth Alerts
17-Oct-12	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE FROM A 1' LINE THAT HAD A LEAK. THE MATERIAL RELEASED IS VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
19-Sep-12	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A SLURRY STRIPPER ON PROCESS EQUIPMENT DUE TO A GASKET LEAK.	National Response Center via SkyTruth Alerts
17-Sep-12	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED THAT A FLANGE LEAKED ON A HEAT EXCHANGER, RELEASING UNKNOWN AMOUNTS OF ETHYLENE DICHLORIDE, HYDROGEN CHLORIDE AND VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
14-Sep-12	Westlake	Plaquemine	LA	PVC resin factory	THE CALLER REPORTED THAT A LEAK IN A TANK HAD CAUSED A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
6-Sep-12	Dow	Midland	MI	incinerator	CALLER STATED DUE TO A LEAK ON A FLANGE VINYL CHLORIDE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
6-Sep-12	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER REPORTED A POTENTIAL RELEASE OF MATERIALS. A SENSOR WENT OFF IN THE FACILITY ALERTING THEM OF A RELEASE BUT NOTHING HAS BEEN FOUND AS OF YET.	National Response Center via SkyTruth Alerts

3-Sep-12	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THAT THERE WAS A POTENTIAL REACTOR LEAK THAT RESULTED IN AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
23-Aug-12	Westlake	Westlake	LA	vinyl chloride factory	AN EQUIPMENT MALFUNCTION RESULTED IN A RELEASE OF MATERIAL TO THE AIR.	National Response Center via SkyTruth Alerts
21-Aug-12	Occidental	Deer Park	TX	VCM factory	CALLER STATED THAT THERE WAS A SMALL PIN HOLE LEAK ON A VCM PIPELINE WHICH CAUSED A RELEASE OF APPROXIMATELY 1 POUND OF VINYL CHLORIDE INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
16-Aug-12	Occidental Petroleum	La Porte	TX	vinyl chloride factory	THE CALLER REPORTED THAT A PUMP TUBING HAD A LEAK OF VINYL CHLORIDE (VAPOR).	National Response Center via SkyTruth Alerts
13-Aug-12	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER REPORTING THE VCM RELEASED FROM A ME307A PIPING DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
3-Aug-12	Occidental Petroleum	La Porte	TX	Vinyl chloride tank car	A RAILCAR DOME IS LEAKING VINYL CHLORIDE MONOMER AT THE LOADING RACK ON THE FACILITY.	National Response Center via SkyTruth Alerts
31-Jul-12	Dow	Midland	MI	incinerator	CALLER IS REPORTING A LEAK OF VINYL CHLORIDE FROM A GASKET ON AN AGITATOR. THE AGITATOR IS ON A REACTOR.	National Response Center via SkyTruth Alerts
9-Jul-12	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT A MIXTURE OF HYDROCHLORIC ACID AND VINYL CHLORIDE RELEASED FROM A PIN HOLE LEAK ON A VALVE.	National Response Center via SkyTruth Alerts
23-Jun-12	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED THAT THERE WAS A RELEASE OF 5 POUNDS OF VINYL CHLORIDE FROM A PSD ON TANK 624B.	National Response Center via SkyTruth Alerts
17-Jun-12	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A FLANGE LEAK ON A RINSE HEADER FROM A GASKET CAUSING THE RELEASE OF VINYL CHLORIDE TO THE AIR.	National Response Center via SkyTruth Alerts
6-Jun-12	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATES THAT AN INCH AND A HALF NOZZLE LEAK WAS FOUND ON A FURNACE RELEASING VINYL CHLORIDE. IT IS EXPECTED TO EXCEED THE REPORTABLE QUANTITY OF 1 POUND.	National Response Center via SkyTruth Alerts
23-May-12	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. CALLER STATED THAT A RUPTURE DISC BLEW LEADING TO THE RELEASE.	National Response Center via SkyTruth Alerts

20-May-12	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE AND HYDROGEN CHLORIDE FROM A SCRUBBER THAT WAS TURNED OFF INTO THE AIR DUE TO OPERATOR ERROR.	National Response Center via SkyTruth Alerts
15-May-12	Occidental	Pasadena	TX	PVC factory	CALLER STATED DUE TO A PIN HOLE ON WELL K398 COMPRESSOR THERE WAS A RELEASE OF MATERIALS TO THE AIR AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
2-May-12	Dow	Midland	MI	incinerator	THE CALLER IS REPORTING THAT VINYL CHLORIDE RELEASED FROM A LEVEL TRANSMITTER DUE TO A LEAK.	National Response Center via SkyTruth Alerts
1-May-12	Occidental	Deer Park	TX	VCM factory	CALLER IS REPORTING THAT THERE WAS A TRIP OF THE VENT GAS INCINERATOR WHICH CAUSED A RELEASE OF VINYL CHLORIDE MONOMER, ETHYLENE DICHLORIDE AND CHLOROFORM FROM AN EMERGENCY VENT SCRUBBER.	National Response Center via SkyTruth Alerts
28-Apr-12	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE, HYDROGEN CHLORIDE, AND ETHYL DICHLORIDE INTO ATMOSPHERE. CALLER STATED THAT THE INCINERATOR UNIT TRIPPED LEADING TO THE RELEASE.	National Response Center via SkyTruth Alerts
27-Apr-12	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED AN INCIDENT WAS DISCOVERED AT 1735 THAT A HEATER WAS UPSET AND CAUSED A BYPASS OF THE INCINERATORS WHICH RESULTED IN A RELEASE OF MATERIAL TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
25-Apr-12	Westlake	Calvert City	KY	VCM/PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF THE FOLLOWING CHEMICALS, VINYL CHLORIDE, 1-2 DICHLOROETHANE FROM A PIECE OF PROCESS EQUIPMENT, THE CAUSE WAS DUE TO A GASKET FAILURE.	National Response Center via SkyTruth Alerts
25-Apr-12	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A COOLING TOWER DUE TO A POSSIBLE LEAKING TUBE ON A HEAT EXCHANGER.	National Response Center via SkyTruth Alerts
13-Apr-12	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED THAT A MECHANICAL SEAL FAILED RELEASING 23.78 POUNDS OF VINYL CHLORIDE MONOMER INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
10-Apr-12	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED THAT VINYL CHLORIDE, ETHYLENE DICHLORIDE AND HYDROCHLORIC ACID RELEASED TO THE AIR FROM PIPING IN A PROCESS UNIT THAT FAILED.	National Response Center via SkyTruth Alerts
29-Mar-12	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED THAT A MONITOR WENT OFF DUE TO A POSSIBLE RELEASE OR POSSIBLY FAULTY METER. EXACT CAUSE IS UNDETERMINED AT THIS TIME.	National Response Center via SkyTruth Alerts

24-Mar-12	Westlake	Calvert City	KY	VCM/PVC factory	THE CALLER IS REPORTING THE POTENTIAL RQ EXCEEDANCE OF VINYL CHLORIDE AND ETHYLENE DICHLORIDE FROM A FURNACE. THE CAUSE IS UNDETERMINED.	National Response Center via SkyTruth Alerts
22-Mar-12	Westlake	Geismar	LA	PVC factory	CALLER IS REPORTING AN EXPLOSION AND A FIRE AT THE CHEMICAL PLANT AND A RELEASE OF MATERIALS INTO THE AIR. THE CAUSE OF THE EXPLOSION IS UNKNOWN AT THIS TIME. A fire and explosion occurred and the company “estimated that it released 2,645 pounds of hydrochloric acid, 632 pounds of chlorine, 239 pounds of vinyl chloride monomer, and many other chemicals.” (from HBN Phase 1) The Advocate later reported, “in September 2012, OSHA cited Westlake for the VCM unit fire from the previous March, giving the company seven violations, including six serious ones, and \$67,000 in fines, the agency website says. When the VCM column caught fire, a plume of potentially toxic VCM, chlorine and hydrochloric acid, as well as other chemicals, went into the air. In October 2012, OSHA and Westlake reached an informal settlement, reducing the number of violations to six and the total fines to \$38,300. OSHA’s website says the case is not closed but is still ‘pending abatement of violations.’”	National Response Center via SkyTruth Alerts
22-Mar-12	Westlake	Geismar	LA	PVC factory		RMP
18-Mar-12	Dow	Midland	MI	incinerator	CALLER STATED THERE WAS A RELEASE OF VINYL CHLORIDE TO THE AIR DUE TO UNKNOWN CAUSES AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts
12-Mar-12	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A FLOW TRANSMITTER (#C201CQ) ON A FURNACE DUE TO A PIN HOLE LEAK.	National Response Center via SkyTruth Alerts
4-Mar-12	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATED THERE WAS RELEASE OF VINYL CHLORIDE DUE TO A RELEASE VALVE THAT OPEN.	National Response Center via SkyTruth Alerts
26-Feb-12	Shin-Etsu	Freeport	TX	PVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE. CALLER STATED A LOCAL FACILITY WAS IN SHUT DOWN MODE, LINES WERE CLEARED AND A ISOLATION VALVE WAS ACCIDENTALLY TRIPPED WHICH CAUSED THE RELEASE.	National Response Center via SkyTruth Alerts

21-Feb-12	Westlake	Westlake	LA	vinyl chloride factory	THE CALLER IS REPORTING A LEAK IN A PROCESS LINE CAUSING A RELEASE OF VINYL CHLORIDE MONOMER. THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
11-Feb-12	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER STATED THAT THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF LATEX VINYL CHLORIDE FROM THE FACILITY, THE CAUSE IS UNKNOWN.	National Response Center via SkyTruth Alerts
3-Feb-12	Occidental	Pasadena	TX	PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF WATER CONTAINING VINYL CHLORIDE FROM THE NUMBER ONE VACUUM SYSTEM AT THE FACILITY, THE CAUSE IS UNDER INVESTIGATION.	National Response Center via SkyTruth Alerts
1-Feb-12	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF ETHYLENE DICHLORIDE, VINYL CHLORIDE, CHLOROFORM AND CARBON TETRACHLORIDE FROM A VENT STACK DUE TO A THERMAL OXIDIZER THAT TRIPPED.	National Response Center via SkyTruth Alerts
30-Jan-12	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A 'B FURNACE QUENCH COLUMN PRESSURE RELIEF VALVE' DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
20-Jan-12	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE IN THE AMOUNT OF 25,000 LBS. CAUSE IS DUE TO A STEAM VALVE LEAK.	National Response Center via SkyTruth Alerts
17-Jan-12	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO AN UNKNOWN CAUSE AT THIS TIME. THE RELEASED AMOUNT IS ALSO UNKNOWN.	National Response Center via SkyTruth Alerts
16-Jan-12	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THAT VESSEL TR401A (REACTOR) HAD HYDROSTAT PROBLEMS WHICH CAUSED THE RELIEF VALVE TO LIFT AND RELEASE VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
3-Jan-12	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED THAT THERE WAS A RELEASE OF VINYL CHLORIDE MONOMER FROM A QUENCH ACCUMULATOR SIGHT GLASS. THE CALLER STATED THAT MORE THAN 1 POUND WAS RELEASED INTO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
27-Dec-11	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO A POWER FAILURE.	National Response Center via SkyTruth Alerts
22-Dec-11	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED VINYL CHLORIDE AND HYDROCHLORIC ACID RELEASED FROM THE C500 VENT STACK DUE TO A RELIEF VALVE THAT OPENED.	National Response Center via SkyTruth Alerts

22-Dec-11	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A 2 INCH FEED LINE TO THE UNIT DUE TO A PIN HOLE LEAK.	National Response Center via SkyTruth Alerts
17-Dec-11	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A SHUTDOWN OF THE OXIDIZER WHICH RESULTED IN AN RQ RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
15-Dec-11	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER STATES THAT WASTE WATER CONTAINING VINYL CHLORIDE WAS RELEASED TO A SUMP FROM THE PROCESSING FACILITY. THE MATERIAL THEN WENT TO A RETENTION DITCH, AND ANOTHER SUMP, AND ENDED AT THE WASTE WATER TREATMENT PLANT. IT IS ESTIMATED THAT 1,040 GALLONS OF WASTE WATER WAS RELEASED. THE VINYL CHLORIDE WAS REPORTED AS BEING 171 PPM.	National Response Center via SkyTruth Alerts
14-Dec-11	Westlake	Plaquemine	LA	PVC resin factory	RELEASE OF VINYL CHLORIDE, APPROXIMATELY 5 POUNDS FROM RELIEF VALVE ON A PROCESS STRAINER.	National Response Center via SkyTruth Alerts
11-Dec-11	Hathaway	Louisville	KY	CPVC factory	CALLER IS REPORTING THAT AN ALARM AND A SPILL OF VINYL CHLORIDE WAS DISCOVERED IN THE BUILDING DUE TO AN UNKNOWN CAUSE.	National Response Center via SkyTruth Alerts
13-Nov-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A SITE GLASS ATTACHED TO A PROCESS VESSEL DUE TO AN EQUIPMENT FAILURE (THE SITE GLASS BROKE).	National Response Center via SkyTruth Alerts
8-Nov-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VCM DUE TO EQUIPMENT FAILURE OF A GASKET ON SPVC UNIT.	National Response Center via SkyTruth Alerts
3-Nov-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF UNKNOWN AMOUNT OF VINYL CHLORIDE INTO THE ATMOSPHERE. CALLER STATED THAT A PIN HOLE IN THE PIPING CAUSED THE RELEASE.	National Response Center via SkyTruth Alerts
31-Oct-11	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED DUE TO A VALVE THAT WAS NOT CLOSED ALL THE WAY THERE WAS A RELEASE OF MATERIALS TO THE AIR.	National Response Center via SkyTruth Alerts
16-Oct-11	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATES THAT A 3/4 INCH LINE SPLIT RELEASING 250 LBS OF VINYL CHLORIDE INSIDE THE CHEMICAL MANUFACTURING PLANT.	National Response Center via SkyTruth Alerts
14-Oct-11	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, AND HYDROCHLORIC ACID INTO THE ATMOSPHERE. CALLER STATED THAT A SEAL BLEW ON PUMP NP200F AT A MANUFACTURING FACILITY CAUSING THE RELEASE.	National Response Center via SkyTruth Alerts

12-Sep-11	Westlake	Calvert City	KY	VCM/PVC factory	An uninspected pipe developed a leak and caused 11,000 pounds of vinyl chloride and 2,000 pounds of EDC to be emitted from the plant.	ECHO
11-Sep-11	Formosa	Baton Rouge	LA	VCM/PVC factory	A GASKET FAILURE ON RELIEF VALVE [RV-D201B-1] RESULTED IN A RELEASE OF MATERIAL.	National Response Center via SkyTruth Alerts
6-Sep-11	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A PUMP (#NP-204C) INSIDE THE FACILITY DUE TO A SEAL BLOW-OUT.	National Response Center via SkyTruth Alerts
1-Sep-11	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING A BLIND LEAK ON THE BOTTOM OF POLY 7. CALLER IS REPORTING THAT APPROXIMATELY 1 POUND OF VINYL CHLORIDE LEAKED OUT.	National Response Center via SkyTruth Alerts
25-Aug-11	Occidental	Deer Park	TX	PVC factory	CALLER STATED THAT THERE WAS A PIN HOLE LEAK IN A PIPING SPOOL PIECE OF FOX PROCESS REACTOR. THE CALLER STATE THAT APPROXIMATELY 1 POUND OF VINYL CHLORIDE WAS RELEASED IN TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
22-Aug-11	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF MATERIALS FROM A CHEMICAL PROCESSING UNIT DUE TO LIGHTNING STRUCK A HYDROGEN STACK WHICH CAUSED A FIRE, POWER DIP AND UPSETS. CALLER STATED THE CHLORINE RELEASED AT 1725 AND THE VINYL CHLORIDE RELEASED AT 1745.	National Response Center via SkyTruth Alerts
18-Aug-11	Occidental Petroleum	La Porte	TX	vinyl chloride factory	A TUBING LEAK ON A C-QUENCH COLUMN ACCUMULATOR RESULTED IN A RELEASE OF MATERIAL.	National Response Center via SkyTruth Alerts
17-Aug-11	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF MATERIAL FROM A VINYL CHLORIDE TRANSFER LINE DUE TO A BROKEN NIPPLE UNDER THE PRESSURE RELIEF DEVICE.	National Response Center via SkyTruth Alerts
6-Aug-11	Occidental	Deer Park	TX	VCM factory	AT THE OXY VINYL DEER PARK VCM SITE THERE WAS A SMALL TUBE LEAK AT #1 FURNACE, RELEASING APPROXIMATELY 1 POUND OF VINYL CHLORIDE MONOMER (VCM)	National Response Center via SkyTruth Alerts
5-Aug-11	Occidental	Ingleside (Gregory)	TX	VCM vessel	CALLER STATED DUE TO RESIDUAL CARGO IN THE COMPRESSOR STACK ONBOARD A CHEMICAL TANKER VESSEL THERE WAS A RELEASE OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts

3-Aug-11	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER STATED THAT THERE WAS A RELEASE OF AN UNKNOWN AMOUNT OF VINYL CHLORIDE MONIMOR FROM A FILTER POT, THE CAUSE WAS DUE TO A LEAK.	National Response Center via SkyTruth Alerts
27-Jul-11	Westlake	Westlake	LA	vinyl chloride factory	A REACTOR (PROCESS VESSEL) SHUT DOWN, RESULTING IN AN OVERPRESSURING ON A COLUMN. THE MATERIAL RELEASED TO THE AIR VIA A RELIEF VALVE.	National Response Center via SkyTruth Alerts
26-Jul-11	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING RUPTURE DISK FAILED IN THE CRACKING AREA OF THE D QUENCH COLUMN CAUSING THE RELEASE OF 100 POUNDS OF VINYL CHLORIDE, 100 POUNDS OF ETHYLENE DICHLORIDE AND 100 POUNDS OF HYDROGEN CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
15-Jul-11	Orbia	Henry	IL	Vinyl chloride tank car	CALLER STATED THAT A VINYL RAIL CAR (LOCATED INSIDE OF THE FACILITY AND INDEPENDENT OF OTHER RAIL WAYS) BLEW A GASKET RELEASING THE PRODUCT INTO THE AIR AND ONTO THE GROUND. CALLER STATED THAT THE RELEASE ALSO CREATED A 'VAPOR CLOUD'.	National Response Center via SkyTruth Alerts
11-Jul-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT VCM IS RELEASING FROM THE COOLING TOWER DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
4-Jul-11	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING THAT VINYL CHLORIDE RELEASED FROM A SIDE BLEED ON A VCM VENT CHILLER PUMP-OFF LINE DUE TO A LEAK (CAUSE OF THE LEAK IS UNDETERMINED).	National Response Center via SkyTruth Alerts
1-Jul-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER INDICATED THAT THEY WERE NOTIFIED OF THE RELEASE FROM A 'GAS DETECTOR'. THEY FOUND THAT VINYL CHLORIDE WAS RELEASED TO THE ATMOSPHERE AND THE CAUSE WAS UNKNOWN.	National Response Center via SkyTruth Alerts
26-Jun-11	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THAT ETHYLENE DICHLORIDE, VINYL CHLORIDE AND HYDROGEN CHLORIDE RELEASED FROM VCM UNIT DUE TO GASKET BLOWING OUT ON A DUMP LINE.	National Response Center via SkyTruth Alerts
24-Jun-11	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS MAKING AN RQ NOTIFICATION FOR VINYL CHLORIDE, CALLER REPORTS THAT THERE WAS A LINE FAILURE AT THEIR FACILITY. EXACT AMOUNT IS UNKNOWN AT THIS TIME AS CALCULATIONS ARE STILL BEING COMPLETED.	National Response Center via SkyTruth Alerts
24-Jun-11	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THERE IS A RELEASE OF VINYL CHLORIDE TO A RELIEF VALVE FROM UNKNOWN SOURCES AT THE CHEMICAL FACILITY.	National Response Center via SkyTruth Alerts

22-Jun-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	A GASKET RUPTURED ON A VCM REACTOR, RESULTING IN A RELEASE OF MATERIAL.	National Response Center via SkyTruth Alerts
8-Jun-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO A SPIKE IN THE VCM WASTE GAS GOING TO THE INCINERATOR.	National Response Center via SkyTruth Alerts
7-Jun-11	Dow	Midland	MI	incinerator	A FRANGIBLE IN A DEMPSTER EXPANDED AND ACTIVATED RELEASING VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
5-Jun-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING THAT VINYL CHLORIDE RELEASED FROM SR417 PFV DUE TO IT LIFTING (CAUSED BY OVERPRESSURING).	National Response Center via SkyTruth Alerts
31-May-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	AN HCL FEED LINE IS LEAKING, RESULTING IN A RELEASE OF MATERIAL.	National Response Center via SkyTruth Alerts
26-May-11	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A PIECE OF EQUIPMENT (VINYL COLUMN) DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
21-May-11	Orbia	Henry	IL	PVC factory	A power surge blamed on human error led to the spill of 5,155 pounds of vinyl chloride from a process vessel.	RMP
20-May-11	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED CHEMICALS LEAKED INTO A COOLING TOWER DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
13-May-11	Occidental	Pasadena	TX	PVC factory	CALLER IS REPORTING THAT VINYL CHLORIDE RELEASED FROM A BULLSEYE ON REACTOR # 6 DUE TO GLASS IN THE BULLSEYE FAILING.	National Response Center via SkyTruth Alerts
13-May-11	Occidental	Pasadena	TX	PVC factory	RELEASE OF MATERIAL FROM A SLOP TANK DUE TO SIGHT GLASS THAT FAILED.	National Response Center via SkyTruth Alerts
12-May-11	Westlake	Plaquemine	LA	PVC resin factory	A TATTLETALE GAUGE ON A PUMP FAILED, RESULTING A RELEASE OF LIQUID (THE LIQUID VAPORIZES IMMEDIATELY)	National Response Center via SkyTruth Alerts
12-May-11	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A COOLER TOWER DUE TO A PROCESS EXCHANGER LEAK.	National Response Center via SkyTruth Alerts

4-May-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A WASTE WATER STORAGE TANK DUE TO A MECHANICAL SEAL FAILURE.	National Response Center via SkyTruth Alerts
1-May-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THERE WAS A RELEASE OF VINYL CHLORIDE THROUGH A VACUUM SKID DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
27-Apr-11	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	CALLER STATED SOME SAFETY RELIEF VALVES WENT TO THE EMERGENCY SYSTEM DUE TO POWER FAILURE. THIS RESULTED IN THE LOOSE OF EQUIPMENT AND RELEASE OF MATERIALS TO THE AIR. The RMP report on the accident states that weather was a factor.	National Response Center via SkyTruth Alerts
21-Apr-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	SEAL IS LEAKING ON A WASTEWATER HOLDING TANK CAUSING A RELEASE OF VINYL CHLORIDE. RQ IS EXPECTED TO BE EXCEEDED.	National Response Center via SkyTruth Alerts
11-Apr-11	Formosa	Delaware City	DE	PVC resin factory (closed)	THE CALLER IS REPORTING THAT AN UNLOADING FILTER POT GASKET DEVELOPED A LEAK. THIS CAUSED A RELEASE OF VINYL CHLORIDE INTO THE ATMOSPHERE. NO INJURIES OR EVACUATIONS.	National Response Center via SkyTruth Alerts
11-Apr-11	Westlake	Calvert City	KY	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A HOLE IN A VALVE BODY ON #2A QUENCH BOTTOMS (PROCESS VESSEL) DUE TO AN EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
8-Apr-11	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER REPORTED THE FACILITY HAS A HIGH GC SAMPLE FOR VINYL CHLORIDE AT .045 PPM, IT IS UNKNOWN IF THE MATERIAL REACHED THE REPORTABLE QUANTITY. CALLER ALSO STATED THE EQUIPMENT MAY HAVE BEEN GIVING A FALSE READING AND THERE MAY NOT BE A RELEASE.	National Response Center via SkyTruth Alerts
23-Mar-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER REPORTED A VINYL CHLORIDE GAS LEAK IN AN UNKNOWN AMOUNT DUE TO AN EQUIPMENT FAILURE. THE RELEASE HAS BEEN SECURED. NO EFFECTS OUTSIDE THE FACILITY.	National Response Center via SkyTruth Alerts
22-Mar-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	THE CALLER IS REPORTING A RELEASE DUE TO A PROCESS UPSET.	National Response Center via SkyTruth Alerts
20-Mar-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A PRESSURE GAUGE DUE TO EQUIPMENT FAILURE OF THE PRESSURE GAUGE.	National Response Center via SkyTruth Alerts

5-Mar-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF HYDROGEN CHLORIDE, ETHYLENE DICHLORIDE, VINYL CHLORIDE DUE TO A PINHOLE ON A DISCHARGE LINE.	National Response Center via SkyTruth Alerts
4-Mar-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM THE VACUUM COMPRESSOR DISCHARGE DUE TO A BACK UP IN THE SYSTEM.	National Response Center via SkyTruth Alerts
27-Feb-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE DUE TO EQUIPMENT FAILURE CAUSING A TEMPERATURE SWING.	National Response Center via SkyTruth Alerts
25-Feb-11	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATES THAT THERE WAS A LEAK FROM REACTOR (PR 401A) DISCHARGE PIPING OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
16-Feb-11	Westlake	Westlake	LA	VCM vessel	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A VAPOR LINE AND A LIQUID LINE ONBOARD A VESSEL DUE TO A LEAKING PACKING GLAND ON THE VALVE.	National Response Center via SkyTruth Alerts
12-Feb-11	Westlake	Westlake	LA	vinyl chloride factory	AN OPERATOR WAS ATTEMPTING TO CLOSE A VALVE WHEN THE LINE RUPTURED AT THE VALVE.	National Response Center via SkyTruth Alerts
11-Feb-11	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF HYDRAULIC ACID AND VINYL CHLORIDE FROM THE NC204 2 INCH LINE THAT HAS A HOLE BETWEEN THE PIPE AND THE FLANGE DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
2-Feb-11	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE MONOMER FROM A WASTE WATER TREATMENT PLANT DUE TO AN UNKNOWN CAUSE AT THIS TIME.	National Response Center via SkyTruth Alerts
31-Jan-11	Formosa	Baton Rouge	LA	VCM/PVC factory	THE CALLER IS REPORTING THAT A PINHOLE DEVELOPED ON A 6 INCH VENT LINE AT THEIR FACILITY. UNKNOWN AMOUNTS OF HYDROCHLORIC ACID AND VINYL CHLORIDE INTO THE ATMOSPHERE. THE VINYL CHLORIDE RELEASE HAS BEEN SECURED, BUT THE HYDROCHLORIC RELEASE IS ON-GOING.	National Response Center via SkyTruth Alerts
16-Jan-11	Formosa	Baton Rouge	LA	VCM/PVC factory	RELEASE OF MATERIAL FROM A INCINERATOR DUE TO AUTOMATIC SHUTOFF.	National Response Center via SkyTruth Alerts

15-Jan-11	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATES THAT THE PLANT HAS BEEN SHUT DOWN FOR A DECON AND SCHEDULED TURN AROUND. THE PARTS PER MILLION LEVEL FOR VINYL CHLORIDE BEING RELEASED THROUGH INCINERATOR 'B' HAD A READING OF 360.9 PPM. THE COMPANY IS CHECKING TO SEE IF THE REPORTABLE QUANTITY FOR VINYL CHLORIDE WAS EXCEEDED.	National Response Center via SkyTruth Alerts
6-Jan-11	Westlake	Westlake	LA	vinyl chloride factory	A fire in a pump released 42 pounds of vinyl chloride and 54 pounds of hydrogen chloride.	RMP
25-Dec-10	Formosa	Point Comfort	TX	Plastics factory (PE, PP, PVC and MEG for PET)	CALLER STATES THAT A GASKET LEAK ON PVC REACTOR PR-401A CAUSED A RELEASE OF PVC SLURRY AND VCM (VINYL CHLORIDE) INTO CONTAINMENT.	National Response Center via SkyTruth Alerts
9-Dec-10	Westlake	Calvert City	KY	VCM/PVC factory	CALLER STATES THAT A WATER LINE HAD A HOLE THAT RELEASED A MIX OF WATER AND VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
4-Dec-10	Olin	Plaquemine	LA	vinyl chloride factory	THE CALLER REPORTED THAT A PSV FAILED OR RELIEVED PREMATURELY CAUSING A RELEASE.	National Response Center via SkyTruth Alerts
2-Dec-10	Olin	Plaquemine	LA	vinyl chloride factory	CALLER IS REPORTING A PROCESS LINE DEVELOPED A LEAK ON FURNACE F-106 RELEASING VINYL CHLORIDE, ETHYLENE DICHLORIDE AND HYDROCHLORIC ACID. THE RELEASE IS ONGOING. NO AMOUNTS OF THE RELEASED MATERIALS IS KNOWN AT THIS TIME.	National Response Center via SkyTruth Alerts
18-Nov-10	Formosa	Delaware City	DE	PVC resin factory (closed)	A SEAL ON PUMP #DP303B FAILED, RESULTING IN A RELEASE OF MATERIAL. THE ACTUAL AMOUNT RELEASED IS UNKNOWN, BUT IS EXPECTED TO BE LESS THAN 1 POUND.	National Response Center via SkyTruth Alerts
10-Nov-10	DuPont	Tonawanda	NY	Vinyl chloride tank car	Tanker explodes. "It is believed that the 10,000-gallon tanker was carrying vinyl chloride, a colorless compound and important industrial chemical chiefly used to produce the polymer polyvinyl chloride, or PVC." "Tanker Explodes at DuPont; One Person Killed -November 10, 2010 Ken-Ton Bee (Kenmore, NY) DARLENE M. DONOHUE Editor."	Local news
9-Nov-10	Formosa	Delaware City	DE	PVC resin factory (closed)	CALLER STATED DUE TO EQUIPMENT FAILURE (A BLOWN GASKET) THERE WAS A RELEASE OF VINYL CHLORIDE.	National Response Center via SkyTruth Alerts
4-Nov-10	Westlake	Westlake	LA	vinyl chloride factory	CALLER STATED THE RELIEF VALVE LIFTED DUE TO UNKNOWN CAUSES AT THE FACILITY RELEASING VINYL CHLORIDE INTO AN EMERGENCY VENT STACK.	National Response Center via SkyTruth Alerts

2-Oct-10	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A 1/2' FLOW FAILURE RESULTING IN A RELEASE OF VINYL CHLORIDE, ETHYLENE DICHLORIDE, HYDROCHLORIC ACID.	National Response Center via SkyTruth Alerts
2-Oct-10	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF ETHYLENE DICHLORIDE AND VINYL CHLORIDE TO THE COOLING TOWER FROM THE NE202 CONDENSER.	National Response Center via SkyTruth Alerts
18-Sep-10	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER STATED VINYL CHLORIDE RELEASED INTO THE AIR FROM A SMALL PIECE OF TUBING, DUE TO UNKNOWN CAUSES.	National Response Center via SkyTruth Alerts
23-Aug-10	Olin	Plaquemine	LA	VCM vessel	CALLER STATED THERE WAS A RELEASE OF VINYL CHLORIDE DUE TO A BLEED VALVE THAT WAS LEFT OPEN ON A PROCESS LINE AT THE CHEMICAL DOCK FACILITY ON THE MISSISSIPPI RIVER, RIVER MILE 209.9	National Response Center via SkyTruth Alerts
22-Aug-10	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING THAT VINYL CHLORIDE IS RELEASING FROM A THEORETIC CONNECTOR.	National Response Center via SkyTruth Alerts
18-Aug-10	Olin	Plaquemine	LA	vinyl chloride factory	CALLER REPORTED THAT PIPING FAILED ON THE DISCHARGE OF PUMP 112 RELEASING AN UNKNOWN AMOUNT OF VINYL CHLORIDE TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
5-Aug-10	Occidental Petroleum	Geismar	LA	Chlorine and chlorinated chemical factory	CALLER STATED DUE TO BAD WEATHER THE INCINERATOR TRIPPED AND RELEASED 2 POUNDS OF VINYL CHLORIDE INTO THE AIR.	National Response Center via SkyTruth Alerts
26-Jul-10	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF 0.018 PARTS PER MILLION OF VINYL CHLORIDE AND 44.0 PARTS PER MILLION OF ETHYLENE DICHLORIDE FROM A COOLANT TOWER, THE CAUSE IS UNKNOWN. NO WATERWAY IMPACT.	National Response Center via SkyTruth Alerts
20-Jul-10	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A PROCESS UNIT DUE TO EXCEEDANCE OF PERMIT LIMIT BY REPORTABLE QUANTITY (RQ).	National Response Center via SkyTruth Alerts
20-Jul-10	Occidental	Deer Park	TX	PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF 2 POUNDS OF VINYL CHLORIDE FROM A DROP LINE ON A REACTOR, THE CAUSE WAS DUE TO A FAULTY GASKET, THERE WAS NO WATERWAY IMPACT.	National Response Center via SkyTruth Alerts
8-Jul-10	Occidental Petroleum	La Porte	TX	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM THE 'B FURNACE REFLUX PUMP SAMPLE TUBING' DUE TO A TUBING FAILURE.	National Response Center via SkyTruth Alerts
6-Jul-10	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A BLOWN OUT GAUGE.	National Response Center via SkyTruth Alerts

25-Jun-10	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A PROCESS COLUMN (NC202) DUE TO EQUIPMENT FAILURE OF A GASKET. CALLER STATES THE RELEASE IS ONGOING.	National Response Center via SkyTruth Alerts
8-Jun-10	Westlake	Calvert City	KY	VCM/PVC factory	CALLER REPORTED A LEAK IN A SEPARATOR RELIEF VALVE BLADE THAT CAUSED A SPILL OF MATERIALS.	National Response Center via SkyTruth Alerts
7-Jun-10	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A VINYL TANK VENT LINE DUE TO A HOLE IN THE LINE.	National Response Center via SkyTruth Alerts
27-May-10	Dow	Midland	MI	incinerator	CALLER IS REPORTING THAT VINYL CHLORIDE IS RELEASING FROM VALVE STUMP DUE TO UNKNOWN CAUSES. THE AMOUNT RELEASED IS UNDETERMINED BUT EXPECTED TO EXCEED THE REPORTABLE QUANTITY.	National Response Center via SkyTruth Alerts
23-May-10	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER STATE DUE TO A PUMP SEAL FAILURE ON P241 VINYL CHLORIDE RELEASED TO THE AIR.	National Response Center via SkyTruth Alerts
19-May-10	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A PVC REACTOR DUE TO EQUIPMENT FAILURE OF A RELIEF VALVE.	National Response Center via SkyTruth Alerts
29-Apr-10	Berkshire Hathaway	Louisville	KY	CPVC factory	CALLER REPORTED A RELEASE OF AN UNKNOWN QUANTITY OF VINYL CHLORIDE. A MIXER IS LEAKING INTO THE BLENTROL ROOM.	National Response Center via SkyTruth Alerts
18-Apr-10	Occidental	Ingleside (Gregory)	TX	Vinyl chloride factory	ETHYLENE DICHLORIDE AND VINYL CHLORIDE RELEASED AS A RESULT OF A RUPTURED DISC ON PROCESS TANK EQUIPMENT.	National Response Center via SkyTruth Alerts
31-Mar-10	Westlake	Westlake	LA	vinyl chloride factory	CALLER IS REPORTING A RELEASE OF MATERIALS DUE TO A 1.5 INCH THERMAL WELL FLANGE LEAK.	National Response Center via SkyTruth Alerts
26-Mar-10	Westlake	Westlake	LA	vinyl chloride factory	A LEAK IN A CONDENSER RESULTED IN A RELEASE OF VINYL CHLORIDE	National Response Center via SkyTruth Alerts

19-Mar-10	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER STATED THAT THERE WAS A RELEASE OF 100 POUNDS OF VINYL CHLORIDE TO THE ATMOSPHERE FROM A PIPELINE DUE TO EQUIPMENT FAILURE.	National Response Center via SkyTruth Alerts
13-Mar-10	Olin	Freeport (Oyster Creek)	TX	Chlor-alkali plant, manufacturer of vinyl chloride and other chlorinated organics	CALLER REPORTED A FINISHING TOWER THAT LEAKED PRODUCT INTO A CONDENSER AND THEN RELEASED IT TO THE ATMOSPHERE.	National Response Center via SkyTruth Alerts
6-Mar-10	Westlake	Westlake	LA	vinyl chloride factory	A SAFETY RELIEF VALVE ON A VINYL STORAGE BULLET OPENED FOR 30 SECONDS DUE TO UNKNOWN CAUSES. A RELEASE OF VINYL CHLORIDE RESULTED.	National Response Center via SkyTruth Alerts
13-Feb-10	Westlake	Plaquemine	LA	PVC resin factory	CALLER REPORTED A TRANSMITTER FROZE ON AN OVERHEAD PIECE OF MACHINERY THAT CAUSE A SPILL.	National Response Center via SkyTruth Alerts
10-Feb-10	OxyVinyls	Pedricktown	NJ	PVC factory	A HAMMER BLIND VALVE HAD A LEAK WHICH RESULTED IN A RELEASE OF VINYL CHLORIDE ONTO THE GROUND. NO WATERWAYS WERE IMPACTED BY THE SPILL.	National Response Center via SkyTruth Alerts
30-Jan-10	Westlake	Plaquemine	LA	PVC resin factory	CALLER STATED THERE WAS A SPILL DISCOVERED AT THE FACILITY DUE TO A LEAKING HEAT EXCHANGER TO A COOLING TOWER.	National Response Center via SkyTruth Alerts
26-Jan-10	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER STATED VINYL CHLORIDE WAS DISCOVERED COMING FROM A PIN HOLE LEAK ON THE NCDO4 HCL COLUMN INTO THE AIR.	National Response Center via SkyTruth Alerts
25-Jan-10	Westlake	Lake Charles	LA	vinyl chloride factory	A VENT VALVE OPENED UP FOR 8 MINUTES DUE TO AN UNKNOWN CAUSE DURING A UNIT START UP. AN UNKNOWN AMOUNT OF ETHYL CHLORIDE AND ETHYLENE AND VINYL CHLORIDE RELEASED INTO THE AIR. THE CALLER DOES NOT BELIEVE THEY WILL REACH THE REPORTABLE QUANTITIES.	National Response Center via SkyTruth Alerts

21-Jan-10	Occidental	Pasadena	TX	PVC factory	CALLER STATED THAT THERE WAS A RELEASE OF 10 POUNDS OF VINYL CHLORIDE INTO THE AIR. THE CAUSE WAS A TANK OVER PRESSURED DISCHARGING A VAPOR.	National Response Center via SkyTruth Alerts
12-Jan-10	Occidental	Deer Park	TX	PVC factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE FROM A REACTOR DUE TO A VALVE LEAK.	National Response Center via SkyTruth Alerts
8-Jan-10	Westlake	Plaquemine	LA	PVC resin factory	CALLER IS REPORTING A RELEASE OF VINYL CHLORIDE TO A COOLING TOWER DUE TO A HEAT EXCHANGER COIL FAILURE. CALLER STATES THE RELEASE HAS BEEN ISOLATED.	National Response Center via SkyTruth Alerts
2-Jan-10	Formosa	Baton Rouge	LA	VCM/PVC factory	CALLER IS REPORTING THAT VINYL CHLORIDE IS RELEASING FROM THE NC204 STRIPPER COLUMN (ISOLATION BLOCK VALVE IS LEAKING THROUGH RV) DUE TO EQUIPMENT FAILURE. THERE IS NO OFF SITE IMPACT INVOLVED AT THIS TIME.	National Response Center via SkyTruth Alerts

APPENDIX 4. Federal Superfund Sites with Vinyl Chloride Contamination

EPA ID	Contaminated Site Name	City	County	State	Street Address	Zip Code	Site Description	NPL Status
AK8570028649	ELMENDORF AIR FORCE BASE	ANCHORAGE	[Blank County]	AK	N BOUNDRY OF CITY LIMITS	99506	Other	Final NPL
AK6210022426	FORT WAINWRIGHT	FORT WAINWRIGHT	[Blank County]	AK	RICHARDSON HWY, SE OF CY	99703	Waste Management	Final NPL
AK1570028646	EIELSON AIR FORCE BASE	FAIRBANKS	FAIRBANKS NC	AK	HIGHWAY 2 - 16 MI SE OF FAIRBANK	99702	Waste Management	Final NPL
AL1800013863	US NASA MARSHALL SPACE FLIGHT CENTER	HUNTSVILLE	MADISON	AL	REDSTONE ARSENAL	35812		Part of NPL S
AL7210020742	USARMY/NASA REDSTONE ARSENAL	HUNTSVILLE	MADISON	AL	Postal Address is unavailable for the S	35808	Manufacturing/Processing/	Final NPL
ARD980864110	MONROE AUTO EQUIPMENT CO. (PARAGOULD PIT	PARAGOULD	GREENE	AR	HWY 358 2 1/2 MI W OF TOWN	72450	Waste Management	Deleted NPL
ARD980496186	CECIL LINDSEY	NEWPORT	JACKSON	AR	SEC 32 T12N R2W	72112	Waste Management	Deleted NPL
ARD980809941	JACKSONVILLE MUNICIPAL LANDFILL	JACKSONVILLE	LONOKE	AR	GRAHAM RD	72076	Waste Management	Deleted NPL
AZD980735666	HASSAYAMPA LANDFILL	ARLINGTON	MARICOPA	AZ	32450 West Salome Highway	85322	Waste Management	Final NPL
AZD009004177	MOTOROLA, INC. (52ND STREET PLANT)	PHOENIX	MARICOPA	AZ	5005 E MCDOWELL RD	85008	Manufacturing/Processing/	Final NPL
AZD980695969	INDIAN BEND WASH AREA	SCOTTSDALE	MARICOPA	AZ	MCDOWELL RD & HAYDEN	85253	Other	Final NPL
AZD980737530	TUCSON INTERNATIONAL AIRPORT AREA	TUCSON	PIMA	AZ	NOGALES HWY	85734	Manufacturing/Processing/	Final NPL
CA2170023236	ALAMEDA NAVAL AIR STATION	ALAMEDA	ALAMEDA	CA	W END CITY OF ALAMEDA	94501	Other	Final NPL
CAD980636914	FRESNO MUNICIPAL SANITARY LANDFILL	FRESNO	FRESNO	CA	SW COR OF JENSEN & W AVE	93706	Waste Management	Final NPL
CAD980736151	PURITY OIL SALES, INC.	MALAGA	FRESNO	CA	3265 S MAPLE AVE	93725	Recycling	Final NPL
CA1570024504	EDWARDS AIR FORCE BASE	EDWARDS AFB	KERN	CA	AFFTC EDWARDS AFB	93524	Manufacturing/Processing/	Final NPL
CAD980894901	SAN FERNANDO VALLEY (AREA 2)	GLENDALE	LOS ANGELES	CA	CRYSTAL SPRINGS WELLFIELD ARE	91209	Other	Final NPL
CAD980817985	SAN GABRIEL VALLEY (AREA 4)	LA PUENTE	LOS ANGELES	CA	STIMSON AVE & OLD VALLEY BLVD	91744	Other	Final NPL
CA1170090483	NAVAL SHIPYARD LONG BEACH	LONG BEACH	LOS ANGELES	CA	TERMINAL ISLAND	90822		Not NPL
CAD980737092	PEMACO MAYWOOD	MAYWOOD	LOS ANGELES	CA	5050 SLAUSON BOULEVARD	90270	Manufacturing/Processing/	Final NPL
CAT080012024	OPERATING INDUSTRIES, INC., LANDFILL	MONTEREY PARK	LOS ANGELES	CA	900 N POTRERO GRANDE DR	91754	Waste Management	Final NPL
CAD980884357	WASTE DISPOSAL, INC.	SANTA FE SPRINGS	LOS ANGELES	CA	12731 E LOS NIETOS RD	90670	Waste Management	Final NPL
CAD055753370	COOPER DRUM CO.	SOUTH GATE	LOS ANGELES	CA	9316 ATLANTIC AVE	90280	Recycling	Final NPL
CA3570024551	CASTLE AIR FORCE BASE (6 AREAS)	MERCED	MERCED	CA	CASTLE AFB	95342	Waste Management	Final NPL
CA7210020676	FORT ORD	MARINA	MONTEREY	CA	FORMER ARMY BASE FORT ORD	93933	Other	Final NPL
CA6170023208	EL TORO MARINE CORPS AIR STATION	EL TORO	ORANGE	CA	EL TORO MARINE CORPS AIR STA	92709	Waste Management	Final NPL
CA4570024527	MARCH AIR FORCE BASE	RIVERSIDE	RIVERSIDE	CA	22 CSG/CC	92518	Other	Final NPL
CA8570024143	MATHER AIR FORCE BASE (AC&W DISPOSAL SITE	MATHER	SACRAMENTO	CA	MATHER AIR FORCE BASE	95655	Manufacturing/Processing/	Final NPL
CA4570024337	MCCLELLAN AIR FORCE BASE (GROUND WATER C	MCCLELLAN AFB	SACRAMENTO	CA	APPROX 5200 WATT AVE	95652	Manufacturing/Processing/	Final NPL
CAD980358832	AEROJET GENERAL CORP.	RANCHO CORDOVA	SACRAMENTO	CA	HWY US 50 & AEROJET RD	95670	Waste Management	Final NPL
CA4570024345	NORTON AIR FORCE BASE (LNDFLL #2)	SAN BERNARDINO	SAN BERNARD	CA	I-10/US 395 FORMER NORTON AFB	92408	Manufacturing/Processing/	Final NPL
CA2170023533	CAMP PENDLETON MARINE CORPS BASE	CAMP PENDLETON	SAN DIEGO	CA	CAMP PENDLETON MARINE BASE	92055	Waste Management	Final NPL
CA1170090087	HUNTERS POINT NAVAL SHIPYARD	SAN FRANCISCO	SAN FRANCISC	CA	HUNTERS POINT NAVAL SHIPYARD	94124	Manufacturing/Processing/	Final NPL
CA8210020832	SHARPE ARMY DEPOT	LATHROP	SAN JOAQUIN	CA	700 EAST ROTH RD	95330	Other, Waste Management	Final NPL
CA2890090002	LAWRENCE LIVERMORE NATL LAB (SITE 300) (USI	TRACY	SAN JOAQUIN	CA	CORRAL HOLLOW ROAD	95376	Other	Final NPL
CAD020748125	CASMALIA RESOURCES	CASMALIA	SANTA BARBA	CA	3300 NTU ROAD	93429	Waste Management	Final NPL
CA2170090078	MOFFETT FIELD NAVAL AIR STATION	MOFFETT FIELD	SANTA CLARA	CA	MOFFETT FIELD NAS	94035	Other	Final NPL
CAD009212838	CTS PRINTEX, INC.	MOUNTAIN VIEW	SANTA CLARA	CA	PLYMOUTH & COLONY STS	94043	Manufacturing/Processing/	Final NPL
CAD095989778	FAIRCHILD SEMICONDUCTOR CORP. (MOUNTAIN V	MOUNTAIN VIEW	SANTA CLARA	CA	369, 515 N Whisman, 313 Fairchild &	94042	Manufacturing/Processing/	Final NPL
CAD061620217	INTEL CORP. (MOUNTAIN VIEW PLANT)	MOUNTAIN VIEW	SANTA CLARA	CA	365 E MIDDLEFIELD RD	94040	Manufacturing/Processing/	Final NPL
CAD009103318	JASCO CHEMICAL CORP.	MOUNTAIN VIEW	SANTA CLARA	CA	1710 VILLA ST	94041	Manufacturing/Processing/	Deleted NPL
CAD009205097	RAYTHEON CORP.	MOUNTAIN VIEW	SANTA CLARA	CA	350 ELLIS ST	94043	Manufacturing/Processing/	Final NPL
CAD009138488	SPECTRA-PHYSICS, INC.	MOUNTAIN VIEW	SANTA CLARA	CA	1250 W MIDDLEFIELD RD	94042	Manufacturing/Processing/	Final NPL
CAD009111444	TELEDYNE SEMICONDUCTOR	MOUNTAIN VIEW	SANTA CLARA	CA	1300 TERRA BELLA AVE	94043	Manufacturing/Processing/	Final NPL
CAD029295706	LORENTZ BARREL & DRUM CO.	SAN JOSE	SANTA CLARA	CA	1515 S 10TH ST	95112	Recycling	Final NPL
CAD010925576	VAN WATERS & ROGERS, INC.	SAN JOSE	SANTA CLARA	CA	2256 JUNCTION AVE	95131	Other	Removed fro
CAD042728840	APPLIED MATERIALS	SANTA CLARA	SANTA CLARA	CA	3050 BOWERS AVE	95051	Manufacturing/Processing/	Final NPL
CAD041472986	NATIONAL SEMICONDUCTOR CORP.	SANTA CLARA	SANTA CLARA	CA	2900 SEMICONDUCTOR AVE	95050	Manufacturing/Processing/	Final NPL
CAD990832735	SYNERTEK, INC. (BUILDING 1)	SANTA CLARA	SANTA CLARA	CA	3050 CORONADO BLVD	95051	Manufacturing/Processing/	Final NPL
CAD048634059	ADVANCED MICRO DEVICES, INC.	SUNNYVALE	SANTA CLARA	CA	901 THOMPSON PL	94086	Manufacturing/Processing/	Final NPL
CAT080034234	ADVANCED MICRO DEVICES, INC. (BUILDING 915)	SUNNYVALE	SANTA CLARA	CA	915 DEGUIGNE	94086	Manufacturing/Processing/	Final NPL
CAD049236201	MONOLITHIC MEMORIES	SUNNYVALE	SANTA CLARA	CA	1165 E ARQUES AVE	94086	Manufacturing/Processing/	Final NPL
CAD070466479	SIGNETICS, INC.	SUNNYVALE	SANTA CLARA	CA	811 E ARQUES AVE	94086	Manufacturing/Processing/	Removed fro

CAD009159088	TRW MICROWAVE, INC (BUILDING 825)	SUNNYVALE	SANTA CLARA	CA	825 STEWART DR	94086	Manufacturing/Processing//	Final NPL
CAD980893234	WATKINS-JOHNSON CO. (STEWART DIVISION PLANT)	SCOTTS VALLEY	SANTA CRUZ	CA	440 KINGS VILLAGE RD	95066	Manufacturing/Processing//	Final NPL
CA5570024575	TRAVIS AIR FORCE BASE	TRAVIS AFB	SOLANO	CA	TRAVIS AFB	94535	Other	Final NPL
CAD000074120	MGM BRAKES	CLOVERDALE	SONOMA	CA	HWY 101 & SANTANA RD	95425	Manufacturing/Processing//	Deleted NPL
CAD071530380	FRONTIER FERTILIZER	DAVIS	YOLO	CA	COUNTY ROAD 32A	95618	Other	Final NPL
COD980717953	SAND CREEK INDUSTRIAL	COMMERCE CITY	ADAMS	CO	33RD AND DAHLIA	80022	Manufacturing/Processing//	Deleted NPL
COD980499248	LOWRY LANDFILL	UNINCORPORATED AREA	ARAPAHOE	CO	4200 S GUN CLUB RD	80018	Waste Management	Final NPL
COD007431620	CHEMICAL SALES CO.	DENVER	DENVER	CO	4661 MONACO ST.	80216	Other	Final NPL
COD981550684	DENVER TOLUENE	DENVER	DENVER	CO	13TH AND RIO COURT	80204	Recycling	Not NPL
COD980807374	ROCKY FLATS INDUSTRIAL PARK (THORO - AERRC)	ARVADA	JEFFERSON	CO	17100 - 17400 W HWY 72	80403	Recycling	Pre-proposal
CO7570090038	AIR FORCE PLANT PJKS	LITTLETON	JEFFERSON	CO	12275 SOUTH HIGHWAY 75	80127	Other, Other	Final NPL
CTD980670814	KELLOGG-DEERING WELL FIELD	NORWALK	FAIRFIELD	CT	NORWALK WATER DEPARTMENT	06856	Other	Final NPL
CTD001186618	RAYMARK INDUSTRIES, INC.	STRATFORD	FAIRFIELD	CT	75 EAST MAIN STREET	06614	Manufacturing/Processing//	Final NPL
CTD980670806	OLD SOUTHINGTON LANDFILL	SOUTHINGTON	HARTFORD	CT	OLD TURNPIKE RD	06489	Waste Management	Deleted NPL
CTD009717604	SOLVENTS RECOVERY SERVICE OF NEW ENGLAND	SOUTHINGTON	HARTFORD	CT	LAZY LANE	06489	Recycling	Final NPL
CTD980732333	BARKHAMSTED-NEW HARTFORD LANDFILL	BARKHAMSTED	LITCHFIELD	CT	ROUTE 44	06063	Multiple, Waste Management	Final NPL
CTD001452093	DURHAM MEADOWS	DURHAM	MIDDLESEX	CT	MAIN ST	06422	Manufacturing/Processing//	Final NPL
CTD072122062	BEACON HEIGHTS LANDFILL	BEACON FALLS	NEW HAVEN	CT	BLACKBERRY HILL ROAD	06403	Waste Management	Final NPL
CT0002265551	SCOVILL INDUSTRIAL LANDFILL	WATERBURY	NEW HAVEN	CT	STORE AVENUE	06705	Waste Management	Final NPL
CTD980906515	NEW LONDON SUBMARINE BASE	NEW LONDON	NEW LONDON	CT	ROUTE 12 CRYSTAL LAKE RD	06349	Waste Management	Final NPL
CTD009774969	YAWORSKI WASTE LAGOON	CANTERBURY	WINDHAM	CT	PACKER ROAD	06331	Waste Management	Final NPL
CTD108960972	GALLUP'S QUARRY	PLAINFIELD	WINDHAM	CT	ROUTE 12	06374	Waste Management	Final NPL
CTD001153923	LINEMASTER SWITCH CORP.	WOODSTOCK	WINDHAM	CT	29 PLAINE HILL ROAD	06281	Manufacturing/Processing//	Final NPL
DE8570024010	DOVER AIR FORCE BASE	DOVER	KENT	DE	RTE 113	19901	Waste Management	Final NPL
DED980693550	DOVER GAS LIGHT CO.	DOVER	KENT	DE	NEW ST	19904	Manufacturing/Processing//	Final NPL
DED980551667	DELAWARE CITY PVC PLANT	NEW CASTLE	NEW CASTLE	DE	780 SCHOOL HOUSE ROAD	19720	Manufacturing/Processing//	Final NPL
DED980830954	HALBY CHEMICAL CO.	NEW CASTLE	NEW CASTLE	DE	600 TERMINAL AVE	19720	Manufacturing/Processing//	Final NPL
DED000606079	TYBOUTS CORNER LANDFILL	NEW CASTLE	NEW CASTLE	DE	US RTE 13 & DEL RTE 71	19720	Waste Management	Final NPL
DED980494637	SUSSEX COUNTY LANDFILL NO. 5	LAUREL	SUSSEX	DE	BETWEEN CNTY RD 494, CNTY RD 4	19956	Waste Management	Deleted NPL
DED043958388	NCR CORP. (MILLSBORO PLANT)	MILLSBORO	SUSSEX	DE	MITCHELL RD POB 607	19966	Manufacturing/Processing//	Final NPL
FLD000602334	HARRIS CORP. (PALM BAY PLANT)	PALM BAY	BREVARD	FL	OFF PALM BAY BLVD	32905	Multiple, Other, Manufactur	Final NPL
FLD980602288	DAVIE LANDFILL	DAVIE	BROWARD	FL	Vista View Park 4001 SW 142nd Ave.	33330	Waste Management	Deleted NPL
FLD984184127	FLORIDA PETROLEUM REPROCESSORS	FORT LAUDERDALE	BROWARD	FL	3211 S.W. 50TH AVENUE	33314	Recycling	Final NPL
FLD004119681	HOLLINGSWORTH SOLDERLESS TERMINAL	FORT LAUDERDALE	BROWARD	FL	700 NW 57TH PLACE	33309	Manufacturing/Processing//	Final NPL
FLD980798698	PETROLEUM PRODUCTS CORP.	PEMBROKE PARK	BROWARD	FL	14000 BLOCK PEMBROKE ROAD	33024	Recycling	Final NPL
FLD080174402	CHEMFORM, INC.	POMPANO BEACH	BROWARD	FL	1410 SW 8TH ST	33069	Manufacturing/Processing//	Deleted NPL
FLD083111005	FLASH CLEANERS	POMPANO BEACH	BROWARD	FL	4131 NORTH FEDERAL HIGHWAY	33064	Manufacturing/Processing//	Final NPL
FLD980709802	HIPPS ROAD LANDFILL	DUVAL COUNTY	DUVAL	FL	HIPPS RD	32222	Waste Management	Deleted NPL
FLSFN0407002	JACKSONVILLE ASH SITE	JACKSONVILLE	DUVAL	FL	1093 WEST 6TH STREET	32209	Waste Management	Not NPL
FL6170024412	JACKSONVILLE NAVAL AIR STATION	JACKSONVILLE	DUVAL	FL	NAS BLDG 826	32212	Other	Final NPL
FLD039049101	KERR-MCGEE CHEMICAL CORP - JACKSONVILLE	JACKSONVILLE	DUVAL	FL	1611 TALLEYRAND AVENUE	32206	Manufacturing/Processing//	Final NPL
FLD980556351	PICKETTVILLE ROAD LANDFILL	JACKSONVILLE	DUVAL	FL	5150 PICKETTVILLE RD	32205	Waste Management	Final NPL
FL5170022474	USN AIR STATION CECIL FIELD	JACKSONVILLE	DUVAL	FL	103RD ST AND NORMANDY BLVD	32215	Other	Final NPL
FLD008161994	AMERICAN CREOSOTE WORKS, INC. (PENSACOLA)	PENSACOLA	ESCAMBIA	FL	701 S J ST	32501	Manufacturing/Processing//	Final NPL
FL9170024567	PENSACOLA NAVAL AIR STATION	PENSACOLA	ESCAMBIA	FL	NAVAL AIR STATION BUILDING 3	32508	Manufacturing/Processing//	Final NPL
FLD000648055	SYDNEY MINE SLUDGE PONDS	BRANDON	HILLSBOROUG	FL	HWY 60/.5 MI E OF DOVER RD	33594	Waste Management	Final NPL
FLN000410232	JJ SEIFERT MACHINE	RUSKIN	HILLSBOROUG	FL	4202-4212 OLD US HIGHWAY 41	33570	Manufacturing/Processing//	Final NPL
FLD980494959	TAYLOR ROAD LANDFILL	SEFFNER	HILLSBOROUG	FL	TAYLOR RD	33619	Waste Management	Final NPL
FLD012978862	ALARIC AREA GW PLUME	TAMPA	HILLSBOROUG	FL	2110 N. 71ST STREET AND 14TH AV	33619	Other	Final NPL
FLD004091807	PEAK OIL CO./BAY DRUM CO.	TAMPA	HILLSBOROUG	FL	S.R. 574	33619	Recycling, Recycling, Recy	Final NPL
FLD004054284	PIPER AIRCRAFT CORP./VERO BEACH WATER & S	VERO BEACH	INDIAN RIVER	FL	PIPER DR & AVIATION BLVD	32960	Manufacturing/Processing//	Final NPL
FLD043047653	ITT-THOMPSON INDUSTRIES, INC	MADISON	MADISON	FL	800 LIVINGSTON STREET	32340	Manufacturing/Processing//	Not NPL
FLD981019235	MADISON COUNTY SANITARY LANDFILL	MADISON	MADISON	FL	2060 Rocky Ford Road	32340	Waste Management	Final NPL
FLD045459526	SOLITRON MICROWAVE	STUART	MARTIN	FL	5675 SE Grouper Ave	34997	Manufacturing/Processing//	Final NPL
FLD004574190	B&B CHEMICAL CO., INC.	HIALEAH	MIAMI-DADE	FL	875 W 20TH ST	33010	Manufacturing/Processing//	Deleted NPL
FLD980602643	NORTHWEST 58TH STREET LANDFILL	HIALEAH	MIAMI-DADE	FL	NW 58TH ST	33012	Waste Management	Deleted NPL

FLD004145140	AIRCO PLATING CO.	MIAMI	MIAMI-DADE	FL	3636 NW 46TH STREET	33142	Manufacturing/Processing/	Final NPL
FLD020536538	ANACONDA ALUMINUM CO./MILGO ELECTRONICS	MIAMI	MIAMI-DADE	FL	3630 NW 76TH ST	33147-44	Manufacturing/Processing/	Deleted NPL
FLD982130098	CONTINENTAL CLEANERS	MIAMI	MIAMI-DADE	FL	798 NORTHWEST 62ND STREET	33150	Other	Final NPL
FLD076027820	MIAMI DRUM SERVICES	MIAMI	MIAMI-DADE	FL	6601 NW 72nd Avenue	33166	Recycling	Final NPL
FLD981014368	ANODYNE, INC.	NORTH MIAMI BEACH	MIAMI-DADE	FL	1270 NW 165 STREET	33169	Manufacturing/Processing/	Final NPL
FLD055945653	CITY INDUSTRIES, INC.	ORLANDO	ORANGE	FL	3920 FORSYTH RD	32807	Recycling, Waste Managen	Final NPL
FL0002264810	FORMER SPELLMAN ENGINEERING	ORLANDO	ORANGE	FL	722 BROOKHAVEN DRIVE	32803	Other	Not NPL
FLN000420002	LIONHEART INDUSTRIES ORLANDO PLATING	ORLANDO	ORANGE	FL	601 N. Orange Blossom Trail	32805	Manufacturing/Processing/	Not NPL
FLD032845778	SOLITRON DEVICES INC	WEST PALM BEACH	PALM BEACH	FL	1177 BLUE HERON BLVD	33404	Manufacturing/Processing/	Pre-proposal
FLR000091322	GENERAL DYNAMICS LONGWOOD	LONGWOOD	SEMINOLE	FL	1333 NORTH US HIGHWAY 17/92	32750	Manufacturing/Processing/	Final NPL
FLD004072658	SPRAGUE ELECTRIC COMPANY	LONGWOOD	SEMINOLE	FL	1221 N US HWY 17/92	32750	Manufacturing/Processing/	Not NPL
FLD032728032	SANFORD DRY CLEANERS	SANFORD	SEMINOLE	FL	121 SOUTH PALMETTO AVENUE	32771	Other	Final NPL
FLD043861392	SHERWOOD MEDICAL INDUSTRIES	DELAND	VOLUSIA	FL	2010 HWY 92	32724	Waste Management	Final NPL
GA7170023694	MARINE CORPS LOGISTICS BASE	ALBANY	DOUGHERTY	GA	FLEMING ROAD	31704	Other, Manufacturing/Procc	Final NPL
GA1570024330	ROBINS AIR FORCE BASE (LANDFILL #4/SLUDGE L	HOUSTON COUNTY	HOUSTON	GA	ROBINS AFB	31098	Waste Management	Final NPL
GAD980496954	POWERSVILLE SITE	BYRON	PEACH	GA	GA HWY 49 N	31008	Waste Management	Deleted NPL
GAD033582461	ALTERNATE ENERGY RESOURCES INC	AUGUSTA	RICHMOND	GA	2736 WALDEN DR	30904	Waste Management	Final NPL
GAD980838619	MATHIS BROTHERS LANDFILL (SOUTH MARBLE TC	KENSINGTON	WALKER	GA	S MARBLE TOP RD	30728	Waste Management	Final NPL
HI7210090026	SCHOFIELD BARRACKS (USARMY)	SCHOFIELD	HONOLULU	HI	SCHOFIELD BARRACKS (USARMY)	96857	Other	Deleted NPL
IAD980969190	MASON CITY COAL GASIFICATION PLANT	MASON CITY	CERRO GORDO	IA	5TH ST, BETWEEN DELAWARE & PE	50401	Manufacturing/Processing/	Final NPL
IAD045372836	CHEMPLEX CO.	CLINTON	CLINTON	IA	HIGHWAY 30 W	52732	Manufacturing/Processing/	Removed from
IAD980630560	SHAW AVENUE DUMP	CHARLES CITY	FLOYD	IA	SHAW AVE	50616	Waste Management	Final NPL
IAD069625655	MIDWEST MANUFACTURING/NORTH FARM	KELLOGG	JASPER	IA	101 HIGH ST	50135	Manufacturing/Processing/	Final NPL
IAD980632491	RALSTON	CEDAR RAPIDS	LINN	IA	228 BLAIRS FERRY RD	52402	Waste Management	Not NPL
IAD980687933	DES MOINES TCE	DES MOINES	POLK	IA	SEC 8 & 9 T78N R24W	50309	Other	Final NPL
IA0001610963	RAILROAD AVENUE GROUNDWATER CONTAMINAT	WEST DES MOINES	POLK	IA	12TH & MAPLE	50265	Other	Final NPL
IAD005270160	ALUMINUM COMPANY OF AMERICA - DAVENPORT	RIVERDALE	SCOTT	IA	4879 STATE STREET (HWY 67)	52722	Manufacturing/Processing/	Not NPL
IAD000686899	GENERAL MOTORS S.C.	SIOUX CITY	WOODBURY	IA	1805 ZENITH DR	51103	Manufacturing/Processing/	Not NPL
ILD980607055	ADAMS COUNTY QUINCY LANDFILLS 2&3	QUINCY	ADAMS	IL	2 MILES NORTH OF BURTON TWP 1/	62301	Waste Management	Final NPL
ILD980497663	BELVIDERE MUNICIPAL LANDFILL	BELVIDERE	BOONE	IL	APPLETON RD	61008	Waste Management	Deleted NPL
ILD980497788	MIG/DEWANE LANDFILL	BELVIDERE	BOONE	IL	6505 Logan Avenue	61008	Waste Management	Final NPL
ILD000716852	LAKE CALUMET CLUSTER	CHICAGO	COOK	IL	122ND STREET AND STONY ISLAND	60633	Waste Management	Final NPL
ILD005451711	LENZ OIL SERVICE, INC.	LEMONT	DUPAGE	IL	RTE 83 & JEANE RD	60439	Other	Final NPL
ILD980606305	DUPAGE COUNTY LANDFILL/BLACKWELL FOREST	WARRENVILLE	DUPAGE	IL	ROUTE 56	60555	Waste Management	Deleted NPL
ILD048306138	TRI-COUNTY LANDFILL CO./WASTE MANAGEMENT	ELGIN	KANE	IL	7N 904 ILLINOIS ROUTE 25	60177	Waste Management	Final NPL
ILD980792303	CROSS BROTHERS PAIL RECYCLING (PEMBROKE	PEMBROKE TOWNSHI	KANKAKEE	IL	ADDRESS UNREPORTED	60944	Recycling	Final NPL
ILD980794333	LASALLE ELECTRIC UTILITIES	LA SALLE	LA SALLE	IL	ST VINCENT RD	61301	Manufacturing/Processing/	Final NPL
ILD980605836	H.O.D. LANDFILL	ANTIOCH	LAKE	IL	55 MCMILLAN ROAD	60002	Waste Management	Final NPL
ILD047019732	WAUCONDA SAND & GRAVEL	WAUCONDA	LAKE	IL	BONNER & GARLAND RD	60084	Waste Management	Final NPL
ILD000802827	OUTBOARD MARINE CORP.	WAUKEGAN	LAKE	IL	200 SEA HORSE DR	60085	Manufacturing/Processing/	Final NPL
ILD980500102	YEOMAN CREEK LANDFILL	WAUKEGAN	LAKE	IL	1011 WASHINGTON STREET	60085-54	Waste Management	Final NPL
ILD980605943	WOODSTOCK MUNICIPAL LANDFILL	WOODSTOCK	MCHENRY	IL	DAVIS ROAD	60098	Waste Management	Final NPL
ILD010236230	BYRON SALVAGE YARD	BYRON	OGLE	IL	NW1/4 SEC 13 T24N R10E	61010	Waste Management	Final NPL
IL8143609487	SANGAMO ELECTRIC DUMP/CRAB ORCHARD NATI	CARTERSVILLE	WILLIAMSON	IL	EAST OF STATE ROUTE 148	62959	Waste Management	Final NPL
ILD053219259	ACME SOLVENT RECLAIMING, INC. (MORRISTOWN	MORRISTOWN	WINNEBAGO	IL	EAST OF LINDENWOOD RD	61109	Recycling	Final NPL
ILT180011975	INTERSTATE POLLUTION CONTROL, INC.	ROCKFORD	WINNEBAGO	IL	NW OF MAGNOLIA & PEOPLES AVE	61109	Waste Management	Final NPL
ILD980606685	PAGEL'S PIT	ROCKFORD	WINNEBAGO	IL	BAXTER & LINDENWOOD RD	61109	Waste Management	Final NPL
ILD981000417	SOUTHEAST ROCKFORD GROUND WATER CONTAI	ROCKFORD	WINNEBAGO	IL	2613 S 11TH ST	61109	Other	Final NPL
ILD984836734	EVERGREEN MANOR GROUND WATER CONTAMIN	WINNEBAGO COUNTY	WINNEBAGO	IL	MCCURRY ROAD AND ELEVATOR R	61073	Other	Removed from
IND084259951	ENVIROCHEM CORP.	ZIONSVILLE	BOONE	IN	865 SOUTH US HIGHWAY 421	46077-42	Recycling, Recycling, Recy	Final NPL
IND050530872	NORTHSIDE SANITARY LANDFILL, INC	ZIONSVILLE	BOONE	IN	985 S ST RD 421	46077	Waste Management	Final NPL
INN000510510	BROCK CLEANERS	FRANKFORT	CLINTON	IN	403 EAST WASHINGTON STREET	46041	Manufacturing/Processing/	Not NPL
IND000715490	CONRAIL RAIL YARD (ELKHART)	ELKHART	ELKHART	IN	SR 33	46514	Other	Final NPL
IND980500292	HIMCO DUMP	ELKHART	ELKHART	IN	COUNTY ROAD 10 AND NAPANEE E	46514	Waste Management	Final NPL
INN000510229	LANE STREET GROUND WATER CONTAMINATION	ELKHART	ELKHART	IN	LANE STREET AT COUNTY ROAD 10	46514	Other	Final NPL
IND980794358	MAIN STREET WELL FIELD	ELKHART	ELKHART	IN	1120 N MAIN ST	46514	Other	Final NPL

IND000780544	FOUR COUNTY LANDFILL	ROCHESTER	FULTON	IN	ROUTE 4 BOX 341	46975	Waste Management	Not NPL
IND980794366	MARION (BRAGG) DUMP	MARION	GRANT	IN	2627-2629 CENTRAL AVE	46952	Waste Management	Final NPL
IND001213503	CONTINENTAL STEEL CORP.	KOKOMO	HOWARD	IN	W MARKLAND AVE	46902	Recycling	Final NPL
IND040313017	SEYMOUR RECYCLING CORP.	SEYMOUR	JACKSON	IN	G AVE WEST - FREEMAN MUNICIPAL	47274	Recycling	Final NPL
IND064703200	LAKELAND DISPOSAL SERVICE, INC.	CLAYPOOL	KOSCIUSKO	IN	RURAL ROUTE 1	46510	Waste Management	Final NPL
IND005480462	CAM-OR INC.	WESTVILLE	LA PORTE	IN	STATE ROAD 2 AND HIGHWAY 421	46391	Recycling	Final NPL
IND980615421	MIDCO I	GARY	LAKE	IN	7400 W 15TH AVE	46406	Recycling	Final NPL
IND980679559	MIDCO II	GARY	LAKE	IN	5900 INDUSTRIAL HIGHWAY	46406	Recycling	Final NPL
IND980794432	NINTH AVENUE DUMP	GARY	LAKE	IN	7357 W NINTH AVE	46402	Waste Management	Final NPL
INN000510810	ROLAND DUMP FIRE	GARY	LAKE	IN	1 MILE NORTH OF 6001 INDUSTRIAL	46406	Waste Management	Not NPL
IND016360265	AMERICAN CHEMICAL SERVICE, INC.	GRIFFITH	LAKE	IN	420 SOUTH COLFAX AVENUE	46319	Recycling	Final NPL
INN000510399	KEYSTONE CORRIDOR GROUND WATER CONTAMI	INDIANAPOLIS	MARION	IN	INTERSECTION OF N. KEYSTONE A\	46205	Other	Final NPL
INN000510530	TUCHMAN CLEANERS	INDIANAPOLIS	MARION	IN	4401 N. KEYSTONE AVENUE	46201	Manufacturing/Processing/	Not NPL
IN4170023499	US NAVY AVIONICS CENTER	INDIANAPOLIS	MARION	IN	6000 E 21ST STREET	46218		Not NPL
INN000510429	WEST VERMONT DRINKING WATER CONTAMINATI	INDIANAPOLIS	MARION	IN	INTERSECTION OF WEST VERMONT	46222	Other	Withdrawn
INN000508678	PIKE AND MULBERRY STREETS PCE PLUME	MARTINSVILLE	MORGAN	IN	INTERSECTION OF PIKE AND MULBE	46151	Other, Other	Final NPL
IND980607881	DOUGLAS ROAD/UNIROYAL, INC., LANDFILL	MISHAWAKA	ST. JOSEPH	IN	NW INTERSECTION OF DOUGLASS /	46544	Waste Management	Final NPL
IND980999791	WHITEFORD SALES & SERVICE INC./NATIONALEAS	SOUTH BEND	ST. JOSEPH	IN	2020 WEST SAMPLE STREET	46619	Manufacturing/Processing/	Deleted NPL
IND048989479	WAYNE WASTE OIL	COLUMBIA CITY	WHITLEY	IN	DANIEL DR PO BOX 467	46725	Waste Management	Final NPL
KSD980862726	STROTHER FIELD INDUSTRIAL PARK	WINFIELD	COWLEY	KS	NE 1/4 SEC 19 T33S R4E	67156	Other	Final NPL
KS6214020756	FORT RILEY	JUNCTION CITY	GEARY	KS	DICKMAN AVE	66441	Other	Final NPL
KSD031349624	CHEMICAL COMMODITIES, INC.	OLATHE	JOHNSON	KS	S. KEELER ST	66061	Recycling	Final NPL
KSD980631766	OBEE ROAD	HUTCHINSON	RENO	KS	OBEE RD	67501	Waste Management	Final NPL
KSD007241656	29TH & MEAD GROUND WATER CONTAMINATION	WICHITA	SEDGWICK	KS	412 E 29TH N 26S 1E SW 1/4 S 33	67219	Other	Deleted NPL
KSD981710247	57TH AND NORTH BROADWAY STREETS SITE	WICHITA	SEDGWICK	KS	57TH & N BROADWAY STREETS	67219	Other	Final NPL
KYD980500961	A.L. TAYLOR (VALLEY OF DRUMS)	BROOKS	BULLITT	KY	ST HWY 1020	40165	Multiple, Recycling, Waste	Deleted NPL
KYD097267413	SMITH'S FARM	BROOKS	BULLITT	KY	PRYOR VALLEY RD	40165	Waste Management	Final NPL
KYD981028350	TRI-CITY DISPOSAL CO.	SHEPHERDSVILLE	BULLITT	KY	RTE. 1526 AT THE GRAVEL ROAD	40109	Waste Management	Final NPL
KYD980729107	MAXEY FLATS NUCLEAR DISPOSAL	HILLSBORO	FLEMING	KY	MAXEY FLATS RD	41049	Waste Management	Final NPL
KYD980602155	DISTLER BRICKYARD	WEST POINT	HARDIN	KY	US HWYS 31 & 60	40177	Waste Management	Final NPL
KYD985069954	NATIONAL ELECTRIC COIL CO./COOPER INDUSTRI	DAYHOIT	HARLAN	KY	OLD HIGHWAY 119	40824	Manufacturing/Processing/	Final NPL
KYD006370167	B.F. GOODRICH	CALVERT CITY	MARSHALL	KY	KY HWY 1523	42029	Waste Management	Final NPL
KY8890008982	PADUCAH GASEOUS DIFFUSION PLANT (USDOE)	KEVIL	MCCRACKEN	KY	5501 HOBBS ROAD	42053	Manufacturing/Processing/	Final NPL
LAN000622183	WESTLAKE CHEMICAL	WESTLAKE	CALCASIEU	LA	1300 PPG Drive	70669	Other	Not NPL
LAD072606627	COMBUSTION, INC.	DENHAM SPRINGS	LIVINGSTON	LA	RT 1; NE OF DENHAM SPRINGS	70726	Recycling	Final NPL
LAD980750137	GULF COAST VACUUM SERVICES	ABBEVILLE	VERMILION	LA	P-7-31 OFF LA335	70510	Other	Deleted NPL
MA2570024487	OTIS AIR NATIONAL GUARD BASE/CAMP EDWARD	FALMOUTH	BARNSTABLE	MA	OTIS AFB HERBERT RD	02542	Waste Management	Final NPL
MAD980524169	ROSE DISPOSAL PIT	LANESBORO	BERKSHIRE	MA	BALANCE ROCK RD	01237	Waste Management	Final NPL
MAD001197755	WALTON & LONSBURY INC.	ATTLEBORO	BRISTOL	MA	78 NORTH AVENUE	02703	Manufacturing/Processing/	Final NPL
MAD980520621	RE-SOLVE, INC.	DARTMOUTH	BRISTOL	MA	N HIXVILLE RD	02747	Recycling	Final NPL
MAD001060805	HATHEWAY & PATTERSON	MANSFIELD	BRISTOL	MA	15 COUNTY ROAD	02048	Manufacturing/Processing/	Deleted NPL
MAD980503973	SHPACK LANDFILL	NORTON/ATTLEBORO	BRISTOL	MA	UNION RD	02703	Waste Management	Deleted NPL
MAD980732317	GROVELAND WELLS	GROVELAND	ESSEX	MA	JOHNSON CREEK WATERSHED	01834	Other	Final NPL
MAD980731483	PSC RESOURCES	PALMER	HAMPDEN	MA	10 WATER ST	01069	Recycling	Final NPL
MAD001002252	W.R. GRACE & CO., INC. (ACTON PLANT)	ACTON	MIDDLESEX	MA	50 INDEPENDENCE RD	01720	Manufacturing/Processing/	Final NPL
MAD990685422	NYANZA CHEMICAL WASTE DUMP	ASHLAND	MIDDLESEX	MA	MEGUNKO RD	01721	Manufacturing/Processing/	Final NPL
MA8570024424	HANSCOM FIELD/HANSCOM AIR FORCE BASE	BEDFORD	MIDDLESEX	MA	HARTWELL AVENUE	01730	Other	Final NPL
MA6170023570	NAVAL WEAPONS INDUSTRIAL RESERVE PLANT	BEDFORD	MIDDLESEX	MA	165 HARTWELL ROAD	01730	Manufacturing/Processing/	Final NPL
MAD051787323	IRON HORSE PARK	BILLERICA	MIDDLESEX	MA	HIGH ST	01862	Waste Management	Final NPL
MAD062166335	NUCLEAR METALS, INC.	CONCORD	MIDDLESEX	MA	2229 MAIN STREET	01742-38	Manufacturing/Processing/	Final NPL
MA7210025154	FORT DEVENS	FORT DEVENS	MIDDLESEX	MA	BUENA VISTA ST	01433	Waste Management	Final NPL
MAD000192393	SILRESIM CHEMICAL CORP.	LOWELL	MIDDLESEX	MA	86 TANNER ST	01853	Recycling, Recycling, Recy	Final NPL
MAD980520696	SUTTON BROOK DISPOSAL AREA	TEWKSBURY	MIDDLESEX	MA	OFF OF SOUTH STREET	01876	Waste Management	Final NPL
MAD003809266	CHARLES GEORGE RECLAMATION TRUST LANDFII	TYNGSBOROUGH	MIDDLESEX	MA	CORNER DUNSTABLE & CUMMINGS	01879	Waste Management	Final NPL
MAD076580950	INDUSTRI-PLEX	WOBURN	MIDDLESEX	MA	COMMERCE & ATLANTIC	01801	Manufacturing/Processing/	Final NPL
MAD980732168	WELLS G&H	WOBURN	MIDDLESEX	MA	ABERJONA RIVER VALLEY	01801	Other	Final NPL

MAD001041987	BAIRD & MCGUIRE	HOLBROOK	NORFOLK	MA	775 SOUTH ST	02343	Manufacturing/Processing//	Final NPL
MAD980670566	NORWOOD PCBS	NORWOOD	NORFOLK	MA	NEAR RTE 1 & DEAN STREET	02062	Manufacturing/Processing//	Deleted NPL
MA2170022022	SOUTH WEYMOUTH NAVAL AIR STATION	WEYMOUTH	NORFOLK	MA	1134 MAIN STREET	02190	Waste Management	Final NPL
MAD079510780	CANNON ENGINEERING CORP. (CEC)	BRIDGEWATER	PLYMOUTH	MA	FIRST ST	02324	Recycling, Waste Managen	Deleted NPL
MD9210020567	FORT GEORGE G. MEADE	ODENTON	ANNE ARUNDE	MD	MARYLAND ROUTE 175	21113	Waste Management	Final NPL
MDD980918387	68TH STREET DUMP/INDUSTRIAL ENTERPRISES	ROSEDALE	BALTIMORE	MD	68TH STREET	21237	Waste Management, Waste	Proposed NP
MDD980923783	KANE & LOMBARD STREET DRUMS	BALTIMORE	BALTIMORE CI	MD	KANE & LOMBARD STS	21224	Waste Management, Waste	Final NPL
MDD980504344	WOODLAWN COUNTY LANDFILL	COLORA	CECIL	MD	FIRE TOWER & WAIBEL RDS.	21917	Waste Management	Final NPL
MDD980705164	SAND, GRAVEL AND STONE	ELKTON	CECIL	MD	RTE 40	21921	Waste Management	Final NPL
MDD000218008	SPECTRON, INC.	ELKTON	CECIL	MD	111 PROVIDENCE RD	21921	Recycling	Final NPL
MDD982364341	ORDNANCE PRODUCTS, INC.	NORTH EAST	CECIL	MD	1079 MECHANICS VALLEY RD	21901-25	Manufacturing/Processing//	Final NPL
MD7170024684	INDIAN HEAD NAVAL SURFACE WARFARE CENTER	INDIAN HEAD	CHARLES	MD	201 INDIAN HEAD HIGHWAY	20640	Manufacturing/Processing//	Final NPL
MD3210021355	ABERDEEN PROVING GROUND (MICHAELSVILLE L	ABERDEEN	HARFORD	MD	OFF RTE 40	21005	Waste Management	Final NPL
MDD980504195	BUSH VALLEY LANDFILL	ABINGDON	HARFORD	MD	BUSH RD POB 246	21009	Waste Management	Final NPL
MD2210020036	ABERDEEN PROVING GROUND (EDGEWOOD AREA	EDGEWOOD	HARFORD	MD	OFF RTE 40	21010	Manufacturing/Processing//	Final NPL
MD0170023444	USN NAVAL SURFACE WARFARE CTR-WHITE OAK	SILVER SPRING	MONTGOMERY	MD	10901 NEW HAMPSHIRE AVENUE	20903-50	Other, Other	Not NPL
MD0570024000	ANDREWS AIR FORCE BASE	ANDREWS AIR FORCE	PRINCE GEOR	MD	ALLENTOWN ROAD	20762	Other	Final NPL
MD9570024803	BRANDYWINE DRMO	BRANDYWINE	PRINCE GEOR	MD	BRANDYWINE ROAD AND CHERRY T	20613	Waste Management	Final NPL
MD7170024536	PATUXENT RIVER NAVAL AIR STATION	PATUXENT RIVER	ST. MARY'S	MD	OPPOSITE LEXINGTON PARK (STAT	20670	Waste Management, Waste	Final NPL
MD0000795211	FORT RITCHIE	CASCADE	WASHINGTON	MD	STATE HIGHWAY 550	21719	Other	Not NPL
ME9570024522	LORING AIR FORCE BASE	LIMESTONE	AROOSTOOK	ME	42 CSG/CC	04751	Other	Final NPL
ME8170022018	BRUNSWICK NAVAL AIR STATION	BRUNSWICK	CUMBERLAND	ME	RTE 24 AND 123	04011	Waste Management	Final NPL
MED980524078	MCKIN CO.	GRAY	CUMBERLAND	ME	MAYALL RD	04039	Recycling, Recycling, Recy	Deleted NPL
MI0001119106	AIRCRAFT COMPONENTS (D & L SALES)	BENTON HARBOR	BERRIEN	MI	671 NORTH SHORE DRIVE	49022	Other, Other	Final NPL
MID005068143	ELECTROVOICE	BUCHANAN	BERRIEN	MI	600 CECIL STREET	49107	Manufacturing/Processing//	Final NPL
MID005107222	BENDIX CORP./ALLIED AUTOMOTIVE	ST. JOSEPH	BERRIEN	MI	3737 RED ARROW HIGHWAY	49085	Manufacturing/Processing//	Final NPL
MID005480900	NORTH BRONSON INDUSTRIAL AREA	BRONSON	BRANCH	MI	135 INDUSTRIAL AVE	49028	Manufacturing/Processing//	Final NPL
MIN000508192	NORTH BRONSON INDUSTRIAL SUBAREAS	BRONSON	BRANCH	MI	N. WALKER ST. W/RAILROAD ST.	49028	Manufacturing/Processing//	Not NPL
MID980793806	VERONA WELL FIELD	BATTLE CREEK	CALHOUN	MI	TWP 10S RTE 07W SEC 32E 1/2	49017	Other	Final NPL
MID980794556	U.S. AVIEX	HOWARD TOWNSHIP	CASS	MI	1056 HUNTLEY RD	49120	Manufacturing/Processing//	Final NPL
MID980002273	CLARE WATER SUPPLY	CLARE	CLARE	MI	CITY HALL 202 W 5TH ST	48617	Other	Final NPL
MID006013049	PMC GROUNDWATER	PETOSKEY	EMMET	MI	200 W LAKE ST	49770	Manufacturing/Processing//	Final NPL
MID980410740	FOREST WASTE PRODUCTS	OTISVILLE	GENESEE	MI	8359 E FARRAND RD	48463	Waste Management	Final NPL
MID000605717	BERLIN & FARRO	SWARTZ CREEK	GENESEE	MI	8322 S MOORISH RD	48473	Waste Management	Deleted NPL
MIN000510389	VELSICOL BURN PIT	ST. LOUIS	GRATIOT	MI	1698 West Prospect Street	48880	Other	Final NPL
MID000722439	VELSICOL CHEMICAL CORP. (MICHIGAN)	ST. LOUIS	GRATIOT	MI	500 N BANKSON STREET	48880	Manufacturing/Processing//	Final NPL
MID980702989	MOTOR WHEEL, INC.	LANSING TOWNSHIP	INGHAM	MI	2401 N HIGH ST (REAR)	48906	Waste Management	Final NPL
MID980794416	IONIA CITY LANDFILL	IONIA	IONIA	MI	CLEVELAND STREET	48846	Waste Management	Final NPL
MID980794408	HEDBLUM INDUSTRIES	OSCODA	IOSCO	MI	1000 AUSABLE RD	48750	Manufacturing/Processing//	Final NPL
MI5570024278	WURTSMITH AIR FORCE BASE	OSCODA	IOSCO	MI	AFBCA/DB	54961	Other	Proposed NP
MID980794382	AUTO ION CHEMICALS, INC.	KALAMAZOO	KALAMAZOO	MI	74 MILL STREET	49006	Waste Management	Final NPL
MID980506463	K&L AVENUE LANDFILL	OSHTEMO TOWNSHIP	KALAMAZOO	MI	8606 WEST K L AVE	49009	Waste Management	Final NPL
MID005340088	ROTO-FINISH CO., INC.	PORTAGE	KALAMAZOO	MI	3700 MILHAM ROAD	49024	Manufacturing/Processing//	Final NPL
MID062222997	BUTTERWORTH #2 LANDFILL	GRAND RAPIDS	KENT	MI	1450 BUTTERWORTH ST SW	49504	Waste Management	Final NPL
MID017075136	H. BROWN CO., INC.	GRAND RAPIDS	KENT	MI	2200 TURNER AVENUE NORTHWEST	49544	Recycling	Final NPL
MID990858003	ORGANIC CHEMICALS, INC.	GRANDVILLE	KENT	MI	3291 CHICAGO DRIVE SOUTHWEST	49418	Manufacturing/Processing//	Final NPL
MID000260281	KENTWOOD LANDFILL	KENTWOOD	KENT	MI	4900 WALMA AVENUE	49512	Waste Management	Final NPL
MID079300125	SPARTAN CHEMICAL CO.	WYOMING	KENT	MI	2539 28TH STREET SW	49509	Manufacturing/Processing//	Final NPL
MID980477079	CHEM CENTRAL	WYOMING TOWNSHIP	KENT	MI	2940 STAFFORD AVE SW	49548	Other	Final NPL
MID980506562	METAMORA LANDFILL	METAMORA	LAPEER	MI	Site Locational Information TBD - 3/11	48455	Waste Management	Final NPL
MID017418559	GRAND TRAVERSE OVERALL SUPPLY CO.	GREILICKVILLE	LEELANAU	MI	10725 CHERRY BEND RD	49684	Other	Final NPL
MID095402210	RASMUSSEN'S DUMP	BRIGHTON	LIVINGSTON	MI	9040 SPICER RD	48116	Waste Management	Final NPL
MID980794481	SPIEGELBERG LANDFILL	GREEN OAK TOWNSH	LIVINGSTON	MI	SPICER RD	48116	Waste Management	Deleted NPL
MID069826170	SOUTH MACOMB DISPOSAL AUTHORITY (LANDFILL)	MACOMB TOWNSHIP	MACOMB	MI	approx. 21410-21798 24 Mile Road	48042	Waste Management	Final NPL
MID980410823	G&H LANDFILL	UTICA	MACOMB	MI	3160 23 MILE RD	48316	Waste Management	Final NPL
MID980794465	MASON COUNTY LANDFILL	PERE MARQUETTE TWP	MASON	MI	W1/4 NE1/4 T18N R18W	49431	Waste Management	Deleted NPL

MID060174240	OTT/STORY/CORDOVA CHEMICAL CO.	DALTON TOWNSHIP	MUSKEGON	MI	500 AGARD RD	49445	Manufacturing/Processing/	Final NPL
MID006031348	PEERLESS PLATING CO.	MUSKEGON	MUSKEGON	MI	2554 GETTY STREET	49444	Manufacturing/Processing/	Final NPL
MID044567162	THERMO-CHEM, INC.	MUSKEGON	MUSKEGON	MI	4331 EVANSTON AVENUE	49442	Recycling	Final NPL
MID005341714	HI-MILL MANUFACTURING CO.	HIGHLAND	OAKLAND	MI	1704 E HIGHLAND RD	48356	Manufacturing/Processing/	Final NPL
MID980499842	ROSE TOWNSHIP DUMP	ROSE TOWNSHIP	OAKLAND	MI	1065 DEMODE RD	48654	Waste Management	Final NPL
MID980703011	STURGIS MUNICIPAL WELLS	STURGIS	ST. JOSEPH	MI	505 W CHICAGO ROAD	49091	Other	Final NPL
MND980609614	SOUTH ANDOVER SITE	ANDOVER	ANOKA	MN	2052 1/2 BUNKER LAKE RD	55303	Waste Management	Final NPL
MND981088180	EAST BETHEL DEMOLITION LANDFILL	EAST BETHEL TOWNS	ANOKA	MN	HWY 65 AT 22 1ST AVE	55011	Waste Management	Deleted NPL
MND980904056	OAK GROVE SANITARY LANDFILL	OAK GROVE TOWNSH	ANOKA	MN	2536 VIKING BLVD NORTHWEST	55011	Waste Management	Deleted NPL
MND980904049	KUMMER SANITARY LANDFILL	BEMIDJI	BELTRAMI	MN	ANNE ST	56601	Waste Management	Deleted NPL
MND980034516	WINDOM DUMP	WINDOM	COTTONWOOD	MN	NEAR LAKEVIEW AVE	56101	Waste Management	Deleted NPL
MND981191570	DAKHUE SANITARY LANDFILL	CANNON FALLS	DAKOTA	MN	260TH & HOGAN AVE	55031	Waste Management	Deleted NPL
MND000245795	PINE BEND SANITARY LANDFILL	DAKOTA COUNTY	DAKOTA	MN	2495 E 117TH ST	55075	Waste Management	Deleted NPL
MN7213820908	NEW BRIGHTON/ARDEN HILLS/TCAAP (USARMY)	NEW BRIGHTON	RAMSEY	MN	JCT HWY 10 & MN HWY 96S	55112	Other	Final NPL
MND980823975	ARROWHEAD REFINERY CO.	HERMANTOWN	ST. LOUIS	MN	NW CORNER HWY 53 & UGSTAD RO.	55810	Recycling	Deleted NPL
MO9571824292	RICHARDS GEBEUR AIR FORCE BASE	BELTON	CASS	MO	HWY 150 & US 71 HWY	64012	Manufacturing/Processing/	Not NPL
MOD981720246	RIVERFRONT	NEW HAVEN	FRANKLIN	MO	PLUME, NEW HAVEN	63068	Other	Final NPL
MOD980854111	SOLID STATE CIRCUITS, INC.	REPUBLIC	GREENE	MO	MAIN ST	65738	Manufacturing/Processing/	Final NPL
MO3213890012	LAKE CITY ARMY AMMUNITION PLANT (NORTHWEST)	INDEPENDENCE	JACKSON	MO	JCT OF HWY 7 & HWY 78	64050	Manufacturing/Processing/	Final NPL
MOD000829705	CONSERVATION CHEMICAL CO.	KANSAS CITY	JACKSON	MO	3900 FRONT ST	64120	Waste Management	Final NPL
MOD980633069	ROSE, MARTHA CHEMICAL CO	HOLDEN	JOHNSON	MO	500 W MCKISSOCK	64040	Other	Not NPL
MO8571924549	WHITEMAN AIR FORCE BASE	WHITEMAN AFB	JOHNSON	MO	SEC 33 T46N R24W	65305		Not NPL
MON000705803	VIENNA WELLS	VIENNA	MARIES	MO	545-547 N. CHESTNUT STREET	65582	Other	Final NPL
MOD985798339	NEWTON COUNTY WELLS	JOPLIN	NEWTON	MO	3200 MOORHEAD DRIVE	64804	Manufacturing/Processing/	Final NPL
MO3213720979	FORT LEONARD WOOD, US ARMY MANEUVER SUP	FT LEONARD WOOD	PULASKI	MO	S. OF I-44 IN PULASKI CO.	65473-89	Other	Not NPL
MOD006333975	FINDETT CORP.	ST. CHARLES	ST. CHARLES	MO	RR 7	63301	Recycling	Removed from
MOD079900932	WESTLAKE LANDFILL	BRIDGETON	ST. LOUIS	MO	13570 ST CHARLES ROCK ROAD	63044	Waste Management, Waste	Final NPL
MOD980968341	VALLEY PARK TCE	VALLEY PARK	ST. LOUIS	MO	HIGHWAY 141 N OF MERAMEC RIVE	63088	Other	Final NPL
MSD086556388	SONFORD PRODUCTS	FLOWOOD	RANKIN	MS	3600 PAYNE DRIVE	39208-32	Manufacturing/Processing/	Final NPL
MTD986066025	BURLINGTON NORTHERN LIVINGSTON SHOP COM	LIVINGSTON	PARK	MT	EAST GALLATIN STREET (T25, R9E,	59047	Other	Removed from
MT0007623052	LOCKWOOD SOLVENT GROUND WATER PLUME	BILLINGS	YELLOWSTON	MT	LOCKWOOD ROAD	59101	Other	Final NPL
NCD045922986	FLANDERS FILTERS INC	WASHINGTON	BEAUFORT	NC	FLANDERS FILTERS RD, RTE 264 WI	27889	Manufacturing/Processing/	Not NPL
NCD095459392	CHEMTRONICS, INC.	SWANNANOA	BUNCOMBE	NC	OLD BEE TREE RD	28778	Waste Management	Final NPL
NCD003446721	CELANESE CORP. (SHELBY FIBER OPERATIONS)	SHELBY	CLEVELAND	NC	HWY 198	28150	Manufacturing/Processing/	Final NPL
NC1170027261	CHERRY POINT MARINE CORPS AIR STATION	HAVELOCK	CRAVEN	NC	ROOSEVELT BLVD. AND SLOCUM R	28533	Manufacturing/Processing/	Final NPL
NCD000648402	BATTERY TECH (DURACELL-LEXINGTON)	LEXINGTON	DAVIDSON	NC	305 NEW HWY 64 E	27292	Manufacturing/Processing/	Not NPL
NCD980729602	JADCO-HUGHES FACILITY	BELMONT	GASTON	NC	NC HWY 2035	28012	Recycling	Final NPL
NC0001606250	CRISTEX DRUM	OXFORD	GRANVILLE	NC	500 W. INDUSTRY DR.	27565	Waste Management	Final NPL
NCD122263825	JFD ELECTRONICS/CHANNEL MASTER	OXFORD	GRANVILLE	NC	INDUSTRY DRIVE	27565	Manufacturing/Processing/	Final NPL
NCD981026479	BENFIELD INDUSTRIES, INC.	HAZELWOOD	HAYWOOD	NC	RICHLAND ST.	28738	Manufacturing/Processing/	Final NPL
NCD079044426	GENERAL ELECTRIC CO/SHEPHERD FARM	EAST FLAT ROCK	HENDERSON	NC	SPARTANBURG HWY	28726	Manufacturing/Processing/	Final NPL
NCD095458527	FCX, INC. (STATESVILLE PLANT)	STATESVILLE	IREDELL	NC	1620 W. FRONT ST.	28677	Manufacturing/Processing/	Final NPL
NCD982096653	RAM LEATHER CARE SITE	CHARLOTTE	MECKLENBURG	NC	15100 ALBEMARLE ROAD	28227	Other	Final NPL
NCD024644494	ABC ONE HOUR CLEANERS	JACKSONVILLE	ONSLOW	NC	2127 LE JEUNE BLVD.	28540	Other	Final NPL
NC6170022580	CAMP LEJEUNE MILITARY RES. (USNAVY)	ONSLOW COUNTY	ONSLOW	NC	NC HWY 24 & US HWY 16	28542	Other	Final NPL
NCD980840409	CHARLES MACON LAGOON AND DRUM STORAGE	CORDOVA	RICHMOND	NC	COUNTY RD 1103	28330	Waste Management, Multip	Final NPL
NCD991278953	NATIONAL STARCH & CHEMICAL CORP.	SALISBURY	ROWAN	NC	CEDAR SPRINGS RD	28144	Manufacturing/Processing/	Final NPL
NCD980557656	NORTH CAROLINA STATE UNIVERSITY (LOT 86, FA	RALEIGH	WAKE	NC	CARTER-FINLEY STADIUM	27607	Waste Management	Final NPL
NDD980959548	MINOT LANDFILL	MINOT	WARD	ND	S27, T115N, R83W	58701	Waste Management	Deleted NPL
NED980862668	HASTINGS GROUND WATER CONTAMINATION	HASTINGS	ADAMS	NE	E CENTRAL HASTINGS	68901	Other	Final NPL
NEN000704738	WEST HIGHWAY 6 & HIGHWAY 281	HASTINGS	ADAMS	NE	INDUSTRIAL PARK WEST-HIGHWAY	68901	Other	Final NPL
NED986369247	OGALLALA GROUND WATER CONTAMINATION	OGALLALA	KEITH	NE	SW CORNER OF W 1ST & C ST	69153	Manufacturing/Processing/	Final NPL
NED084626100	SHERWOOD MEDICAL CO.	NORFOLK	MADISON	NE	RT 4 S HWY 81 1 MI S OF	68701	Manufacturing/Processing/	Final NPL
NED981713837	10TH STREET SITE	COLUMBUS	PLATTE	NE	28TH AVE & 10TH ST	68601	Other	Final NPL
NEN000706200	PCE SOUTHEAST CONTAMINATION	YORK	YORK	NE	INTERSECTION OF 5TH STREET AND	68467	Other	Final NPL
NHD980520217	TROY MILLS LANDFILL	TROY	CHESHIRE	NH	OFF ROCKWOOD POND ROAD	03465	Manufacturing/Processing/	Final NPL

NHN000103313	CHLOR-ALKALI FACILITY (FORMER)	BERLIN	COOS	NH	ADJACENT TO SAW MILL DAM	03570	Manufacturing/Processing//	Final NPL
NHD001091453	NEW HAMPSHIRE PLATING CO.	MERRIMACK	HILLSBOROUC	NH	WRIGHT AVE.	03054	Manufacturing/Processing//	Final NPL
NHD099363541	SYLVESTER	NASHUA	HILLSBOROUC	NH	GILSON RD	03062	Waste Management	Final NPL
NHD980671069	SOUTH MUNICIPAL WATER SUPPLY WELL	PETERBOROUGH	HILLSBOROUC	NH	RT. 202	03458	Manufacturing/Processing//	Final NPL
NHD990717647	OTTATI & GOSS/KINGSTON STEEL DRUM	KINGSTON	ROCKINGHAM	NH	HAVERHILL RD RTE 125	03848	Recycling	Final NPL
NHD980524086	AUBURN ROAD LANDFILL	LONDONDERRY	ROCKINGHAM	NH	AUBURN RD	03053	Waste Management	Final NPL
NHD062004569	TINKHAM GARAGE	LONDONDERRY	ROCKINGHAM	NH	RTE 102	03053	Waste Management	Final NPL
NHD064424153	COAKLEY LANDFILL	NORTH HAMPTON	ROCKINGHAM	NH	480 BREAKFAST HILL RD	03840	Waste Management	Final NPL
NHD018958140	BEEDE WASTE OIL	PLAISTOW	ROCKINGHAM	NH	7 THROUGH 11 KELLEY ROAD	03865	Recycling	Final NPL
NH7570024847	PEASE AIR FORCE BASE	PORTSMOUTH/NEWIN	ROCKINGHAM	NH	509 CSG/CC	03803	Manufacturing/Processing//	Final NPL
NHD980503361	MOTTOLO PIG FARM	RAYMOND	ROCKINGHAM	NH	BLUEBERRY HILL RD	03077	Waste Management	Final NPL
NHD980520191	DOVER MUNICIPAL LANDFILL	DOVER	STRAFFORD	NH	TOLEND RD	03820	Waste Management	Final NPL
NHD980520225	SOMERSWORTH SANITARY LANDFILL	SOMERSWORTH	STRAFFORD	NH	BLACKWATER RD	03878	Waste Management	Final NPL
NJ9690510020	FEDERAL AVIATION ADMINISTRATION TECHNICAL	ATLANTIC COUNTY	ATLANTIC	NJ	ROUTES 563 & 575	08405	Other	Final NPL
NJD980772727	EMMELL'S SEPTIC LANDFILL	GALLOWAY TOWNSHI	ATLANTIC	NJ	128 ZURICH AVE	08215	Waste Management	Final NPL
NJD980769350	POMONA OAKS RESIDENTIAL WELLS	GALLOWAY TOWNSHI	ATLANTIC	NJ	ROUTES 575 & 30	08240	Other	Deleted NPL
NJD980529416	D'IMPERIO PROPERTY	HAMILTON TOWNSHIP	ATLANTIC	NJ	RTE 322	08330	Waste Management	Final NPL
NJD070281175	PRICE LANDFILL	PLEASANTVILLE	ATLANTIC	NJ	MILL ROAD	08232	Waste Management	Final NPL
NJD070565403	SCIENTIFIC CHEMICAL PROCESSING	CARLSTADT	BERGEN	NJ	216 PATERSON PLANK RD	07072	Recycling	Final NPL
NJD980654107	FAIR LAWN WELL FIELD	FAIR LAWN	BERGEN	NJ	IND PARK/HENDERSON BLVD 11 ST	07410	Other	Final NPL
NJD011717584	CURCIO SCRAP METAL, INC.	SADDLE BROOK TWP	BERGEN	NJ	416 LANZA AVE	07662	Recycling	Final NPL
NJD980785638	CINNAMINSON TOWNSHIP (BLOCK 702) GROUND V	CINNAMINSON TOWNS	BURLINGTON	NJ	1017 UNION LANDING ROAD	08077	Other	Final NPL
NJD980529085	ELLIS PROPERTY	EVESHAM TOWNSHIP	BURLINGTON	NJ	SHARP ROAD	08053	Recycling	Final NPL
NJD980529143	FLORENCE LAND RECONTOURING, INC., LANDFILL	FLORENCE TOWNSHIP	BURLINGTON	NJ	CEDAR LANE EXT	08518	Waste Management	Deleted NPL
NJD048044325	LANDFILL & DEVELOPMENT CO.	MOUNT HOLLY	BURLINGTON	NJ	2023 RTE 38	08060	Waste Management	Final NPL
NJ2210020275	FORT DIX (LANDFILL SITE)	PEMBERTON TOWNSH	BURLINGTON	NJ	JULIUSTOWN-BROWNS MILLS RD	08562	Waste Management	Deleted NPL
NJD002493054	KAUFFMAN & MINTEER, INC.	SPRINGFIELD TWP(JO	BURLINGTON	NJ	MONMOUTH ROAD (ROUTE 537)	08041	Other	Final NPL
NJ0570024018	MCGUIRE AIR FORCE BASE #1	WRIGHTSTOWN	BURLINGTON	NJ	WRIGHTSTOWN-COOKSTOWN ROAD	08641	Other	Final NPL
NJD980527956	HARRISON AVE LF	CAMDEN	CAMDEN	NJ	HARRISON AVE & E STATE ST	08105	Waste Management	Not NPL
NJD014623854	MARTIN AARON, INC.	CAMDEN	CAMDEN	NJ	1542 SOUTH BROADWAY	08104	Recycling	Final NPL
NJD980529192	GEMS LANDFILL	GLOUCESTER TOWNS	CAMDEN	NJ	ERIAL & HICKSTOWN ROADS	08012	Waste Management	Final NPL
NJD041743220	SWOPE OIL & CHEMICAL CO.	PENNSAUKEN TOWNS	CAMDEN	NJ	8281 NATIONAL HWY	08110	Recycling	Final NPL
NJD980505341	KING OF PRUSSIA	WINSLOW TOWNSHIP	CAMDEN	NJ	PINEY HOLLOW ROAD	08095	Waste Management	Final NPL
NJD014743678	LIGHTMAN DRUM COMPANY	WINSLOW TOWNSHIP	CAMDEN	NJ	ROUTE 73	08009	Recycling	Final NPL
NJD002362705	NASCOLITE CORP.	MILLVILLE	CUMBERLAND	NJ	DORIS AVE	08332	Manufacturing/Processing//	Final NPL
NJSFN0204232	RIVERSIDE INDUSTRIAL PARK	NEWARK	ESSEX	NJ	29 RIVERSIDE AVENUE	07104	Manufacturing/Processing//	Final NPL
NJD980755623	WHITE CHEMICAL CORP.	NEWARK	ESSEX	NJ	660 FRELINGHUYSEN AVE	07114	Manufacturing/Processing//	Final NPL
NJD053292652	BRIDGEPORT RENTAL & OIL SERVICES	BRIDGEPORT	GLOUCESTER	NJ	CEDAR SWAMP RD	08014	Recycling	Final NPL
NJD047321443	CHEMICAL LEAMAN TANK LINES, INC.	BRIDGEPORT	GLOUCESTER	NJ	CEDAR SWAMP & COOPER RDS	08014	Other	Final NPL
NJD980505366	HELEN KRAMER LANDFILL	MANTUA TOWNSHIP	GLOUCESTER	NJ	392 Boody Mill Road	08579	Waste Management	Final NPL
NJN000206653	PAULSBORO TRAIN DERAILMENT	PAULSBORO	GLOUCESTER	NJ	200 BLOCK OF EAST JEFFERSON A'	08066	Other, Other	Not NPL
NJD043584101	MATLACK, INC.	WOOLWICH TOWNSHIP	GLOUCESTER	NJ	ROUTE 322 EAST	08085	Other	Final NPL
NJD980505648	PJP LANDFILL	JERSEY CITY	HUDSON	NJ	400 SIP AVE	07306	Waste Management	Final NPL
NJD041828906	FRIED INDUSTRIES	EAST BRUNSWICK TO'	MIDDLESEX	NJ	11 FRESH POND ROAD	08816	Manufacturing/Processing//	Final NPL
NJD980484653	CHEMICAL INSECTICIDE CORP.	EDISON TOWNSHIP	MIDDLESEX	NJ	30 WHITMAN AV	08817	Manufacturing/Processing//	Final NPL
NJD049860836	KIN-BUC LANDFILL	EDISON TOWNSHIP	MIDDLESEX	NJ	MEADOW ROAD	08817	Waste Management	Final NPL
NJD980505671	MONROE TOWNSHIP LANDFILL	MONROE TOWNSHIP	MIDDLESEX	NJ	MATCHAPONIX AVE. BLOCK 148 LO	08831	Waste Management	Deleted NPL
NJD002141190	CPS/MADISON INDUSTRIES	OLD BRIDGE TOWNSH	MIDDLESEX	NJ	WATERWORKS ROAD	08857	Manufacturing/Processing//	Final NPL
NJD980654222	EVOR PHILLIPS LEASING	OLD BRIDGE TOWNSH	MIDDLESEX	NJ	OLD WATER WORKS ROAD	08857	Waste Management	Final NPL
NJD063160667	GLOBAL SANITARY LANDFILL	OLD BRIDGE TOWNSH	MIDDLESEX	NJ	ERNSTON ROAD	08857	Waste Management	Final NPL
NJD980528889	CHEMSOL, INC.	PISCATAWAY	MIDDLESEX	NJ	FLEMING ST	08854	Manufacturing/Processing//	Final NPL
NJD981558430	ATLANTIC RESOURCES	SAYREVILLE	MIDDLESEX	NJ	120 HORSESHOE ROAD	08872	Recycling, Recycling, Recy	Final NPL
NJD980663678	HORSESHOE ROAD	SAYREVILLE	MIDDLESEX	NJ	Postal Address is unavailable for the S	08872	Manufacturing/Processing//	Final NPL
NJD980505754	SAYREVILLE LANDFILL	SAYREVILLE	MIDDLESEX	NJ	JERNEES MILL RD	08872	Waste Management	Deleted NPL
NJD097400998	JIS LANDFILL	SOUTH BRUNSWICK	MIDDLESEX	NJ	901-999 CRANBURY SOUTH RIVER F	08831	Waste Management	Final NPL
NJD981557879	CORNELL DUBILIER ELECTRONICS INC.	SOUTH PLAINFIELD	MIDDLESEX	NJ	333 HAMILTON BLVD	07080	Manufacturing/Processing//	Final NPL

NJ0170022172	NAVAL WEAPONS STATION EARLE (SITE A)	COLTS NECK	MONMOUTH	NJ	TYLER LANE & TEXAS RD	07722	Other	Final NPL
NJD980505424	LONE PINE LANDFILL	FREEHOLD TOWNSHIP	MONMOUTH	NJ	BURKE ROAD	07728	Waste Management	Final NPL
NJD063157150	BOG CREEK FARM	HOWELL TOWNSHIP	MONMOUTH	NJ	SQUANRUM RD. (MONMOUTH CO. R1	07727	Waste Management	Final NPL
NJD980654131	DOVER MUNICIPAL WELL 4	DOVER	MORRIS	NJ	272 ROUTE46	07801	Other, Other	Final NPL
NJ3210020704	PICATINNY ARSENAL (USARMY)	ROCKAWAY TOWNSHIP	MORRIS	NJ	OFF RTE 15 DOVER NJ	07801	Other	Final NPL
NJD047684451	RADIATION TECHNOLOGY, INC.	ROCKAWAY TOWNSHIP	MORRIS	NJ	108 LAKE DENMARK ROAD	07866	Manufacturing/Processing/	Final NPL
NJD980654115	ROCKAWAY BOROUGH WELL FIELD	ROCKAWAY TOWNSHIP	MORRIS	NJ	JACKSON, UNION & GARDEN STS	07866	Other, Other	Final NPL
NJD980654214	ROCKAWAY TOWNSHIP WELLS	ROCKAWAY TOWNSHIP	MORRIS	NJ	GREEN POND ROAD	07866	Other	Final NPL
NJD980505176	BRICK TOWNSHIP LANDFILL	BRICK TOWNSHIP	OCEAN	NJ	SALLY IKE ROAD	08723	Waste Management	Final NPL
NJ7170023744	NAVAL AIR ENGINEERING CENTER	LAKEHURST	OCEAN	NJ	MAIN GATE ROUTE#547	08733	Other	Final NPL
NJD980529739	RINGWOOD MINES/LANDFILL	RINGWOOD BOROUGH	PASSAIC	NJ	PETERS MINE ROAD	07456	Waste Management	Final NPL
NJD061843249	NL INDUSTRIES	PEDRICKTOWN (OLDM	SALEM	NJ	PENNS GROVE-PEDRICKTOWN ROA	08067	Recycling	Final NPL
NJD078251675	BROOK INDUSTRIAL PARK	BOUND BROOK	SOMERSET	NJ	100 WEST MAIN STREET	08805	Manufacturing/Processing/	Final NPL
NJD002173276	AMERICAN CYANAMID CO	BRIDGEWATER	SOMERSET	NJ	EASTON TURNPIKE	08805	Manufacturing/Processing/	Final NPL
NJD981490261	HIGGINS FARM	FRANKLIN TOWNSHIP	SOMERSET	NJ	ROUTE 518	08540	Waste Management	Final NPL
NJD053102232	HIGGINS DISPOSAL	KINGSTON	SOMERSET	NJ	121 LAUREL AVE	08528	Waste Management	Final NPL
NJN000206345	MANSFIELD TRAIL DUMP	BYRAM	SUSSEX	NJ	INTERSECTION OF BROOKWOOD A	07874	Other, Other	Final NPL
NJD002517472	METALTEC/AEROSYSTEMS	FRANKLIN BOROUGH	SUSSEX	NJ	WILDCAT & MAPLE ROADS	07416	Manufacturing/Processing/	Final NPL
NJD030253355	A. O. POLYMER	SPARTA TOWNSHIP	SUSSEX	NJ	44 STATION ROAD	07871	Manufacturing/Processing/	Final NPL
NJD079303020	LCP CHEMICALS INC.	LINDEN	UNION	NJ	FOOT OF SOUTH WOOD AVENUE	07036	Manufacturing/Processing/	Final NPL
NMD986668911	FRUIT AVENUE PLUME	ALBUQUERQUE	BERNALILLO	NM	NEAR INTERSECTION OF EDITH AN	87102	Other	Final NPL
NM0007271768	GRANTS CHLORINATED SOLVENTS	GRANTS	CIBOLA	NM	JEFFERSON AND NORTH FIRST STR	87020	Other	Final NPL
NMD980750020	LEE ACRES LANDFILL (USDO)	FARMINGTON	SAN JUAN	NM	NEAR FARMINGTON	87413	Waste Management	Final NPL
NYD980535215	SINCLAIR REFINERY	WELLSVILLE	ALLEGANY	NY	S BROOKLYN AVE	14895	Waste Management	Final NPL
NYD980509285	TRI-CITIES BARREL CO., INC.	PORT CRANE	BROOME	NY	ADJ. TO ROUTE 7	13833	Recycling	Final NPL
NYD980768691	COLESVILLE MUNICIPAL LANDFILL	TOWN OF COLESVILLE	BROOME	NY	EAST WINDSOR RD	13813	Waste Management	Final NPL
NYD002232957	ROBINTECH, INC./NATIONAL PIPE CO.	TOWN OF VESTAL	BROOME	NY	3421 OLD VESTAL ROAD	13850	Waste Management	Final NPL
NYD980780746	ENDICOTT VILLAGE WELL FIELD	VILLAGE OF ENDICOTT	BROOME	NY	S. GRIPPEN AVENUE	13760	Other	Final NPL
NY0001233634	LITTLE VALLEY	LITTLE VALLEY	CATTARAUGUS	NY	INTERSECT OF RTES 242, 353, AND	14755	Other	Final NPL
NYD980528657	OLEAN WELL FIELD	OLEAN	CATTARAUGUS	NY	LAUREN ST	14760	Other	Final NPL
NYN000204289	CAYUGA GROUNDWATER CONTAMINATION SITE	UNION SPRINGS	CAYUGA	NY	STATE ROUTE 326	13160	Other	Final NPL
NYD073675514	FACET ENTERPRISES, INC.	ELMIRA	CHEMUNG	NY	RTE 14	14903	Waste Management	Final NPL
NYD980650667	KENTUCKY AVENUE WELL FIELD	HORSEHEADS	CHEMUNG	NY	KENTUCKY AVE	14845	Other	Final NPL
NYD980421176	SOLVENT SAVERS	LINCKLAEN	CHEMUNGO	NY	UNION VALLEY RD	13052	Recycling	Final NPL
NY4571924774	PLATTSBURGH AIR FORCE BASE	PLATTSBURGH	CLINTON	NY	PLATTSBURGH AFB	12901	Manufacturing/Processing/	Final NPL
NYD982272734	ROSEN BROTHERS SCRAP YARD/DUMP	CORTLAND	CORTLAND	NY	PENDELTON ST.	13045	Waste Management, Recycl	Final NPL
NYD980507677	SIDNEY LANDFILL	SIDNEY	DELAWARE	NY	RICHARDSON HILL RD	13839	Waste Management	Final NPL
NYD980507735	RICHARDSON HILL ROAD LANDFILL/POND	SIDNEY CENTER	DELAWARE	NY	RICHARDSON HILL RD	13839	Waste Management	Final NPL
NYD980535165	SARNEY FARM	AMENIA	DUTCHESS	NY	BENSON HILL RD	12501	Waste Management	Final NPL
NYD980534556	JONES SANITATION	HYDE PARK	DUTCHESS	NY	CARDINAL RD	12538	Waste Management	Deleted NPL
NYD986927713	APPLE VALLEY SHOPPING CENTER	LA GRANGE	DUTCHESS	NY	ROUTE 55	12540	Other	Not NPL
NYD980506927	JOHNSTOWN CITY LANDFILL	TOWN OF JOHNSTOWN	FULTON	NY	W FULTON S EXT	12095	Waste Management	Final NPL
NYD980507693	BATAVIA LANDFILL	BATAVIA	GENESEE	NY	GALLOWAY & KELSEY RD	14020	Waste Management	Deleted NPL
NYD980780670	BYRON BARREL & DRUM	BYRON TOWNSHIP	GENESEE	NY	TOWN LINE ROAD	14422	Waste Management	Final NPL
NYD002066330	AMERICAN THERMOSTAT CO.	SOUTH CAIRO	GREENE	NY	RTE 23 B	12482	Manufacturing/Processing/	Final NPL
NYD000813428	JONES CHEMICALS, INC.	CALEDONIA	LIVINGSTON	NY	100 SUNNY SOL BLVD	14423	Manufacturing/Processing/	Final NPL
NYD000337295	LIBERTY INDUSTRIAL FINISHING	FARMINGDALE	NASSAU	NY	55 MOTOR PARKWAY	11735	Manufacturing/Processing/	Final NPL
NYD002050110	GENZALE PLATING CO.	FRANKLIN SQUARE	NASSAU	NY	288 NEW HYDE PARK ROAD	11010	Manufacturing/Processing/	Final NPL
NYSFN0204234	OLD ROOSEVELT FIELD CONTAMINATED GW ARE	GARDEN CITY	NASSAU	NY	CLINTON ROAD/OLD COUNTRY ROA	11530	Other	Final NPL
NYD000512459	MATTIACE PETROCHEMICAL CO., INC.	GLEN COVE	NASSAU	NY	GARVIES POINT ROAD	11542	Other, Recycling, Multiple	Final NPL
NYN000204407	PENINSULA BOULEVARD GROUNDWATER PLUME	HEWLETT	NASSAU	NY	PENINSULA BOULEVARD AND	11557	Other	Final NPL
NYD002920312	HOOVER CHEMICAL & PLASTICS CORP./RUCO PO	HICKSVILLE	NASSAU	NY	NEW SOUTH ROAD	11801	Manufacturing/Processing/	Final NPL
NYD001344456	JACKSON STEEL	MINEOLA/NORTH HEM	NASSAU	NY	435 FIRST STREET	11501	Manufacturing/Processing/	Deleted NPL
NY0001095363	NEW CASSEL/HICKSVILLE GROUND WATER CONT	NEW CASSEL/HICKSV	NASSAU	NY	SOUTHERN END OF IRIS PLACE	11590	Other, Other	Final NPL
NYD002044584	CLAREMONT POLYCHEMICAL	OLD BETHPAGE	NASSAU	NY	501 WINDING ROAD	11804	Manufacturing/Processing/	Final NPL
NYD980531727	OLD BETHPAGE LANDFILL	OYSTER BAY	NASSAU	NY	ROUND SWAMP RD	11804	Waste Management	Final NPL

NYD000511360	SYOSSET LANDFILL	OYSTER BAY	NASSAU	NY	150 MILLER PLACE	11791	Waste Management	Deleted NPL
NYD980654206	PORT WASHINGTON LANDFILL	PORT WASHINGTON	NASSAU	NY	WEST SHORE RD	11050	Waste Management	Final NPL
NYD980532162	DUPONT /NECCO PARK	NIAGARA FALLS	NIAGARA	NY	56TH & PINE	14304	Waste Management	Not NPL
NYD981560923	FOREST GLEN MOBILE HOME SUBDIVISION	NIAGARA FALLS	NIAGARA	NY	LISA LANE, CARRIE DRIVE AND T. M	14301	Waste Management	Final NPL
NYD000514257	NIAGARA COUNTY REFUSE	WHEATFIELD	NIAGARA	NY	WITMER RD	14150	Waste Management	Deleted NPL
NY4571924451	GRIFFISS AIR FORCE BASE (11 AREAS)	ROME	ONEIDA	NY	GRIFFISS AIR FORCE BASE	13441	Other	Final NPL
NYD986913580	ONONDAGA LAKE	SYRACUSE	ONONDAGA	NY	Postal Address is unavailable for the S	13209	Manufacturing/Processing/	Final NPL
NYD010968014	CARROLL & DUBIES SEWAGE DISPOSAL	PORT JERVIS	ORANGE	NY	CANAL STREET	12771	Waste Management	Final NPL
NYD067532580	DIAZ CHEMICAL	HOLLEY	ORLEANS	NY	40 JACKSON ST.	14470	Manufacturing/Processing/	Final NPL
NYD980593099	FULTON TERMINALS	FULTON	OSWEGO	NY	RTE 57	13069	Waste Management	Deleted NPL
NYD000511659	POLLUTION ABATEMENT SERVICES	OSWEGO	OSWEGO	NY	703 E. Seneca Street	13126	Waste Management	Final NPL
NYD980509376	VOLNEY MUNICIPAL LANDFILL	TOWN OF VOLNEY	OSWEGO	NY	SILK ROAD	13069	Waste Management	Final NPL
NYD980652275	BREWSTER WELL FIELD	PUTNAM COUNTY	PUTNAM	NY	MAIN ST /SE	10509	Other	Final NPL
NYD980528335	GE MOREAU	SOUTH GLENS FALLS	SARATOGA	NY	FT EDWARD & WM ST	12803	Waste Management	Final NPL
NY0213820830	SENECA ARMY DEPOT	ROMULUS	SENECA	NY	FAYETTE RD	14541	Waste Management	Final NPL
NYD980535181	SEALAND RESTORATION, INC.	LISBON	ST. LAWRENCE	NY	PRAY RD	13669	Waste Management	Final NPL
NYD091972554	GENERAL MOTORS (CENTRAL FOUNDRY DIVISION	MASSENA	ST. LAWRENCE	NY	ROOSEVELT TOURIN ROAD	13662	Multiple, Manufacturing/Prc	Final NPL
NYD072366453	ACTION ANODIZING, PLATING, & POLISHING CORP	COPIAGUE	SUFFOLK	NY	33 DIXON AVE.	11701	Manufacturing/Processing/	Deleted NPL
NYD002059517	TRONIC PLATING CO., INC.	FARMINGDALE	SUFFOLK	NY	168 CENTRAL AVENUE	11735	Manufacturing/Processing/	Deleted NPL
NYD980768717	GOLDISC RECORDINGS, INC.	HOLBROOK	SUFFOLK	NY	725 BROADWAY	11741	Manufacturing/Processing/	Final NPL
NYD980506901	ISLIP MUNICIPAL SANITARY LANDFILL	ISLIP	SUFFOLK	NY	BLYDENBURG RD/LG ISLAND MOTO	11751	Waste Management	Final NPL
NYD002041531	LAWRENCE AVIATION INDUSTRIES, INC.	PORT JEFFERSON ST,	SUFFOLK	NY	SHEEP PASTURE ROAD	11776	Manufacturing/Processing/	Final NPL
NYD980528475	CORTESE LANDFILL	VIL OF NARROWSBUR	SULLIVAN	NY	SOUTH OF ROUTE 97	12764	Waste Management	Final NPL
OH7571724312	WRIGHT-PATTERSON AIR FORCE BASE	DAYTON	[Blank County]	OH	ST RTE 444	45324	Waste Management	Final NPL
OH6890008976	FEED MATERIALS PRODUCTION CENTER (USDOE)	FERNALD	[Blank County]	OH	2 MI W OF JUNCTION RT 128 & RT 12	45030	Manufacturing/Processing/	Final NPL
OHD980614572	FIELDS BROOK	ASHTABULA	ASHTABULA	OH	WATER BED OF CREEK R3W T13N	44004	Other	Final NPL
OHD061722211	LASKIN/POPLAR OIL CO.	JEFFERSON TOWNSHI	ASHTABULA	OH	717 N POPLAR STREET	44047	Recycling	Deleted NPL
OHD980611735	BIG D CAMPGROUND	KINGSVILLE	ASHTABULA	OH	3678 CREEK RD	44048	Waste Management	Final NPL
OHD980794614	NEW LYME LANDFILL	NEW LYME	ASHTABULA	OH	RTE 11 ON DODGEVILLE RD	44076	Waste Management	Final NPL
OHD074727793	CHEM-DYNE	HAMILTON	BUTLER	OH	500 FORD BLVD	45011	Other	Final NPL
OHD063963714	SKINNER LANDFILL	WEST CHESTER	BUTLER	OH	8750 CINCINNATI DAYTON HIGHWAY	45069	Waste Management	Final NPL
OHD980612188	TREMONT CITY BARREL FILL	GERMAN TOWNSHIP	CLARK	OH	3112 SNYDER-DOMER RD	45502	Waste Management	Not NPL
OHN000509238	NEW CARLISLE LANDFILL	NEW CARLISLE	CLARK	OH	715 N. DAYTON-LAKEVIEW ROAD	45344	Other, Waste Management	Final NPL
OHSFN0507973	MILFORD CONTAMINATED AQUIFER	MILFORD	CLERMONT	OH	101 RACE STREET	45150	Other	Final NPL
OHD980610018	NEASE CHEMICAL	SALEM	COLUMBIANA	OH	BENTON RD AKA ST RTE 14A	44460	Manufacturing/Processing/	Final NPL
OHD980509830	COSHOCTON LANDFILL	FRANKLIN TOWNSHIP	COSHOCTON	OH	19233 OHIO STATE ROUTE 83	43812	Mining, Multiple, Waste Ma	Deleted NPL
OH3571924544	RICKENBACKER AIR NATIONAL GUARD (USAF)	LOCKBOURNE	FRANKLIN	OH	1/2 MILE E OF LOCKBOURNE	43217	Other, Other, Other	Removed from
OHD981537582	LAMMERS BARREL FACTORY	BEAVERCREEK	GREENE	OH	EAST PATTERSON & GRANGE HALL	45385	Recycling	Final NPL
OHD980794630	FULTZ LANDFILL	JACKSON TOWNSHIP	GUERNSEY	OH	CO RD 52	43723	Waste Management	Final NPL
OHD076773712	PRISTINE, INC.	READING	HAMILTON	OH	410 CAVETT AVENUE	45215	Waste Management	Final NPL
OHD057001810	CHEMICAL RECOVERY SYSTEMS	ELYRIA	LORAIN	OH	142 LOCUST ST	44035	Recycling	Not NPL
OHD980510002	FORD RD IND LDFL	ELYRIA	LORAIN	OH	FORD RD	44035	Waste Management	Not NPL
OHD980611800	MIAMI COUNTY INCINERATOR	TROY	MIAMI	OH	2200 N COUNTY RD	45373	Waste Management	Final NPL
OHD980611875	NORTH SANITARY LANDFILL	DAYTON	MONTGOMERY	OH	200 VALLEYCREST DRIVE	45404	Waste Management	Final NPL
OHD000382663	POWELL ROAD LANDFILL	HUBER HEIGHTS	MONTGOMERY	OH	SO SIDE OF POWELL RD 1MI W 202	45424	Waste Management	Final NPL
OH6890008984	MOUND PLANT (USDOE)	MIAMISBURG	MONTGOMERY	OH	MOUND RD	45342	Manufacturing/Processing/	Final NPL
OHD093895787	SANITARY LANDFILL CO. (INDUSTRIAL WASTE DIS	MORAIN	MONTGOMERY	OH	1855 CARDINGTON ROAD	45409	Waste Management	Final NPL
OHD000377911	INDUSTRIAL EXCESS LANDFILL	UNIONTOWN	STARK	OH	4MI S INTER 619 & CLEVELAND AVE	44685	Waste Management	Final NPL
OH0000563122	COPLEY SQUARE PLAZA	COPLEY	SUMMIT	OH	2777 COPLEY ROAD	44321	Other	Final NPL
OHD980794606	VAN DALE JUNKYARD	MARIETTA	WASHINGTON	OH	GOOSE RUN RD	45750	Waste Management	Final NPL
OKD000400093	HARDAGE/CRINER	CRINER	MCCLAIN	OK	3/4 MI W OF TOWN ON HWY 122	73080	Waste Management	Final NPL
OKD007188717	DOUBLE EAGLE REFINERY CO.	OKLAHOMA CITY	OKLAHOMA	OK	301 N RHODE ISLAND	73152	Recycling	Deleted NPL
OKD980696470	FOURTH STREET ABANDONED REFINERY	OKLAHOMA CITY	OKLAHOMA	OK	2200 BLOCK NE 4TH	73117	Manufacturing/Processing/	Deleted NPL
OKD980620868	MOSLEY ROAD SANITARY LANDFILL	OKLAHOMA CITY	OKLAHOMA	OK	MOSELEY RD BTWN NE 23 & NE 36	73117	Waste Management	Deleted NPL
OK1571724391	TINKER AIR FORCE BASE (SOLDIER CREEK/BUILD	OKLAHOMA CITY	OKLAHOMA	OK	SOUTH AIR DEPOT BLVD	73145	Waste Management	Final NPL
OKD980748446	SAND SPRINGS PETROCHEMICAL COMPLEX	SAND SPRINGS	TULSA	OK	2 BLKS S 198 E MORRO	74063	Recycling, Multiple, Recycli	Deleted NPL

ORD980988307	NORTHWEST PIPE & CASING/HALL PROCESS COM	CLACKAMAS	CLACKAMAS	OR	SE MATHER RD AT SE INDUSTRIAL	97015	Manufacturing/Processing//	Final NPL
ORD050955848	TELEDYNE WAH CHANG	ALBANY	LINN	OR	1600 OLD SALEM RD NE	97321	Manufacturing/Processing//	Final NPL
ORD987185030	EAST MULTNOMAH COUNTY GROUND WATER CON	MULTNOMAH COUNTY	MULTNOMAH	OR	18408 SAN RAFAEL STREET	97230	Manufacturing/Processing//	Removed from
ORSFN1002155	PORTLAND HARBOR	PORTLAND	MULTNOMAH	OR	BETWEEN RM 1.9 AND 11.8 IN PORT	97231	Other	Final NPL
PAD980830897	HUNTERSTOWN ROAD	STRABAN TOWNSHIP	ADAMS	PA	RD #5	17325	Waste Management	Final NPL
PAD054142781	KEYSTONE SANITATION LANDFILL	UNION TOWNSHIP	ADAMS	PA	RD #1	17331	Waste Management	Final NPL
PAD089667695	BRESLUBE-PENN, INC.	CORAOPOLIS	ALLEGHENY	PA	84 MONTOUR RD	15108	Recycling	Final NPL
PAD002384865	DOUGLASSVILLE DISPOSAL	DOUGLASSVILLE	BERKS	PA	RTE 724	19518	Multiple, Manufacturing/Prc	Final NPL
PAD981740061	CROSSLEY FARM	HEREFORD TOWNSHIP	BERKS	PA	HUFF'S CHURCH ROAD & BLACKHEA	18056	Waste Management	Final NPL
PAD980691794	BERKS SAND PIT	LONGSWAMP TOWNSHIP	BERKS	PA	UNOBTAINABLE	19539	Waste Management	Final NPL
PAD000651810	BERKS LANDFILL	SPRING TOWNSHIP	BERKS	PA	RD 8348	19608	Waste Management	Deleted NPL
PAD981038052	DELTA QUARRIES & DISPOSAL, INC./STOTLER LAI	ANTIS/LOGAN TWPS	BLAIR	PA	SAND BANK RD	16602	Waste Management	Final NPL
PAD980705107	BELL LANDFILL	TERRY TOWNSHIP	BRADFORD	PA	325 PARKER ROAD	18853	Waste Management	Final NPL
PAD047726161	BOARHEAD FARMS	BRIDGETON TOWNSHIP	BUCKS	PA	LONELY COTTAGE DRIVE	18972	Waste Management	Final NPL
PAD981035009	CROYDON TCE	CROYDON TOWNSHIP	BUCKS	PA	RIVER ROAD	19020	Other, Other, Other	Final NPL
PAD002323848	CHEM-FAB	DOYLESTOWN	BUCKS	PA	300 NORTH BROAD STREET	18901	Manufacturing/Processing//	Final NPL
PAD981740004	DUBLIN TCE SITE	DUBLIN BOROUGH	BUCKS	PA	120 MILL ST./ WHISTLEWOOD APT-F	18917	Manufacturing/Processing//	Final NPL
PAD980706824	WATSON JOHNSON LANDFILL	RICHLAND TOWNSHIP	BUCKS	PA	E PUMPING STA RD	18951	Waste Management	Final NPL
PAD002345817	FISCHER & PORTER CO.	WARMINSTER	BUCKS	PA	JACKSONVILLE & ST RD	18974	Manufacturing/Processing//	Final NPL
PA6170024545	NAVAL AIR DEVELOPMENT CENTER (8 WASTE AR)	WARMINSTER TOWNSHIP	BUCKS	PA	ST & JACKSONVILLE ROAD	18974	Other	Final NPL
PAD000436261	CENTRE COUNTY KEPONE	STATE COLLEGE	CENTRE	PA	201 STRUBLE ROAD	16801	Manufacturing/Processing//	Final NPL
PAD002353969	RECTICON/ALLIED STEEL CORP.	E COVENTRY TWP	CHESTER	PA	RTE 724 & WELLS RD	19457	Manufacturing/Processing//	Deleted NPL
PAD980691703	KIMBERTON	EAST PIKELAND TOWNSHIP	CHESTER	PA	COLD STREAM & HARES HILL ROAD	19442	Waste Management	Final NPL
PAD004351003	A.I.W. FRANK/MID-COUNTY MUSTANG	EXTON	CHESTER	PA	INT RTE 202 & RTE 30	19341	Manufacturing/Processing//	Final NPL
PAD980829527	WALSH LANDFILL	HONEYBROOK TOWNSHIP	CHESTER	PA	WALSH ROAD	19344	Waste Management	Final NPL
PAD014353445	MALVERN TCE	MALVERN	CHESTER	PA	258 N PHOENIXVILLE PK	19355	Waste Management	Final NPL
PAD000441337	STRASBURG LANDFILL	NEWLIN TOWNSHIP	CHESTER	PA	STRASBURG ROAD	19320	Waste Management	Deleted NPL
PAD980539985	BLOSENSKI LANDFILL	WEST CALN TOWNSHIP	CHESTER	PA	ROUTE 340	19376	Waste Management	Final NPL
PAD980692487	SAEGERTOWN INDUSTRIAL AREA	SAEGERTOWN	CRAWFORD	PA	GRANT ST	16433	Multiple, Other, Manufactur	Final NPL
PA3170022104	NAVY SHIPS PARTS CONTROL CENTER	MECHANICSBURG	CUMBERLAND	PA	OFF STATE HIGHWAY 641	17055	Other	Final NPL
PAD980538763	MIDDLETOWN AIR FIELD	MIDDLETOWN	DAUPHIN	PA	APPROX 1 MLE OFF RTE 230	17057	Other	Deleted NPL
PAD002338010	HAVERTOWN PCP	HAVERTOWN	DELAWARE	PA	EAGLE ROAD RC DRAWER F	19083	Manufacturing/Processing//	Final NPL
PAD980231690	MILL CREEK DUMP	ERIE	ERIE	PA	3081 W 17TH ST	16505	Waste Management, Waste	Final NPL
PAD980508931	LORD-SHOPE LANDFILL	GIRARD TOWNSHIP	ERIE	PA	6262 PIEPER ROAD	16417	Waste Management	Final NPL
PA6213820503	LETTERKENNY ARMY DEPOT (SE AREA)	CHAMBERSBURG	FRANKLIN	PA	N FRANKLIN ST EXT	17201	Manufacturing/Processing//	Final NPL
PA2210090054	LETTERKENNY ARMY DEPOT (PDO AREA)	FRANKLIN COUNTY	FRANKLIN	PA	N FRANKLIN ST	17201	Manufacturing/Processing//	Final NPL
PAD001222025	JACKSON CERAMIX, INC	FALLS CREEK	JEFFERSON	PA	ROUTE 950	15840	Manufacturing/Processing//	Final NPL
PAD980508667	LACKAWANNA REFUSE	OLD FORGE	LACKAWANNA	PA	SOUTH KEYSER AVENUE	18518	Waste Management	Deleted NPL
PAD980538649	BERKLEY PRODUCTS CO. DUMP	DENVER	LANCASTER	PA	RD 2	17517	Waste Management	Deleted NPL
PAD980539712	ELIZABETHTOWN LANDFILL	ELIZABETHTOWN	LANCASTER	PA	W RIDGE RD	17022	Waste Management	Final NPL
PAD981033285	RODALE MANUFACTURING CO., INC.	EMMAUS BOROUGH	LEHIGH	PA	6TH & MINOR STREETS	18049	Manufacturing/Processing//	Final NPL
PAD980537716	HELEVA LANDFILL	NORTH WHITEHALL TWP	LEHIGH	PA	GARAGE HILL ST	18037	Waste Management	Final NPL
PAD079160842	NOVAK SANITARY LANDFILL	SOUTH WHITEHALL TWP	LEHIGH	PA	PARKLAND TERRACE RD & LAPP RD	18104	Waste Management	Final NPL
PAD980508832	DORNEY ROAD LANDFILL	UPPER MACUNGIE TWP	LEHIGH	PA	DORNEY RD	19539	Waste Management	Deleted NPL
PAD982363970	VALMONT TCE SITE (FORMER - VALMONT INDUS)	WEST HAZLETON	LUZERNE	PA	DEER RUN ROAD	18201	Manufacturing/Processing//	Final NPL
PAD003053709	AVCO LYCOMING (WILLIAMSPORT DIVISION)	WILLIAMSPORT	LYCOMING	PA	652 OLIVER ST	17701	Manufacturing/Processing//	Final NPL
PAD980712673	OSBORNE LANDFILL	GROVE CITY	MERCER	PA	0.5 MILES E OF TOWN	16127	Waste Management	Final NPL
PAD000439083	RIVER ROAD LANDFILL (WASTE MANAGEMENT, IN)	HERMITAGE	MERCER	PA	RTE 846 RIVER RD	16148	Waste Management	Deleted NPL
PAD001933175	SHARON STEEL CORP (FARRELL WORKS DISPOS)	HERMITAGE	MERCER	PA	300 OHIO STREET	16159	Manufacturing/Processing//	Final NPL
PAD981113558	C G WOOD SITE	JAMESTOWN	MERCER	PA	SOUTHERN END OF CHESTNUT STR	16134	Waste Management	Not NPL
PAD005000575	WESTINGHOUSE ELECTRIC CORP. (SHARON PLAN)	SHARON	MERCER	PA	469 SHARPSVILLE AVE	16146	Manufacturing/Processing//	Final NPL
PAD981034705	BUTZ LANDFILL	STROUDSBURG	MONROE	PA	RD #5 TWP RTE 601	18360	Waste Management	Final NPL
PA5213820892	TOBYHANNA ARMY DEPOT	TOBYHANNA	MONROE	PA	11 HAP ARNOLD BOULEVARD	18466-50	Other	Final NPL
PAD980508766	MOYERS LANDFILL	EAGLEVILLE	MONTGOMERY	PA	2 MOYER RD	19426	Waste Management	Deleted NPL
PAN000306939	BAGHURST DRIVE	HARLEYSVILLE	MONTGOMERY	PA	NORTHERN INTERSECTION OF HENI	19438	Other	Final NPL
PAD039017694	RAYMARK	HATBORO	MONTGOMERY	PA	220 JACKSONVILLE RD	19040	Manufacturing/Processing//	Final NPL

PAD002342475	NORTH PENN - AREA 2	HATFIELD	MONTGOMERY PA	1 SPRING AVE	19440	Manufacturing/Processing/	Final NPL
PAD987277837	WILLOW GROVE NAVAL AIR AND AIR RESERVE ST	HORSHAM	MONTGOMERY PA	RT 611 & COUNTY LINE ROAD	19040	Manufacturing/Processing/	Final NPL
PAD980926976	NORTH PENN - AREA 6	LANSDALE	MONTGOMERY PA	W 3RD ST	19446	Manufacturing/Processing/	Final NPL
PAD980229298	OCCIDENTAL CHEMICAL CORP./FIRESTONE TIRE &	LOWER POTTS GROVE	MONTGOMERY PA	ARMAND HAMMER BLVD	19464	Manufacturing/Processing/	Final NPL
PAD093730174	COMMODORE SEMICONDUCTOR GROUP	LOWER PROVIDENCE	MONTGOMERY PA	VAN BUREN & RITTENHOUSE RDS	19403	Manufacturing/Processing/	Final NPL
PAD980692693	NORTH PENN - AREA 5	MONTGOMERY TOWNSHIP	MONTGOMERY PA	MAPLE DR	18915	Manufacturing/Processing/	Final NPL
PAD002498632	NORTH PENN - AREA 7	NORTH WALES	MONTGOMERY PA	WISSAHICKON AVE	19454	Manufacturing/Processing/	Final NPL
PAD009862939	HENDERSON ROAD	UPPER MERION TOWNSHIP	MONTGOMERY PA	372 S HENDERSON ROAD	19406	Waste Management	Final NPL
PAD980691372	MW MANUFACTURING	VALLEY TOWNSHIP	MONTOUR PA	STATE ROUTE 54 AND I-80	17821	Recycling	Final NPL
PAD002390748	HELLERTOWN MANUFACTURING CO.	HELLERTOWN	NORTHAMPTON PA	1770 MAIN ST	18055	Manufacturing/Processing/	Final NPL
PAD980508493	INDUSTRIAL LANE	WILLIAMS TOWNSHIP	NORTHAMPTON PA	INDUSTRIAL DR	18042	Waste Management	Final NPL
PAD003047974	BENDIX FLIGHT SYSTEMS DIVISION	SOUTH MONTROSE	SUSQUEHANNA PA	MONTROSE PLT	18843	Manufacturing/Processing/	Final NPL
PAD980918510	STARBRICK AREA	CONEWANGO TWP	WARREN PA	UNOBTAINABLE	16365	Other	Not NPL
PAD980830715	YORK COUNTY SOLID WASTE AND REFUSE AUTHORITY	HOPEWELL TOWNSHIP	YORK PA	ROAD #3 - BOX 426	17363	Waste Management	Deleted NPL
PAD980539068	MODERN SANITATION LANDFILL	LOWER WINDSOR TWP	YORK PA	4400 MT. PISGAH ROAD	17406-82	Waste Management	Final NPL
PAD980692420	OLD CITY OF YORK LANDFILL	SEVEN VALLEYS	YORK PA	RD# 1 SOUTH RD	17360	Waste Management	Final NPL
PAD980690549	EAST MOUNT ZION	SPRINGETTSBURY TOWNSHIP	YORK PA	DIENINGER ROAD	17402	Waste Management	Final NPL
PRD980763783	FIBERS PUBLIC SUPPLY WELLS	JOBOS	[Blank County] PR	RTE 3	00784	Other	Final NPL
PRD980763775	VEGA ALTA PUBLIC SUPPLY WELLS	VEGA ALTA	[Blank County] PR	HIGHWAY 2	00692	Other	Final NPL
PRN000206319	CABO ROJO GROUND WATER CONTAMINATION	CABO ROJO	CABO ROJO PR	CROSS STR. CALLE BARBOSA & CA	00623	Other	Final NPL
PRN000204538	CIDRA GROUNDWATER CONTAMINATION	CIDRA	CIDRA PR	ROAD 171 (SOUTH OF THE VILLAGE)	00739	Other, Other	Final NPL
PRN000205831	MAUNABO AREA GROUND WATER CONTAMINATION	MAUNABO	MAUNABO PR	STATE ROAD #3, KM 110.2	00707	Other	Final NPL
PRN000205957	SAN GERMAN GROUND WATER CONTAMINATION	SAN GERMAN	SAN GERMAN PR	STATE ROAD #122 (ALSO KNOWN AS)	00683	Other	Final NPL
RID980579056	PICILLO FARM	COVENTRY	KENT RI	PERRY HILL RD	02816	Waste Management	Final NPL
RI6170085470	NEWPORT NAVAL EDUCATION & TRAINING CENTER	NEWPORT	NEWPORT RI	DEFENSE HIGHWAY (BURMA RD.)	02871	Other	Final NPL
RID009764929	WESTERN SAND & GRAVEL	BURRILLVILLE	PROVIDENCE RI	DOUGLAS PIKE	02895	Waste Management	Final NPL
RID980731459	DAVIS (GSR) LANDFILL	GLOCESTER	PROVIDENCE RI	TARKILN RD.	02828	Waste Management	Deleted NPL
RID980520183	CENTRAL LANDFILL	JOHNSTON	PROVIDENCE RI	65 SHUN PIKE	02919-45	Waste Management	Final NPL
RID055176283	PETERSON/PURITAN, INC.	LINCOLN/CUMBERLAND	PROVIDENCE RI	MARTIN ST	02864	Manufacturing/Processing/	Final NPL
RID981203755	CENTREDALE MANOR RESTORATION PROJECT	NORTH PROVIDENCE	PROVIDENCE RI	2072 AND 2074 SMITH STREET (ROLL)	02911	Recycling, Other, Manufact	Final NPL
RID093212439	LANDFILL & RESOURCE RECOVERY, INC. (L&RR)	NORTH SMITHFIELD	PROVIDENCE RI	OXFORD RD	02876	Waste Management	Final NPL
RID980731442	STAMINA MILLS	NORTH SMITHFIELD (F)	PROVIDENCE RI	School Street	02824	Manufacturing/Processing/	Final NPL
RID980523070	DAVIS LIQUID WASTE	SMITHFIELD	PROVIDENCE RI	TARKILN RD	02828	Waste Management	Final NPL
RI6170022036	DAVISVILLE NAVAL CONSTRUCTION BATTALION CAMP	NORTH KINGSTOWN	WASHINGTON RI	OFF SANFORD RD.	02818	Other	Final NPL
RID980521025	ROSE HILL REGIONAL LANDFILL	SOUTH KINGSTOWN	WASHINGTON RI	ROSE HILL RD	02880	Waste Management	Final NPL
SC1890008989	SAVANNAH RIVER SITE (USDOE)	AIKEN	[Blank County] SC	BETWEEN SC 125 & US 278	29802	Manufacturing/Processing/	Final NPL
SCN000410656	WGE BELTON	BELTON	ANDERSON SC	5043 BELTON HWY	29621	Other	Not NPL
SCD003357589	SHURON INC.	BARNWELL	BARNWELL SC	100 CLINTON ST	29812	Manufacturing/Processing/	Final NPL
SC6170022762	PARRIS ISLAND MARINE CORPS RECRUIT DEPOT	PARRIS ISLAND	BEAUFORT SC	MARINE CORPS RECRUIT DEPOT	29902	Other	Final NPL
SCD980558142	MEDLEY FARM DRUM DUMP	GAFFNEY	CHEROKEE SC	SC HIGHWAY 18	29340	Waste Management	Final NPL
SCD980558043	LEXINGTON COUNTY LANDFILL AREA	CAYCE	LEXINGTON SC	US 321 1 MILE S OF I-26	29033	Waste Management	Final NPL
SCD000622787	SCRDI BLUFF ROAD	COLUMBIA	RICHLAND SC	321 BLUFF RD S	29209	Waste Management	Final NPL
SCD058754789	AQUA-TECH ENVIRONMENTAL INC (GROCE LABS)	GREER	SPARTANBURG SC	340 ROBINSON ROAD	29651	Waste Management	Final NPL
SCD980839542	ELMORE WASTE DISPOSAL	GREER	SPARTANBURG SC	117 HIGHLAND AVE	29651	Waste Management	Final NPL
SC0002333227	ARKWRIGHT DUMP	SPARTANBURG	SPARTANBURG SC	HILLTOP LANE	29302	Waste Management	Not NPL
SCD991279324	LEONARD CHEMICAL CO., INC.	ROCK HILL	YORK SC	5080 CURETON FERRY RD	29704	Recycling	Final NPL
SCD980844005	ROCK HILL CHEMICAL CO.	ROCK HILL	YORK SC	NORTH CHERRY RD	29730	Recycling	Final NPL
SD2571924644	ELLSWORTH AIR FORCE BASE	ELLSWORTH AFB	PENNINGTON SD	28 BW/PA, 1958 Scott Drive	57706	Other	Final NPL
TN1890090003	OAK RIDGE RESERVATION (USDOE)	OAK RIDGE	[Blank County] TN	BETHEL VALLEY ROAD	37830	Other	Final NPL
TND044062222	CARRIER AIR CONDITIONING CO.	COLLIERVILLE	SHELBY TN	97 S BYHALIA RD	38017	Manufacturing/Processing/	Final NPL
TNN000410124	WALKER MACHINE PRODUCTS, INC.	COLLIERVILLE	SHELBY TN	459 WASHINGTON STREET	38017	Manufacturing/Processing/	Final NPL
TNSFN0407047	NATIONAL FIREWORKS	CORDOVA	SHELBY TN	9400-9600 MACON ROAD	38016	Manufacturing/Processing/	Final NPL
TNN000402275	FORMER CUSTOM CLEANERS	MEMPHIS	SHELBY TN	3517 Southern Avenue	38111	Manufacturing/Processing/	Final NPL
TND987790300	SIXTY ONE INDUSTRIAL PARK	MEMPHIS	SHELBY TN	5607 HWY 61 SOUTH	38107	Manufacturing/Processing/	Not NPL
TXN000606565	BANDERA ROAD GROUND WATER PLUME	SAN ANTONIO	BEXAR TX	INTERSECTION OF BANDERA ROAD	78238	Other	Final NPL
TXD055144539	GULFCO MARINE MAINTENANCE	FREEMONT	BRAZORIA TX	BRAZORIA COUNTY RD 756	77541	Other	Final NPL

TXN000606614	Formosa EAST 67TH STREET GROUND WATER PLUME	Point Comfort ODESSA	Calhoun ECTOR	TX TX	102 23', 23.36" WEST, 31, 54', 22.26'	79762	polyethylene, polypropylene and PVC pla	
TXD980629851	MOTCO, INC.	LA MARQUE	GALVESTON	TX	JCT HIGHWAYS 3 6 & 75	77590	Other, Other, Other	Final NPL
TXD980864789	MALONE SERVICE CO - SWAN LAKE PLANT	TEXAS CITY	GALVESTON	TX	LOOP 197 S	77590	Multiple, Waste Managemen	Final NPL
TXD007330053	GARLAND CREOSOTING	LONGVIEW	GREGG	TX	3915 GARLAND ROAD	75602	Waste Management	Final NPL
TXD980514814	FRENCH, LTD.	CROSBY	HARRIS	TX	SAN JACINTO RIVER CROSSING	77532	Manufacturing/Processing/	Final NPL
TXD980513956	SIKES DISPOSAL PITS	CROSBY	HARRIS	TX	US HWY 90	77532	Waste Management	Final NPL
TXD980625453	BRIO REFINING, INC.	FRIENDSWOOD	HARRIS	TX	2501 DIXIE FARM ROAD	77089	Waste Management	Final NPL
TXD089793046	DIXIE OIL PROCESSORS, INC.	FRIENDSWOOD	HARRIS	TX	2505 CHOATE RD	77546	Recycling, Recycling, Multi	Deleted NPL
TXN000605460	JONES ROAD GROUND WATER PLUME	HOUSTON	HARRIS	TX	11600 Jones Road	77070	Recycling, Recycling, Recy	Deleted NPL
TXD980873327	SOL LYNN/INDUSTRIAL TRANSFORMERS	HOUSTON	HARRIS	TX	1415, 1417, 1419 S LOOP WEST	77054	Other	Final NPL
TX6213820529	LONGHORN ARMY AMMUNITION PLANT	KARNACK	HARRISON	TX	HWY 43	75670	Multiple, Other, Recycling	Final NPL
TXD007357932	VAN DER HORST USA CORPORATION	TERRELL	KAUFMAN	TX	410 AND 419 EAST GROVE STREET	75160	Manufacturing/Processing/	Final NPL
TXD980873350	PETRO-CHEMICAL SYSTEMS, INC. (TURTLE BAYOU	LIBERTY	LIBERTY	TX	1 MI E OF FM563/7 MI N OF I-10	77575	Manufacturing/Processing/	Final NPL
TX7572024605	AIR FORCE PLANT #4 (GENERAL DYNAMICS)	FORT WORTH	TARRANT	TX	GRANTS LANE	76108	Waste Management	Final NPL
UT0571724350	HILL AIR FORCE BASE	HILL AFB	[Blank County]	UT	00-ALC/EM	84056	Manufacturing/Processing/	Final NPL
UT0001119296	BOUNTIFUL/WOODS CROSS 5TH S. PCE PLUME	BOUNTIFUL	DAVIS	UT	500 SOUTH 800 WEST, BOUNTIFUL/	84010	Manufacturing/Processing/	Final NPL
UTD093119196	PETROCHEM RECYCLING CORP./EKOTEK PLANT	SALT LAKE CITY	SALT LAKE	UT	1628 N CHICAGO ST	84116	Other	Final NPL
UT9210020922	OGDEN DEFENSE DEPOT (DLA)	OGDEN	WEBER	UT	500 WEST 1200 SOUTH	84407	Manufacturing/Processing/	Deleted NPL
UTD000716407	OGDEN RAILROAD YARD	OGDEN	WEBER	UT	305 W 21ST	84401	Other, Other, Manufacturin	Final NPL
VA8800010763	NASA WALLOPS FLIGHT FACILITY	WALLOPS ISLAND	ACCOMACK	VA	32400 FULTON STREET	23337	Other	Pre-proposal
VAD003125374	GREENWOOD CHEMICAL CO.	NEWTOWN	ALBEMARLE	VA	PO BOX 26 OFF STATE RTE 690	22943	Other, Recycling	Not NPL
VAD077923449	KIM-STAN LANDFILL	SELMA	ALLEGHANY	VA	VA ROUTE 696	24474	Manufacturing/Processing/	Final NPL
VA5170000181	ST. JULIENS CREEK ANNEX (U.S. NAVY)	CHESAPEAKE	CHESAPEAKE	VA	VICTORY BOULEVARD	23323	Waste Management	Final NPL
VA3971520751	DEFENSE GENERAL SUPPLY CENTER (DLA)	CHESTERFIELD COUN	CHESTERFIELI	VA	JEFFERSON DAVIS HGY	23237	Manufacturing/Processing/	Final NPL
VAD980539878	H & H INC., BURN PIT	FARRINGTON	HANOVER	VA	10 MILES N RTE 33	23192	Other	Final NPL
VAD980829030	HIDDEN LANE LANDFILL	STERLING	LOUDOUN	VA	OFF OF PERSIMMON LN, ~3/4 MILE I	20165	Waste Management	Final NPL
VA6170061463	NORFOLK NAVAL BASE (SEWELLS POINT NAVAL (NORFOLK	NORFOLK CITY	VA	HELMICK ST	23511	Waste Management	Final NPL
VA1170024813	NORFOLK NAVAL SHIPYARD	PORTSMOUTH	PORTSMOUTH	VA	VICTORY BOULEVARD	23709	Other	Final NPL
VA1170024722	MARINE CORPS COMBAT DEVELOPMENT COMMAND	QUANTICO	PRINCE WILLIA	VA	5TH STREET	22134	Manufacturing/Processing/	Final NPL
VA5170022482	NAVAL AMPHIBIOUS BASE LITTLE CREEK	VIRGINIA BEACH	VIRGINIA BEAC	VA	SHORE DRIVE (U.S. ROUTE 60)	23455	Other	Final NPL
VAD070358684	AVTEX FIBERS, INC.	FRONT ROYAL	WARREN	VA	404 KENDRICK LANE	22630	Manufacturing/Processing/	Final NPL
VAD042916361	ARROWHEAD ASSOCIATES, INC./SCOVILL CORP.	MONTROSS	WESTMORELA	VA	RTE 3	22520	Manufacturing/Processing/	Final NPL
VA2800005033	LANGLEY AIR FORCE BASE/NASA LANGLEY RESE	HAMPTON	YORK	VA	OFF STATE HIGHWAY 187	23665	Other	Final NPL
VA8170024170	NAVAL WEAPONS STATION - YORKTOWN	YORKTOWN	YORK	VA	US NAVAL WEAPONS STA	23690	Manufacturing/Processing/	Final NPL
VID982272569	TUTU WELLFIELD	TUTU	ST. THOMAS	VI	TUTU AREA ANNA'S RETREAT	00801	Other, Other	Final NPL
VTD981064223	BENNINGTON MUNICIPAL SANITARY LANDFILL	BENNINGTON	BENNINGTON	VT	OFF HOUGHTON LANE	05201	Waste Management	Final NPL
VTD000509174	TANSITOR ELECTRONICS, INC.	BENNINGTON	BENNINGTON	VT	WEST RD	05201	Manufacturing/Processing/	Deleted NPL
VTD003965415	BURGESS BROTHERS LANDFILL	WOODFORD	BENNINGTON	VT	RTE 9	05201	Waste Management, Waste	Final NPL
VTD981062441	PARKER SANITARY LANDFILL	LYNDON	CALEDONIA	VT	LILY POND RD.	05849	Waste Management	Final NPL
VTD980523062	PINE STREET CANAL	BURLINGTON	CHITTENDEN	VT	PINE STREET	05401	Manufacturing/Processing/	Final NPL
VTD098352545	COMMERCE STREET PLUME	WILLISTON	CHITTENDEN	VT	96 COMMERCE STREET (FORMLY 15	05495	Manufacturing/Processing/	Final NPL
VTD980520092	BFI SANITARY LANDFILL (ROCKINGHAM)	ROCKINGHAM	WINDHAM	VT	RTE 5	05101	Waste Management	Final NPL
VTD000860239	OLD SPRINGFIELD LANDFILL	SPRINGFIELD	WINDSOR	VT	WILL DEAN RD	05156	Waste Management	Final NPL
WA2890090077	HANFORD 300-AREA (USDOE)	BENTON COUNTY	BENTON	WA	300 AREA	99352	Manufacturing/Processing/	Final NPL
WAD009624453	BOOMSNUB/AIRCO	VANCOUVER	CLARK	WA	7608 NORTHEAST 47TH AVENUE	98661	Manufacturing/Processing/	Final NPL
WA5170090059	NAVAL AIR STATION, WHIDBEY ISLAND (AULT FIEL	WHIDBEY ISLAND	ISLAND	WA	UNSPECIFIED	98278	Other	Final NPL
WAD980638910	MIDWAY LANDFILL	KENT	KING	WA	24800 PACIFIC HWY S.	98031	Waste Management	Final NPL
WAD009487513	WESTERN PROCESSING CO., INC.	KENT	KING	WA	7215 S 196TH ST	98031	Recycling	Final NPL
WAD980511745	QUEEN CITY FARMS	MAPLE VALLEY	KING	WA	S 1/2 SEC 28-MAPLE VALLEY QUAD	98038	Waste Management	Final NPL
WAD009249210	PACIFIC CAR & FOUNDRY CO.	RENTON	KING	WA	1400 N 4TH ST	98055	Manufacturing/Processing/	Final NPL
WAD980722839	HARBOR ISLAND (LEAD)	SEATTLE	KING	WA	MOUTH OF DUWAMISH RIVER	98134	Recycling	Final NPL
WA1170023419	NAVAL UNDERSEA WARFARE ENGINEERING STAT	KEYPORT	KITSAP	WA	HWY 308, E END	98345	Manufacturing/Processing/	Final NPL
WAD980833065	AMERICAN LAKE GARDENS/MCCHORD AFB	TACOMA	PIERCE	WA	555 BARNES BLVD.	98438	Other	Final NPL
WAD980726301	COMMENCEMENT BAY, SOUTH TACOMA CHANNEL	TACOMA	PIERCE	WA	SOUTH TACOMA CHANNEL OF COMI	98402	Recycling, Waste Managen	Final NPL
WA9214053465	FORT LEWIS (LANDFILL NO. 5)	TACOMA	PIERCE	WA	ATTN: AFZH-FEQ	98433	Waste Management	Deleted NPL

WAD009242314	OCCIDENTAL CHEMICAL CORPORATION	TACOMA	PIERCE	WA	605 ALEXANDER AV	98421		Part of NPL S
WAN001001430	SCHNITZER STEEL INDUSTRIES	TACOMA	PIERCE	WA	1902 MARINE VIEW DRIVE	98422	Recycling	Not NPL
WA7210090067	FORT LEWIS LOGISTICS CENTER	TILlicum	PIERCE	WA	T19N R2E SECS 21,22,26,27	98433	Other	Final NPL
WAD980511661	MICA LANDFILL	MICA	SPOKANE	WA	T24N R44E S11,14	99023	Waste Management	Final NPL
WA9571924647	FAIRCHILD AIR FORCE BASE (4 WASTE AREAS)	SPOKANE	SPOKANE	WA	US HIGHWAY 2 W OF SPOKANE	99011	Manufacturing/Processing/	Final NPL
WAD980511778	NORTHSIDE LANDFILL	SPOKANE	SPOKANE	WA	W 5502 NINEMILE RD	99208	Waste Management	Deleted NPL
WAD980514608	GREENACRES LANDFILL	SPOKANE COUNTY	SPOKANE	WA	LIBERTY LK	99019	Waste Management	Final NPL
WID980610646	CITY DISPOSAL CORP. LANDFILL	DUNN	DANE	WI	SAND HILL RD	53575	Waste Management	Final NPL
WID980610604	REFUSE HIDEAWAY LANDFILL	MIDDLETON	DANE	WI	SW1/4 OF NW1/4 SEC8 T7N R8E	53562	Waste Management	Final NPL
WID980610059	HAGEN FARM	STOUGHTON	DANE	WI	2318 COUNTY TRUNK HIGHWAY A	53589	Waste Management	Final NPL
WID006100275	OCONOMOWOC ELECTROPLATING CO., INC.	ASHIPPUN	DODGE	WI	W2573 OAK STREET	53003	Manufacturing/Processing/	Final NPL
WID052906088	HECHIMOVICH SANITARY LANDFILL	WILLIAMSTOWN	DODGE	WI	EAST END OF RAASCH HILL ROAD	53032	Waste Management	Final NPL
WID980610190	RIPON CITY LANDFILL	FOND DU LAC COUNTY	FOND DU LAC	WI	S OF COUNTY HWY FF	54971	Waste Management	Final NPL
WID056247208	LEMBERGER TRANSPORT & RECYCLING	FRANKLIN TOWNSHIP	MANITOWOC	WI	RTE 1 2MI N OF WHITELAW	54247	Waste Management	Final NPL
WID980901243	LEMBERGER LANDFILL, INC.	WHITELAW	MANITOWOC	WI	ROUTE 1 HEMPTON LAKE ROAD	54247	Waste Management, Waste	Final NPL
WID980902969	SPICKLER LANDFILL	SPENCER	MARATHON	WI	ROUTE 2 (ECKES ROAD)	54479	Waste Management	Final NPL
WID980993521	WAUSAU GROUND WATER CONTAMINATION	WAUSAU	MARATHON	WI	S24 & 25 T29N R7E	54401	Other	Final NPL
WID006183826	NORTHERN ENGRAVING CO.	SPARTA	MONROE	WI	803 S BLACK RIVER ST	54656	Waste Management	Deleted NPL
WID980610299	TOMAH ARMORY	TOMAH	MONROE	WI	1MI NE OF LAKE TOMAH	54660	Waste Management	Deleted NPL
WID980616841	TOMAH FAIRGROUNDS	TOMAH	MONROE	WI	1MI S OF LAKE TOMAH	54660	Waste Management	Deleted NPL
WID980610307	TOMAH MUNICIPAL SANITARY LANDFILL	TOMAH	MONROE	WI	WEST 24TH AVENUE	54660	Waste Management	Final NPL
WID980511919	HUNTS DISPOSAL LANDFILL	CALEDONIA	RACINE	WI	CO LINE RD & FOLEY RD	53108	Waste Management	Final NPL
WID000712950	JANESVILLE ASH BEDS	JANESVILLE	ROCK	WI	BLACK BRIDGE RD	53545	Waste Management	Final NPL
WID980614044	JANESVILLE OLD LANDFILL	JANESVILLE	ROCK	WI	BLACK BRIDGE ROAD	53545	Waste Management	Final NPL
WID006073225	KOHLER CO. LANDFILL	KOHLER	SHEBOYGAN	WI	444 HIGHLAND DRIVE	53044	Waste Management	Final NPL
WID980820062	DELAVAN MUNICIPAL WELL #4	DELAVAN	WALWORTH	WI	SOUTH WRIGHT STREET	53115	Other	Final NPL
WID000808568	OMEGA HILLS NORTH LANDFILL	GERMANTOWN	WASHINGTON	WI	W124 N9451 BOUNDARY ROAD	53022	Waste Management	Deleted NPL
WID000713180	MUSKEGO SANITARY LANDFILL	MUSKEGO	WAUKESHA	WI	HIGHWAY 24 & CROWBAR ROAD	53150	Waste Management	Final NPL
WV0170023691	ALLEGANY BALLISTICS LABORATORY (USNAVY)	MINERAL COUNTY	MINERAL	WV	COUNTY RTE 9	26753	Manufacturing/Processing/	Final NPL
WY5571924179	F.E. WARREN AIR FORCE BASE	CHEYENNE	LARAMIE	WY	I-25 AND RANDALL AVE.	82005	Waste Management, Other	Final NPL

Site Type Subcategory	Indian Entity (NAI Status)	HRS Score	Federal Facility Indicator	Alias/Alternative Site Name	Non-NPL Status Date	Superfund Site Profile Page URL
Military/Other Ordinance	Knik Tribe(Current);	45.91	Yes	ELMENDORF AFB, USAF ELMENDORF AIR FORCE	03/01/1981	www.epa.gov/superfund/elmendorf-afb
Industrial waste facility (non-generator)		42.4	Yes	FORT WAINWRIGHT, USARMY-FORT WAINWRIGHT	08/20/1987	www.epa.gov/superfund/fort-wainwright
Industrial waste facility (non-generator)		48.14	Yes	USAF EIELSON AIR FORCE BASE, EIELSON AIR FORCE	06/01/1981	www.epa.gov/superfund/eielson-afb
Chemicals and allied products, Multiple, Multiple, Other			Yes	MARSHALL SPACE FLIGHT CENTER	[Blank Date]	www.epa.gov/superfund/redstone-arsenal
Industrial waste facility (non-generator)			No	REDSTONE ARSENAL (USARMY/NASA), REDSTONE	[Blank Date]	www.epa.gov/superfund/monroe-auto
Co-disposal landfill (municipal and industrial)			No	MONROE AUTO PARTS LANDFILL, MONROE AUTO	06/01/1977	www.epa.gov/superfund/cecil-lindsey
Co-disposal landfill (municipal and industrial)			No	CECIL LINDSEY, DIAZ CITY OF DUMP, CECIL LINDSEY	[Blank Date]	www.epa.gov/superfund/jacksonville-municipal-landfill
Co-disposal landfill (municipal and industrial)		42.79	No	JACKSONVILLE MUNICIPAL LANDFILL, JACKSONVILLE	05/01/1983	www.epa.gov/superfund/hassayampalandfill
Electronic/electrical equipment		40.83	No	HASSAYAMPA/YNX CREEK ABANDON MINES, HASSAYAMPA	01/01/1981	www.epa.gov/superfund/motorola52ndst
Ground water plume site with no identifiable source			No	MOTOROLA, INC. (52ND STREET PLANT), MOTOROLA	[Blank Date]	www.epa.gov/superfund/indianbendwash
Ordnance production	Tohono O'odham	57.8	No	INDIAN BEND WASH AREA	12/01/1979	www.epa.gov/superfund/tucsonairport
Transportation (e.g., railroad yards, airport, barge dock)		50	Yes	TAA HANGARS, TUCSON AIRPORT AREA, TUCSON	12/01/1979	www.epa.gov/superfund/alamedanavalairstation
Co-disposal landfill (municipal and industrial)		35.57	No	ALAMEDA NAVAL AIR STATION, ALAMEDA NAVAL AIR	[Blank Date]	www.epa.gov/superfund/fresnomunicipallandfill
Waste/used oil		43.27	No	FRESNO SANITARY LANDFILL, FRESNO MUNICIPAL	[Blank Date]	www.epa.gov/superfund/purityoil
Trucks/ships/trains/aircraft and related components		33.62	Yes	PURITY OIL SALES, PURITY OIL SALES, INC, PURITY	[Blank Date]	www.epa.gov/superfund/edwardsafb
Ground water plume site with no identifiable source		42.24	No	EDWARDS, EDWARDS-JPL, EDWARDS AIR FORCE	[Blank Date]	www.epa.gov/superfund/sanfemandoglendale
Ground water plume site with no identifiable source		28.9	No	LENDALE OPERABLE UNIT, CRYSTAL SPRING	[Blank Date]	www.epa.gov/superfund/sangabrielpuentevalley
Chemicals and allied products		45.23	No	SAN GABRIEL VALLEY (AREA 4)	[Blank Date]	www.epa.gov/superfund/pemaco
Industrial waste landfill		57.22	No	LONG BEACH SHIPYARD, LONG BEACH NAVAL AIR	04/14/2008	www.epa.gov/superfund/operatingindustries
Industrial waste facility (non-generator)		34.6	No	PEMACO MAYWOOD, PEMACO MAYWOOD	02/10/1995	www.epa.gov/superfund/wastedisposal
Drums/tanks		50	No	OPERATING INDUSTRIES, INC LANDFILL, OPERATING	[Blank Date]	www.epa.gov/superfund/cooperdrum
Industrial waste facility (non-generator)		37.93	Yes	WASTE DISPOSAL, INC, WASTE DISPOSAL, INC.	[Blank Date]	www.epa.gov/superfund/castleafb
Military/Other Ordinance			Yes	COOPER DRUM CO., COOPER DRUM COMPANY, COOPER	[Blank Date]	www.epa.gov/superfund/fortord
Industrial waste facility (non-generator)			Yes	CASTLE AIR FORCE BASE (38 SITES), CASTLE AIR	[Blank Date]	www.epa.gov/superfund/eltorousmc
Military/Other Ordinance		31.94	Yes	FORT ORD, FORT ORD, FORT ORD US ARMY	11/01/1980	www.epa.gov/superfund/marchafb
Trucks/ships/trains/aircraft and related components		28.9	Yes	EL TORO MARINE CORPS AIR STATION, MARINE	[Blank Date]	www.epa.gov/superfund/matherafb
Trucks/ships/trains/aircraft and related components		57.93	Yes	MARCH AFB, MARCH AIR FORCE BASE, MARCH AIR	02/01/1985	www.epa.gov/superfund/mcclellanafb
Industrial waste facility (non-generator)		54.63	No	MATHER AIR FORCE BASE, MATHER AIR FORCE	[Blank Date]	www.epa.gov/superfund/aerojet
Multiple, Trucks/ships/trains/aircraft and related components		39.65	Yes	MCCLELLAN AIR FORCE BASE (GW CONTAM), MCCLELLAN	11/01/1979	www.epa.gov/superfund/nortonafb
Industrial waste facility (non-generator)		33.79	Yes	AEROJET GENERAL CORP, AEROJET GENERAL	04/01/1979	www.epa.gov/superfund/camppendletonusmc
Trucks/ships/trains/aircraft and related components			Yes	NORTON AIR FORCE BASE, NORTON AIR FORCE	08/01/1980	www.epa.gov/superfund/hunterspoint
Military/Other Ordinance, Other		42.24	Yes	MARINE CORPS BASE CAMP PENDLETON, CAMP	[Blank Date]	www.epa.gov/superfund/sharpearmy
Research, development, and testing facility		31.58	Yes	HUNTERS POINT, HUNTERS POINT NAVAL SHIPYARD	01/01/1985	www.epa.gov/superfund/lawrencelivermore300
Industrial waste facility (non-generator)		30	No	SHARPE ARMY DEPOT, SHARPE ARMY DEPOT	11/01/1980	www.epa.gov/superfund/casmalia
Military/Other Ordinance		29.49	Yes	LAWRENCE LIVERMORE LAB SITE 300 (USDOE),	08/01/1980	www.epa.gov/superfund/moffettfield
Electronic/electrical equipment		33.62	No	CASMALIA DISPOSAL CO, CASMALIA DISPOSAL	11/01/1979	www.epa.gov/superfund/ctsprintex
Electronic/electrical equipment		31.94	No	MOFFETT FEDERAL AIRFIELD, MOFFETT NAVAL	11/30/1984	www.epa.gov/superfund/fairchildmountainview
Electronic/electrical equipment		29.76	No	PRINTEX, CTS PRINTEX, INC., C T S PRINTEX, INC	[Blank Date]	www.epa.gov/superfund/intelmountainview
Chemicals and allied products			No	MIDDLEFIELD-ELLIS-WHISMAN STUDY AREA, FAIRCHILD	06/01/1981	www.epa.gov/superfund/jasco
Electronic/electrical equipment		29.76	No	INTEL CORP (MOUNTAIN VIEW PLT), INTEL CORP	[Blank Date]	www.epa.gov/superfund/raytheon
Electronic/electrical equipment		37.2	No	JASCO CHEMICAL CORP (1710 VILLA ST, MT V, S)	[Blank Date]	www.epa.gov/superfund/spectra-physics
Electronic/electrical equipment		35.35	No	RAYTHEON CORP., RAYTHEON CORP, RAYTHEON	08/01/1980	www.epa.gov/superfund/teledyne
Drums/tanks		33.94	No	SPECTRA-PHYSICS, INC, SPECTRA-PHYSICS, INC	04/01/1988	www.epa.gov/superfund/lorentzbarrel-drum
Product storage/distribution			No	TELEDYNE SEMICONDUCTOR	08/01/1980	www.epa.gov/superfund/appliedmaterials
Electronic/electrical equipment		31.94	No	LORENTZ BARREL & DRUM CO, LORENTZ BARREL	[Blank Date]	www.epa.gov/superfund/nationalsemiconductor
Electronic/electrical equipment		35.57	No	VAN WATERS & ROGERS INC SAN JOSE, VAN WATERS	[Blank Date]	www.epa.gov/superfund/synertek
Electronic/electrical equipment		31.94	No	APPLIED MATERIALS	[Blank Date]	www.epa.gov/superfund/advancedmicrodevices
Electronic/electrical equipment		37.93	No	NATIONAL SEMICONDUCTOR CORP., NATIONAL	[Blank Date]	www.epa.gov/superfund/advancedmicrodevices915
Electronic/electrical equipment		31.94	No	SYNERTEK, INC. (BUILDING 1), SYNERTEK, INC (I	[Blank Date]	www.epa.gov/superfund/monolithicmemories
Electronic/electrical equipment		35.57	No	ADVANCED MICRO DEVICES, INC, ADVANCED MICRO	[Blank Date]	www.epa.gov/superfund/philips
Electronic/electrical equipment			No	ADVANCED MICRO DEVICES, INC. (BLDG. 915), A	[Blank Date]	
Electronic/electrical equipment			No	MMI, ADVANCED MICRO DEVICES, INC (ARQUES	08/01/1980	
Electronic/electrical equipment			No	SIGNETICS, INC (811 E ARQUES AVE, SUNNYV, S)	08/01/1980	

Electronic/electrical equipment	31.94	No	AERTECH INDS, T R W MICROWAVE, INC (BUILDI [Blank Date]	www.epa.gov/superfund/trwmicrowave
Electronic/electrical equipment	28.9	No	WATKINS-JOHNSON CO. (STEWART DIVISION PL 07/01/1985	www.epa.gov/superfund/watkins-johnson
Military/Other Ordinance	29.49	Yes	TRAVIS AIR FORCE BASE, TRAVIS AIR FORCE B. [Blank Date]	www.epa.gov/superfund/travisafb
Metal fabrication/finishing/coating and allied industr		No	MGM BRAKES, MGM BRAKES, M G M BRAKES [Blank Date]	www.epa.gov/superfund/mgmbrakes
Product storage/distribution	35.04	No	FRONTIER FERTILIZER, FRONTIER FERTILIZER 08/01/1985	www.epa.gov/superfund/frontierfertilizer
Chemicals and allied products, Multiple, Oil and gas		No	COLORADO ORGANIC CHEM CO, COLORADO OF 03/01/1982	www.epa.gov/superfund/sand-creek-industrial
Co-disposal landfill (municipal and industrial)	48.36	No	LOWRY LANDFILL, DENVER ARAPAHOE DSPL, C 10/01/1978	www.epa.gov/superfund/lowry-landfill
Product storage/distribution	37.93	No	DAHLIA NPL STAGING, CHEMICAL SALES, CHEM 11/03/1986	www.epa.gov/superfund/chemical-sales
Chemicals/chemical waste (e.g., solvent recovery)		No	13TH AVE & SHOSHONE 12/05/2001	
Chemicals/chemical waste (e.g., solvent recovery)		No	ROCKY FLATS INDUSTRIAL PARK, ROCKY FLATS 09/30/1987	
Research, development, and testing facility, Military	42.93	Yes	AIR FORCE PLANT PJKS, MARTIN MARIETTA DEI 11/30/1985	www.epa.gov/superfund/air-force-plant-pjks
Ground water plume site with no identifiable source	39.92	No	KELLOGG-DEERING WELL FIELD [Blank Date]	www.epa.gov/superfund/kellogg
Trucks/ships/trains/aircraft and related components		No	RAYMARK INDUSTRIES, RAYMARK INDUSTRIES, 01/01/1981	www.epa.gov/superfund/raymark
Co-disposal landfill (municipal and industrial)		No	OLD SOUTHLINGTON LANDFILL, OLD SOUTHLINGT 01/01/1980	www.epa.gov/superfund/oldsouthington
Chemicals/chemical waste (e.g., solvent recovery)	44.93	No	SRS, SOLVENTS RECOVERY SERVICE OF NEW I 07/01/1979	www.epa.gov/superfund/srs
Multiple, Co-disposal landfill (municipal and industric	38.05	No	BARKHAMSTED-NEW HARTFORD LANDFILL, BAR [Blank Date]	www.epa.gov/superfund/barkhamsted
Metal fabrication/finishing/coating and allied industr	33.94	No	DURHAM MEADOWS, MERRIAM MFG, DURHAM M 01/01/1981	www.epa.gov/superfund/durham
Co-disposal landfill (municipal and industrial)	46.77	No	BEACON HEIGHTS LANDFILL, BEACON HEIGHTS [Blank Date]	www.epa.gov/superfund/beacon
Industrial waste landfill	50	No	017F, SCOVIL DUMP, SCOVIL INDUSTRIAL LAND [Blank Date]	www.epa.gov/superfund/scovill
Industrial waste facility (non-generator)	36.53	Yes	DOD/USN SB/AREA A LANDFILL #2, US NAVAL S 06/01/1982	www.epa.gov/superfund/newlondon
Industrial waste facility (non-generator)	36.72	No	YAWORSKI WASTE LAGOON, YAWORSKI WASTE [Blank Date]	www.epa.gov/superfund/yaworski
Other	46.29	No	GALLUP'S QUARRY, GALLUP'S QUARRY [Blank Date]	www.epa.gov/superfund/gallup
Electronic/electrical equipment	33.71	No	LINEMASTER SWITCH CORP., LINEMASTER SWIT [Blank Date]	www.epa.gov/superfund/linemaster
Industrial waste facility (non-generator)	35.89	Yes	12/01/1979	www.epa.gov/superfund/doverairforcebase
Coal gasification	35.57	No	DOVER GAS LIGHT CO., DOVER GAS LIGHT CO, [Blank Date]	www.epa.gov/superfund/dovergaslight
Plastics and rubber products	30.55	No	DELAWARE CITY PVC PLANT, DELAWARE CITY F 11/01/1979	www.epa.gov/superfund/delawarecitypvc
Chemicals and allied products	30.9	No	HALBY CHEMICAL, HALBY CHEMICAL CO, HALBY [Blank Date]	www.epa.gov/superfund/halby
Co-disposal landfill (municipal and industrial)		No	TYBOUTS CORNER LANDFILL, NEW CASTLE CO 11/01/1979	www.epa.gov/superfund/tyboutscomer
Co-disposal landfill (municipal and industrial)		No	SUSSEX COUNTY LANDFILL NO. 5, SUSSEX COL 11/01/1979	www.epa.gov/superfund/sussexcounty
Metal fabrication/finishing/coating and allied industr	38.21	No	NCR CORP, MILLSBORO, NCR CORP. (MILLSBOR [Blank Date]	www.epa.gov/superfund/ncrcorp
Multiple, Treatment works/septic tanks/other sewage	35.57	No	HARRIS SEMI CONDUCTOR, HARRIS CORP. / PAL [Blank Date]	www.epa.gov/superfund/harris-corporation-palm
Industrial waste facility (non-generator)		No	DAVIE LANDFILL, BROWARD COUNTY SOLID WA 10/31/1979	www.epa.gov/superfund/davie-landfill
Waste/used oil	50	No	FLORIDA PETROLEUM REPROCESSORS, FLORID 02/15/1996	www.epa.gov/superfund/florida-petroleum-reprocess
Electronic/electrical equipment	44.53	No	HOLLINGSWORTH SOLDERLESS TERM CO, HOLI [Blank Date]	www.epa.gov/superfund/hollingsworth-solderless-terr
Waste/used oil	40.11	No	PEMBROKE RD, PETROLEUM PRODUCTS CORP, 12/01/1982	www.epa.gov/superfund/petroleum-products-corpora
Trucks/ships/trains/aircraft and related components		No	CHEM-FORM INC, CHEMFORM, INC, CHEMFORM, [Blank Date]	www.epa.gov/superfund/chemform-inc.
Fabrics/textiles	50	No	FLASH CLEANERS 08/01/2002	www.epa.gov/superfund/flash-cleaners
Unknown		No	HIPPS ROAD LANDFILL, HIPPS ROAD LANDFILL, [Blank Date]	www.epa.gov/superfund/hipps-road-landfill
Municipal solid waste landfill		No	02/02/2005	www.epa.gov/superfund/jacksonville-ash
Military/Other Ordinance	32.08	Yes	USN NAS JACKSONVILLE, USN NAS JACKSONVIL [Blank Date]	www.epa.gov/superfund/jacksonville-naval-air-station
Chemicals and allied products	70.71	No	KERR-MCGEE CHEMICAL CORP., KERR-MCGEE C [Blank Date]	www.epa.gov/superfund/kerr-mcgee-chemical-llc
Co-disposal landfill (municipal and industrial)	42.94	No	PICKETTVILLE ROAD LANDFILL, PICKETTVILLE I [Blank Date]	www.epa.gov/superfund/picketville-road-landfill
Military/Other Ordinance		Yes	CECIL FIELD NAVAL AIR STATION, CECIL FIELD [Blank Date]	www.epa.gov/superfund/cecil-field
Lumber and wood products/wood preserving/treatr	58.41	No	AMERICAN CREOSOTE WORKS (PENSACOLA PL [Blank Date]	www.epa.gov/superfund/american-creosote-works-pe
Trucks/ships/trains/aircraft and related components	42.4	Yes	USN NAVAL AIR STATION PENSACOLA, PENSAC [Blank Date]	www.epa.gov/superfund/naval-air-station-pensacola
Industrial waste facility (non-generator)	38.93	No	SYDNEY MINE SLUDGE PONDS, SYDNEY MINE S 02/01/1985	www.epa.gov/superfund/sydney-mine-sludge
Electronic/electrical equipment	50	No	JJ SEIFERT MACHINE 01/01/2008	www.epa.gov/superfund/jj-seifert-machine
Co-disposal landfill (municipal and industrial)	51.37	No	TAYLOR RD LANDFILL, TAYLOR ROAD LANDFILL [Blank Date]	www.epa.gov/superfund/taylor-road-landfill
Ground water plume site with no identifiable source	41.91	No	ALARIC INCORPORATED, ALARIC INCORPORATE 10/06/1988	www.epa.gov/superfund/alaric-area-groundwater-plu
Drums/tanks, Waste/used oil, Multiple	58.15	No	PEAK OIL CO./BAY DRUM CO., AREA-WIDE GROU [Blank Date]	www.epa.gov/superfund/peak-oil-bay-drum
Trucks/ships/trains/aircraft and related components	31.13	No	VERO BEACH WELLFIELD, PIPER AIRCRAFT COF [Blank Date]	www.epa.gov/superfund/piper-aircraft-corp
Metal fabrication/finishing/coating and allied industr		No	ITT THOMPSON INDUSTRIES, INC. 04/10/2003	www.epa.gov/superfund/itt-thompson-industries
Co-disposal landfill (municipal and industrial)	37.93	No	MADISON COUNTY SANITARY LANDFILL, MADISC 02/06/1986	www.epa.gov/superfund/madison-county-sanitary-lan
Electronic/electrical equipment	50	No	SOLITRON MICROWAVE, SOLITRON MICROWAVE 07/01/1980	www.epa.gov/superfund/solitron-microwave
Chemicals and allied products		No	B&B CHEMICAL CO., INC, B&B CHEMICAL CO., IN 10/10/1985	www.epa.gov/superfund/b-and-b-chemical-co
Municipal solid waste landfill		No	NORTHWEST 58TH STREET LANDFILL, NORTHWIL [Blank Date]	www.epa.gov/superfund/northwest-th-street

Metal fabrication/finishing/coating and allied industr	42.47	No	AIRCO PLATING CO., AIRCO PLATING CO INC, AI [Blank Date]	www.epa.gov/superfund/airco-plating-company
Metal fabrication/finishing/coating and allied industr		No	ANACONDA/MILGO (N. MIAMI), MILGO ELECTRON [Blank Date]	www.epa.gov/superfund/anaconda-aluminum-co
Retail/commercial	50	No	CONTINENTAL CLEANERS [Blank Date]	www.epa.gov/superfund/continental-cleaners
Drums/tanks	53.56	No	MIAMI DRUM SERVICES, MIAMI DRUM SERVICES 10/31/1979	www.epa.gov/superfund/miami-drum-services
Other	31.03	No	ANODYNE, INC., ANODYNE, INC, ANODYNE, INC, [Blank Date]	www.epa.gov/superfund/anodyne-inc.
Other, Chemicals/chemical waste (e.g., solvent recc	32	No	CITY INDUSTRIES, INC, CITY INDUSTRIES, CITY ([Blank Date]	www.epa.gov/superfund/city-industries-inc
Other		No	02/02/2005	www.epa.gov/superfund/former-spellman-engineering
Metal fabrication/finishing/coating and allied industr		No	LIONHEART INDUSTRIES ORLANDO PLATING ER 10/11/2019	
Electronic/electrical equipment		No	SOLITRON DEVICES INC 04/10/2003	www.epa.gov/superfund/solitron-devices
Electronic/electrical equipment	50	No	FORMER MCWHORTER PROPERTY, GOULD PRO [Blank Date]	www.epa.gov/superfund/general-dynamics-longwood
Electronic/electrical equipment		No	SPRAGUE ELECTRIC COMPANY 03/29/2004	www.epa.gov/superfund/sprague-electric-company
Other	50	No	SANFORD DRY CLEANERS 01/21/2009	www.epa.gov/superfund/sanford-dry-cleaners
Industrial waste facility (non-generator)	39.83	No	SHERWOOD MEDICAL INDUSTRIES, SHERWOOD [Blank Date]	www.epa.gov/superfund/sherwood-medical-industries
Multiple, Product storage/distribution, Other		Yes	USMC LOGISTICS BASE 555, USMC LOGISTICS B [Blank Date]	www.epa.gov/superfund/marine-corps-logistics-base
Industrial waste facility (non-generator)	51.66	Yes	ROBINS AIR FORCE BASE (LANDFILL #4), USAF I [Blank Date]	www.epa.gov/superfund/robins-air-force
Co-disposal landfill (municipal and industrial)		No	POWERSVILLE SITE, POWERSVILLE SITE, POWI 11/30/1979	www.epa.gov/superfund/powersville-site
Industrial waste facility (non-generator)	50	No	ALTERNATE ENERGY RESOURCES INC, ALTERN 07/01/1980	www.epa.gov/superfund/alternate-energy-resources
Industrial waste landfill	30.78	No	MATHIS BROTHERS LANDFILL (SOUTH MARBLE [Blank Date]	www.epa.gov/superfund/mathis-brothers-landfill
Military/Other Ordinance		Yes	SCHOFIELD BARRACKS (USARMY), SCHOFIELD I [Blank Date]	www.epa.gov/superfund/schofieldbarracks
Coal gasification	69.33	No	INTERSTATE POWER COAL GAS (FINDS), MASO [Blank Date]	www.epa.gov/superfund/masoncitycoal
Plastics and rubber products		No	AMERICAN CAN CHEMICAL COMPANY, NORTHEF 06/22/2011	www.epa.gov/superfund/chemplexco
Industrial waste facility (non-generator)		No	SHAW AVENUE DUMP 05/01/1981	www.epa.gov/superfund/shawavenuedump
Metal fabrication/finishing/coating and allied industr		No	NORTH FARM SLUDGE SITE SS#07A2, SMITH-JO [Blank Date]	www.epa.gov/superfund/midwestmanufacturingnorth
Industrial waste landfill		No	RALSTON SITE 08/12/2001	www.epa.gov/superfund/ralston
Ground water plume site with no identifiable source	42.28	No	DES MOINES PUBLIC SCHOOL (FINDS), TUTTLE [Blank Date]	www.epa.gov/superfund/desmoinesce
Ground water plume site with no identifiable source	50	No	RAILROAD AVENUE GROUNDWATER CONTAMIN 10/04/1996	www.epa.gov/superfund/railroadavenuegroundwater
Metal fabrication/finishing/coating and allied industr		No	ALCOA, ALUMINUM CO OF AM DVNPT WORKS (F 11/08/2005	www.epa.gov/superfund/alcoadavenport
Metal fabrication/finishing/coating and allied industr		No	GENERAL MOTORS CORP ROCHESTER (FINDS), 11/05/2015	www.epa.gov/superfund/generalmotorssc
Co-disposal landfill (municipal and industrial)	34.21	No	ADAMS COUNTY QUINCY LANDFILL SITE 2 & 3, [Blank Date]	www.epa.gov/superfund/adams-county-landfills
Municipal solid waste landfill		No	BELVIDERE MUNICIPAL LANDFILL, BELVIDERE M [Blank Date]	www.epa.gov/superfund/belvidere-municipal-landfill
Co-disposal landfill (municipal and industrial)	49.91	No	M I G / DEWANE LANDFILL, MIG/DEWANE LANDF 04/01/1979	www.epa.gov/superfund/mig-dewane-landfill
Illegal disposal/open dump	30	No	HAAS INC, PROFESSIONAL CONSTRUCTION, LAI [Blank Date]	www.epa.gov/superfund/lake-calumet-cluster
Product storage/distribution	42.33	No	LENZ OIL SERVICE INC, LENZ OIL SERVICE INC, 01/31/1984	www.epa.gov/superfund/lenz-oil
Co-disposal landfill (municipal and industrial)		No	DU PAGE COUNTY LDFL/BLACKW, BLACKWELL I [Blank Date]	www.epa.gov/superfund/dupage-county-landfill
Co-disposal landfill (municipal and industrial)	42.76	No	TRI COUNTY LDFL WASTE MGMT OF IL, TRI COU 04/01/1979	www.epa.gov/superfund/tri-county-waste-mgmt
Drums/tanks	42.04	No	CROSS BROTHERS PAIL RECYCLING (PEMBROK 03/31/1980	www.epa.gov/superfund/cross-brothers-recycling
Electronic/electrical equipment	42.06	No	LASALLE ELECTRIC UTILITIES, LASALLE ELECT 02/01/1981	www.epa.gov/superfund/lasalle-electric
Co-disposal landfill (municipal and industrial)	34.68	No	CCD DISPOSAL, H O D LDFL, H O D LANDFILL, H. 05/31/1981	www.epa.gov/superfund/hod-landfill
Co-disposal landfill (municipal and industrial)		No	WAUCONDA SAND & GRAVEL, WAUCONDA SAND 03/31/1979	www.epa.gov/superfund/wauconda-sand-gravel
Metal fabrication/finishing/coating and allied industr		No	OMC-JOHNSON, OMC WAUKEGAN, OUTBOARD M 08/01/1980	www.epa.gov/superfund/outboard-marine-corp
Municipal solid waste landfill	33.23	No	YEOMAN CREEK LDFL, YEOMAN CREEK LDFL, Y [Blank Date]	www.epa.gov/superfund/yeoman-creek-landfill
Co-disposal landfill (municipal and industrial)	50.1	No	WOODSTOCK MUNICIPAL LDFL, WOODSTOCK M 06/01/1981	www.epa.gov/superfund/woodstock-muni-landfill
Other	33.93	No	BYRON JOHNSON, BYRON SALVAGE YARD, BYF [Blank Date]	www.epa.gov/superfund/byron-salvage-yard
Industrial waste landfill	43.7	Yes	US DOI SANGAM CRAV ORCH NWR, ORDILL WAT 04/01/1979	www.epa.gov/superfund/sangamo-dump-craborcharc
Chemicals/chemical waste (e.g., solvent recovery)	31.98	No	ACME SOLVENT RECLAIMING(MORRISTOWN PL [Blank Date]	www.epa.gov/superfund/acme-solvent-reclaiming
Industrial waste facility (non-generator)	46.01	No	INTERSTATE POLLUTION CONTROL INC, ROTO F 03/31/1981	www.epa.gov/superfund/interstate-pollution-control
Co-disposal landfill (municipal and industrial)	45.91	No	PAGEL'S PIT, PAGEL'S PIT, PAGELS PIT, PAGEL [Blank Date]	www.epa.gov/superfund/pagels-pit
Ground water plume site with no identifiable source		No	SOUTHEAST ROCKFORD DRY WELL, SE ROCKFC 02/01/1985	www.epa.gov/superfund/southeast-rockford-groundw
Ground water plume site with no identifiable source		No	EVERGREEN MANOR GROUND WATER CONTAMI 08/02/1991	www.epa.gov/superfund/evergreen-manor-groundwa
Multiple, Chemicals/chemical waste (e.g., solvent re	46.44	No	ECC, ENVIROCHEM CORP, ENVIROCHEM CORP., 03/31/1979	www.epa.gov/superfund/envirochem-corp
Co-disposal landfill (municipal and industrial)	46.04	No	NORTHSIDE SANITARY LDFL, NORTHSIDE SANIT 04/01/1979	www.epa.gov/superfund/northside-landfill
Fabrics/textiles		No	10/21/2010	
Transportation (e.g., railroad yards, airport, barge d	42.24	No	CONRAIL RAILYARD ELKHART, CONRAIL RAIL Y [Blank Date]	www.epa.gov/superfund/conrail-railyard-elkhart
Co-disposal landfill (municipal and industrial)		No	HIMCO DUMP, HIMCO DUMP, HIMCO DUMP [Blank Date]	www.epa.gov/superfund/himco-dump
Ground water plume site with no identifiable source	40.53	No	LANE STREET GROUNDWATER CONTAMINATION 09/25/2007	www.epa.gov/superfund/lane-street-groundwater
Ground water plume site with no identifiable source	42.49	No	MAIN STREET WELL FIELD, MAIN STREET WELL [Blank Date]	www.epa.gov/superfund/main-street-wellfield

Unknown	No	FOUR COUNTY LDFL, FOUR CO LANDFILL	11/03/2014	
Industrial waste landfill	35.25 No	MARION (BRAGG) DUMP, MARION BRAGG LANDF	[Blank Date]	www.epa.gov/superfund/marion-bragg-dump
Batteries/scrap metals/secondary smelting/precious	31.85 No	CONTINENTAL STEEL CORP, CONTINENTAL STE	12/01/1983	www.epa.gov/superfund/continental-steel
Unknown	No	SEYMOUR, SEYMOUR RECYCLING CORP, SEYM	[Blank Date]	www.epa.gov/superfund/seymour-recycling
Co-disposal landfill (municipal and industrial)	34.1 No	LAKELAND DISPOSAL SERV INC, LAKELAND DIS	07/31/1980	www.epa.gov/superfund/lakeland-disposal
Waste/used oil	58.91 No	CAM-OR INC., CAM-OR INC., CAM-OR INC, WESTV	08/01/1980	www.epa.gov/superfund/camor-inc
Chemicals/chemical waste (e.g., solvent recovery)	46.44 No	MIDCO I, MIDCO I SITE, MIDCO I SITE, MIDWEST	01/01/1975	www.epa.gov/superfund/midco-i
Chemicals/chemical waste (e.g., solvent recovery)	30.16 No	MIDCO II, MIDCO II, MIDCO II	08/01/1982	www.epa.gov/superfund/midco-ii
Illegal disposal/open dump	40.32 No	NINTH AVENUE DUMP, NINTH AVENUE DUMP	[Blank Date]	www.epa.gov/superfund/ninth-avenue-dump
Illegal disposal/open dump	No		08/30/2012	
Chemicals/chemical waste (e.g., solvent recovery)	34.98 No	AMERICAN CHEMICAL SERVICE INC, AMERICAN	[Blank Date]	www.epa.gov/superfund/american-chemical-service
Ground water plume site with no identifiable source	50 No	KEYSTONE CORRIDOR GROUND WATER CONTA	03/31/2009	www.epa.gov/superfund/keystone-corridor-groundwa
Fabrics/textiles	No		12/20/2010	
	Yes	NAVAL AIR WARFARE CENTER, NAVAL AVIONIC	07/09/2003	
Ground water plume site with no identifiable source	No	WEST VERMONT STREET WATER CONTAMINATI	05/22/2018	www.epa.gov/superfund/west-vermont-water
Spill or other one-time event, Ground water plume s	50 No	MASTER WEAR, MASTER WEAR, PIKE AND MULI	01/21/2003	www.epa.gov/superfund/pike-mulberry-pce
Industrial waste landfill	No	DOUGLASS ROAD/UNIROYAL, INC., LANDFILL, D	06/01/1981	www.epa.gov/superfund/douglas-road-uniroyal
Trucks/ships/trains/aircraft and related components	No	WHITEFORD SALES & SERV NAT LEASE, WHITEI	[Blank Date]	www.epa.gov/superfund/whiteford-sales-service
Industrial waste facility (non-generator)	42.33 No	WAYNE WASTE OIL, WAYNE RECLAMATION, WA	[Blank Date]	www.epa.gov/superfund/wayne-waste-oil
Ground water plume site with no identifiable source	33.62 No	GE ENGINE SERVICES LLC STROTHER, STROTH	[Blank Date]	www.epa.gov/superfund/strotherfieldindustrial
Military/Other Ordinance	33.79 Yes	FORT RILEY, CAMP FUNSTON, FT RILEY, RILEY	(08/01/1984	www.epa.gov/superfund/fortriley
Chemicals/chemical waste (e.g., solvent recovery)	50 No	CHEMICAL COMMODITIES, INC, CHEMICAL COM	[Blank Date]	www.epa.gov/superfund/chemicalcommoditiesinc
Industrial waste landfill	33.62 No	FARMLAND INDUSTRIES INC, OBEE ROAD, MUNI	[Blank Date]	www.epa.gov/superfund/obeeroad
Ground water plume site with no identifiable source	No	COLEMAN OPERABLE UNIT, 29TH & MEAD GROU	12/31/1995	www.epa.gov/superfund/29thandmead
Ground water plume site with no identifiable source	50 No	WICHITA HEIGHTS, 57TH AND N. BROADWAY STI	02/04/1987	www.epa.gov/superfund/57thandbroadway
Multiple, Drums/tanks, Industrial waste facility (non-ç	No	TAYLOR A L SITE, A.L. TAYLOR (VALLEY OF DRI	[Blank Date]	www.epa.gov/superfund/al-taylor-valley-of-drums
Other	32.69 No	SMITH'S FARM, SMITH'S FARM BROOKS, SMITH'S	[Blank Date]	www.epa.gov/superfund/smith
Industrial waste landfill	33.82 No	TRI-CITY DISPOSAL CO, TRI-CITY DISPOSAL CO.	[Blank Date]	www.epa.gov/superfund/tri-city-disposal
Radioactive waste treatment, storage, disposal (nor	31.71 No	MAXEY FLATS NUCLEAR DISPOSAL, MAXEY FLA	11/01/1979	www.epa.gov/superfund/maxey-flats-nuclear
Industrial waste facility (non-generator)	44.77 No	DISTLER BRICKYARD, DISTLER BRICKYARD, DIS	11/01/1979	www.epa.gov/superfund/distler-brickyard
Electronic/electrical equipment	50 No	NATIONAL ELECTRIC SERVICE SITE, NATIONAL	[Blank Date]	www.epa.gov/superfund/national-electric-coil-cooper
Industrial waste facility (non-generator)	33.01 No	BF GOODRICH, B.F. GOODRICH (CALVERT CITY),	11/01/1979	www.epa.gov/superfund/bf-goodrich
Radioactive products	56.95 Yes	US DOE PADUCAH GAS DIFFUSION PLANT, US D	02/12/1988	www.epa.gov/superfund/paducah-gaseous-diffusion
Other	No		02/14/2022	
Waste/used oil	33.79 No	DUBOSE OIL PRODUCTS CO INC, DUBOSE WAST	11/01/1979	www.epa.gov/superfund/combustion
Transportation (e.g., railroad yards, airport, barge d	No	GULF COAST VACUUM SERVICES, GULF COAST	07/01/1980	www.epa.gov/superfund/gulf-coast-vacuum
Industrial waste facility (non-generator) Wampanoag Tribe of	Yes	OTIS AIR NATIONAL GUARD BASE/CAMP EDWAF	06/01/1981	www.epa.gov/superfund/jbcc
Industrial waste facility (non-generator)	33.03 No	ROSE DISPOSAL PIT	[Blank Date]	www.epa.gov/superfund/ftrose
Metal fabrication/finishing/coating and allied industr Wampanoag Tribe of	58.3 No	WALTON & LONSBURY INC, WALTON & LONSBUI	06/01/1981	www.epa.gov/superfund/walton
Chemicals/chemical waste (e.g., solvent recovery)	47.71 No	RE-SOLVE, INC., RE-SOLVE, INC.	11/01/1980	www.epa.gov/superfund/resolve
Lumber and wood products/wood preserving/treatr	No	01X3, HATHEWAY AND PATTERSON COMPANY	12/28/1993	www.epa.gov/superfund/hatheway
Co-disposal landfill (municipal and industrial)	No	SHPACK LANDFILL, SHPACK LANDFILL, SHPACK	11/01/1979	www.epa.gov/superfund/shpack
Ground water plume site with no identifiable source	40.74 No	GROVELAND WELLS	[Blank Date]	www.epa.gov/superfund/groveland
Waste/used oil	38.66 No	PSC RESOURCES	11/01/1980	www.epa.gov/superfund/psc
Chemicals and allied products, Batteries/scrap metæ	59.31 No	W. R. GRACE & CO., INC., W.R. GRACE & CO INC	[Blank Date]	www.epa.gov/superfund/graceacton
Chemicals and allied products	69.22 No	NYANZA CHEMICAL WASTE DUMP, NYANZA CHE	01/01/1980	www.epa.gov/superfund/nyanza
Transportation (e.g., railroad yards, airport, barge d	50 Yes	INDUSTRIAL WASTE TREATMENT SYSTEM, SITE	[Blank Date]	www.epa.gov/superfund/hanscom
Electronic/electrical equipment	50 Yes	NAVAL WEAPONS INDUSTRIAL RESERVE PLANT	09/05/1989	www.epa.gov/superfund/nwirp
Industrial waste facility (non-generator)	42.93 No	IRON HORSE PARK /R S I INC DUMP, IRON HORS	09/01/1984	www.epa.gov/superfund/ironhorse
Multiple, Radioactive products, Metal fabrication/fini	58.31 No	STARMET, NUCLEAR METALS INC, NUCLEAR ME	03/01/1980	www.epa.gov/superfund/nmi
Co-disposal landfill (municipal and industrial)	42.24 Yes	01F3, FT DEVENS, FORT DEVENS, US ARMY WAI	05/01/1984	www.epa.gov/superfund/devens
Multiple, Chemicals/chemical waste (e.g., solvent re	42.72 No	SILRESIM CHEMICAL CORP., SILRESIM CHEMICA	01/01/1978	www.epa.gov/superfund/silresim
Industrial waste facility (non-generator)	57.12 No	ROCCOS DISPOSAL, SUTTON BROOK DISPOSAL	06/01/1979	www.epa.gov/superfund/suttonbrook
Co-disposal landfill (municipal and industrial)	47.2 No	CHARLES-GEORGE RECLAMATION TRUST LAND	01/01/1978	www.epa.gov/superfund/charlesgeorge
Chemicals and allied products	No	MARK PHILLIP TRUST, INDUSTRI-PLEX, INDUSTF	07/01/1979	www.epa.gov/superfund/industrplex
Ground water plume site with no identifiable source	42.71 No	WELLS G&H	12/01/1979	www.epa.gov/superfund/wellsgh

Chemicals and allied products	66.35	No	BAIRD & MCGUIRE	03/01/1982	www.epa.gov/superfund/baird
Electronic/electrical equipment		No	NORWOOD PCBS, 0151, DEAN ST SITE, GRANT ([Blank Date]	www.epa.gov/superfund/norwood
Co-disposal landfill (municipal and industrial)		Yes	SOUTH WEYMOUTH NAVAL AIR STATION, NAVAL	10/11/1988	www.epa.gov/superfund/sweymouth
Chemicals/chemical waste (e.g., solvent recovery), I		No	CANNON ENGINEERING CORP. (CEC), CANNONS	[Blank Date]	www.epa.gov/superfund/cannon
Industrial waste facility (non-generator)		Yes	FORT GEORGE G. MEADE, USA FORT GEORGE I	[Blank Date]	www.epa.gov/superfund/ftmeade
Industrial waste facility (non-generator), Co-disposa	50	No	68TH STREET DUMP/INDUSTRIAL ENTERPRISES	04/29/2003	www.epa.gov/superfund/68thstreet
Industrial waste facility (non-generator), Illegal disp	30.15	No	KANE & LOMBARD STREET DRUMS	[Blank Date]	www.epa.gov/superfund/kanelombard
Co-disposal landfill (municipal and industrial)	48.13	No	WOODLAWN COUNTY LANDFILL, WOODLAWN TF	04/01/1979	www.epa.gov/superfund/woodlawn
Other	41.08	No	SAND, GRAVEL & STONE, ELKTON QUARRY, SA	03/01/1982	www.epa.gov/superfund/sandgravelstone
Chemicals/chemical waste (e.g., solvent recovery)	51.42	No	SPECTRON, INC, GALAXY CHEMICAL, SPECTRO	07/01/1979	www.epa.gov/superfund/spectron
Ordnance production	32.15	No	MECHANICS VALLEY ORDINANCE SITE, ORDNA	04/07/1988	www.epa.gov/superfund/ordnanceproducts
Ordnance production	50	Yes	NAVAL ORDNANCE STATION - INDIAN HEAD, NA	01/01/1980	www.epa.gov/superfund/indianhead
Industrial waste landfill	31.09	Yes	ABERDEEN PROVING GROUND (MICHAELSVILLE	05/01/1981	www.epa.gov/superfund/aberdeenprovingground-mix
Co-disposal landfill (municipal and industrial)	40.3	No	BUSH VALLEY LANDFILL, HARRIS LANDFILL, BU	[Blank Date]	www.epa.gov/superfund/bushvalley
Ordnance production	53.57	Yes	USA ABERDEEN PROVING GROUND, USA EDGE	01/24/1980	www.epa.gov/superfund/aberdeenprovingground-ed
Research, development, and testing facility, Military		Yes	NSWC - WHITEOAK *, USN NAVAL SURFACE WE	05/12/2010	
Transportation (e.g., railroad yards, airport, barge d	50	Yes	USAF ANDREWS AIR FORCE BASE, USAF SANIT	[Blank Date]	www.epa.gov/superfund/andrewsafb
Other	50.15	Yes	BRANDYWINE DRMO, BRANDYWINE DEF. PROPE	[Blank Date]	www.epa.gov/superfund/brandywine
Other, Co-disposal landfill (municipal and industrial),	50	Yes	PATUXENT RIVER NAVAL AIR STATION, USN NA	[Blank Date]	www.epa.gov/superfund/patuxentrivemavalairstation
Military/Other Ordinance		Yes	US ARMY - FORT RICHIE, FORT RICHIE *, US AR	05/07/2009	
Military/Other Ordinance	34.49	Yes	FIRE TRAINING AREA, LORING AIR FORCE BASE	06/01/1981	www.epa.gov/superfund/loring
Other	43.38	Yes	U S NAVY NAS, BRUNSWICK NAVAL AIR STATIO	06/01/1981	www.epa.gov/superfund/brunswick
Waste/used oil, Multiple, Industrial waste facility (no		No	MCKIN CO., MCKIN CO., MCKIN CO	[Blank Date]	www.epa.gov/superfund/mckin
Retail/commercial, Product storage/distribution		No	BENTON HARBOR RADIATION SITE, AIRCRAFT C	[Blank Date]	www.epa.gov/superfund/aircraft-components
Metal fabrication/finishing/coating and allied industr	35.36	No	ELECTRO VOICE INC, ELECTROVOICE, ELECTR	[Blank Date]	www.epa.gov/superfund/electrovoice
Trucks/ships/trains/aircraft and related components	37.27	No	BENDIX CORP/ALLIED AUTOMOTIVE, BENDIX CC	[Blank Date]	www.epa.gov/superfund/bendix-corp-allied-automotiv
Metal fabrication/finishing/coating and allied industr	33.93	No	BRONSON PLATING CO, NORTH BRONSON IND	[Blank Date]	www.epa.gov/superfund/north-bronson-industrial
Metal fabrication/finishing/coating and allied industr		No	FORMER NORTH BRONSON SITE	09/30/2018	www.epa.gov/superfund/north-bronson-industrial-sut
Ground water plume site with no identifiable source	46.86	No	THOMAS SOLVENT - CELLO FOIL, VERONA WEL	09/01/1981	www.epa.gov/superfund/verona-wellfield
Chemicals and allied products	33.66	No	US AVIEX, U S AVIEX, U.S. AVIEX, U.S. AVIEX, U	[Blank Date]	www.epa.gov/superfund/us-aviex
Ground water plume site with no identifiable source	38.43	No	CLARE MUNI WELL FIELD, CLARE WATER SUPPL	[Blank Date]	www.epa.gov/superfund/clare-water-supply
Metal fabrication/finishing/coating and allied industr Little Traverse Bay	42.68	No	PETOSKEY MUNICIPAL WELL FIELD, PETOSKEY	04/01/1979	www.epa.gov/superfund/pmc-groundwater
Industrial waste facility (non-generator)	38.64	No	FOREST WASTE PRODUCTS, FOREST WASTE DI	[Blank Date]	www.epa.gov/superfund/forest-waste-products
Industrial waste facility (non-generator)		No	BERLIN & FARRO, BERLIN & FARRO LIQUID INCII	[Blank Date]	www.epa.gov/superfund/berlin-farro
Other	29.54	No	GRATIOT COUNTY GOLF COURSE, GRATIOT COI	06/01/1981	www.epa.gov/superfund/velsicol-bumpit
Chemicals and allied products	52.29	No	VELSICOL CHEMICAL CORP.(MICHIGAN), VELSIC	07/01/1978	www.epa.gov/superfund/velsicol-chemical-michigan
Other		No	MOTOR WHEEL, MOTOR WHEEL OLD DSPL SITE	[Blank Date]	www.epa.gov/superfund/motor-wheel
Co-disposal landfill (municipal and industrial)	31.31	No	IONIA CITY LANDFILL, IONIA CITY LDFL, IONIA C	[Blank Date]	www.epa.gov/superfund/ionia-city-landfill
Metal fabrication/finishing/coating and allied industr	37.29	No	HEDBLUM INDUSTRIES, HEDBLUM INDUSTRIES	11/30/1981	www.epa.gov/superfund/hedblum-industries
Military/Other Ordinance	50	Yes	US AIR FORCE WURTSMITH AFB, WURTSMITH AI	[Blank Date]	www.epa.gov/superfund/wurtsmith-airbase
Industrial waste facility (non-generator)	32.07	No	AUTO ION CHEMICALS INC, AUTO ION CHEMICAL	[Blank Date]	www.epa.gov/superfund/auto-ion-chemicals
Co-disposal landfill (municipal and industrial)	38.1	No	K&L AVENUE LANDFILL, K & L AVENUE LANDFIL	[Blank Date]	www.epa.gov/superfund/kl-avenue-landfill
Other	40.7	No	ROTO FINISH CO, ROTO-FINISH CO., INC., ROTO-	09/01/1979	www.epa.gov/superfund/roto-finish
Industrial waste landfill	50.31	No	BUTTERWORTH #2 LDFL SITE, BUTTERWORTH #	[Blank Date]	www.epa.gov/superfund/butterworth2-landfill
Batteries/scrap metals/secondary smelting/precious	39.88	No	H. BROWN CO., INC., H. BROWN CO., INC., BROW	07/31/1980	www.epa.gov/superfund/hbrown-co
Chemicals and allied products, Chemicals/chemical	32.93	No	ORGANIC CHEM INC, ORGANIC CHEMICALS, INC	[Blank Date]	www.epa.gov/superfund/organic-chemicals
Co-disposal landfill (municipal and industrial)	35.39	No	KENTWOOD LANDFILL, KENTWOOD LDFL, KENT	12/11/1980	www.epa.gov/superfund/kentwood-landfill
Chemicals and allied products	41.05	No	SPARTAN CHEMICAL CO., SPARTAN CHEM CO, S	04/01/1979	www.epa.gov/superfund/spartan-chemical
Product storage/distribution	38.2	No	CHEM-CENTRAL, CHEM-CENTRAL, CHEM CENTR	[Blank Date]	www.epa.gov/superfund/chem-central
Industrial waste landfill	35.51	No	METAMORA LANDFILL, METAMORA LDFL, KUX M	12/11/1980	www.epa.gov/superfund/metamora-landfill
Retail/commercial	35.53	No	GRAND TRAVERSE OVERALL SUPPLY CO., GRA	07/01/1982	www.epa.gov/superfund/grand-traverse-overall
Industrial waste landfill	31.8	No	RASMUSSEN'S DUMP, RASMUSSEN'S DUMP, RA	[Blank Date]	www.epa.gov/superfund/rasmussens-dump
Industrial waste landfill		No	SPIEGELBERG LANDFILL, SPIEGELBERG LDFL,	[Blank Date]	www.epa.gov/superfund/spiegelberg-landfill
Co-disposal landfill (municipal and industrial)	33.67	No	SOUTH MACOMB DISPOSAL AUTHORITY (LANDF	12/01/1979	www.epa.gov/superfund/south-macomb-landfills
Industrial waste facility (non-generator)	49.09	No	G & H IND LDFL, G&H LANDFILL, G & H LDFL, G&	01/01/1979	www.epa.gov/superfund/gh-landfill
Co-disposal landfill (municipal and industrial)		No	MASON COUNTY LDFL, MASON COUNTY LDFL, M	[Blank Date]	www.epa.gov/superfund/mason-county-landfill

Chemicals and allied products	53.41	No	OTT STORY CORDOVA CHEMICAL, CORDOVA CHEMICAL CO. [Blank Date]	www.epa.gov/superfund/ott-story-cordova
Metal fabrication/finishing/coating and allied industrial	43.94	No	PEERLESS PLATING CO., PEERLESS PLATING CO. [Blank Date]	www.epa.gov/superfund/peerless-plating
Chemicals/chemical waste (e.g., solvent recovery)	53.36	No	THERMO CHEM INC, THERMO CHEM INC, THERMO CHEMICAL CO. [Blank Date]	www.epa.gov/superfund/thermo-chem
Metal fabrication/finishing/coating and allied industrial	49.54	No	HI-MILL MFG CO, HI-MILL MANUFACTURING CO., 12/01/1979	www.epa.gov/superfund/hi-mill-manufacturing
Illegal disposal/open dump	50.92	No	ROSE TOWNSHIP DUMP, DORSEY DUMP, ROSE TOWNSHIP DUMP [Blank Date]	www.epa.gov/superfund/rose-township-dump
Ground water plume site with no identifiable source	42.24	No	STURGIS MUNICIPAL WELLS, STURGIS MUNICIPAL WELLS [Blank Date]	www.epa.gov/superfund/sturgis-muni-wells
Industrial waste facility (non-generator)		No	SOUTH ANDOVER SITES, HIDELBERGER CECIL I [Blank Date]	www.epa.gov/superfund/south-andover
Co-disposal landfill (municipal and industrial)		No	EAST BETHEL DEMOLITION LDFL, EAST BETHEL DEMOLITION LDFL [Blank Date]	www.epa.gov/superfund/east-bethel-landfill
Industrial waste landfill		No	OAK GROVE SANITARY LDFL, OAK GROVE SANITARY LDFL [Blank Date]	www.epa.gov/superfund/oak-grove-landfill
Municipal solid waste landfill		No	KUMMER SANITARY LDFL, KUMMER SANITARY LDFL [Blank Date]	www.epa.gov/superfund/kummer-sanitary-landfill
Co-disposal landfill (municipal and industrial)		No	WINDOM MUNI DUMP, NO NAME SITE, WINDOM MUNICIPAL DUMP 12/01/1983	www.epa.gov/superfund/windom-dump
Co-disposal landfill (municipal and industrial)		No	DAKHUE SANITARY LDFL, DAKHUE SANITARY LDFL, DAKHUE SANITARY LDFL [Blank Date]	www.epa.gov/superfund/dakhue-landfill
Industrial waste landfill		No	PINE BEND SANITARY LANDFILL, PINE BEND SANITARY LANDFILL [Blank Date]	www.epa.gov/superfund/pine-bend-landfill
Military/Other Ordinance		Yes	NEW BRIGHTON/ARDEN HILLS/TCAAP (USARMY) [Blank Date]	www.epa.gov/superfund/new-brighton
Waste/used oil		No	ARROWHEAD REF CO, ARROWHEAD REFINERY (ARROWHEAD REFINERY) [Blank Date]	www.epa.gov/superfund/arrowhead-refinery
Chemicals and allied products		Yes	GRANDVIEW AIRPORT, GEBEUR RICHARD AFB (GRANDVIEW AIRPORT) 04/03/2007	
Ground water plume site with no identifiable source		No	RIVERFRONT SITE, RIVERFRONT, NEW HAVEN PLATING CO. 08/21/1987	www.epa.gov/superfund/riverfront
Electronic/electrical equipment	37.93	No	SOLID STATE CIRCUITS, INC., S S C, SOLID STATE CIRCUITS [Blank Date]	www.epa.gov/superfund/solidstatecircuit
Ordnance production	33.62	Yes	NW LAGOON, LAKE CITY AMMUNITION PLANT 139 W CENTRAL P 07/01/1984	www.epa.gov/superfund/lakecityammunition
Industrial waste facility (non-generator)	29.85	No	CONSERVATION CHEMICAL CO, CONSERVATION CHEMICAL CO. [Blank Date]	www.epa.gov/superfund/conservationchemicalco
Unknown		No	ROSE, MARTHA CHEMICAL, PCB ELIMINATORS, 12/05/1989	www.epa.gov/superfund/MarthaCRoseChemicalCo
		Yes	SEDALIA AIR FORCE BASE, USAF WHITEMAN AFB 04/03/2007	
Ground water plume site with no identifiable source	50	No	VIENNA WELLS, VIENNA WELLS SITE, VIENNA WELLS [Blank Date]	www.epa.gov/superfund/viennawells
Metal fabrication/finishing/coating and allied industrial	50	No	NEWTON COUNTY WELLS, NEWTON COUNTY WELLS [Blank Date]	www.epa.gov/superfund/newtoncountywells
Military/Other Ordinance		Yes	FORT LEONARD WOOD, US ARMY MANEUVER SITE 02/07/2011	
Chemicals/chemical waste (e.g., solvent recovery)		No	FINDETT CORP (FINDS), HAYFORD BRIDGE ROAD 12/29/2020	www.epa.gov/superfund/findettcorp
Radioactive waste treatment, storage, disposal (non-generator)	29.85	No	WESTLAKE LANDFILL, WESTLAKE LANDFILL, WESTLAKE LANDFILL 11/01/1979	www.epa.gov/superfund/westlakelandfill
Ground water plume site with no identifiable source	35.57	No	VALLEY PARK TCE, VALLEY PARK TCE, TCE SITE [Blank Date]	www.epa.gov/superfund/valleyparktce
Chemicals and allied products	31.66	No	SONFORD PRODUCTS, SONFORD PRODUCTS, SONFORD PRODUCTS 07/01/1985	www.epa.gov/superfund/sonford-products
Transportation (e.g., railroad yards, airport, barge dock)		No	BURLINGTON NORTHERN LIVINGSTON SHOP CC 11/16/2017	www.epa.gov/superfund/burlington-northern-livingston
Ground water plume site with no identifiable source	45.69	No	LOCKWOOD SOLVENT GROUND WATER PLUME, 05/02/1998	www.epa.gov/superfund/lockwood-solvent
Multiple		No	FLANDERS FILTERS INC, FLANDERS FILTERS INC 04/10/2003	www.epa.gov/superfund/flanders-filters
Industrial waste facility (non-generator)	30.16	No	CHEMTRONICS, INC., AMCEL PROPULSION INC, CHEMTRONICS, INC. [Blank Date]	www.epa.gov/superfund/chemtronics
Other		No	CELANESE CORP SHELBY FIBER OPERATIONS, 03/31/1984	www.epa.gov/superfund/celanese-shelby-fibers
Trucks/ships/trains/aircraft and related components	70.71	Yes	USMCAS/OLD SANITARY LDFL, USMCAS/INCIN, USMCAS/INCIN [Blank Date]	www.epa.gov/superfund/cherry-point-marine-corps
Other		No	BATTERY TECH (DURACELL LEXINGTON), FARMINGTON BATTERY TECH 07/08/2010	
Chemicals/chemical waste (e.g., solvent recovery)	42	No	JADCO, JADCO-HUGHES FACILITY, JADCO-HUGHES FACILITY [Blank Date]	www.epa.gov/superfund/jadco-hughes-facility
Illegal disposal/open dump	48	No	CRISTEX DRUM 11/01/1996	www.epa.gov/superfund/cristexdrum
Electronic/electrical equipment	39.03	No	JFD ELECTRONICS/CHANNEL MASTER, JFD ELECTRONICS [Blank Date]	www.epa.gov/superfund/jfd-electronics-channel-master
Chemicals and allied products	31.67	No	BENFIELD INDUSTRIES, INC., BENFIELD INDUSTRIES INC 06/01/1985	www.epa.gov/superfund/benfield-industries
Electronic/electrical equipment		No	GENERAL ELECTRIC CO./SHEPHERD FARM, GENERAL ELECTRIC CO. [Blank Date]	www.epa.gov/superfund/general-electric-shepherd-farm
Chemicals and allied products	37.93	No	FCX, INC. (STATESVILLE PLANT), F C X., INC (ST. STATESVILLE PLANT) [Blank Date]	www.epa.gov/superfund/fcx-statesville-plant
Retail/commercial	40.43	No	RAM LEATHER CARE 12/29/1994	www.epa.gov/superfund/ram-leather
Retail/commercial	29.11	No	ABC ONE HOUR CLEANERS, ABC ONE HOUR CLEANERS 01/16/1985	www.epa.gov/superfund/abc-one-hour-cleaners
Military/Other Ordinance	33.13	Yes	USMC/K-326 RANGE (SITE 8), USMC/STORAGE LAGOON 02/12/1988	www.epa.gov/superfund/us-navy
Industrial waste facility (non-generator), Multiple, With	47.1	No	MACON SITE 1 MI S OF CORDOVA, CHARLES MAON SITE 11/01/1983	www.epa.gov/superfund/charles-macon-lagoon-drum
Chemicals and allied products	46.51	No	NATIONAL STARCH & CHEM CORP, NATIONAL STARCH & CHEM CORP 09/30/1980	www.epa.gov/superfund/national-starch
Industrial waste facility (non-generator)	48.36	No	NC STATE UNIVERSITY (LOT 86, FARM UNIT #1), NC STATE UNIVERSITY [Blank Date]	www.epa.gov/superfund/north-carolina-state-university
Co-disposal landfill (municipal and industrial)		No	OLD MINOT LANDFILL, MINOT LANDFILL [Blank Date]	www.epa.gov/superfund/minot-landfill
Ground water plume site with no identifiable source	42.24	No	WELL NO 3, GUIDED MISSILE FIELD MAINTENANCE 07/01/1984	www.epa.gov/superfund/hastingsgroundwater
Ground water plume site with no identifiable source	50	No	WEST HWY 6 AND HWY 281 SITE, WEST HIGHWAY 6 AND HWY 281 SITE [Blank Date]	www.epa.gov/superfund/westhighway6
Electronic/electrical equipment	50	No	OGALLALA WATER SUPPLY (FINDS), AMERICAN WATER SUPPLY CO. 12/08/1989	www.epa.gov/superfund/ogallalagroundwater
Other	50	No	SHERWOOD MEDICAL CO., PARK MOBILE HOME [Blank Date]	www.epa.gov/superfund/sherwoodmedicalco
Ground water plume site with no identifiable source	28.9	No	COLUMBUS PUBLIC WATER SUPPLY SS#07CS, 102/13/1987	www.epa.gov/superfund/10thstreet
Product storage/distribution	43.33	No	YORK PCE 12/11/2013	www.epa.gov/superfund/pcesoutheastcontamination
Fabrics/textiles, Industrial waste landfill, Plastics and	50	No	TROY MILLS LANDFILL [Blank Date]	www.epa.gov/superfund/troymills

Lumber and wood products/pulp and paper, Chemical fabrication/finishing/coating and allied industries	30.54	No	01BQ, CHLOR-ALKALI FACILITY (FORMER)	[Blank Date]	www.epa.gov/superfund/chloralkali
Metal fabrication/finishing/coating and allied industries	50	No	NEW HAMPSHIRE PLATING CO., NEW HAMPSHIRE	[Blank Date]	www.epa.gov/superfund/nhplating
Other		No	SYLVESTER	[Blank Date]	www.epa.gov/superfund/sylvester
Metal fabrication/finishing/coating and allied industries	35.64	No	SOUTH MUNICIPAL WATER SUPPLY WELL	[Blank Date]	www.epa.gov/superfund/southmuni
Drums/tanks	53.41	No	OTTATI & GOSS/KINGSTON STEEL DRUM, KINGSTON	[Blank Date]	www.epa.gov/superfund/og
Co-disposal landfill (municipal and industrial)	36.3	No	AUBURN ROAD LANDFILL, AUBURN ROAD LANDFILL	[Blank Date]	www.epa.gov/superfund/auburnroad
Illegal disposal/open dump	43.24	No	TINKHAM GARAGE	[Blank Date]	www.epa.gov/superfund/tinkham
Co-disposal landfill (municipal and industrial)	29.16	No	COAKLEY LANDFILL, COAKLEY LANDFILL, COAKLEY	05/01/1983	www.epa.gov/superfund/coakley
Waste/used oil	70.71	No	BEEDE WASTE OIL, 011T, BEEDE WASTE OIL	[Blank Date]	www.epa.gov/superfund/beede
Trucks/ships/trains/aircraft and related components	39.42	Yes	US AIR FORCE PEASE AFB, PEASE AIR FORCE FIELD	[Blank Date]	www.epa.gov/superfund/pease
Industrial waste facility (non-generator)	40.7	No	RAYMOND HAZARDOUS WASTE SITE, MOTTOLO	[Blank Date]	www.epa.gov/superfund/mottolo
Industrial waste facility (non-generator)	36.98	No	DOVER MUNICIPAL LANDFILL	06/01/1981	www.epa.gov/superfund/dover
Industrial waste facility (non-generator)	65.56	No	SOMERSWORTH SANITARY LANDFILL, SOMERSWORTH	[Blank Date]	www.epa.gov/superfund/somersworth
Other	39.65	Yes	FEDERAL AVIATION ADMINISTRATION TECH CENTER	[Blank Date]	www.epa.gov/superfund/faa-tech-center
Industrial waste facility (non-generator)	50	No	EMMELLS SEPTIC LANDFILL, EMMELL'S SEPTIC	[Blank Date]	www.epa.gov/superfund/emmells-septic
Ground water plume site with no identifiable source		No	POMONA OAKS RESIDENTIAL WELLS, POMONA	[Blank Date]	www.epa.gov/superfund/pomona-oaks
Industrial waste facility (non-generator)	55.79	No	D'IMPERIO PROPERTY, D'IMPERIO PROPERTY, M	[Blank Date]	www.epa.gov/superfund/dimperio-property
Co-disposal landfill (municipal and industrial)		No	PRICE SANITARY LANDFILL, PRICE'S PIT, PRICE	01/01/1972	www.epa.gov/superfund/price-landfill
Chemicals/chemical waste (e.g., solvent recovery)	55.97	No	S C P - CARLSTADT, SCIENTIFIC CHEM PROCESSING	[Blank Date]	www.epa.gov/superfund/scp
Ground water plume site with no identifiable source	42.49	No	FAIR LAWN WELL FIELDS, FISHER SCIENTIFIC (N	07/31/1982	www.epa.gov/superfund/fair-lawn-wellfield
Batteries/scrap metals/secondary smelting/precious metals	34.37	No	CURCIO SCRAP METAL, CURCIO SCRAP METAL,	[Blank Date]	www.epa.gov/superfund/curcio
Ground water plume site with no identifiable source	37.93	No	CINNAMINSON TOWNSHIP LANDFILL, CINNAMINSON	02/01/1985	www.epa.gov/superfund/cinnaminson
Drums/tanks	34.62	No	ELLIS PROPERTY, ELLIS PROPERTY, ELLIS PRO	[Blank Date]	www.epa.gov/superfund/ellis-property
Municipal solid waste landfill		No	FLORENCE LAND RECONTOURING, INC., LANDFILL	[Blank Date]	www.epa.gov/superfund/florence-landfill
Co-disposal landfill (municipal and industrial)	33.62	No	LANDFILL & DEVELOPMENT CO., LANDFILL & DE	[Blank Date]	www.epa.gov/superfund/landfill-and-development
Co-disposal landfill (municipal and industrial)		Yes	USATC & FORT DIX, FT. DIX LANDFILL, USATC &	[Blank Date]	www.epa.gov/superfund/fort-dix-landfill
Transportation (e.g., railroad yards, airport, barge d	28.51	No	KAUFFMAN & MINTEER, INC, KAUFFMAN & MINTE	04/10/1984	www.epa.gov/superfund/kauffman-and-minteer
Transportation (e.g., railroad yards, airport, barge d	47.2	Yes	MCGUIRE AIR FORCE BASE #2, MCGUIRE AFB #	11/01/1974	www.epa.gov/superfund/mcguire-afb
Municipal solid waste landfill		No	CAMDEN MUNICIPAL WELLS, NJD980769087, CA	10/24/2004	
Drums/tanks	50	No	MARTIN AARON, INC., MARTIN AARON, INC., RHC	[Blank Date]	www.epa.gov/superfund/martin-aaron
Industrial waste landfill	68.53	No	GEMS LANDFILL, GEMS LANDFILL, GLOUCESTER	[Blank Date]	www.epa.gov/superfund/gems-landfill
Chemicals/chemical waste (e.g., solvent recovery)	35.68	No	SWOPE OIL & CHEMICAL CO, CAMDEN MUNICIPAL	10/01/1975	www.epa.gov/superfund/swope-oil
Industrial waste facility (non-generator)	47.19	No	KING OF PRUSSIA, KING OF PRUSSIA, KING OF P	[Blank Date]	www.epa.gov/superfund/king-of-prussia
Drums/tanks	42.03	No	LIGHTMAN DRUM COMPANY, LIGHTMAN DRUM C	01/07/1986	www.epa.gov/superfund/lightman-drum
Plastics and rubber products	51.13	No	NASCOLITE, NASCOLITE CORP., NASCOLITE CO	[Blank Date]	www.epa.gov/superfund/nascolite
Chemicals and allied products	50	No	RIVERSIDE AVENUE SITE, RIVERSIDE INDUSTRI	02/08/2010	www.epa.gov/superfund/riverside-industrial
Chemicals and allied products		No	WHITE CHEMICAL CORP., WHITE CHEMICAL, WH	[Blank Date]	www.epa.gov/superfund/white-chemical
Waste/used oil	60.73	No	PEPPER INDUSTRIES-LOGAN TWP., BRIDGEPOF	[Blank Date]	www.epa.gov/superfund/bridgeport
Transportation (e.g., railroad yards, airport, barge d	47.53	No	CHEMICAL LEAMAN TANK LINES, INC, CHEMICAL	06/01/1981	www.epa.gov/superfund/chemical-leaman
Co-disposal landfill (municipal and industrial)	72.66	No	HELEN KRAMER LANDFILL, HELEN KRAMER LAN	11/01/1979	www.epa.gov/superfund/helen-kramer-landfill
Spill or other one-time event, Transportation (e.g., r		No		11/29/2012	
Transportation (e.g., railroad yards, airport, barge d	45.54	No	MATLACK, INC, MATLACK, INC., MATLACK INC, M	[Blank Date]	www.epa.gov/superfund/matlack
Industrial waste landfill	28.73	No	PJP LANDFILL, PULASKI SKYWAY, P J P LANDFI	06/01/1979	www.epa.gov/superfund/pjp-landfill
Chemicals and allied products	33.61	No	FRIED INDUSTRIES, FRIED INDUSTRIES	[Blank Date]	www.epa.gov/superfund/fried-industries
Chemicals and allied products	37.93	No	CHEMICAL INSECTICIDE CORP, CHEMICAL INSE	[Blank Date]	www.epa.gov/superfund/chemical-insecticide
Co-disposal landfill (municipal and industrial)	50.64	No	KIN-BUC LANDFILL, KIN BUC LANDFILL, KIN-BUC	[Blank Date]	www.epa.gov/superfund/kin-buc
Industrial waste facility (non-generator)		No	PRINCETON DISPOSAL SERVICES INC, INTERNA	06/01/1979	www.epa.gov/superfund/monroe-township
Chemicals and allied products	69.73	No	OLD BRIDGE CHEMICAL - ID # IN RCRA: NJD0522	09/01/1977	www.epa.gov/superfund/cps-madison
Industrial waste landfill	36.64	No	E P L INDUSTRIES, EPL INDUSTRIES, NORTH AM	08/01/1982	www.epa.gov/superfund/evor-phillips
Co-disposal landfill (municipal and industrial)	45.92	No	GLOBAL SANITARY LANDFILL, GLOBAL LANDFIL	02/28/1985	www.epa.gov/superfund/global-sanitary-landfill
Chemicals and allied products	42.69	No	CHEMSOL, INC, CHEMSOL INC, CHEMSOL, INC.,	[Blank Date]	www.epa.gov/superfund/chemsol
Chemicals/chemical waste (e.g., solvent recovery), I	50	No	ATLANTIC RESOURCES CORPORATION, INTERN	04/10/1984	www.epa.gov/superfund/atlantic-resources
Chemicals and allied products, Chemicals/chemical	51.37	No	HORSESHOE ROAD, HORSESHOE ROAD, ATLAN	07/01/1982	www.epa.gov/superfund/horseshoe-road
Co-disposal landfill (municipal and industrial)		No	SAYREVILLE LANDFILL	[Blank Date]	www.epa.gov/superfund/sayreville-landfill
Co-disposal landfill (municipal and industrial)	45.14	No	JONES INDUSTRIAL SERVICES, INC., JIS LANDFI	[Blank Date]	www.epa.gov/superfund/jis-landfill
Electronic/electrical equipment	50.27	No	CORNELL DUBILIER ELECTRONICS INC., CORNE	09/18/1986	www.epa.gov/superfund/cornell-dubilier

Product storage/distribution	29.65	Yes	NWS EARLE, NAVAL WEAPONS STATION EARLE	11/01/1980	www.epa.gov/superfund/nws-earle
Co-disposal landfill (municipal and industrial)	66.33	No	LONE PINE LANDFILL, LONE PINE LANDFILL	06/01/1978	www.epa.gov/superfund/lone-pine
Industrial waste facility (non-generator)	43.23	No	BOG CREEK FARM, BOG CREEK FARM, BOG CRI	[Blank Date]	www.epa.gov/superfund/bog-creek-farm
Ground water plume site with no identifiable source	28.9	No	DOVER MUNICIPAL WELL 4, DOVER MUNICIPAL	08/01/1982	www.epa.gov/superfund/dover-well-4
Research, development, and testing facility	42.92	Yes	PICATINNY ARSENAL 1, PICATINNY ARSENAL 13	02/01/1980	www.epa.gov/superfund/picatinny-arsenal
Plastics and rubber products	42.56	No	RADIATION TECHNOLOGY, INC., RADIATION TEC	04/10/1984	www.epa.gov/superfund/radiation-technology
Ground water plume site with no identifiable source	42.34	No	ROCKAWAY BORO WELLFIELD, ROCKAWAY BOF	08/01/1982	www.epa.gov/superfund/rockaway-boro-wellfield
Ground water plume site with no identifiable source	28.9	No	ROCKAWAY TOWNSHIP WELLS, ROCKAWAY TW	[Blank Date]	www.epa.gov/superfund/rockaway-township-wellfield
Co-disposal landfill (municipal and industrial)	58.13	No	FRENCHS LANDFILL, BRICK TOWNSHIP LANDFIL	11/30/1980	www.epa.gov/superfund/brick-township-landfill
Research, development, and testing facility	50.53	Yes	NAVAL AIR ENGINEERING CENTER, NAVAL AIR E	06/01/1981	www.epa.gov/superfund/naes-lakehurst
Illegal disposal/open dump	52.58	No	RINGWOOD MINES /LF, RINGWOOD LF #1, RINGV	12/01/1979	www.epa.gov/superfund/ringwood-mines
Batteries/scrap metals/secondary smelting/precious	52.96	No	NATIONAL SMELTING OF NEW JERSEY SITE, N L	[Blank Date]	www.epa.gov/superfund/nl-industries
Chemicals and allied products, Multiple, Metal fabric	58.12	No	JAME FINE CHEMICAL, BROOK INDUSTRIAL PAR	05/01/1986	www.epa.gov/superfund/brook-industrial-park
Chemicals and allied products		No	AMERICAN CYANAMID CO, AMERICAN CYANAMID	10/01/1979	www.epa.gov/superfund/american-cyanamid
Other	30.47	No	HIGGINS FARM, HIGGINS FARM, ROUTE 518	[Blank Date]	www.epa.gov/superfund/higgins-farm
Industrial waste landfill	30.87	No	HIGGINS DSPL SERVICE INC, HIGGINS DISPOSA	05/31/1981	www.epa.gov/superfund/higgins-disposal
Other, Ground water plume site with no identifiable	50	No	MANSFIELD TRAIL DUMP SITE, BYRAM TOWNSHI	11/02/2009	www.epa.gov/superfund/mansfield-trail
Metal fabrication/finishing/coating and allied industr	48.95	No	METALTEC, METALTEC/AEROSYSTEMS, METAL T	[Blank Date]	www.epa.gov/superfund/metaltec-aerosystems
Plastics and rubber products		No	A. O. POLYMER, A O POLYMER, A O POLYMER, /	10/01/1978	www.epa.gov/superfund/ao-polymer
Chemicals and allied products	50	No	L C P CHEMICALS INC, LCP CHEMICALS INC, LCF	06/01/1981	www.epa.gov/superfund/lcp-chemicals
Ground water plume site with no identifiable source	50	No	FRUIT AVENUE PLUME, FRUIT STREET PLUME, F	[Blank Date]	www.epa.gov/superfund/fruit-avenue-plume
Ground water plume site with no identifiable source	50	No	GRANTS CHLORINATED SOLVENTS PLUME	09/30/1998	www.epa.gov/superfund/grants-chlorinated-solvents
Industrial waste landfill	39.37	Yes	LEE ACRES LANDFILL (USDOI), LEE ACRES LAN	09/01/1981	www.epa.gov/superfund/lee-acres
Industrial waste facility (non-generator)	53.9	No	SINCLAIR REFINERY (NYD980773170), SINCLAIR	04/30/1982	www.epa.gov/superfund/sinclair-refinery
Drums/tanks	44.06	No	TRI CITIES BARREL CO INC, TRI-CITIES BARREL	03/31/1980	www.epa.gov/superfund/tri-cities-barrel
Co-disposal landfill (municipal and industrial)	30.26	No	COLESVILLE MUNICIPAL LANDFILL, COLESVILLI	07/01/1983	www.epa.gov/superfund/colesville-landfill
Industrial waste facility (non-generator)		No	LCP NATIONAL PIPE CO., BUFFTON INC, LCP NA	05/31/1983	www.epa.gov/superfund/robinotech
Ground water plume site with no identifiable source	35.57	No	RANNEY WELL, ENDICOTT VILLAGE WELL FIELD	[Blank Date]	www.epa.gov/superfund/endicott-village
Ground water plume site with no identifiable source		No	LITTLE VALLEY SITE, LITTLE VALLEY SITE, LITT	06/08/1995	www.epa.gov/superfund/little-valley
Ground water plume site with no identifiable source	44.46	No	OLEAN WELL FIELD, ALCAS CUTLERY (NYD0021	06/01/1982	www.epa.gov/superfund/olean-wellfield
Ground water plume site with no identifiable source	50	No	CAYUGA COUNTY GROUND WATER CONTAMINAT	06/07/2001	www.epa.gov/superfund/cayuga-county-groundwater
Industrial waste facility (non-generator)	46.67	No	FACET ENTERPRISES, INC, FACET ENTERPRISE	02/01/1980	www.epa.gov/superfund/facet-enterprises
Ground water plume site with no identifiable source	39.65	No	KENTUCKY AVE WELLFIELD, KENTUCKY AVENU	05/01/1982	www.epa.gov/superfund/kentucky-avenue
Chemicals/chemical waste (e.g., solvent recovery)	34.78	No	SOLVENT SAVERS, SOLVENT SAVERS	06/01/1980	www.epa.gov/superfund/solvent-savers
Trucks/ships/trains/aircraft and related components	30.34	Yes	PLATTSBURGH AIR FORCE BASE, PLATTSBURG	05/01/1978	www.epa.gov/superfund/plattsburgh-afb
Illegal disposal/open dump, Batteries/scrap metals/	51.35	No	SCRAP KING INC, SCRAP KING, INC., ROSEN BR	[Blank Date]	www.epa.gov/superfund/rosen-brothers
Co-disposal landfill (municipal and industrial)	29.36	No	SIDNEY LANDFILL, BENDIX CORP LANDFILL, BEI	05/01/1979	www.epa.gov/superfund/sidney-landfill
Industrial waste facility (non-generator)	34.86	No	BENDIX WASTE OIL DISPOSAL SITE, RICHARDS	05/17/1982	www.epa.gov/superfund/richardson-hill
Other	33.2	No	SARNEY FARM, SARNEY FARM PROPERTY	[Blank Date]	www.epa.gov/superfund/sarney-farm
Co-disposal landfill (municipal and industrial)		No	JONES SANITATION	[Blank Date]	www.epa.gov/superfund/jones-sanitation
Dry-Cleaning Operations		No		08/12/2021	
Co-disposal landfill (municipal and industrial)	48.36	No	JOHNSTOWN CITY LF, JOHNSTOWN CITY LANDF	[Blank Date]	www.epa.gov/superfund/johnstown-city-landfill
Co-disposal landfill (municipal and industrial)		No	BATAVIA LANDFILL	07/01/1981	www.epa.gov/superfund/batavia-landfill
Industrial waste facility (non-generator)	37.27	No	BYRON BARREL AND DRUM, BYRON BARREL & I	07/01/1982	www.epa.gov/superfund/byron-barrel-and-drum
Electronic/electrical equipment	33.61	No	AMERICAN THERMOSTAT CO, AMERICAN THERM	05/01/1982	www.epa.gov/superfund/american-thermostat
Chemicals and allied products	33.62	No	JONES CHEMICALS, INC., JONES CHEMICAL, INC	04/01/1980	www.epa.gov/superfund/jones-chemicals
Metal fabrication/finishing/coating and allied industr	50.65	No	FIBERGLASS RESOURCES CORP (NYD04586126	04/10/1980	www.epa.gov/superfund/liberty-industrial
Metal fabrication/finishing/coating and allied industr	33.79	No	GENZALE PLATING CO, GENZALE PLATING CO.	[Blank Date]	www.epa.gov/superfund/genzale-plating
Ground water plume site with no identifiable source	50	No	OLD ROOSEVELT FIELD CONTAMINATED GW AR	[Blank Date]	www.epa.gov/superfund/roosevelt-field-groundwater
Product storage/distribution, Drums/tanks, Multiple	31.9	No	MATTIACE PETROCHEMICAL CO INC, MATTIACE	[Blank Date]	www.epa.gov/superfund/mattiace-petrochemical
Ground water plume site with no identifiable source	50	No	PENINSULA BOULEVARD GROUND WATER PLUM	[Blank Date]	www.epa.gov/superfund/peninsula-groundwater
Plastics and rubber products	41.6	No	HOOKER CHEMICAL/RUCO POLYMER CORP, RUC	11/01/1979	www.epa.gov/superfund/hooker-ruco-polymer
Metal fabrication/finishing/coating and allied industr		No	JACKSON STEEL, JACKSON STEEL	[Blank Date]	www.epa.gov/superfund/jackson-steel
Dry-Cleaning Operations, Retail/commercial	50	No	NEW CASSEL INDUSTRIAL AREA, HICKSVILLE C	07/01/1985	www.epa.gov/superfund/new-cassel-hicksville
Chemicals and allied products	31.62	No	CLAREMONT POLYCHEMICAL, CLAREMONT POL	[Blank Date]	www.epa.gov/superfund/claremont-polychemical
Co-disposal landfill (municipal and industrial)	58.83	No	OLD BETHPAGE LANDFILL	[Blank Date]	www.epa.gov/superfund/old-bethpage-landfill

Co-disposal landfill (municipal and industrial)		No	SYOSSET LANDFILL, SYOSSET LANDFILL	[Blank Date]	www.epa.gov/superfund/syosset-landfill
Co-disposal landfill (municipal and industrial)		45.46 No	PORT WASHINGTON LANDFILL, PORT WASHINGTON	03/01/1982	www.epa.gov/superfund/port-washington-landfill
Industrial waste landfill		No	DUPONT / NECCO PARK, NECCO PARK	01/14/2004	www.epa.gov/superfund/dupont-necco-park
Industrial waste landfill		No	FOREST GLEN MOBIL HOME, FOREST GLEN MOBILE	09/19/1986	www.epa.gov/superfund/forest-glen
Co-disposal landfill (municipal and industrial)		No	NIAGARA COUNTY REFUSE DISPOSAL DISTRICT	12/01/1979	www.epa.gov/superfund/niagara-county-refuse
Military/Other Ordinance		Yes	GRIFFISS AIR FORCE BASE, GRIFFISS AIR FORCE	01/01/1980	www.epa.gov/superfund/griffiss-afb
Chemicals and allied products	Onondaga	50 No	ONONDAGA LAKE, CRUCIBLE INC/DORING PROF	04/23/1989	www.epa.gov/superfund/onondaga-lake
Industrial waste facility (non-generator)		33.74 No	CARROLL & DUBIES SEWAGE DISPOSAL, CARR	08/01/1980	www.epa.gov/superfund/carroll-and-dubies
Chemicals and allied products		50 No	DIAZ CHEMICAL CORPORATION, DIAZ CHEMICAL	08/24/1990	www.epa.gov/superfund/diaz-chemical
Industrial waste facility (non-generator)		No	FULTON TERMINALS, FULTON TERMINALS	05/01/1982	www.epa.gov/superfund/fulton-terminals
Industrial waste facility (non-generator)		No	PAS OSWEGO, POLLUTION ABATEMENT SERVIC	10/01/1976	www.epa.gov/superfund/pas
Co-disposal landfill (municipal and industrial)		32.89 No	SILK ROAD LANDFILL, OSWEGO VALLEY LANDF	01/01/1980	www.epa.gov/superfund/volney-landfill
Ground water plume site with no identifiable source		37.93 No	BREWSTER WELL FIELD, BREWSTER WELL FIEL	08/01/1982	www.epa.gov/superfund/brewster-wellfield
Industrial waste facility (non-generator)		58.21 No	GE MOREAU, GE MOREAU, CAPUTO DISPOSAL	10/31/1978	www.epa.gov/superfund/ge-moreau
Industrial waste facility (non-generator)	Cayuga Nation(Former)	Yes	SENECA ARMY DEPOT, SENECA ARMY DEPOT, S	11/01/1973	www.epa.gov/superfund/seneca-army-depot
Industrial waste facility (non-generator)		29.36 No	SEALAND RESTORATION INC, SEALAND RESTOR	04/30/1980	www.epa.gov/superfund/sealand-restoration
Multiple, Other, Metal fabrication/finishing/coating and allied industry	Saint Regis Mohawk	40.71 No	GENERAL MOTORS (CENTRAL FOUNDRY DIV), G	03/31/1980	www.epa.gov/superfund/gm-massena
Metal fabrication/finishing/coating and allied industry		No	ACTION ANODIZING PLATING AND POLISHING, A	[Blank Date]	www.epa.gov/superfund/action-anodizing
Metal fabrication/finishing/coating and allied industry		No	TRONIC PLATING CO INC, TRONIC PLATING CO	[Blank Date]	www.epa.gov/superfund/tronic-plating
Other		33.39 No	GOLDISC RECORDINGS, INC, GOLDISC RECORD	[Blank Date]	www.epa.gov/superfund/goldisc-recording
Co-disposal landfill (municipal and industrial)		33.39 No	ISLIP MUNICIPAL SANITARY LANDFILL, ISLIP M	10/01/1978	www.epa.gov/superfund/islip-landfill
Metal fabrication/finishing/coating and allied industry		50 No	LAWRENCE AVIATION INDUSTRIES INC, LAWREN	08/31/1984	www.epa.gov/superfund/lawrence-aviation
Co-disposal landfill (municipal and industrial)		32.11 No	TUSTEN LF, CORTESE LANDFILL, TUSTEN LAND	01/01/1975	www.epa.gov/superfund/cortese-landfill
Industrial waste facility (non-generator)		57.85 Yes	US AIR FORCE WRIGHT-PATTE, USAF WRIGHT P	08/01/1980	www.epa.gov/superfund/wright-patterson-airbase
Radioactive products		57.56 Yes	US DOE FERNALD, NATIONAL LEAD CO OF OHIO	01/01/1981	www.epa.gov/superfund/feed-materials-usdoe
Contaminated sediment site with no identifiable source		44.95 No	FIELDS BROOK, FIELDS BROOK	[Blank Date]	www.epa.gov/superfund/fields-brook
Waste/used oil		No	LASKIN/POPLAR OIL, LASKIN/POPLAR OIL CO.	[Blank Date]	www.epa.gov/superfund/laskin-poplar-oil
Industrial waste landfill		30.77 No	BIG D CAMPGROUND, BIG D CAMPGROUND	[Blank Date]	www.epa.gov/superfund/bigd-campground
Co-disposal landfill (municipal and industrial)		31.19 No	NEW LYME LANDFILL, NEW LYME LANDFILL, NE	[Blank Date]	www.epa.gov/superfund/new-lyme-landfill
Product storage/distribution		No	TRANSENVIRONMENTAL SERV, CHEM-DYNE, CH	[Blank Date]	www.epa.gov/superfund/chem-dyne
Industrial waste facility (non-generator)		30.23 No	SKINNER LANDFILL, SKINNER LANDFILL, SK	[Blank Date]	www.epa.gov/superfund/skinner-landfill
Industrial waste landfill		No	NORTH SANITARY LANDFILL, TREMONT CITY B	04/09/2003	www.epa.gov/superfund/tremont-city-barrel
Municipal solid waste landfill, Ground water plume site		46.4 No	NEW CARLISLE WELL CONTAMINATION SITE, NE	06/01/1981	www.epa.gov/superfund/new-carlisle-landfill
Spill or other one-time event		50 No	MILFORD WELL FIELD, MILFORD CONTAMINATE	[Blank Date]	www.epa.gov/superfund/milford-aquifer
Chemicals and allied products		47.19 No	NEASE CHEMICAL, RUETGERS NEASE CHEMICAL	12/11/1980	www.epa.gov/superfund/nease-chemical
Coal, Multiple, Industrial waste landfill, Multiple		No	COSHOCTON CITY LANDFILL, COSHOCTON CITY	04/01/1979	www.epa.gov/superfund/coshocton-landfill
Transportation (e.g., railroad yards, airport, barge dock)		Yes	RICKENBACKER AIR NATIONAL, RICKENBACKER	10/01/1981	www.epa.gov/superfund/rickenbacker-airbase
Chemicals/chemical waste (e.g., solvent recovery)		69.33 No	LAMMERS BARREL FACTORY, LAMMERS BARREL	10/23/1986	www.epa.gov/superfund/lammers-barrel-factory
Co-disposal landfill (municipal and industrial)		39.42 No	FULTZ LANDFILL, FULTZ LANDFILL, FULTZ L	05/31/1982	www.epa.gov/superfund/fultz-landfill
Industrial waste facility (non-generator)		35.25 No	PRISTINE INC, PRISTINE INC, PRISTINE, INC.	[Blank Date]	www.epa.gov/superfund/pristine
Chemicals/chemical waste (e.g., solvent recovery)		No	CHEMICAL RECOVERY	06/23/2002	www.epa.gov/superfund/chemical-recovery
Co-disposal landfill (municipal and industrial)		No	FORD ROAD INDUSTRIAL LANDFILL, FORD ROAD	04/09/2003	www.epa.gov/superfund/ford-road-landfill
Industrial waste facility (non-generator)		57.84 No	MIAMI COUNTY INCINERATOR, MIAMI COUNTY	06/01/1981	www.epa.gov/superfund/miami-county-incinerator
Co-disposal landfill (municipal and industrial)		50 No	NORTH SANITARY LANDFILL - DAYTON, VALLEY	06/01/1981	www.epa.gov/superfund/north-sanitary-landfill
Industrial waste landfill		31.62 No	POWELL ROAD LANDFILL, POWELL ROAD LANDF	04/30/1983	www.epa.gov/superfund/powell-road-landfill
Ordnance production		Yes	MOUND PLANT (USDOE), MOUND PLANT (USDOE)	[Blank Date]	www.epa.gov/superfund/mound-plant-usdoe
Co-disposal landfill (municipal and industrial)		35.57 No	CARDINGTON ROAD LANDFILL, SANITARY LAND	05/31/1981	www.epa.gov/superfund/sanitary-landfill
Co-disposal landfill (municipal and industrial)		51.13 No	INDUSTRIAL EXCESS LANDFILL, INDUSTRIAL EX	[Blank Date]	www.epa.gov/superfund/industrial-excess-landfill
Retail/commercial		50 No	COPLEY SQUARE PLAZA, DANTON DRY CLEANER	07/22/1994	www.epa.gov/superfund/copley-square
Industrial waste facility (non-generator)		33.03 No	VAN DALE JUNKYARD, VANDALIS JUNKYARD, VAN	[Blank Date]	www.epa.gov/superfund/vandale-junkyard
Industrial waste facility (non-generator)	The Chickasaw	51.01 No	HARDAGE/CRINER, HARDAGE LANDFILL, ROYAL	06/01/1979	www.epa.gov/superfund/hardage-criner
Waste/used oil		No	DOUBLE EAGLE REFINERY CO., DOUBLE EAGLE	06/01/1980	www.epa.gov/superfund/double-eagle-refinery
Oil and gas refining		No	FOURTH STREET ABANDONED REFINERY, FOUR	07/01/1980	www.epa.gov/superfund/fourth-street-abandoned-ref
Co-disposal landfill (municipal and industrial)		No	SCA SERVICES INC CITY SITE, MOSLEY ROAD	05/01/1980	www.epa.gov/superfund/mosley-road-sanitary-landfill
Co-disposal landfill (municipal and industrial)		42.24 Yes	TINKER AIR FORCE (SOLDIER CAMP/BLDG 300),	01/01/1980	www.epa.gov/superfund/tinker-air-force-base
Multiple, Multiple, Chemicals/chemical waste (e.g., solvent recovery)	The Muscogee (Creek)	No	SAND SPRINGS PETROCHEMICAL COMPLEX, SA	08/01/1980	www.epa.gov/superfund/sand-springs-petrochemical

Metal fabrication/finishing/coating and allied industr	51.09	No	NORTHWEST PIPE & CASING/HALL PROCESS C [Blank Date]	www.epa.gov/superfund/nw-pipe-casing
Primary metals/mineral processing	54.27	No	TELEDYNE WAH CHANG ALBANY (TWCA), TELEC [Blank Date]	www.epa.gov/superfund/teledyne-wah-chang
Chemicals and allied products, Multiple, Metal fabric		No	EAST MULTNOMAH COUNTY, EAST MULTNOMAH 03/15/2011	
Contaminated sediment site with no identifiable sou	50	No	PORTLAND HARBOR, PORTLAND HARBOR 05/02/1997	www.epa.gov/superfund/portland-harbor
Industrial waste facility (non-generator)	48.27	No	HUNTERSTOWN ROAD, FRED SHEALER PROPEF 05/01/1983	www.epa.gov/superfund/hunterstown
Municipal solid waste landfill	33.76	No	KEYSTONE SANITATION LANDFILL, KEYSTONE 02/01/1984	www.epa.gov/superfund/keystone
Waste/used oil	50	No	BRESLUBE PENN, BRESLUBE-PENN, INCORPOR 03/31/1984	www.epa.gov/superfund/breslube
Waste/used oil, Multiple, Oil and gas refining	55.18	No	DOUGLASSVILLE DISPOSAL, DOUGLASSVILLE I 10/01/1980	www.epa.gov/superfund/douglassville
Other	29.66	No	HEREFORD GW, CROSSLEY FARM, CROSSLEY F 06/30/1987	www.epa.gov/superfund/crossley
Other	32.02	No	BERKS SAND PIT, BERKS SAND PIT, BERKS SAN 08/01/1982	www.epa.gov/superfund/berkssandpit
Co-disposal landfill (municipal and industrial)		No	STABATROL BERKS COUNTY LANDFILL, BERKS 11/01/1979	www.epa.gov/superfund/berkslandfill
Co-disposal landfill (municipal and industrial)	41.08	No	STOTTER LANDFILL, PARSHALL-KRUISE LANDFI 02/01/1984	www.epa.gov/superfund/deltaquarries
Co-disposal landfill (municipal and industrial)	34.79	No	BELL LANDFILL, TERRY TWP FILL, BELL LANDFI 11/01/1979	www.epa.gov/superfund/bell
Industrial waste facility (non-generator)	39.92	No	BRIDGETON TWSP, BOARHEAD FARMS, BOARHE 02/01/1980	www.epa.gov/superfund/boarhead
Ground water plume site with no identifiable source	31.6	No	CROYDON TCE, CROYDON TCE 02/01/1985	www.epa.gov/superfund/croydon
Metal fabrication/finishing/coating and allied industr	50	No	Chem-Fab, CHEM FAB CORPORATION SITE 03/01/1985	www.epa.gov/superfund/chemfab
Unknown	28.9	No	DUBLIN TCE SITE, THOMPSON PLANT, DUBLIN V 06/30/1987	www.epa.gov/superfund/dublin
Co-disposal landfill (municipal and industrial)	70.71	No	AMERICAN OLEAN TILE CO QUAKERSTOWN PLT 11/01/1979	www.epa.gov/superfund/watsonjohnson
Other	29.07	No	FISCHER & PORTER CO., FISCHER & PORTER C 10/01/1979	www.epa.gov/superfund/fischerporter
Research, development, and testing facility	57.93	Yes	NAVAL AIR DEVELOPMENT CENTER(8 AREAS), N 09/01/1979	www.epa.gov/superfund/navalairdevelopmentcenter
Chemicals and allied products		No	CENTRE COUNTY KEPONE, CENTRE COUNTY KE 10/31/1979	www.epa.gov/superfund/centrecountykepone
Electronic/electrical equipment, Metal fabrication/fin		No	ROCKWELL INTERN CORP, RECTICON/ALLIED S [Blank Date]	www.epa.gov/superfund/recticon
Industrial waste facility (non-generator)	29.44	No	MONSEY PRODUCTS, KIMBERTON SITE, CIBA GI 04/01/1982	www.epa.gov/superfund/kimberton
Trucks/ships/trains/aircraft and related components	42.4	No	AIW FRANK, CONTINENTAL *, EXTON AREA SITE [Blank Date]	www.epa.gov/superfund/aiwfrank
Co-disposal landfill (municipal and industrial)	33.64	No	WELSH ROAD LANDFILL, HONEYBROOK, WELSH 06/01/1983	www.epa.gov/superfund/walsh
Industrial waste facility (non-generator)	46.69	No	MALVERN TCE, MALVERN TCE SITE, CHEMCLEN [Blank Date]	www.epa.gov/superfund/malvern
Co-disposal landfill (municipal and industrial)		No	STRAUSBURG LANDFILL, STRASBURG LANDFILL 09/01/1983	www.epa.gov/superfund/strasburg
Co-disposal landfill (municipal and industrial)	30.57	No	BLOSINSKI LANDFILL, BLOSENSKI LANDFILL, BL [Blank Date]	www.epa.gov/superfund/blosenski
Multiple, Multiple, Trucks/ships/trains/aircraft and rel		No	SAEGERTOWN INDUSTRIAL AREA, GATX & LORI 06/01/1980	www.epa.gov/superfund/saegertown
Product storage/distribution	50	Yes	NAVAL SUPPORT ACTIVITY 09/01/1980	www.epa.gov/superfund/navyshipspartscontrolcenter
Transportation (e.g., railroad yards, airport, barge d		No	HARRISBURG INTERNATIONAL AIRPORT, OLMST 05/01/1981	www.epa.gov/superfund/middletownairfield
Lumber and wood products/wood preserving/treatr	38.34	No	HAVERTOWN PCP SITE, HAVERTOWN PCP, HAVI 11/01/1979	www.epa.gov/superfund/havertownpcp
Multiple, Illegal disposal/open dump, Industrial wast	49.31	No	MILL CREEK DUMP, FUCHS LANDFILL, MILLCREE 08/01/1982	www.epa.gov/superfund/millcreek
Industrial waste landfill	38.89	No	LORD-SHOPE LANDFILL, LORD SHOPE LANDFILI 06/01/1980	www.epa.gov/superfund/lordshope
Trucks/ships/trains/aircraft and related components		Yes	LETTERKENNY ARMY DEPOT (SE AREA), LETTEI 08/01/1980	www.epa.gov/superfund/letterkennyarmydepotseare
Trucks/ships/trains/aircraft and related components		Yes	LETTERKENNY ARMY DEPOT (PDO AREA), LETT 08/25/1980	www.epa.gov/superfund/letterkennyarmydepotpdoar
Metal fabrication/finishing/coating and allied industr		No	JACKSON CERAMIX INC, JACKSON CERAMIX, JA 02/06/1986	www.epa.gov/superfund/jacksonceramix
Co-disposal landfill (municipal and industrial)		No	LACKAWANNA REFUSE REMOVAL CO INC, LACK 11/01/1979	www.epa.gov/superfund/lackawanna
Co-disposal landfill (municipal and industrial)		No	BERKLEY PRODUCTS CO. DUMP, BERKLEY PRO 06/01/1981	www.epa.gov/superfund/berkleyproducts
Co-disposal landfill (municipal and industrial)	28.98	No	ELIZABETHTOWN LANDFILL, UNITED DISPOSAL 06/01/1981	www.epa.gov/superfund/elizabethtown
Electronic/electrical equipment	50	No	SQUARE D CO CT YD RODALE PLT, RODALE MAI 03/01/1985	www.epa.gov/superfund/rodale
Co-disposal landfill (municipal and industrial)	50.23	No	HELEVA LANDFILL, HELEVA LANDFILL, HELEVA 11/01/1979	www.epa.gov/superfund/heleva
Co-disposal landfill (municipal and industrial)		No	VALLEY DISPOSAL DIV OF NOVAK CORP, NOVA 07/01/1979	www.epa.gov/superfund/novak
Co-disposal landfill (municipal and industrial)		No	DORNEY ROAD SITE, DORNEY ROAD LANDFILL, 11/01/1979	www.epa.gov/superfund/dorneyroad
Fabrics/textiles	43.16	No	VALMONT INDUSTRIAL PARK SITE, VALMONT INI 10/21/1987	www.epa.gov/superfund/valmont
Trucks/ships/trains/aircraft and related components	42.24	No	AVCO LYCOMING (WILLIAMSPORT DIVISION), AV 08/01/1984	www.epa.gov/superfund/avcolycoming
Industrial waste landfill	54.6	No	OSBORNE LANDFILL, OSBORNE DUMP, COOPEF 05/01/1981	www.epa.gov/superfund/osborne
Co-disposal landfill (municipal and industrial)		No	ERIE DISP CO, RIVER RD ENTERPRISES, RIVER 11/01/1979	www.epa.gov/superfund/riverroad
Metal fabrication/finishing/coating and allied industr	50	No	SHARON STEEL CORP, SHARON STEEL CORPOI 03/01/1980	www.epa.gov/superfund/sharonsteel-farrell
Illegal disposal/open dump		No	C G WOOD, C G WOOD SITE 07/17/2002	
Electronic/electrical equipment	41.33	No	WESTINGHOUSE ELECTRIC CORP. (SHARON PL/ 12/01/1979	www.epa.gov/superfund/westinghouseelectric
Co-disposal landfill (municipal and industrial)	32	No	BUTZ LANDFILL, NORTH ROAD *, BUTZ LANDFILL 12/01/1984	www.epa.gov/superfund/butz
Military/Other Ordinance		Yes	TOBYHANNA ARMY DEPOT, TOBYHANNA ARMY 08/01/1980	www.epa.gov/superfund/tobyhanna
Co-disposal landfill (municipal and industrial)		No	MOYERS LANDFILL, MOYERS LANDFILL, AJAX/A 01/01/1978	www.epa.gov/superfund/moyers
Other	50	No	BAGHURST ALLEY, BAGHURST ALLEY SITE 05/11/2014	www.epa.gov/superfund/baghurst
Metal fabrication/finishing/coating and allied industr	53.42	No	JACKSONVILLE ROAD SITE, MILFORD RIVET & M 06/01/1981	www.epa.gov/superfund/raymark-pa

Metal fabrication/finishing/coating and allied industr	35.57	No	NORTH PENN-AREA 2, AMETEK - HUNTER SPRIN	08/18/1986	www.epa.gov/superfund/northpenn2
Trucks/ships/trains/aircraft and related components	50	Yes	WILLOW GROVE NAVAL AIR & AIR RES. STN., WI	12/03/1989	www.epa.gov/superfund/willowgrove
Unknown		No	KEYSTONE HYDRAULICS, NORTH PENN AREA #	09/01/1979	www.epa.gov/superfund/northpenn6
Plastics and rubber products	45.91	No	OCCIDENTAL CHEM/FIRESTONE, OCCIDENTAL C	06/01/1981	www.epa.gov/superfund/occidental
Electronic/electrical equipment	42.35	No	COMMODORE SEMICONDUCTOR GROUP, COMM	05/31/1985	www.epa.gov/superfund/commodore
Electronic/electrical equipment	35.57	No	HATFIELD TOWNSHIP MUNICIPAL AUTHORITY, H	08/01/1979	www.epa.gov/superfund/northpenn5
Metal fabrication/finishing/coating and allied industr	35.57	No	NORTH PENN-AREA 7, NORTH PENN - AREA 7, N	04/01/1980	www.epa.gov/superfund/northpenn7
Industrial waste facility (non-generator)	41.69	No	O'HARA SAN CO INC, HENDERSON ROAD, HENDI	11/01/1979	www.epa.gov/superfund/hendersonroad
Batteries/scrap metals/secondary smelting/precious	46.44	No	DOMINO SALVAGE, DOMINO SALVAGE - WAREH	02/01/1983	www.epa.gov/superfund/mwmanufacturing
Trucks/ships/trains/aircraft and related components	51.91	No	HELLERTOWN MANUFACTURING CO, CHAMPION	08/01/1980	www.epa.gov/superfund/hellertown
Industrial waste landfill	42.47	No	INDUSTRIAL LANE, INDUSTRIAL DRIVE SITE, IND	11/01/1979	www.epa.gov/superfund/industriallane
Trucks/ships/trains/aircraft and related components	33.74	No	BENDIX FLIGHT SYSTEMS DIVISION, ALLIED CO	06/01/1982	www.epa.gov/superfund/bendix
Other		No		02/05/2008	
Co-disposal landfill (municipal and industrial)		No	YORK COUNTY REFUSE AUTH, YORK COUNTY S	03/01/1984	www.epa.gov/superfund/yorkcountysolidwasteandref
Co-disposal landfill (municipal and industrial)	33.93	No	MODERN SANITATION LANDFILL, MODERN SANI	11/01/1979	www.epa.gov/superfund/modernsanitation
Co-disposal landfill (municipal and industrial)	33.93	No	SEVEN VALLEYS LANDFILL, OLD CITY OF YORK	07/01/1981	www.epa.gov/superfund/oldcityofyork
Co-disposal landfill (municipal and industrial)	41.01	No	EAST MOUNT ZION, EAST MOUNT ZION, FETROV	02/01/1983	www.epa.gov/superfund/eastmountzion
Ground water plume site with no identifiable source	35.34	No	FIBERS PUBLIC SUPPLY WELLS, FIBERS PUBLIC	07/01/1982	www.epa.gov/superfund/fibers-public-wells
Ground water plume site with no identifiable source	42.24	No	VEGA ALTA PUBLIC SUPPLY WELLS	07/01/1982	www.epa.gov/superfund/vega-alta-wells
Ground water plume site with no identifiable source	50	No	CABO ROJO GROUND WATER CONTAMINATION, [Blank Date]		www.epa.gov/superfund/cabo-rojo-groundwater
Ground water plume site with no identifiable source	50	No	CIDRA GROUND WATER CONTAMINATION, CIDRA	09/30/2003	www.epa.gov/superfund/cidra-groundwater
Ground water plume site with no identifiable source	50	No	MAUNABO AREA GW CONTAMINATION, MAUNAB	08/25/2005	www.epa.gov/superfund/maunabo-groundwater
Ground water plume site with no identifiable source	50	No	San German GroundWater Contamination, SAN GE	[Blank Date]	www.epa.gov/superfund/san-german-groundwater
Industrial waste facility (non-generator)		No	PICILLO FARM, CANDY BOX FARM	[Blank Date]	www.epa.gov/superfund/picillo
Military/Other Ordinance	32.25	Yes	NEWPORT NAVAL EDUCATION & TRAINING CENT	[Blank Date]	www.epa.gov/superfund/netc
Other	51.35	No	WESTERN SAND & GRAVEL, WESTERN SAND AN	[Blank Date]	www.epa.gov/superfund/wsg
Co-disposal landfill (municipal and industrial)		No	DAVIS (GSR) LANDFILL	[Blank Date]	www.epa.gov/superfund/davisgsr
Co-disposal landfill (municipal and industrial)	46.71	No	SILVESTRI BROS. LANDFILL, CENTRAL LANDFIL	[Blank Date]	www.epa.gov/superfund/central
Chemicals and allied products		No	PETERSON/PURITAN, INC., PETERSON/PURITAN	07/01/1981	www.epa.gov/superfund/peterson
Drums/tanks, Other, Multiple, Chemicals and allied p	70.71	No	CENTREDALE MANOR, CENTREDALE MANOR RE	04/10/1986	www.epa.gov/superfund/centredale
Co-disposal landfill (municipal and industrial)	49.58	No	LANDFILL & RESOURCE RECOVERY, INC. (L&RR	[Blank Date]	www.epa.gov/superfund/lrr
Fabrics/textiles	34.07	No	FORESTDALE-STAMINA MILL, INC., STAMINA MIL	10/01/1979	www.epa.gov/superfund/stamina
Industrial waste facility (non-generator)	47.25	No	DAVIS LIQUID WASTE, DAVIS LIQUID WASTE, DA	07/01/1979	www.epa.gov/superfund/davisliquid
Transportation (e.g., railroad yards, airport, barge d	34.52	Yes	CALF PASTURE POINT LANDFILL, CAMP AVENUE	05/01/1981	www.epa.gov/superfund/ncbc
Co-disposal landfill (municipal and industrial)	38.11	No	ROSE HILL REGIONAL LANDFILL, ROSE HILL RE	[Blank Date]	www.epa.gov/superfund/rosehill
Radioactive products	47.7	Yes	SAVANNAH RIVER SITE (US DOE), US DOE SAVA	[Blank Date]	www.epa.gov/superfund/savannah-river-site
Spill or other one-time event		No	WELCH ENVIRONMENTAL GROUP BELTON, WEL	02/01/2011	
Other	68.26	No	SHURON INC, SHURON INC., SHURON TEXTRON	[Blank Date]	www.epa.gov/superfund/shuron
Military/Other Ordinance	50	Yes	PARRIS ISLAND MARINE CORPS RECRUIT DEPO	02/12/1988	www.epa.gov/superfund/parris-island-marine
Industrial waste landfill	31.58	No	MEDLEY FARMS, MEDLEY FARM DRUM DUMP, MI	[Blank Date]	www.epa.gov/superfund/medley-farm-drum-dump
Co-disposal landfill (municipal and industrial)	37.93	No	LEXINGTON COUNTY LANDFILL AREA, LEXINGT	[Blank Date]	www.epa.gov/superfund/lexington-county-landfill
Industrial waste facility (non-generator)		No	SCRDI BLUFF ROAD SITE, SCRDI BLUFF ROAD	[Blank Date]	www.epa.gov/superfund/scr-di-bluff-road
Industrial waste facility (non-generator)	50	No	GROCE LABORATORIES INC, AQUA-TECH ENVIR	[Blank Date]	www.epa.gov/superfund/aqua-tech-environmental
Industrial waste facility (non-generator)	31.45	No	ELMORE WASTE DISPOSAL, ELMORE WASTE DI	[Blank Date]	www.epa.gov/superfund/elmore-waste-disposal
Municipal solid waste landfill		No		07/01/2008	
Chemicals/chemical waste (e.g., solvent recovery)	47.1	No	LEONARD CHEMICAL CO., INC., LEONARD CHEM	11/01/1984	www.epa.gov/superfund/leonard-chemical-company
Chemicals/chemical waste (e.g., solvent recovery)	40.29	No	ROCK HILL CHEMICAL CO, ROCK HILL CHEMICAL	[Blank Date]	www.epa.gov/superfund/rock-hill-chemical-rutledge-p
Military/Other Ordinance		Yes	ELLSWORTH AFB, ELLSWORTH AIR FORCE BAS	07/31/1980	www.epa.gov/superfund/ellsworth-air-force-base
Research, development, and testing facility	51.13	Yes	OAK RIDGE RESERVATION (USDOE), US DOE O	08/22/1990	www.epa.gov/superfund/oak-ridge-reservation
Electronic/electrical equipment	48.91	No	CARRIER AIR CONDITIONING CO, CARRIER AIR C	08/01/1980	www.epa.gov/superfund/carrier-air-conditioning
Other	50	No	WALKER MACHINE, WALKER MACHINERY	12/11/2013	www.epa.gov/superfund/walker-machine-products
Ordnance production	50	No	SECURITY SIGNALS	09/08/2021	www.epa.gov/superfund/national-fireworks
Other	50	No		09/08/2016	www.epa.gov/superfund/former-custom-cleaners
Ordnance production		No		01/15/2004	www.epa.gov/superfund/sixty-one-industrial-park
Other	50	No	BANDERA ROAD GROUNDWATER PLUM, BANDEI	06/15/2004	www.epa.gov/superfund/bandera-road
Transportation (e.g., railroad yards, airport, barge d	50	No	GULFCO MARINE MAINTENANCE	01/01/1981	www.epa.gov/superfund/gulfc-marine

Plastic resin and ethylene glycol (MEG) complex		50	No	EAST 67TH STREET GROUNDWATER PLUME, EA 04/18/2005	www.epa.gov/superfund/east-67-street
Ground water plume site with no identifiable source			No	MOTCO, INC., MOTCO INC., MOTCO, INC., MOTCC 01/01/1979	www.epa.gov/superfund/motco
Industrial waste facility (non-generator), Multiple, Waste		50	No	MALONE SERVICE COMPANY, INC., MALONE SEI 11/01/1979	www.epa.gov/superfund/malone
Industrial waste facility (non-generator)		49.1	No	GARLAND CREOSOTING CO., GARLAND CREOSOTING [Blank Date]	www.epa.gov/superfund/garland-creosoting
Lumber and wood products/wood preserving/treatment		63.33	No	FRENCH, LTD., FRENCH, LTD, FRENCH LTD 01/01/1979	www.epa.gov/superfund/french-ltd
Industrial waste facility (non-generator)		61.62	No	SIKES DISPOSAL PITS 10/31/1979	www.epa.gov/superfund/sikes
Multiple, Waste/used oil, Multiple, Chemicals/chemicals			No	LOWE CHEMICAL COMPANY, BRIO REFINERY CO [Blank Date]	www.epa.gov/superfund/brio-refining
Chemicals/chemical waste (e.g., solvent recovery), Industrial			No	DIXIE OIL PROCESSORS, INC., DIXIE OIL PROCESSORS [Blank Date]	www.epa.gov/superfund/dixie-oil
Ground water plume site with no identifiable source		46.5	No	JONES ROAD GW PLUME 04/01/2002	www.epa.gov/superfund/jones-road
Multiple, Product storage/distribution, Batteries/scrap		39.65	No	SOL LYNN/INDUSTRIAL TRANSFORMERS, SOL LYNN 05/01/1984	www.epa.gov/superfund/sol-lynn
Ordnance production		39.83	Yes	US ARMY LONGHORN ARMY AMMUNITION PLANT 09/01/1980	www.epa.gov/superfund/longhorn-army-ammo-plant
Other		48	No	VAN DER HORST USA PLATING, VAN DER HORST USA 07/16/2008	www.epa.gov/superfund/van-der-horst
Industrial waste landfill		29.94	No	PETRO-CHEMICAL, INC. (TURLE BAYOU), PETRO-CHEMICAL 05/01/1984	www.epa.gov/superfund/petro-chem
Trucks/ships/trains/aircraft and related components		39.92	Yes	PLANT #4 (GENERAL DYNAMICS), AIR FORCE PLANT #4 11/01/1982	www.epa.gov/superfund/air-force-plan-4
Trucks/ships/trains/aircraft and related components		49.94	Yes	HILL AIR FORCE BASE, HILL AIR FORCE BASE, HILL AIR FORCE 08/01/1980	www.epa.gov/superfund/hill-air-force-base
Ground water plume site with no identifiable source		50	No	BOUNTIFUL/WOODS CROSS 5TH S. PCE PLUME, BOUNTIFUL/WOODS 06/22/1995	www.epa.gov/superfund/bountiful-woods-cross
Oil and gas refining, Multiple, Industrial waste facility			No	EKOTEK(PETROCHEM PLANT) INC, PETROCHEM PLANT 07/01/1980	www.epa.gov/superfund/petrochem
Military/Other Ordinance, Product storage/distribution		45.1	Yes	OGDEN DEFENSE DEPOT (DLA), BURIAL SITE 1 (DLA) [Blank Date]	www.epa.gov/superfund/ogden-defense-depot
Transportation (e.g., railroad yards, airport, barge dock)			No		
Military/Other Ordinance, Batteries/scrap metals/secondary	Catawba Indian		Yes	WALLOPS ISLAND, NASA WALLOPS ISLAND 12/16/2020	www.epa.gov/superfund/nasa_wallops
Chemicals and allied products		53.17	No	GREENWOOD CHEMICAL CO, GREENWOOD CHEMICAL CO [Blank Date]	www.epa.gov/superfund/greenwood
Co-disposal landfill (municipal and industrial)		50	No	KIM-STAN LANDFILL, KIM-STAN LANDFILL 02/01/1980	www.epa.gov/superfund/kimstan
Ordnance production	Pamunkey Indian	50	Yes	BLDG 222, DUMP D, DUMP C, ORDNANCE BURNING 06/01/1981	www.epa.gov/superfund/stjulienscreekannex
Military/Other Ordinance	Chickahominy Indian	33.85	Yes	DEFENSE GENERAL SUPPLY CENTER (DLA), DEFENSE GENERAL 06/01/1981	www.epa.gov/superfund/defensegeneralsupplycenter
Industrial waste facility (non-generator)	Rappahannock Tribe,	33.71	No	H + H INC, H & H INC., BURN PIT, HH BURN PIT, H 06/01/1981	www.epa.gov/superfund/hhbumpit
Co-disposal landfill (municipal and industrial)	Delaware Nation,	50	No	LOUDOUN DUMPSITE, LOUDON DUMP SITE, LOUDOUN 05/01/1983	www.epa.gov/superfund/hiddenlane
Transportation (e.g., railroad yards, airport, barge dock)	Nansemond Indian	50	Yes	USN NAVAL MAGAZINE AREA, USN LF-18 SEAWARD 06/01/1981	www.epa.gov/superfund/norfolknavalbase
Trucks/ships/trains/aircraft and related components	Nansemond Indian	50	Yes	USN BLDG 291, USN WASTE OIL TANK, NORFOLK 04/01/1983	www.epa.gov/superfund/norfolknavalshipyard
Military/Other Ordinance	Upper Mattaponi	50	Yes	MARINE CORPS COMBAT DEVELOPMENT COMM 05/01/1981	www.epa.gov/superfund/marinecorpscombatdevelopment
Trucks/ships/trains/aircraft and related components	Nansemond Indian	50	Yes	NAVAL AMPHIBIOUS BASE/LITTLE CREEK, NAVY 12/01/1979	www.epa.gov/superfund/navalamphibiousbase
Fabrics/textiles		35.39	No	AVTEX FIBERS INC, AVTEX FIBERS, INC, AVTEX 08/31/1980	www.epa.gov/superfund/avtex
Metal fabrication/finishing/coating and allied industries	Rappahannock Tribe,	37.15	No	ARROWHEAD PLATING, ARROWHEAD ASSOCIATES 01/01/1985	www.epa.gov/superfund/arrowhead
Research, development, and testing facility	Upper Mattaponi	50	Yes	LANGLEY AIR FORCE BASE/NASA LANGLEY CENTER 10/17/1989	www.epa.gov/superfund/langleyafb
Ordnance production	Pamunkey Indian	50	Yes	USN NAVAL WEAPONS STA, NAVAL WEAPONS STATION 12/01/1978	www.epa.gov/superfund/navalweaponsstationyorktown
Retail/commercial, Dry-Cleaning Operations		50	No	TUTU WELLFIELD, TUTU WELLFIELD [Blank Date]	www.epa.gov/superfund/tutu-wellfield
Industrial waste facility (non-generator)		49.07	No	BENNINGTON LANDFILL, BENNINGTON MUNICIPAL [Blank Date]	www.epa.gov/superfund/bennington
Electronic/electrical equipment			No	TANSITOR ELECTRONICS, INC., TANSITOR ELECTRONICS 06/01/1981	www.epa.gov/superfund/tansitor
Industrial waste landfill, Multiple, Other		52.58	No	BURGESS BROTHERS LANDFILL [Blank Date]	www.epa.gov/superfund/burgess
Industrial waste landfill		52.29	No	PARKER SANITARY LANDFILL, PARKER LANDFILL 01/01/1985	www.epa.gov/superfund/parker
Coal gasification			No	PINE STREET CANAL, PINE STREET CANAL [Blank Date]	www.epa.gov/superfund/pinestreet
Metal fabrication/finishing/coating and allied industries		48.48	No	COMMERCE STREET PLUME, MITEC 03/14/1986	www.epa.gov/superfund/commercestreet
Co-disposal landfill (municipal and industrial)		41.92	No	ROCKINGHAM LANDFILL, BFI SANITARY LANDFILL [Blank Date]	www.epa.gov/superfund/bfi
Co-disposal landfill (municipal and industrial)		34.79	No	OLD SPRINGFIELD LANDFILL, OLD SPRINGFIELD [Blank Date]	www.epa.gov/superfund/oldspringfield
Radioactive products	Confederated Tribes of	65.23	Yes	HANFORD 300-AREA (USDOE), USDOE-HANFORD 08/05/1987	www.epa.gov/superfund/hanford-300
Multiple, Metal fabrication/finishing/coating and allied			No	BOOMSNUB/AIRCO, BOOMSNUB CORP, BOOMSNUB 08/01/1982	www.epa.gov/superfund/boomsnub-airco
Military/Other Ordinance	Swinomish Indian Tribal	47.58	Yes	N.A.S. WHIDBEY IS - AULT FLD, USNAVY NAVAL 09/12/1984	www.epa.gov/superfund/whidbey-nas-ault
Co-disposal landfill (municipal and industrial)	Muckleshoot Indian	54.27	No	MIDWAY LANDFILL, SEATTLE, CY OF, MIDWAY LANDFILL 06/01/1981	www.epa.gov/superfund/midway-landfill
Chemicals/chemical waste (e.g., solvent recovery)	Muckleshoot Indian	58.63	No	WESTERN PROCESSING COMPANY, INC., WESTERN 06/01/1981	www.epa.gov/superfund/western-processing
Industrial waste facility (non-generator)	Muckleshoot Indian		No	QUEEN CITY FARMS, QUEEN CITY FARMS, FOUR 11/23/1979	www.epa.gov/superfund/queen-city-farms
Trucks/ships/trains/aircraft and related components	Muckleshoot Indian	42.33	No	PACIFIC CAR & FOUNDRY CO., PACCAR, PACIFIC 06/05/1981	www.epa.gov/superfund/pacific-car-foundry
Batteries/scrap metals/secondary smelting/precious	Muckleshoot Indian		No	HARBOR ISLAND, TODD SHIPYARD CORP., ASAF 01/01/1980	www.epa.gov/superfund/harbor-island
Ordnance production	Suquamish Indian	33.6	Yes	KEYPORT TORPEDO STATION, NAVAL UNDERSEA 06/01/1981	www.epa.gov/superfund/undersea-warfare-station
Ground water plume site with no identifiable source	Puyallup Tribe of the	28.9	Yes	AMERICAN LAKE GARDENS/MCCHORD AFB, USA 05/01/1983	www.epa.gov/superfund/american-lake-gardens
Co-disposal landfill (municipal and industrial), Waste	Puyallup Tribe of the		No	AMERICAN SURPLUS SALES, SOUTH TACOMA FIELD 11/01/1979	www.epa.gov/superfund/commencement-bay-stc
Co-disposal landfill (municipal and industrial)	Nisqually Indian		Yes	UNITED STATES ARMY FORT LEWIS LANDFILL N 07/01/1979	www.epa.gov/superfund/fort-lewis-landfill

Batteries/scrap metals/secondary smelting/precious		No		HOOKER CHEMICAL, HOOKER CHEMICALS & PL. [Blank Date]	
Military/Other Ordnance	Nisqually Indian	35.48	Yes		
Co-disposal landfill (municipal and industrial)		34.64	No	FORT LEWIS LOGISTICS CENTER, FORT LEWIS I 01/01/1985	www.epa.gov/superfund/fort-lewis-logistics
Trucks/ships/trains/aircraft and related components	Spokane Tribe of the	31.98	Yes	MICA LANDFILL, SPOKANE CO UTILITIES DEPT - 02/01/1980	www.epa.gov/superfund/mica-landfill
Municipal solid waste landfill			No	FAIRCHILD AIR FORCE BASE, USAF, USAF FAIRC 07/01/1979	www.epa.gov/superfund/fairchild-afb
Co-disposal landfill (municipal and industrial)		28.9	No	INDIAN TRAILS LDFL, NORTHSIDE LANDFILL, SP [Blank Date]	www.epa.gov/superfund/northside-landfill-spokane
Industrial waste facility (non-generator)		36.84	No	GREENACRES LANDFILL, GREENACRES LANDFI [Blank Date]	www.epa.gov/superfund/greenacres-landfill
Co-disposal landfill (municipal and industrial)		34.67	No	CITY DISPOSAL CORP. LANDFILL, CITY DSPL SA [Blank Date]	www.epa.gov/superfund/city-disposal-landfill
Other		32.06	No	REFUSE HIDEAWAY, REFUSE HIDEAWAY LANDF [Blank Date]	www.epa.gov/superfund/refuse-hideaway-landfill
Metal fabrication/finishing/coating and allied industr		31.86	No	HAGEN FARM, NO NAME PROP AT 2318 COUNTY [Blank Date]	www.epa.gov/superfund/hagen-farm
Co-disposal landfill (municipal and industrial)		47.91	No	OCONOMOWOC ELECTROPLATING, OCONOMOV 05/01/1983	www.epa.gov/superfund/oconomowoc-electroplating
Co-disposal landfill (municipal and industrial)		39.04	No	HECHIMOVICH SANITARY LAND, HECHIMOVICH § [Blank Date]	www.epa.gov/superfund/hechimovich-landfill
Industrial waste landfill		34.58	No	RIPON CITY OF LDFL(HWY FF), RIPON CITY LAN [Blank Date]	www.epa.gov/superfund/ripon-city-landfill
Multiple, Illegal disposal/open dump, Industrial wast		34.07	No	TRANSPORT RECYCLING INC, LEMBERGER TRA [Blank Date]	www.epa.gov/superfund/lemerberger-transport
Co-disposal landfill (municipal and industrial)		44.24	No	LEMBERGER LDFL INC, LEMBERGER LANDFILL, [Blank Date]	www.epa.gov/superfund/lemerberger-landfill
Ground water plume site with no identifiable source		28.91	No	SPICKLER LANDFILL, SPICKLER LDFL, SPICKLE [Blank Date]	www.epa.gov/superfund/spickler-landfill
Industrial waste facility (non-generator)			No	WAUSAU GROUNDWATER CONTAMINATION, WAI [Blank Date]	www.epa.gov/superfund/ausau-groundwater
Co-disposal landfill (municipal and industrial)			No	NORTHERN ENGRAVING CO., NORTHERN ENGR [Blank Date]	www.epa.gov/superfund/northern-engraving
Illegal disposal/open dump			No	TOMAH ARMORY, TOMAH ARMORY, TOMAH ARM [Blank Date]	www.epa.gov/superfund/tomah-armory
Co-disposal landfill (municipal and industrial)		45.91	No	TOMAH FAIRGROUND AREA, TOMAH FAIRGROU [Blank Date]	www.epa.gov/superfund/tomah-fairgrounds
Co-disposal landfill (municipal and industrial)		31.02	No	TOMAH MUNICIPAL SAN LDFL, TOMAH MUNICIPA 05/31/1981	www.epa.gov/superfund/tomah-muni-landfill
Industrial waste facility (non-generator)		57.9	No	HUNTS DISPOSAL LANDFILL, CALEDONIA DUMP [Blank Date]	www.epa.gov/superfund/hunts-disposal-landfill
Co-disposal landfill (municipal and industrial)		57.93	No	JANESVILLE ASH BEDS, JANESVILLE DISPOSAL 05/01/1983	www.epa.gov/superfund/janesville-ash-beds
Co-disposal landfill (municipal and industrial)		42.93	No	JANESVILLE DISPOSAL FACILITIES, JANESVILLI 06/01/1981	www.epa.gov/superfund/janesville-landfill
Ground water plume site with no identifiable source		28.9	No	KOHLER CO, KOHLER CO. LANDFILL, KOHLER C 08/01/1980	www.epa.gov/superfund/kohler-landfill
Co-disposal landfill (municipal and industrial)			No	DELAVAN MUNICIPAL WELL #4, DELEVAN MUNI [Blank Date]	www.epa.gov/superfund/delavan-muni-well4
Co-disposal landfill (municipal and industrial)		51.91	No	WASTE MGMT OF WISCONSIN INC OMEGA HILL, [Blank Date]	www.epa.gov/superfund/omega-hills-landfill
Ordnance production		50	Yes	MUSKEGO SAN LDFL, ALLIED WASTE SYSTEM, I [Blank Date]	www.epa.gov/superfund/muskego-landfill
Industrial waste facility (non-generator), Military/Oth		39.23	Yes	ALLEGANY BALLISTICS LABORATORY (USNAVY [Blank Date]	www.epa.gov/superfund/alleganyballistics
				F.E. WARREN AIR FORCE BASE, USAF FRANCIS 02/10/1987	www.epa.gov/superfund/warren-air-force-base