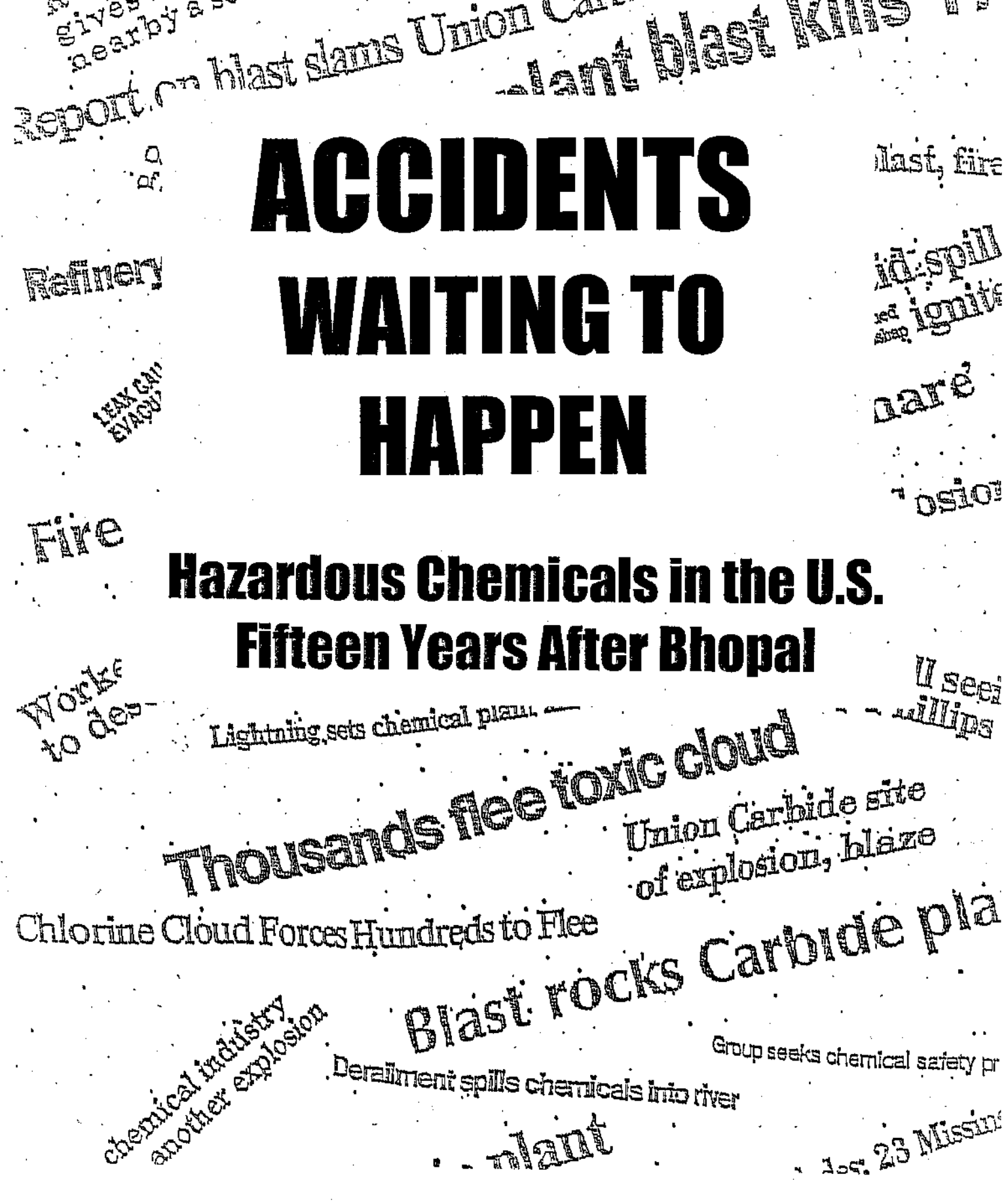
ACCIDENTS
WAITING TO
HAPPEN
Hazardous Chemicals in the U.S.
Fifteen Years After Bhopal
Lightning sets chemical plant
Thousands flee toxic cloud
Union Carbide site
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Accidents Waiting to Happen

Hazardous Chemicals in the U.S.
Fifteen Years After Bhopal

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December 1999

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The **Working Group on Community Right-to-Know** coordinates some 1,500 public interest organizations concerned with chemical hazards and toxic pollution.

Grassroots Connection is a consulting business specializing in analysis of environmental data and design of programs that provide public access to environmental data.

For additional information on this topic:
www.chemsafety.gov (for general information on chemical safety)
www.chemsafety.gov/circ (for recent listings of chemical accidents)
www.rtk.net/wcs (for information on public disclosure of worst-case accident scenarios)
www.rtk.net/ (for Risk Management Plans filed by chemical facilities)

This report is available at www.pirg.org. Copies may be ordered by sending a check or money order for $20 to:

U.S. PIRG Education Fund
218 D St. SE
Washington, DC 20003

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Executive Summary

In the early morning hours of December 3, 1984, a Union Carbide pesticide factory in Bhopal, India, released 40 tons of methyl isocyanate, a highly toxic chemical. A dense, ground-hugging cloud passed through the sleeping city of Bhopal, exposing over 500,000 people. At least 2,000 died in the first days and 300,000 suffered injuries. On this fifteenth anniversary of the Bhopal catastrophe, this report asks: where do such chemical hazards exist in the United States and what safeguards ensure that we will not suffer our own American Bhopal?

Accidents do happen close to home, and all too frequently. A survey from the mid-1980s identified 17 accidents in the U.S. whose potential consequences could have been more severe than Bhopal (factors like wind direction and plant location prevented disastrous consequences). A recent inclusive study by the U.S. Chemical Safety Board found that **between 1987 and 1996 there were on average 60,000 commercial chemical incidents every year, killing more than 250 people each year.** These incidents include a range of events, not all of which necessarily resulted in consequences like injuries, deaths, or evacuations.

This report examines storage of extremely hazardous substances, as defined by the U.S. Environmental Protection Agency (EPA) under the Clean Air Act, Section 112(r). Facilities reported this storage as part of their Risk Management Plans, submitted to the EPA in the summer of 1999. From these reports we learned that **4,860 facilities in the U.S. each store at least 100,000 pounds of an extremely hazardous substance, or more than the amount of volatile toxic chemicals released at Bhopal** (some 90,000 pounds)**.** The potential for accidents is widespread: **every state except Vermont has at least one facility storing more than 100,000 pounds of an extremely hazardous substance.** Furthermore, **at least 100 facilities each store *more than 30 million pounds* of an extremely hazardous substance.**

Ammonia is more commonly stored in these large amounts, a characteristic of its uses as a fertilizer. This use concentrates storage in farm states: the ten **states with the highest number of facilities storing more than 100,000 pounds are Illinois, Iowa, Kansas, Nebraska, Texas, Minnesota, Indiana, North Dakota, Ohio, and California**. Over half of the facilities that store more than 100,000 pounds are in the top six states. Out of the almost 5,000 facilities storing more than 100,000 pounds of an extremely hazardous substance, 78 percent store ammonia.

For a broader look at chemical storage, we also analyzed storage data excluding ammonia. This analysis shows storage concentrated among traditional industrial states rather than farm states. The **states with the highest number of facilities storing more than 100,000 pounds of an extremely hazardous chemical *other than ammonia* are Texas, California, Louisiana, Ohio, Illinois, Pennsylvania, South Carolina, Georgia, New Jersey, Alabama, and Florida**. More than 100 facilities in the U.S. each store more than three million pounds of extremely hazardous substances other than ammonia.

This report also examines the possibility of chemical accidents related to the Year 2000 computer problem (Y2K). The federal government has done little to independently verify chemical industry Y2K readiness. Limited surveys suggest that the largest firms, especially the multinational companies, have been working to prepare for critical Y2K dates. However, experts are concerned that small and mid-sized chemical facilities may not be as aware or as able to prepare for Y2K-related problems. In fact, a recent survey of small and mid-sized chemical facilities found that **while 79 percent had begun a Y2K readiness project, 86 percent had not completed their projects. In addition, 86 percent had not coordinated emergency plans with local officials.** Senator Robert Bennett (R-UT), chair of the Senate Special Committee on the Year 2000 Technology Problem, summarized the findings by saying that these firms are not prepared for Y2K.

In the wake of Bhopal, a diverse coalition of public interest groups pushed for a greater public voice in decisions about chemical hazards. As a result, Congress reluctantly passed the Emergency Planning and Community Right to Know Act of 1986, which established the public's right-to-know about chemical storage and toxic pollution. However, the program focused largely on emergency planning (rather than accident prevention), and relied heavily on under-funded local emergency planning. Meanwhile, major accidents continued.

In 1990, environmental and labor groups won a major new chemical accident prevention program in amendments to the Clean Air Act. This program was intended to fully disclose chemical accident hazards and ensure that facilities effectively guard against an American Bhopal. This measure shifted the initial burden for assessing hazards from mostly volunteer local emergency planning committees to responsible industries. However, weak EPA regulations missed the opportunity to seriously encourage chemical facilities to use inherently safer technologies. Further, in August 1999, Congress restricted public access to these plans. (Some hazard scenario information is in plan summaries at www.rtk.net.)

The fact is that the storage and use of extremely hazardous chemicals poses significant risks to workers, communities, and the environment. Yet government and industry have to date avoided full right-to-know disclosure, thereby sidestepping public demands for community safety and accident *prevention*. Chemical accidents *can* and *do* happen in this country; they kill and injure people, as well as damaging property and the environment. Chemical accidents are preventable. We recommend the following measures:

1. Honor the public's right to know.
The federal government should make readily accessible to the public a complete, national database of Risk Management Plans, including worst-case scenarios. Full disclosure enables government, industry, and the public to establish baselines for progress in reducing chemical hazards. In addition, government and industry should focus on chemical *use*. Improving right-to-know reporting to include chemical use reporting (or "materials accounting") would encourage facilities to focus on ways to reduce chemical use, thereby reducing the need to produce, store, transport, and use large quantities of chemicals with Bhopal-scale accident potential. Proposed legislation before Congress, *The Children's Environmental Protection and Right to Know Act (H.R. 1657)*, would make this improvement.

2. Put Inherent Safety first.
Federal, state, and local governments should insist that chemical facilities eliminate or reduce the *possibility* of chemical accidents through inherently safer technologies as a first resort. The U.S. Chemical Safety and Hazard Investigation Board should develop model regulations for use by EPA to promote accident prevention through Inherent Safety. In addition, the Department of Justice should develop and recommend strict regulations to increase site security at chemical plants, including inherent safety in a "multiple barriers" hierarchy. Proposed legislation before Congress, *The Chemical Security Act (S.1470)*, incorporates inherent safety principles into site security and chemical accident prevention.

3. Prepare for Y2K-related chemical safety problems.
Since no one can predict if, or where, Year 2000 computer problems might occur, facilities should communicate openly with employees, communities, and emergency responders about the special hazards posed by Y2K-related chemical accidents. The federal government has done little to verify Y2K readiness in the chemical industry; local governments, journalists, and the public should use the sample survey provided in Appendix D to ask chemical companies about plans for "safety holidays" and other strategies for protecting workers and the public. Because of the ongoing potential for chemical accidents in the U.S., the Y2K computer problem should be seen as an opportunity to develop reliable contingency plans for accidents and to focus on preventing any accidents in the future.

I. Tragedy in Bhopal

The Union Carbide Catastrophe

In the early morning hours of December 3, 1984, at a Union Carbide pesticide factory in Bhopal, India, water entered a chemical storage tank through leaking valves, triggering a runaway chemical reaction. As the reaction progressed, the temperature and pressure in the tank rose until 40 tons of toxic gases, including highly toxic methyl isocyanate (MIC) and hydrogen cyanide, escaped from the tank.

Because the gases were heavier than the air, a toxic cloud formed and hung close to the ground. The toxic cloud, aided by a gentle northerly wind, moved across the city of Bhopal, spreading like a poisonous blanket over sleeping inhabitants. People awoke gasping for breath, their eyes burning. Seeking safety, thousands took to the streets, running, many carrying children. The toxic gases caused fluid to fill people's lungs, literally drowning many, who fell choking and dying in the streets.

That night, over 500,000 people were exposed to dangerous toxic fumes. At least 2,000 people died, and another 300,000 suffered injuries.[1] Fifteen years later, victims continue to suffer and die from long-term effects. By 1990, the death toll was estimated at over 8,000[2] and a 1997 estimate put the figure at 16,000. Thousands of survivors experience menstrual irregularities, spontaneous abortions, still births, infant mortality, and other health problems at rates dramatically higher than elsewhere in India.[3]

The Blame Game: What went wrong?

Union Carbide officials claimed that the accident was the result of sabotage by disgruntled employees. However, Union Carbide knew of the potential for an accident but did not take essential steps to prevent it. In 1990, writer Peter Montague described Union Carbide's actions leading up to the Bhopal accident:

> Until 1978, Carbide made pesticides at Bhopal without using the supremely toxic chemical, MIC. But MIC was more profitable, so they switched. In 1979 and again in 1982, Carbide sent teams of experts from Danbury [Connecticut] to evaluate safety hazards at the Bhopal plant. The experts specifically warned of plant design deficiencies and the dangers of a "runaway reaction" inside an MIC tank – precisely the reaction that occurred in 1984. Corporate headquarters never followed up to see that the recommendations were implemented.[4]

Indeed, at the time of the accident, at least five major safety systems were either inadequately designed or failed at least partially (see Figure 1). For example, the MIC should have vented through a scrubber and flare tower, but because a vent line was leaking, the MIC leaked directly into the atmosphere. In addition, the MIC that did reach the scrubber was not removed from the waste stream because neither the scrubber nor the flare tower were operational at the time of the accident.[5]

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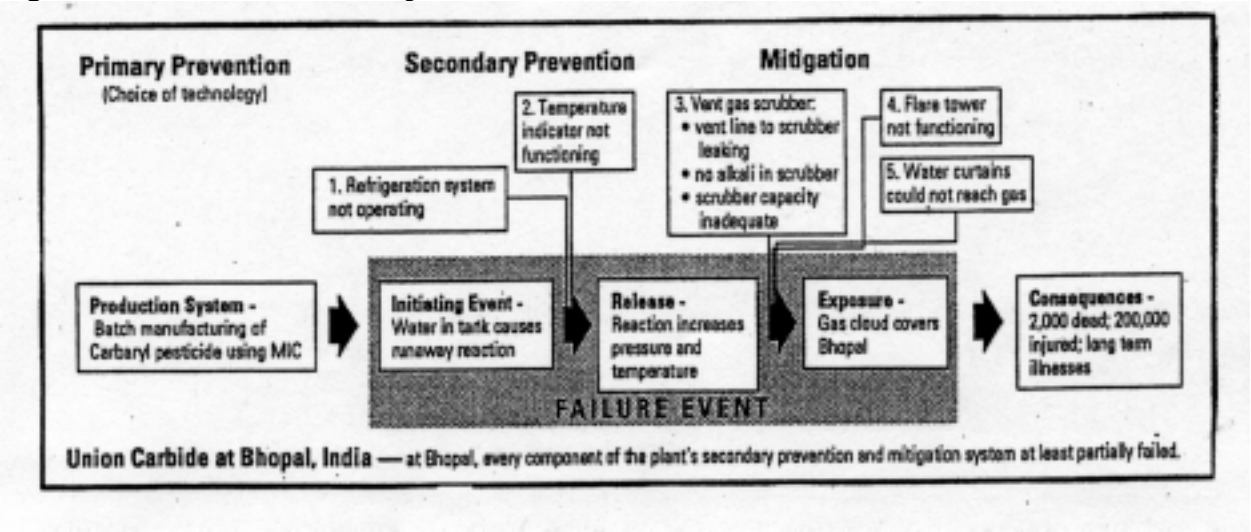
[1] Montague, P. Carbide Officials Face Homicide Charges in Bhopal, India, Court. *Rachel's Hazardous Waste News #58*. Environmental Research Foundation, 1988.
[2] Kurzman, D. *A Killing Wind: Inside Union Carbide and the Bhopal Catastrophe.* New York: McGraw-Hill, 1987. Cited in Montague, P. From Bhopal With Love. *Rachel's Hazardous Waste News #170*. Environmental Research Foundation, 1990.
[3] Both the 1997 estimate and documentation of long-term effects come from: 13th Anniversary Fact Sheet on the Union Carbide Disaster in Bhopal. Bhopal Group for Information and Action, 1997.
[4] Montague 1990.
[5] Bryce, A. Bhopal Disaster Spurs U.S. Industry, Legislative Action. Washington: U.S. Chemical Safety & Hazard Investigation Board (CSB), 1999.

Figure 1. Union Carbide at Bhopal, India[6]



This needless tragedy served as a wake-up call about the potential for major chemical accidents at industrial facilities. On this fifteenth anniversary of Bhopal, this report asks: where do such hazards exist in the United States and what safeguards ensure that we will not suffer our own Bhopal?

II. It Could Happen Here: Chemical Accidents in the U.S.

While the accident in Bhopal may seem long ago and far away, accidents do happen close to home, and all too frequently. In fact, one month before the accident at Bhopal, an FMC Corporation facility in Middleport, New York, accidentally spilled MIC during a routine transfer. Vapors from the spill entered a neighboring elementary school, sending nine children and two teachers to the hospital, and requiring the evacuation of 500 students. One month before that, an American Cyanamid facility in New Jersey released just 12,000 pounds of the pesticide malathion. The resulting fumes extended over 20 miles and sent at least 100 people to the hospital.[7] Indeed, these accidents were not and are not unique. An analysis by the U.S. Environmental Protection Agency (EPA) found that in the early to mid 1980s, there were 17 accidents in the U.S. whose potential consequences could have been more severe than Bhopal, based on toxicity and volume of the chemicals released. Only circumstances like wind conditions and plant location prevented disastrous consequences.[8] Dangerous accidents continue to affect the lives of many Americans:

In the early to mid 1980s, there were 17 accidents in the U.S. whose potential consequences could have been more severe than Bhopal.

Allentown, PA: On February 19, 1999, a deadly blast at Concept Sciences, which was manufacturing hydroxylamine, leveled the plant and seriously damaged several buildings off-site, including a nearby day care center. Five people were killed in the blast, and several others seriously injured.

[6] Derived by the Working Group on Community Right-to-Know from: Ashford, N., et al. The Encouragement of Technological Change for Preventing Chemical Accidents: Moving Firms from Secondary Prevention and Mitigation to Primary Prevention. Boston: Massachusetts Institute of Technology, 1993. Call EPA's EPCRA Hotline at 1-800-535-0202 for a copy.
[7] Weir, David. *The Bhopal Syndrome*. San Francisco: Sierra Club Books: 1988.
[8] Bryce 1999.

Sioux City, IA: On December 13, 1994, an explosion destroyed a Terra Nitrogen Co. fertilizer plant, killing four and injuring more than 18. More than 2,500 people were evacuated as a noxious cloud of ammonia spread over 90 square miles. A safety audit six months earlier had failed to identify problems at the facility.

Rodeo, CA: During 16 days, from August 22 to September 6, 1994, a Unocal plant released some 125 tons of a caustic catalyst. The chemical release sickened an estimated 1,500 people, who experienced vomiting, headaches, and disorientation, among other problems. Some victims remained sick for more than a year after the Unocal release.

Belpre, OH: On May 27, 1994 a Shell Chemical Facility exploded, killing three workers and flushing tons of poisonous styrene into the Ohio River, closing drinking water intakes at towns for miles downstream.

Richmond, CA: On July 26, 1993, oleum from an overheated railroad tank car leaked during unloading at the General Chemical Corporation. The highly concentrated vapors were not captured by safety systems and formed a toxic plume of sulfuric acid which drifted about 15 miles downwind. Some 24,000 people sought help from local hospitals after breathing the acid mist.

Pasadena, TX: On October 23, 1989, an explosion at a Phillips Petroleum plastics manufacturing facility killed 23 workers and blew out windows at an elementary school a mile away. The blast caused workers to lose their jobs, some $675 million in immediate damages to the plant, and over $700 million in lost business over a two-year reconstruction period.

Every year between 1987 and 1996 in the U.S. there were, on average:

- 60,000 chemical incidents
- 417 evacuations of workers or the public
- 2,250 injuries in chemical incidents
- more than 250 deaths, the equivalent of two fully-loaded 737 passenger jets.

U.S. Chemical Safety Board

Chemical accidents occur frequently in the U.S., although the exact number is impossible to determine. Incidents involving hazardous materials are recorded in at least seven different federal reporting systems. A recent review by the U.S. Chemical Safety and Hazard Investigation Board (CSB) consolidated five of these reporting systems and screened out identifiable multiple listings in order to assess how many chemical incidents occur in the U.S. Their report included reported chemical incidents large and small, whether or not there were reported consequences (injuries, deaths, evacuations, etc.). This **inclusive accounting concluded that over a ten-year period between 1987 and 1996, more than 600,000 chemical spills, fires, and explosions occurred – on average over 60,000 incidents every year.**[9] Ninety-five percent of U.S. counties had at least one reported chemical incident (see Table 1 for a state-by-state breakdown). On average, more than 250 Americans were killed every year in chemical incidents.[10]

Chemical accidents *can* and *do* happen here. In order to look at Bhopal-scale chemical accident hazards in the U.S., this report examines hazardous chemicals stored in the largest quantities across the country.

[9] U.S. Chemical Safety and Hazard Investigation Board's baseline on commercial chemical incidents in the U.S.: "*The 600K Report" – Commercial Chemical Incidents in the United States 1987-1996.* Washington, 1999.

[10] It is important to note that the CSB study did not differentiate whether the chemical release involved in an incident directly caused reported deaths or injuries. Specifically, some deaths or injuries reported in transportation-related accidents may be attributed to physical impact rather than chemical exposure.

III. Accidents Waiting to Happen: Hazardous Chemical Storage in the U.S.

An estimated 868,000 facilities across the country report hazardous chemical inventories to local and state emergency response authorities. Of these, some 13,800 or more chemical-using facilities – manufacturers, refineries, water treatment plants, chemical wholesalers, and others that have the largest amounts of extremely hazardous substances – were required to submit to the federal government "Risk Management Plans." These plans are intended to tell workers and facility neighbors about dangerous chemical hazards through calculated "worst-case scenarios," and to ensure that effective safety systems guard against an American Bhopal.

In the summer of 1999, however, Congress blocked public access, at least for one year, to worst-case accident scenarios in a national electronic database (see section V below for more details). By restricting public information on chemical danger zones, Congress deprived journalists and the public of a reliable means of comparing accident potential across the country.

As a first step toward establishing vital public information about the potential for catastrophic chemical accidents, this report examines chemicals stored in large quantities at the 13,800 facilities that filed Risk Management Plans; our analysis is based on EPA's database of these plans. Each chemical whose storage we analyzed has been labeled by EPA as an "extremely hazardous substance" not only because of its effects on human health (see Appendix C), but also because of its volatility, explosiveness, ability to form toxic clouds, or other indicators of high accident hazard. We excluded from our analysis chemicals listed only for flammability, because of inconsistencies in reporting on these chemicals,[11] and based our rankings on the amount reported by facilities as the maximum amount of an extremely hazardous substance in any single production process. We only included processes that the facility reported as having potential off-site consequences in a worst-case accident.

This report uses chemical storage as an indicator of inherent hazard for three reasons. First, Congress has this year blocked public access to more complete information. Second, worst-case scenarios by definition assume that add-on safety systems at facilities will fail, other than passive mitigation. Third, the simple fact is that the production, storage, and use of these chemicals pose inherent hazards to public health and safety. While state-of-the-art safety controls – such as leak detectors, double-walled vessels, supplemental temperature and pressure controls, high-tech valves, sprinklers, and emergency flares or scrubbers – may limit an accident's impacts, they do not prevent incidents from occurring and may even make complex operations more prone to accidents. Sociologist Charles Perrow noted the problems with relying on add-on safety systems in *Normal Accidents*, stating, "if a system is so complex and integrally meshed as to require superhuman operators to constrain the process within safe limits, then it needs some modification."[12]

> "No matter how effective conventional safety devices are, there is a form of accident that is inevitable."
> **Sociologist Charles Perrow, author of *Normal Accidents***

As at Bhopal, add-on safety systems can fail, and facility or corporate managers can fail to maintain safe conditions. In fact, a 1994 trade publication survey found that 75 percent of readers – mostly industry personnel – believed business competition and downsizing is forcing firms to cut safety spending.

[11] Congress de-listed a number of the chemicals that had been listed only for their flammability. However, by the time Congress listed those chemicals, some facilities had already submitted reports. Because we have no way of knowing which facilities did or did not report storage of these chemicals, we removed them from the analysis.

[12] Perrow, C. *Normal Accidents: Living with High-Risk Technologies.* New York: Basic Books, 1984.

Further, 78 percent believed accidents are more likely as employees work longer hours, handle new assignments, and fear for their jobs.[13]

Even fully functioning safety systems may not be adequate. After the tragedy in Bhopal, Union Carbide installed a $5 million computerized leak detection and early warning system at its facility in Institute, WV, which also used methyl isocyanate. On August 11, 1985 a cloud of mixed toxic chemicals escaped from a 500-gallon storage tank at the facility. The sophisticated leak detection system told managers that the cloud was hovering over the plant, with no threat to nearby communities. Meanwhile, it spread over four neighboring communities, exposing thousands of people and sending over 130 to hospitals.[14]

Widespread Risks

Comparing the maximum amount of a chemical[15] stored at a facility in any one process, we found that **4,860 facilities store at least 100,000 pounds of a chemical considered by EPA to be extremely hazardous** (see Table 2). By comparison, the estimated 40 metric tons of methyl isocyanate released at Bhopal amounted to slightly less than 90,000 pounds, so **each of these facilities stores more of an extremely hazardous chemical than was released in the Bhopal accident**. Every state except Vermont had at least one facility storing more than 100,000 pounds of an extremely hazardous substance. **Over 100 facilities store more than 30 million pounds *each*, or over 300 times the amount released at Bhopal**. Thirty million pounds is the amount held by about 165 ninety-ton railroad tank cars.[16]

The large number of facilities storing ammonia in very high quantities dominates this look at chemical storage. For 3,806 (78 percent) of the 4,860 facilities storing more than 100,000 pounds of an extremely hazardous substance in any one process, that substance is ammonia (compare Tables 2 and 3). Because ammonia is used as a fertilizer, its storage is highly concentrated in farm states: **the ten states with the most facilities storing more than 100,000 pounds of an extremely hazardous substance in any one process are Illinois, Iowa, Kansas, Nebraska, Texas, Minnesota, Indiana, North Dakota, Ohio, and California**. Moreover, storage is highly concentrated in a few states: the six states with the highest number of facilities storing over 100,000 pounds – Illinois, Iowa, Kansas, Nebraska, Texas, and Minnesota – contain more than half the facilities in the nation that store over that amount.

According to the Chlorine Institute, a full-scale release of chlorine from a single 90-ton railroad tank car would cause a worst-case gas plume 3 miles wide and 41 miles long.

In order to get a broader look at chemical storage, we also analyzed the distribution of facilities storing over 100,000 pounds of extremely hazardous substances other than ammonia (see Table 3). When ammonia is excluded, the distribution among states changes significantly – the storage is concentrated in heavily industrialized states. Without ammonia, **the eleven states (ten and eleven are tied) with the highest number of facilities storing over 100,000 pounds are Texas, California, Louisiana, Ohio, Illinois, Pennsylvania, South Carolina, Georgia, New Jersey, Alabama, and Florida**. As with ammonia storage, hazardous chemical storage in industrial states is highly concentrated in a few states: over half of the facilities storing over 100,000 pounds are located in nine states.

Table 4 lists the 100 facilities storing the highest amounts of extremely hazardous substances besides ammonia. It is clear that facilities store a broad range of chemicals in extremely high amounts – each of

[13] *Industrial Safety and Hygiene News*. May 1994, pp. 31-32.
[14] Weir 1988.
[15] In the context of our analysis, the term 'chemical' refers to an EPA-listed extremely hazardous substance under the Clean Air Act, Section 112(r).
[16] A 90-ton railcar is a standard means of transporting hazardous chemicals.

the facilities on the list is storing at least 3 million pounds of an extremely hazardous chemical, or 34 times the amount released at Bhopal.

While EPA has named each of the chemicals stored by these facilities an extremely hazardous substance, not every chemical has the same accident potential (some chemicals may be more volatile or more able to form toxic clouds than others). In order to examine where the chemicals of highest concern are stored in the greatest amounts, we ranked facilities storing the highest amounts of each of five chemicals with extremely high worst-case accident potential: ammonia, chlorine, hydrochloric acid, hydrogen fluoride (hydrofluoric acid), and formaldehyde[17] (Tables 5 through 9).

IV. Cause for Concern: Y2K

The Year 2000 (Y2K) and Chemical Accidents

The Year 2000 problem refers to the inability of many computer systems to correctly interpret the date 2000, leading to computer malfunctions or failures. Because chemical plants often use computer systems to control operations, malfunction or failure could have serious consequences. Chemical facilities use computerized equipment in a variety of systems: process controllers, air monitors, security systems, safety shutdown equipment, and systems for controlling high pressures and temperatures. It is unknown what percentage of these systems may have Y2K problems programmed into them. In addition, even systems which do not rely on computers or whose computers are free of Y2K-related problems may be at risk if the power supply or other external factors are disrupted by Y2K. Malfunctions or failures of any of these systems have the potential to cause significant chemical accidents, but the degree to which problems will occur when key dates roll over is impossible to predict.

Some facilities' experiences suggest that real and serious computer problems may occur:

- In 1996, an aluminum smelter in New Zealand sustained $600,000 damages from overheating caused by computer problems. The computers failed to account for the "extra" 366th day at the end of 1996 – a leap year – and shut down at midnight on New Years Eve.[18]

- A safety system designed to detect emissions of deadly hydrogen sulfide gas shut down during a Y2K test on an oil rig in the North Sea.[19]

- A sewage treatment plant in Los Angeles ran a test of its Y2K contingency plan in June of 1999, which included the use of an emergency generator to supply power. When the facility cut the main power supply, the back-up generator worked, but for reasons unknown at the time, a diversion gate malfunctioned, resulting in 1.2 million gallons of sewage flowing into a city park.[20]

[17] These chemicals were estimated to have the highest worst-case disaster potential in the report *Too Close to Home*, published by U.S. PIRG and the National Environmental Law Center in July 1998.
[18] U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. "Prevent Year 2000 Chemical Emergencies." *Chemical Safety Alert*. February 1999.
[19] Ibid.
[20] Wilson, J., Director of the Los Angeles Bureau of Sanitation, in a letter to John Ferraro, President of the Los Angeles City Council, summarizing the spill.

Y2K Preparation Among Chemical Facilities

The U.S. Chemical Safety and Hazard Investigation Board (CSB) has conducted outreach to the chemical industry to gauge the extent of Y2K readiness. Their initial work found that "the Y2K problem is one of major proportions and has the potential for causing disruption of normal operations and maintenance at the nation's chemical and petroleum facilities."[21] Small and mid-sized companies may present the greatest risk. The board noted that the larger companies, particular large multinationals, more often have the awareness, planning, financial and human resources to handle the problem, as long as there are no significant external problems such as utilities failures. Nonetheless, some of the largest chemical companies plan "safety holidays" – temporary shutdowns – around key dates. The CSB report emphasized that Y2K problems were much more likely at small and mid-sized facilities, as these facilities are likely to be less aware of the problem and have fewer resources for dealing with it.

Several corporations have announced plans to shut down or scale back operations. The Canadian subsidiary of Dow Chemical Corporation announced temporary production halts for New Year's Eve, joining two other Canadian chemical companies taking precautionary measures. The companies all emphasize that their facilities are ready for Y2K, but are scaling back operations so that the situation will be easier to control in the event of power failures. In West Virginia, managers for Rhone-Poulenc, DuPont, and Ashland Chemical corporations report that they will temporarily stop production during the Y2K transition. A Portland, Ore., plant operated by Elf Atochem North America, Inc., will put all but two processes on standby and have emergency generators and an oil-fired boiler on hand in case of a power failure.

Chemical Accidents and Y2K

"The computer year 2000 problem, unless properly addressed, poses significant world-wide chemical safety problems."
Intergovernmental Forum on Chemical Safety

"Even though we are less than 100 days from the year 2000, it is impossible to conclude that the majority of chemical companies are ready for Y2K"
The Center for Y2K & Society

"the assumption was made that [small chemical handlers and manufacturers] were not prepared for Y2K. To a large degree, that assumption has been confirmed."
Senator Robert Bennett (R-UT), Chair, Senate Special Committee on the Year 2000 Technology Problem

"The Y2K problem is one of major proportions and has the potential for causing disruption of normal operations and maintenance at the nation's chemical and petroleum facilities**."**
U.S. Chemical Safety Board

The bigger wild card is expected to be small and mid-sized chemical facilities. At the end of October 1999, Senators Robert Bennett (R-UT) and Christopher Dodd (D-CT), Chair and Vice-Chair of the Senate Special Committee on the Year 2000 Technology Problem, released new data on the lack of Y2K readiness among small and medium-sized chemical-handling facilities. The data were based on findings from a survey of firms with 200 or fewer employees in New Jersey, Kansas, California, and Texas. The survey found that:

- **79 percent of firms surveyed had begun a Y2K readiness project.**

- **86.5 percent had not completed their Y2K readiness projects.**

[21] U.S Chemical Safety and Hazard Investigation Board (CSB). *Year 2000 Issues – Technology Problems and Industrial Chemical Safety*. Report to the Senate Special Committee on the Year 2000 Problem, 1999.

- **85.6 percent had not coordinated emergency plans with local officials.**[22]

In response to the survey results, Senator Bennett said, "In the past, we have had very little information about small chemical handlers and manufacturers, and the assumption was made that they were not prepared for Y2K. To a large degree, that assumption has been confirmed."[23] The Senators said they are urging EPA and the Federal Emergency Management Agency (FEMA) to alert State Emergency Managers, State Emergency Response Commissions, and Local Emergency Planning Committees. The Senators emphasized that facilities should use the remaining time before New Year's Eve, the first critical Y2K date, to develop contingency plans in case of a Y2K malfunction, and to coordinate those plans with local officials. Senator Dodd said, "Time is running out, but it's still not too late if these firms act now. Developing viable Y2K contingency plans in conjunction with state and local officials must be a top priority in the chemical industry."

The plain fact is, however, that we have very little reliable public information on chemical industry preparedness for Y2K. With the exception of inquiries by the Chemical Safety Board and Senator Bennett's Committee, the federal government has done little to verify chemical industry Y2K readiness. In fact, in the summer of 1999, President Clinton signed into law a bill that limits corporate liability for Y2K-related damages, lessening the incentive for companies to act to prevent such damages. Neither EPA nor the Occupational Safety and Health Administration has collected systematic readiness information, and few states have picked up the slack. (California is an exception.)

In contrast, the Nuclear Regulatory Commission has ensured independent auditing at all of the nation's nuclear plants, and the Securities and Exchange Commission has required some 9,000 major businesses to report regularly on Y2K readiness. But we approach the year 2000 without basic information on the chemical industry's Y2K preparedness. For this reason, we have attached a simple survey (see Appendix D) with basic questions for chemical companies about plans for "safety holidays" and other strategies for protecting workers and the public.

V. After Bhopal: Addressing Chemical Safety

A Right to Know Movement Forces Government Action

The Bhopal disaster contributed to a growing awareness of deadly chemical industry hazards. Bhopal added the specter of sudden chemical accidents to news about toxic dumping at Love Canal and nuclear meltdown at Chernobyl, which had raised the public visibility of large scale pollution problems. Starting at the local and state level, a broad movement of environmental and labor groups, grassroots activists, and social justice organizations pushed for a greater public voice in decisions about chemical hazards.

As a result, Congress passed the Emergency Planning and Community Right to Know Act of 1986 (EPCRA, or SARA Title III) as a freestanding title in Superfund legislation (a law for cleaning up abandoned toxic dumpsites). In effect, EPCRA codified the new philosophy of right-to-know, putting information into the hands of parties who need it to plan for and prevent pollution and emergencies. The law has three major functions: it enables people to participate in emergency planning; it lets people find out where dangerous chemicals are stored in communities; and it establishes the first publicly accessible, national database of toxic pollution ever mandated by a federal environmental law.

[22] Mary Kay O'Connor Process Safety Center, Texas A&M University System. Y2K Readiness of Small and Medium-sized Enterprises. October 1999.
[23] Senate Special Committee on the Year 2000 Technology Problem press release. "Study Says Small Chemical Businesses Not Y2K Ready, Bennett, Dodd Urge EPA, FEMA to Help Prepare Communities." October 21, 1999.

EPCRA's toxic pollution database, the Toxics Release Inventory (TRI) gave citizens and communities valuable information about pollution and gave the industry a public incentive to reduce toxic releases. In more than ten years since the first TRI data release, the EPA estimates that industries have reduced pollution by more than forty percent.[24] However, in the case of chemical accidents, EPCRA did not go far enough. Indeed, few of the mostly volunteer Local Emergency Planning Committees, set up under EPCRA, were capable of producing basic facility hazard assessments; even fewer were requesting necessary documents from industry, and almost none were telling the public about hazards in the community.

Meanwhile, chemical accidents continued. On October 23, 1989, an explosion at Phillips Petroleum in Pasadena, Texas decimated the plastics manufacturing facility, killing 23 workers and blowing out windows at an elementary school about a mile away. In addition to the tragic loss of human life, the blast had economic consequences: workers lost jobs, and the plant suffered some $675 million in immediate damages and more than $700 million in lost business over a two-year reconstruction period. These and other major accidents pointed to a continued slide in chemical safety.

In 1990, Congress again took steps to address the problem of chemical safety, with amendments to the Clean Air Act. This law included a major new prevention program, in which facilities that use large amounts of extremely hazardous substances prepare Risk Management Plans (the documents which provided the data for this report). In these plans, facility operators assess their own hazards and disclose to workers and the public a "worst-case scenario" of what could happen if safety systems fail – thereby shifting the initial hazard assessment burden from poorly funded Local Emergency Planning Committees to the responsible facilities. In addition, facilities must undertake a prevention program that addresses basic safety procedures such as training, maintenance, and safety audits, and must coordinate emergency response plans and drills with local planners.

Unfortunately, the EPA's weak implementation of the Clean Air Act amendments failed to focus on *preventing* chemical accidents, but has focused instead on add-on safety measures and on emergency response. Despite vigorous urging from labor and environmental groups, EPA repeatedly weakened the Risk Management Plan regulations and did not adequately encourage "Inherent Safety" practices – or practices that reduce hazards by making fundamental design choices to use materials and processes that pose little or no risk of a catastrophic accident.

The Clean Air Act was further compromised in the summer of 1999, when the chemical industry persuaded Congress to block public disclosure of worst-case chemical accident scenarios. These hazard scenarios are the most valuable portion of the Risk Management Plan for communicating risk to the public – an essential step in preventing chemical accidents. Right-to-know disclosure gives facilities a visible public incentive to reduce the hazards they pose to neighboring communities. Also, by relying on an assessment of what could happen if safety systems fail, the scenarios point to inherent safety practices as the best solution for accident prevention.

The chemical industry, however, lobbied hard to oppose public posting of worst-case scenarios on the Internet. The industry argued that such posting would render their facilities vulnerable to criminal activity. Congress adopted the industry's argument – but without taking any real steps to improve site security or reduce hazards. Instead Congress blocked public access to an electronic database of worst-case scenarios for at least one year. In the meantime, Congress restricted public disclosure to local, industry-controlled meetings. These local meetings, by design, prevent people from learning about hazards where relatives live or work, or where they might travel, relocate, or attend school. Perhaps more importantly, local-only access prevents people from learning about successful safety practices in

[24] U.S. EPA. *1996 Toxics Release Inventory*. June 1998.

other communities – successes that cost-cutting managers may wish to avoid at their own facilities. At the same time, however, many facilities reported details of worst-case scenarios in the Risk Management Plan summaries; these summaries, not subject to Congressional restriction, are available at www.rtk.net/.

The Clean Air Act also established an independent Chemical Safety and Hazard Investigation Board to investigate the root causes of chemical accidents and recommend improvements in safety regulations and practices (much as the National Transportation Safety Board investigates airplane crashes). The board's first investigation, into a deadly explosion at Sierra Chemical in Sparks, Nevada, showed the board's value. Sierra Chemical claimed sabotage, much as Union Carbide had done after Bhopal. However, the board's first report disproved this claim, and instead faulted Sierra Chemical's hazards analysis, training program, operating procedure, building design, safety inspection, and employee participation efforts -- as well as lax government oversight.

The Responsible Care Program: Trust Us, Don't Track Us

In the 1980's, the Chemical Manufacturers Association's (CMA) own surveys indicated that the public had little confidence in the industry and favored additional regulation combined with strict enforcement of environmental laws. CMA responded by developing the Responsible Care Initiative in 1988. Fundamentally, Responsible Care seeks to improve the public image of the chemical industry in order to avoid further environmental and safety regulations.

At the heart of Responsible Care are certain vague principles. Adherence to these principles is mandatory for CMA member companies, which commit to:

- Be safe and environmentally responsible in the manufacture, transportation, storage, use, and disposal of chemicals;
- Respond to community concerns about chemicals and operations;
- Help communities put emergency procedures in place to handle spills and other releases – procedures that also can be useful in responding to natural disasters; and
- Keep the public and government officials informed about chemical-related health and environmental hazards.

Nothing in Responsible Care, however, commits any facility to *measurable goals* or *timelines* to reduce chemical risks. Further, the public posture of openness often conflicts markedly with the industry's anti-right-to-know positions in lobbying state legislatures and Congress.

Responsible Care?
In response to a 1998 U.S. PIRG survey, more than 75 percent of chemical companies would not or could not provide answers to seven basic questions about chemicals used at their facilities.

Numerous CMA publications tout the effectiveness of Responsible Care. A yearly Progress Report claims great achievements,[25] yet basic delivery is often poor. For example, in a 1998 U.S. PIRG telephone survey, more than 75 percent of CMA companies would not or could not provide answers to seven basic questions about chemicals used at their facilities.[26]

Responsible Care requires member companies to engage in community dialogue, and recommends that facilities form Community Advisory Panels (CAPs). Some 400 facilities have formed CAPs. These panels establish dialogue with local community and opinion leaders in regular meetings in order to help companies anticipate and mold public opinion.

[25] *The Year in Review 1995-1996, A Responsible Care Progress Report*.
[26] *Trust Us. Don't Track Us. An Investigation of the Chemical Industry's Responsible Care Program*. Washington, DC: U.S. PIRG, 1998.

The CAPs are limited by design. These advisory panels:

- Have membership that is hand-picked by companies;
- Can be shut down at any time by those companies;
- Have no legally binding access to measurements and hard data;
- Have no ability to obtain credible, independent third-party audits;
- Have no decision-making authority;
- Operate without facility commitments to measurable goals or timelines for reducing chemical risks;
- Have no means to evaluate actual safety and environmental performance;
- Operate under management codes that contain only broad, vague language;
- Rely frequently on company-paid facilitators; and,
- Provide no accountability enforceable by law.
- Lack resources for outside advisors who can analyze technical information.

Without basic validation measures, Responsible Care lacks accountability and credibility. As a result of these weaknesses-by-design, there is little evidence that CAPs ever articulate and make real demands for progress toward measurable prevention goals. For example, CAPs may take up strategies such as how to "shelter in place" (or staying indoors during a short chemical release) in lieu of inherent safety and other prevention efforts. There are no real life examples, as of yet, that sheltering will work in a major release. Yet through CAPs, the industry keeps the focus on sheltering and emergency response, and off of efforts to reduce hazards at the source.

A survey conducted by the International Federation of Chemical, Energy, Mine and General Workers' Union indicates that the Responsible Care program also has had little impact on the majority of the world's chemical workers. The survey found that 35 percent of union employees contacted were not even aware of the Responsible Care program, and most unions that were aware of the program were skeptical of its value.[27]

A Tellus Institute study on Witco Corporation of New Jersey found skepticism of Responsible Care among the corporation's management. According to the plant manager, the Responsible Care program does very little to help achieve pollution prevention because of the lack of structured process inherent in the program. The facility manager pointed to the failure of Responsible Care to provide any assistance or direction in reaching pollution prevention goals.[28]

Since Responsible Care is voluntary, member companies do little more than comply with current environmental laws – laws that do not provide needed focus on *preventing* toxic pollution and chemical accidents.

[27] *Responsible Care: A Credible Industry Response?*, survey of International Federation of Chemical, Energy, Mine and General Workers' Union (ICEM), 1997.
[28] Tellus Institute. *New Jersey's Planning Process: Shaping a New Vision of Pollution Prevention*, Case Study Number 4 – Witco Corporation.

VI. Promoting Inherent Safety and the Public's Right to Know

Inherent Safety: Reducing Risks and Preventing Accidents

To date, government and industry efforts to protect ecosystems, workers, and the public have focused on add-on safety systems, emergency response, and clean-up. As discussed in Section III, state-of-the-art safety systems (leak detectors, double-walled vessels, supplemental temperature and pressure controls, high-tech valves, sprinklers, and emergency flares or scrubbers) may limit an accident's impacts, but they do not prevent incidents from occurring and may even make an operation more prone to accidents.

Add-on safety systems can and do fail: at Bhopal, five separate safety systems failed to neutralize or contain the release of deadly methyl isocyanate gas. Following the Bhopal disaster, Union Carbide added state-of-the-art enhancements to its Institute, WV, facility. Nonetheless, in August, 1985 an accident occurred at the facility, proving the rule that add-on safety systems can never be as successful as front-end prevention

- The **Solon, Ohio**, wastewater treatment plant switched from volatile chlorine to safer ultraviolet light for disinfecting wastewater.

- DuPont in **Victoria, Texas** found a way to use up methyl isocyanate -- the Bhopal chemical -- such that no dangerous storage is required.

- **New Jersey**'s Toxic Catastrophe Prevention Act (with includes fees for on-site storage) has prompted a number of water treatment plants to switch from chlorine gas to less hazardous bleach.

The best solution is to prevent toxic chemical spills, fires, and other releases at every stage of toxic chemical production design and operation. Prevention can be most effectively achieved through the engineering design principle of Inherent Safety, which eliminates or reduces the possibility of an accident by modifying key aspects of the production system, such as technologies, products and raw materials (e.g., substitution of less hazardous chemicals or reductions in their use).

Experts from industry, government, labor, and environmental groups advocate Inherent Safety as a truly preventive approach to reducing chemical accident risks. An interview with Edward Munoz, former Managing Director of Union Carbide, India, provides a compelling example. Union Carbide officials claim that the Bhopal accident was an unusual event, and possibly a result of sabotage. Munoz agreed that it may well have been an unusual event, but that "it doesn't exonerate the guy who built the tank." His conclusion: "if you do something that is inherently dangerous and somebody does something foolish with it, still you are responsible for doing what was inherently dangerous."[29]

Dr. Trevor Kletz, a leader in promoting Inherent Safety, states, "whenever possible, hazards should be removed by a change in design…rather than by adding on protective equipment."[30] Bringing the concept of Inherent Safety down to understandable terms, Dr. Kletz notes, "If the meat of lions was good to eat, our farmers would be asked to keep lions and they could do so, though they would need cages around their fields instead of fences. By why keep lions when sheep or cattle will do instead?"

To be inherently safer (and cleaner), companies should analyze the hazards associated with the use of certain chemicals, products, and production processes, and search for benign alternatives. An EPA study completed by Nicholas Ashford et. al., of the Massachusetts Institute of Technology recommends that

[29] Karliner, J. *A conversation with Edward A. Munoz, former Managing Director of Union Carbide, India, Ltd.* Transnational Resource & Action Center, in association with the Bhopal Action Resource Center of the Council on International and Public Affairs. For the full interview; see www.corpwatch.org/bhopal.

[30] Kletz, T. *What Went Wrong*. Houston: Gulf Publishers, 1994.

toxic chemical producers and users be required to undertake a Technology Options Analysis (TOA), a concerted effort to identify safer and cleaner alternatives, which forms part of a continuous technology improvement process.[31] Through TOA planning, the facilities adopt inherently safer technologies with appropriate cost and performance characteristics and explain why any technically feasible options were not selected. Information contained in the TOA could be available to the public and could likely lead to dissemination of innovative technologies.

Technology Options Analysis is similar to its counterpart dealing with 'routine' toxic hazards: pollution prevention planning. Facilities planning for pollution prevention customarily analyze their hazardous chemical flows and identify cost-effective ways to reduce the use of toxic chemicals and generation of toxic waste. Inherent Safety and pollution prevention share a similar goal: change technologies, products, and raw materials to reduce toxics-related hazards at the source.

Exposing the risks: the importance of the public's right to know

Public information has greatly improved environmental protection efforts in the U.S. Perhaps the best-known success has been the federal Toxics Release Inventory (TRI), which EPA credits with a 46 percent decrease in toxic releases to the environment.[32] The TRI has done this by using the public spotlight to encourage pollution corporations to make voluntary decisions to reduce their toxic releases. In addition, it enables government agencies to target resources and strengthens citizen activism.

While the TRI is the best national publicly available source of information on toxic chemical pollution, there are many significant reporting gaps. Specifically, the federal right-to-know program does not include toxic chemical use reporting, or "materials accounting." Chemical use reporting would provide the public greater information on toxic chemicals used in the workplace, transported through communities, and placed in consumer products.

Strong right-to-know laws in Massachusetts and New Jersey already require companies to track and report toxic chemical use. These programs show that chemical use reporting and pollution prevention planning helps industries find ways to reduce pollution and in many cases save money in the process.

[31] Ashford N. et. al., 1993.
[32] U.S. EPA 1996.

VII. Recommendations

The storage and use of extremely hazardous chemicals poses significant risks to workers, communities, and the environment. Chemical accidents *can* and *do* happen in this country; they kill and injure people, damage property, and foul the environment. Chemical accidents are preventable. Government, industry, and the public should take measures to prevent toxic chemical accidents and improve chemical safety in the United States:

1. Honor the public's right to know.
The federal government should make readily accessible to the public a complete, national database of Risk Management Plans, including worst-case scenarios. Full disclosure of chemical hazards enables government, industry, and the public to measure and evaluate progress on Inherent Safety at industrial facilities. Full disclosure enables people to hold government and industry accountable for real progress on improving site security and reducing chemical hazards.

Proposed legislation before Congress would broaden right-to-know reporting under the Toxics Release Inventory to help citizens, government, and industry obtain complete and accurate information on toxic chemical production and use. By requiring chemical use reporting, this bill, *The Children's Environmental Protection and Right to Know Act (H.R.1657)*, would close important gaps in right-to-know data and help industry work toward real pollution and accident prevention.

2. Put Inherent Safety first.
Federal, state, and local governments should insist that chemical facilities eliminate or reduce the *possibility* of chemical accidents by modifying technologies, products, and raw materials. These inherent safety practices are the best way to ensure community safety. EPA has the authority under Section 112(r) of the Clean Air Act to mandate accident reduction measures, but in nine years since the law was enacted, has not used that authority. The U.S. Chemical Safety Board should develop recommendations to EPA for the promotion of inherent safety. The Department of Justice should develop and recommend strict regulations to improve site security, *including through inherent safety*. State and local governments should integrate inherent safety into existing pollution prevention and chemical safety activities.

Proposed legislation before Congress, *The Chemical Security Act (S.1470)*, establishes a "multiple barriers" hierarchy for preventing chemical accidents and improving site security. First, identify and use inherently safer technologies where feasible. Second, where hazards remain, use secondary containment, control, or mitigation measures. Third, improve site security to address remaining hazards. Fourth, establish adequate buffer zones around facilities to protect residential areas, schools, and hospitals.

3. Prepare for Y2K.
With tens of thousands of facilities across the country handling hazardous chemicals, no one can predict for certain if or where Y2K-related accidents might occur. Recent surveys indicate that small and mid-sized facilities may not be prepared for the first critical Y2K date on January 1. In the short time remaining, facilities should communicate openly with workers and communities about the special risks to chemical operations posed by potential Y2K computer failures. Facilities should develop and coordinate contingency plans with employees, communities, and emergency responders. In addition, local governments and the public should contact chemical facilities to determine their Y2K readiness, including plans for safety holidays if preparations are not complete (see sample survey, Appendix D). Because of the ongoing potential for chemical accidents in the U.S., the Y2K computer problem should be seen as an opportunity to develop reliable contingency plans for accidents and to focus on preventing any accidents in the future.

Table 1. Reported Chemical Incidents in the U.S., 1987-1996*

	State	Total Reported Incidents
1	California	100,579
2	Texas	55,209
3	Ohio	26,364
4	New York	25,660
5	Louisiana	24,920
6	Illinois	23,160
7	Michigan	19,970
8	Pennsylvania	17,870
9	Florida	17,758
10	New Jersey	13,491
11	Massachusetts	12,985
12	Virginia	12,224
13	Maryland	11,006
14	Kansas	9,964
15	Tennessee	9,770
16	Georgia	9,240
17	Indiana	9,156
18	Kentucky	8,915
19	Missouri	8,878
20	Oregon	7,905
21	Colorado	7,506
22	Connecticut	7,478
23	Minnesota	7,227
24	West Virginia	7,105
25	North Carolina	7,041
26	Iowa	7,039
27	Oklahoma	6,816
28	Washington	6,432
29	Arkansas	5,910
30	South Carolina	5,389
31	Wisconsin	5,183
32	Utah	5,040
33	Alabama	4,959
34	Arizona	4,825
35	Nebraska	3,374
36	Wyoming	3,244
37	Nevada	3,020
38	Idaho	2,986
39	Mississippi	2,950
40	Maine	2,505
41	New Hampshire	2,270
42	Montana	1,966
43	New Mexico	1,840
44	DC	1,639
45	South Dakota	1,529
46	Alaska	1,490
47	Rhode Island	1,370
48	Delaware	1,337
49	Vermont	1,123
50	Hawaii	799
51	North Dakota	727

Note: The Chemical Safety Board compiled five federal databases in order to arrive at a total of 600,000 incidents over the ten-year period. Because of incomplete reports on some incidents, not all incidents had valid state identifications. This table includes only those incidents which did have valid state IDs, and for that reason, the total number of incidents listed on this table is not 600,000. Also, not all of these incidents resulted in serious consequences (injuries, deaths, or evacuations) -- see other information on these data in Section II.

***Source: U.S. Chemical Safety Board's Baseline for Commercial Chemical Incidents in the U.S.**

Table 2. Numbers of facilities storing more than 100,000 pounds of an extremely hazardous substance* in a single process.

	State	Number of facilities
1	Ilinois	628
2	Iowa	524
3	Kansas	415
4	Nebraska	366
5	Texas	299
6	Minnesota	290
7	Indiana	245
8	North Dakota	227
9	Ohio	171
10	California	155
11	Missouri	139
12	Oklahoma	117
13	Washington	91
14	Louisiana	85
15	Kentucky	84
16	Wisconsin	72
17	Colorado	67
17	Michigan	67
19	Florida	59
20	Georgia	56
21	Pennsylvania	52
22	South Dakota	50
23	North Carolina	45
24	South Carolina	44
24	Tennessee	44
26	Montana	42
27	New York	40
28	Alabama	37
29	New Jersey	36
30	Oregon	34
31	Idaho	32
32	Mississippi	30
33	Arkansas	28
33	Arizona	28
35	Virginia	27
36	West Virginia	26
37	Maryland	19
38	Utah	15
39	Wyoming	10
40	Delaware	9
41	Massachusetts	8
41	New Mexico	8
41	Nevada	8
44	Maine	6
45	Connecticut	5
46	Rhode Island	4
47	DC	3
47	Hawaii	3
49	New Hampshire	2
50	Alaska	1
51	Vermont	0
	Total	4,860

Table 3. Numbers of facilities storing more than 100,000 pounds of an extremely hazardous substance* *other than ammonia* in a single process.

	State	Number of facilities
1	Texas	152
2	California	66
2	Louisiana	66
4	Ohio	56
5	Illinois	55
6	Pennsylvania	40
7	South Carolina	36
8	Georgia	32
9	New Jersey	31
10	Alabama	30
10	Florida	30
12	North Carolina	29
13	New York	28
13	Tennessee	28
15	Kentucky	26
16	Indiana	25
17	West Virginia	24
18	Michigan	23
19	Arkansas	20
19	Missouri	20
21	Mississippi	19
21	Washington	19
23	Oregon	18
24	Minnesota	17
24	Virginia	17
24	Wisconsin	17
27	Kansas	13
28	Iowa	11
29	Arizona	9
29	Maryland	9
31	Delaware	8
31	Massachusetts	8
31	Utah	8
34	Nevada	6
34	Oklahoma	6
36	Connecticut	5
36	Maine	5
36	Montana	5
36	North Dakota	5
36	Nebraska	5
41	Colorado	4
41	New Mexico	4
43	DC	3
43	Rhode Island	3
45	Hawaii	2
45	Idaho	2
45	Wyoming	2
48	New Hampshire	1
48	South Dakota	1
50	Alaska	0
51	Vermont	0
	Total	1,054

* Extremely hazardous substance as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r)

Table 4. The 100 Faclities in the U.S. storing the largest amounts of a non-ammonia extremely hazardous substance [as defined by EPA in the Clean Air Act, Section 112(r)] in any single process

	Facility Name	City	State	Maximum amount in single process (lbs)	Chemical name for maximum amount
1	SAN JACINTO RIVER AUTHORITY WW PLANT - SO2	THE WOODLANDS	TX	800,012,000	Sulfur dioxide (anhydrous)
2	VULCAN CHEMICALS	GEISMAR	LA	190,000,000	Chloroform
3	BP CHEMICALS, INC.	PORT LAVACA	TX	70,000,000	Acrylonitrile
3	BAYPORT MARINE TERMINAL	SEABROOK	TX	70,000,000	Vinyl acetate monomer
5	GEORGIA GULF CORPORATION - PLAQUEMINE FACILITY	PLAQUEMINE	LA	36,000,000	Chlorine
6	SOLUTIA - CHOCOLATE BAYOU	ALVIN	TX	34,771,000	Acrylonitrile
7	LYONDELL CHEMICAL - BAYPORT PLANT	PASADENA	TX	34,500,000	Propylene oxide
7	LYONDELL - CHANNELVIEW PLANT	CHANNELVIEW	TX	34,500,000	Propylene oxide
9	RHODIA, HOUSTON PLANT	HOUSTON	TX	33,080,000	Oleum (Fuming Sulfuric acid)
10	INTERCONTINENTAL TERMINALS COMPANY	DEER PARK	TX	32,463,270	Acrylonitrile
11	OLIN CORPORATION MCINTOSH, ALABAMA PLANT	MCINTOSH	AL	31,000,000	Chlorine
12	PAKTANK CORPORATION - DEER PARK TERMINAL	DEER PARK	TX	28,006,860	Chloroform
13	DUPONT WASHINGTON WORKS	PARKERSBURG	WV	28,000,000	Formaldehyde (solution)
14	OLIN CORPORATION, CHARLESTON TN PLANT	CHARLESTON	TN	26,000,000	Chlorine
15	BP CHEMICALS, INC.	LIMA	OH	25,737,460	Acrylonitrile
16	OCCIDENTAL CHEMICAL TAFT PLANT	HAHNVILLE	LA	25,000,000	Chlorine
17	LBC PETROUNITED/ BAYPORT TERMINAL	SEABROOK	TX	24,897,600	Vinyl acetate monomer
18	ALLIEDSIGNAL - HOPEWELL PLANT	HOPEWELL	VA	24,400,000	Oleum (Fuming Sulfuric acid)
19	THE DOW CHEMICAL COMPANY-LOUISIANA OPERATIONS	PLAQUEMINE	LA	23,617,660	Propylene oxide
20	UNION CARBIDE CORPORATION	TEXAS CITY	TX	23,500,000	Vinyl acetate monomer
21	ODFJELL TERMINALS (BAYTANK) INC.	SEABROOK	TX	21,000,000	Chloroform
22	INTERTRADE HOLDINGS, INC.	COPPERHILL	TN	20,316,591	Oleum (Fuming Sulfuric acid)
23	MAGIC WATERS	CHERRY VALLEY	IL	20,002,000	Chlorine
24	CYTEC-FORTIER PLANT	WAGGAMAN	LA	19,500,000	Acrylonitrile
25	DELTA TERMINAL SERVICES, INC.	HARVEY	LA	19,000,000	Toluene 2,4-diisocyanate
26	BASF CORPORATION GEISMAR SITE	GEISMAR	LA	18,000,000	Chlorine
26	DUPONT JOHNSONVILLE PLANT	NEW JOHNSONVILLE	TN	18,000,000	Chlorine
28	SOLUTIA INC. - DECATUR PLANT	DECATUR	AL	17,776,000	Acrylonitrile
29	OCCIDENTAL CHEMICAL CORPORATION - NIAGARA PLANT	NIAGARA FALLS	NY	17,000,000	Chlorine
30	STOLTHAVEN HOUSTON, INC.	HOUSTON	TX	16,800,000	Epichlorohydrin
31	CITGO PETROLEUM CORPORATION - LOUISVILLE TERMINAL	LOUISVILLE	KY	15,805,818	Chloroform
32	RHODIA, INC., BATON ROUGE FACILITY	BATON ROUGE	LA	15,540,580	Oleum (Fuming Sulfuric acid)
33	VULCAN CHEMICALS, WICHITA PLANT	WICHITA	KS	14,931,000	Chloroform
34	GENERAL CHEMICAL CORPORATION	AUGUSTA	GA	14,400,000	Oleum (Fuming Sulfuric acid)

	Facility Name	City	State	Maximum amount in single process (lbs)	Chemical name for maximum amount
35	STERLING CHEMICALS INCORPORATED	TEXAS CITY	TX	14,400,000	Acrylonitrile
36	NORCO CHEMICAL PLANT - WEST SITE	NORCO	LA	14,000,000	Epichlorohydrin
37	SHELL DEER PARK REFINING COMPANY	DEER PARK	TX	13,700,000	Epichlorohydrin
38	OLIN CORPORATION NIAGARA FALLS, NY - FOOTE YARD	NIAGARA FALLS	NY	13,200,000	Chlorine
39	DPC ENTERPRISES	MOBILE	AL	13,000,000	Chlorine
40	HUNTSMAN CORP., OLEFINS & OXIDES (O&O) PLANT	PORT NECHES	TX	12,400,000	Ethylene oxide
41	OXY VINYLS, LP - BATTLEGROUND CHLOR-ALKALI PLANT	LAPORTE	TX	12,000,000	Chlorine
42	AIR PRODUCTS AND CHEMICALS, INC. VAM DISTRIBUTION	CALVERT CITY	KY	11,700,000	Vinyl acetate monomer
43	THE DOW CHEMICAL COMPANY, TEXAS OPERATIONS	FREEPORT	TX	11,149,000	Chloroform
44	STANTRANS, INC.	TEXAS CITY	TX	10,696,677	Propylene oxide
45	BASF CORPORATION - FREEPORT SITE	FREEPORT	TX	10,200,000	Oleum (Fuming Sulfuric acid)
46	DUPONT BEAUMONT PLANT	BEAUMONT	TX	10,000,000	Acrylonitrile
46	BAYER ADDYSTON OHIO PLANT	ADDYSTON	OH	10,000,000	Acrylonitrile
48	DUPONT - EDGE MOOR, DE FACILITY	EDGE MOOR	DE	9,825,600	Chlorine
49	LYONDELL NORTH CHARLESTON DISTRIBUTION TERMINAL	CHARLESTON	WV	9,763,000	Propylene oxide
50	DUPONT SABINE RIVER WORKS	ORANGE	TX	9,400,000	Vinyl acetate monomer
51	DUPONT DOW ELASTOMERS L.L.C., PONTCHARTRAIN SITE	LAPLACE	LA	9,000,000	Chlorine
52	PIONEER CHLOR ALKALI COMPANY, INC.	ST. GABRIEL	LA	8,930,000	Chlorine
53	DUPONT DELISLE PLANT	PASS CHRISTIAN	MS	8,800,000	Chlorine
54	VON ROLL AMERICA, INC	EAST LIVERPOOL	OH	8,700,000	Chloroform
55	LYONDELL CHEMICAL WORLDWIDE, INC.	WESTLAKE	LA	8,400,000	Toluene diisocyanate (unspecified isomer)
56	GATX TERMINALS CORPORATION - PASADENA TERMINAL	PASADENA	TX	7,879,536	Vinyl acetate monomer
57	CLEAR LAKE PLANT	PASADENA	TX	7,800,000	Vinyl acetate monomer
58	LA PORTE PLANT	LA PORTE	TX	7,600,000	Vinyl acetate monomer
59	SPECIFIED FUELS & CHEMICALS	CHANNELVIEW	TX	7,500,000	Vinyl acetate monomer
60	PPG INDUSTRIES INC., LAKE CHARLES PLANT	LAKE CHARLES	LA	6,800,000	Chlorine
61	DOW CORNING -- MIDLAND PLANT	MIDLAND	MI	6,738,122	Hydrogen chloride (anhydrous)
62	GE PLASTICS - OTTAWA	OTTAWA	IL	6,654,393	Acrylonitrile
63	GENERAL CHEMICAL CORPORATION	CLAYMONT	DE	6,630,000	Oleum (Fuming Sulfuric acid)
64	ARCH CHEMICALS INC.	BRANDENBURG	KY	6,500,000	Propylene oxide
64	OCCIDENTAL CHEMICAL CORPORATION INGLESIDE PLANT	GREGORY	TX	6,500,000	Chlorine
66	UNION CARBIDE CORPORATION TAFT/ STAR COMPLEX	TAFT	LA	6,277,353	Ethylenediamine
67	QUEEN CITY TERMINALS, INC.	CINCINNATI	OH	5,800,000	Vinyl acetate monomer
67	MONSANTO COMPANY LULING PLANT	LULING	LA	5,800,000	Chlorine
69	NORTH CHARLESTON DISTRIBUTION TERMINAL	CHARLESTON	WV	5,606,940	Vinyl acetate monomer
70	SHELL CHEMICAL COMPANY	DEER PARK	TX	5,566,642	Epichlorohydrin

	Facility Name	City	State	Maximum amount in single process (lbs)	Chemical name for maximum amount
71	DUPONT BURNSIDE PLANT	DARROW	LA	5,400,000	Oleum (Fuming Sulfuric acid)
72	DUPONT LOUISVILLE WORKS	LOUISVILLE	KY	5,300,000	Hydrogen fluoride (conc >=50%)
73	BASF CORPORATION - WYANDOTTE SITE	WYANDOTTE	MI	5,070,000	Propylene oxide
74	PCS NITROGEN FERTILIZER, L. P.--GEISMAR, LA	GEISMAR	LA	5,000,000	Oleum (Fuming Sulfuric acid)
74	BAYER CORPORATION - BAYTOWN, TEXAS PLANT	BAYTOWN	TX	5,000,000	Toluene diisocyanate (unspecified isomer)
74	GENERAL CHEMICAL CORPORATION	NEWARK	NJ	5,000,000	Oleum (Fuming Sulfuric acid)
74	TITANIUM METALS CORPORATION	HENDERSON	NV	5,000,000	Titanium tetrachloride
74	ALIEDSIGNAL, GEISMAR PLANT	GEISMAR	LA	5,000,000	Hydrogen fluoride (conc >=50%)
79	DUPONT MEMPHIS PLANT	MEMPHIS	TN	4,778,196	Hydrocyanic acid
80	OCCIDENTAL CHEMICAL CORP. MUSCLE SHOALS PLANT	MUSCLE SHOALS	AL	4,770,000	Chlorine
81	DUPONT COMPANY - CORPUS CHRISTI PLANT	INGLESIDE	TX	4,718,500	Hydrogen fluoride (conc >=50%)
82	PPG INDUSTRIES, INC., NATRIUM	NEW MARTINSVILLE	WV	4,717,755	Carbon disulfide
83	SHELL CHEMICAL COMPANY	GEISMAR	LA	4,610,000	Ethylene oxide
84	BORDEN CHEMICALS AND PLASTICS, OLP - GEISMAR	GEISMAR	LA	4,600,000	Formaldehyde (solution)
85	TIN PRODUCTS, INC.	LEXINGTON	SC	4,200,000	Chlorine
85	HAMILTON FACILITY	HAMILTON	MS	4,200,000	Titanium tetrachloride
85	ESCAMBIA PLANT	PACE	FL	4,200,000	Cyclohexylamine
88	JOHANN HALTERMANN, LIMITED	HOUSTON	TX	4,180,000	Vinyl acetate monomer
89	DOW CORNING CORPORATION CARROLLTON SITE	CARROLLTON	KY	4,167,500	Dimethyldichlorosilane
90	CELANESE BAY CITY PLANT	BAY CITY	TX	4,101,000	Vinyl acetate monomer
91	GE PLASTICS - BAY ST. LOUIS	BAY ST. LOUIS	MS	4,062,000	Acrylonitrile
92	DU PONT VICTORIA PLANT	VICTORIA	TX	4,000,000	Vinyl acetate monomer
92	CELANESE CHEMICALS, INC. - BUCKS, ALABAMA	BUCKS	AL	4,000,000	Cyclohexylamine
92	ELF ATOCHEM NORTH AMERICA, INC. - RIVERVIEW, MI	RIVERVIEW	MI	4,000,000	Chlorine
95	ELF ATOCHEM NORTH AMERICA, INC.	BEAUMONT	TX	3,900,000	Methyl mercaptan
95	NATIONAL STARCH AND CHEMICAL COMPANY WOODRUFF	ENOREE	SC	3,900,000	Vinyl acetate monomer
97	INTERCOASTAL TERMINAL, INCORPORATED	TEXAS CITY	TX	3,800,000	Toluene diisocyanate (unspecified isomer)
98	GEORGIA-PACIFIC CORPORATION, PALATKA OPERATIONS	PALATKA	FL	3,780,000	Chlorine
99	UNION CARBIDE SEADRIFT PLANT	NORTH SEADRIFT	TX	3,777,940	Vinyl acetate monomer
100	ALBEMARLE CORPORATION WEST PLANT	MAGNOLIA	AR	3,721,612	Chlorine

Table 5. The 100 facilities storing the largest amounts of ammonia in any single process

	Facility Name	City	State	Maximum amount in single process (lbs.)
1	TAFT TERMINAL	TAFT	LA	240,000,000
2	FARMLAND INDUSTRIES, FORT DODGE NITROGEN PLANT	FORT DODGE	IA	180,000,000
3	HUNTINGTON TERMINAL	HUNTINGTON	IN	150,000,000
3	ALASKA NITROGEN PRODUCS LLC	KENAI	AK	150,000,000
5	ET-8 WALTON TERMINAL	WALTON	IN	140,000,000
5	ET-4 TRILLA TERMINAL	MATTOON	IL	140,000,000
5	WT-5 MARSHALLTOWN TERMINAL	MARSHALLTOWN	IA	140,000,000
5	ET-6 CRAWFORDSVILLE TERMINAL	CRAWFORDSVILLE	IN	140,000,000
5	FARMLAND INDUSTRIES, INC. - HASTINGS TERMINAL	HASTINGS	NE	140,000,000
5	WT-12 AURORA TERMINAL	AURORA	NE	140,000,000
5	WT-11 DAVID CITY TERMINAL	DAVID CITY	NE	140,000,000
12	FARMLAND INDUSTRIES, INC., BEATRICE NITROGEN PLANT	BEATRICE	NE	132,000,000
13	STERLINGTON FACILITY	STERLINGTON	LA	130,000,000
13	CF INDUSTRIES, INC. DONALDSONVILLE NITROGEN CMPLX	DONALDSONVILLE	LA	130,000,000
15	PCS NITROGEN OHIO L. P.	LIMA	OH	125,938,200
16	CF INDUSTRIES, INC. - ALBANYTERMINAL	ALBANY	IL	120,000,000
16	CF INDUSTRIES, INC. - GARNER TERMINAL	GARNER	IA	120,000,000
16	CF INDUSTRIES, INC. - GLENWOOD TERMINAL	GLENWOOD	MN	120,000,000
16	CF INDUSTRIES, INC. - SPENCER TERMINAL	SPENCER	IA	120,000,000
16	CF INDUSTRIES, INC. - PINE BEND TERMINAL	ROSEMOUNT	MN	120,000,000
16	CF INDUSTRIES, INC. - GRAND FORKS TERMINAL	GRAND FORKS	ND	120,000,000
16	FARMLAND INDUSTRIES, INC-DODGE CITY NITROGEN PLANT	DODGE CITY	KS	120,000,000
16	FARMLAND INDUSTRIES, INC., ENID NITROGEN PLANT	ENID	OK	120,000,000
24	RIVERGATE TERMINAL	PORTLAND	OR	101,000,000
25	KENNEWICK PLANT - HEDGES AREA	KENNEWICK	WA	100,200,000
26	TERRA NITROGEN LIMITED PARTNERSHIP, BLAIR TERMINAL	BLAIR	NE	100,000,000
26	IMC-AGRICO COMPANY, PORT SUTTON TERMINAL	TAMPA	FL	100,000,000
26	PCS NITROGEN FERTILIZER, L.P. CLINTON PLANT	CAMANCHE	IA	100,000,000
29	FARMLAND HYDRO, L.P. (TAMPA TERMINAL)	TAMPA	FL	98,000,000
29	PCS PHOSPHATE	GARDEN CITY	GA	98,000,000
31	TERRA NITROGEN LIMITED PARTNERSHIP, BLYTHEVILLE P	BLYTHEVILLE	AR	90,000,000
31	HENDERSON TERMINAL	HENDERSON	KY	90,000,000
33	NECHES INDUSTRIAL PARK,INC.	BEAUMONT	TX	89,000,000
34	CF INDUSTRIES, INC. - KINGSTON MINESTERMINAL	KINGSTON MINES	IL	80,000,000
34	TERRA NITROGEN COMPANY, WOODWARD PLANT	WOODWARD	OK	80,000,000
34	CALAMCO	STOCKTON	CA	80,000,000
37	WEST SACRAMENTO PLANT	WEST SACRAMENTO	CA	79,000,000
38	ROYSTER-CLARK NITROGEN EAST DUBUQUE FACILITY	EAST DUBUQUE	IL	78,000,000
39	MISSISSIPPI CHEMICAL CORPORATION	YAZOO CITY	MS	76,000,000
40	CF INDUSTRIES, INC., TAMPA TERMINAL	TAMPA	FL	75,000,000
41	WOOD RIVER TERMINAL	EAST ALTON	IL	73,000,000
41	PEKIN TERMINAL	CREVE COUER	IL	73,000,000
43	PCS NITROGEN FERTIIZER, L.P. AUGUSTA, GA PLANT	AUGUSTA	GA	72,000,000
43	T/A TERMINALS, INC./MEREDOSIA TERMINAL	MEREDOSIA	IL	72,000,000
45	BORDEN CHEMICALS AND PLASTICS, OLP - GEISMAR	GEISMAR	LA	70,000,000
45	WT-4 WASHINGTON TERMINAL	KEOTA	IA	70,000,000
47	FARMLAND INDUSTRIES BARNESVILLE AMMONIA TERMINAL	BARNESVILLE	MN	68,868,682
48	COASTAL CHEM, INC. - CHEYENNE WYOMING	CHEYENNE	WY	67,000,000
49	STERLING CHEMICALS INCORPORATED	TEXAS CITY	TX	66,120,000
50	GREAT PLAINS SYNFUELS PLANT	BEULAH	ND	65,455,000
51	FARMLAND INDUSTRIES INC.- MURDOCK AMMONIA TERMINAL	MURDOCK	MN	63,580,928
52	TERRA NITROGEN LIMITED PARTNERSHIP,VERDIGRIS PLANT	CLAREMORE	OK	62,000,000

	Facility Name	City	State	Maximum amount in single process (lbs.)
53	FARMLAND INDUSTRIES, INC. CONWAY AMMONIA TERMINAL	MCPHERSON	KS	61,000,000
53	SERGEANT BLUFF TERMINAL	SERGEANT BLUFF	IA	61,000,000
55	FARMLAND INDUSTRIES, INC. - GARNER IA TERMINAL	GARNER	IA	60,357,000
56	FARMLAND INDUSTRIES, INC.	FARNSWORTH	TX	60,207,000
57	LAROCHE INDUSTRIES, INC. CRYSTAL CITY OPERATIONS	FESTUS	MO	60,012,570
58	TERRA NITROGEN - PORT NEAL PLANT	SERGEANT BLUFF	IA	60,000,000
58	FARMLAND GREENWOOD AMMONIA FACILITY	GREENWOOD	NE	60,000,000
58	CF INDUSTRIES, INC. - SENECA TERMINAL	SENECA	IL	60,000,000
58	CF INDUSTRIES, INC. - RITZVILLE TERMINAL	RITZVILLE	WA	60,000,000
58	CF INDUSTRIES, INC. - PORT HURON TERMINAL	KIMBALL	MI	60,000,000
58	CF INDUSTRIES, INC. - HUNTINGTON TERMINAL	HUNTINGTON	IN	60,000,000
58	CF INDUSTRIES, INC. - FRANKFORT TERMINAL	FRANKFORT	IN	60,000,000
58	CF INDUSTRIES, INC. - COWDENTERMINAL	COWDEN	IL	60,000,000
58	CF INDUSTRIES, INC. - TERRE HAUTE TERMINAL	ROSEDALE	IN	60,000,000
58	CF INDUSTRIES, INC. -VELVA TERMINAL	VELVA	ND	60,000,000
58	CF INDUSTRIES, INC. - PALMYRA TERMINAL	PALMYRA	MO	60,000,000
58	TRIAD NITROGEN, INC.	DONALDSONVILLE	LA	60,000,000
58	FARMLAND INDUSTRIES, INC. POLLOCK NITROGEN PLANT	POLLOCK	LA	60,000,000
58	BASF CORPORATION - FREEPORT SITE	FREEPORT	TX	60,000,000
58	BASF CORPORATION - FREEPORT TERMINAL	FREEPORT	TX	60,000,000
73	ROYSTER-CLARK NITROGEN NIOTA TERMINAL	NIOTA	IL	59,200,000
74	FARMLAND VERNON CENTER AMMONIA TERMINAL	VERNON CENTER	MN	56,000,000
75	FAUSTINA PLANT	ST. JAMES	LA	50,000,000
75	CYTEC-FORTIER PLANT	WAGGAMAN	LA	50,000,000
77	MISSISSIPPI PHOSPHATES CORPORATION	PASCAGOULA	MS	48,200,000
78	KENNEWICK PLANT - FINLEY AREA	KENNEWICK	WA	44,000,000
78	PCS NITROGEN FERTILIZER, L. P.--GEISMAR, LA	GEISMAR	LA	44,000,000
80	EL DORADO CHEMICAL COMPANY	EL DORADO	AR	41,000,000
81	AGRIUM U.S INC. HOMESTEAD NITROGEN OPERATIONS	BEATRICE	NE	40,400,000
82	FARMHUT CO., L.L.C.	HENRY	IL	40,127,840
83	ALLIEDSIGNAL - HOPEWELL PLANT	HOPEWELL	VA	40,000,000
83	CF INDUSTRIES, INC. - PERU TERMINAL	PERU	IL	40,000,000
83	CF INDUSTRIES, INC. - JOLIET TERMINAL	JOLIET	IL	40,000,000
83	CF INDUSTRIES, INC. - FREMONTTERMINAL	FREMONT	NE	40,000,000
87	ROYSTER-CLARK NITROGEN, NORTH BEND PLANT	NORTH BEND	OH	36,000,000
88	DUPONT BEAUMONT PLANT	BEAUMONT	TX	34,000,000
89	DU PONT VICTORIA PLANT	VICTORIA	TX	30,000,000
89	FARMLAND INDUSTRIES-LAWRENCE NITROGEN PLANT	LAWRENCE	KS	30,000,000
89	CF INDUSTRIES, INC. - MOUNT VERNON TERMINAL	MOUNT VERNON	IN	30,000,000
89	PCS NITROGEN FERTILIZER, L.P. LAPLATTE PLANT	LAPLATTE	NE	30,000,000
89	CF INDUSTRIES, INC. - AURORA TERMINAL	AURORA	NE	30,000,000
89	HOUSTON AMMONIA TERMINAL	PASADENA	TX	30,000,000
95	LAROCHE INDUSTRIES	CHEROKEE	AL	25,235,004
96	BP CHEMICALS, INC.	PORT LAVACA	TX	23,000,000
97	DUPONT BELLE PLANT	BELLE	WV	20,000,000
98	DYNO NOBEL INC. (DONORA PLANT)	DONORA	PA	18,022,528
99	WELLAND CHEMICAL, INC.	NEWELL	PA	17,614,240
100	CONTINENTAL NITROGEN & RESOURCES CORPORATION	ROSEMOUNT	MN	16,800,000

Table 6. The 100 facilities storing the highest amounts of chlorine in any single process

	Facility Name	City	State	Maximum amount in a single process (lbs.)
1	GEORGIA GULF CORPORATION - PLAQUEMINE FACILITY	PLAQUEMINE	LA	36,000,000
2	OLIN CORPORATION MCINTOSH, ALABAMA PLANT	MCINTOSH	AL	31,000,000
3	OLIN CORPORATION, CHARLESTON TN PLANT	CHARLESTON	TN	26,000,000
4	OCCIDENTAL CHEMICAL TAFT PLANT	HAHNVILLE	LA	25,000,000
5	MAGIC WATERS	CHERRY VALLEY	IL	20,002,000
6	DUPONT JOHNSONVILLE PLANT	NEW JOHNSONVILLE	TN	18,000,000
6	BASF CORPORATION GEISMAR SITE	GEISMAR	LA	18,000,000
8	OCCIDENTAL CHEMICAL CORPORATION - NIAGARA PLANT	NIAGARA FALLS	NY	17,000,000
9	OLIN CORPORATION NIAGARA FALLS, NY - FOOTE YARD	NIAGARA FALLS	NY	13,200,000
10	DPC ENTERPRISES	MOBILE	AL	13,000,000
11	OXY VINYLS, LP - BATTLEGROUND CHLOR-ALKALI PLANT	LAPORTE	TX	12,000,000
12	DUPONT - EDGE MOOR, DE FACILITY	EDGE MOOR	DE	9,825,600
13	DUPONT DOW ELASTOMERS L.L.C., PONTCHARTRAIN SITE	LAPLACE	LA	9,000,000
14	PIONEER CHLOR ALKALI COMPANY, INC.	ST. GABRIEL	LA	8,930,000
15	DUPONT DELISLE PLANT	PASS CHRISTIAN	MS	8,800,000
16	PPG INDUSTRIES INC., LAKE CHARLES PLANT	LAKE CHARLES	LA	6,800,000
17	OCCIDENTAL CHEMICAL CORPORATION INGLESIDE PLANT	GREGORY	TX	6,500,000
18	MONSANTO COMPANY LULING PLANT	LULING	LA	5,800,000
19	THE DOW CHEMICAL COMPANY-LOUISIANA OPERATIONS	PLAQUEMINE	LA	5,500,000
20	OCCIDENTAL CHEMICAL CORP. MUSCLE SHOALS PLANT	MUSCLE SHOALS	AL	4,770,000
21	TIN PRODUCTS, INC.	LEXINGTON	SC	4,200,000
22	ELF ATOCHEM NORTH AMERICA, INC. - RIVERVIEW, MI	RIVERVIEW	MI	4,000,000
23	THE DOW CHEMICAL COMPANY, TEXAS OPERATIONS	FREEPORT	TX	3,840,000
24	GEORGIA-PACIFIC CORPORATION, PALATKA OPERATIONS	PALATKA	FL	3,780,000
25	ALBEMARLE CORPORATION WEST PLANT	MAGNOLIA	AR	3,721,612
26	ALBEMARLE CORPORATION SOUTH PLANT	MAGNOLIA	AR	3,600,000
27	LAROCHE INDUSTRIES INC. - GRAMERCY FACILITY	GRAMERCY	LA	3,523,000
28	DXI INDUSTRIES, INC.	HOUSTON	TX	3,500,000
29	OLIN CORPORATION AUGUSTA, GEORGIA PLANT	AUGUSTA	GA	3,400,000
30	GILMAN PAPER COMPANY, ST, MARYS KRAFT DIVISION	ST. MARYS	GA	3,240,000
31	WESTLAKE MONOMERS/CA&O CORPORATION	CALVERT CITY	KY	3,200,000
32	OLIN CORPORATION NIAGARA FALLS, NEW YORK PLANT	NIAGARA FALLS	NY	3,100,000
33	OCCIDENTAL CHEMICAL CORPORATION CONVENT PLANT	CONVENT	LA	3,040,000
34	SOLUTIA W.G. KRUMMRICH PLANT	SAUGET	IL	2,880,000
35	HAMILTON FACILITY	HAMILTON	MS	2,800,000
36	DUPONT CHAMBERS WORKS	DEEPWATER	NJ	2,710,000
37	RAYONIER SPECIALTY PULP PRODUCTS, JESUP MILL	JESUP	GA	2,520,000
37	GB BIOSCIENCES CORPORATION / GREENS BAYOU PLANT	HOUSTON	TX	2,520,000
39	DUPONT DOW ELASTOMERS L.L.C. - BEAUMONT PLANT	BEAUMONT	TX	2,500,000
39	DPC INDUSTRIES, INC.	CLEBURNE	TX	2,500,000
41	VULCAN CHEMICALS, WICHITA PLANT	WICHITA	KS	2,213,200
42	OCCIDENTAL CHEMICAL CORP., DELAWARE CITY PLANT	NEW CASTLE	DE	2,200,000
43	DONOHUE INDUSTRIES SHELDON MILL	SHELDON	TX	2,160,000
44	OCCIDENTAL CHEMICAL CORPORATION, MOBILE PLANT	MOBILE	AL	1,940,000
45	PIONEER CHLOR ALKALI COMPANY, INC.	TACOMA	WA	1,900,000
46	OREMET WAH CHANG-NORTH PLANT	ALBANY	OR	1,800,000
46	HAWKINS POINT PLANT	BALTIMORE	MD	1,800,000
46	OXY VINYLS, LP - DEER PARK CHLOR-ALKALI PLANT	DEER PARK	TX	1,800,000
49	DPC INDUSTRIES, INC.	OMAHA	NE	1,750,000
50	P. B. & S. CHEMICAL COMPANY, INC (08)	CHATTANOOGA	TN	1,664,900

	Facility Name	City	State	Maximum amount in a single process (lbs.)
51	P. B. & S. CHEMICAL COMPANY, INC (52)	ORLANDO	FL	1,659,170
52	BUCKEYE FLORIDA, LIMITED PARTNERSHIP	PERRY	FL	1,626,000
53	PIONEER CHLOR ALKALI COMPANY INC. - HENDERSON	HENDERSON	NV	1,536,000
54	GEORGIA-PACIFIC WEST, INC.	BELLINGHAM	WA	1,500,000
54	DPC INDUSTRIES, INC.	SWEETWATER	TX	1,500,000
56	RHODIA INC. MORRISVILLE PLANT	MORRISVILLE	PA	1,440,000
56	SOLUTIA DELAWARE RIVER PLANT	BRIDGEPORT	NJ	1,440,000
58	CONDEA VISTA COMPANY	BALTIMORE	MD	1,400,000
59	VULCAN CHEMICALS	GEISMAR	LA	1,300,000
59	JCI JONES CHEMICALS, INC. - WARWICK PLANT	WARWICK	NY	1,300,000
59	KEMIRA PIGMENTS, INC.	SAVANNAH	GA	1,300,000
62	VERTEX CHEMICAL CORPORATION MEMPHIS, TN	MEMPHIS	TN	1,283,494
63	DPC INDUSTRIES, INC.	LONGVIEW	TX	1,250,000
64	P. B. & S. CHEMICAL COMPANY, INC. (64)	ST. ALBANS	WV	1,247,444
65	CHEMICAL UNLOADING FACILITY	PERRIS	CA	1,230,000
66	DPC INDUSTRIES, INC.	HUDSON	CO	1,200,000
66	DPC INDUSTRIES, INC	ROSEMOUNT	MN	1,200,000
68	LOS ANGELES AQUEDUCT FILTRATION PLANT	SYLMAR	CA	1,136,000
69	ULRICH CHEMICAL, INC.	TERRE HAUTE	IN	1,131,050
70	INFINEUM USA L.P. BAYWAY CHEMICAL PLANT	LINDEN	NJ	1,100,000
71	LYONDELL CHEMICAL WORLDWIDE, INC.	WESTLAKE	LA	1,080,000
71	POTLATCH CORP. IDAHO PULP AND PAPERBOARD DIVISION	LEWISTON	ID	1,080,000
71	SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT	ELK GROVE	CA	1,080,000
71	RAYONIER FERNANDINA BEACH DISSOLVING SULFITE MILL	FERNANDINA BEACH	FL	1,080,000
71	TOMEN AGRO, INC.	PERRY	OH	1,080,000
71	JOINT WATER POLLUTION CONTROL PLANT	CARSON	CA	1,080,000
71	NTMWD REGIONAL WATER TREATMENT PLANT	WYLIE	TX	1,080,000
71	KEMIRON PACIFIC, INC. - MOJAVE FACILITY	MOJAVE	CA	1,080,000
79	VERTEX CHEMICAL CORPORATION CAMANCHE, IA	CAMANCHE	IA	1,079,950
80	DPC ENTERPRISES	FESTUS	MO	1,000,000
80	DPC ENTERPRISES	CHATTANOOGA	TN	1,000,000
80	DPC ENTERPRISES	RESERVE	LA	1,000,000
80	DPC INDUSTRIES, INC.	CORPUS CHRISTI	TX	1,000,000
80	WILLOW SPRINGS TERMINAL	WILLOW SPRINGS	IL	1,000,000
85	KUEHNE CHEMICAL CO., INC.	SOUTH KEARNY	NJ	999,999
86	FORMOSA PLASTICS CORPORATION, LA	BATON ROUGE	LA	960,000
87	JCI JONES CHEMICALS, INC.-BARBERTON, OHIO	BARBERTON	OH	900,000
87	DETROIT WASTEWATER TREATMENT PLANT	DETROIT	MI	900,000
87	ALABAMA RIVER PULP COMPANY, INC.	PERDUE HILL	AL	900,000
87	ALLIEDSIGNAL INC. BATON ROUGE PLANT	BATON ROUGE	LA	900,000
87	TRINITY MANUFACTURING, INC.	HAMLET	NC	900,000
92	HERCULES - HOPEWELL PLANT	HOPEWELL	VA	850,000
93	P. B. & S. CHEMICAL COMPANY, INC (24)	HENDERSON	KY	794,550
94	HARCROS CHEMICALS INC. -- TAMPA	TAMPA	FL	770,000
95	GEORGIA-PACIFIC CROSSETT PAPER OPERATIONS	CROSSETT	AR	760,000
96	JAMES AUSTIN COMPANY	MARS	PA	720,000
96	CLEARON CORP.	SOUTH CHARLESTON	WV	720,000
96	CHAMPION INTL. CORP. COURTLAND MILL	COURTLAND	AL	720,000
96	WAUSAU-MOSINEE PAPER CORPORATION (BROKAW, WI)	BROKAW	WI	720,000
96	MIDDLESEX COUNTY UTILITIES AUTHORITY	SAYREVILLE	NJ	720,000

Table 7. Facilities storing more than 100,000 pounds of Hydrochloric acid (conc. >=37%)

	Facility Name	City	State	Maximum amount in a single process (lbs.)
1	BASF CORPORATION GEISMAR SITE	GEISMAR	LA	14,000,000
2	NORCO CHEMICAL PLANT - WEST SITE	NORCO	LA	2,600,000
3	OLIN CORPORATION AUGUSTA, GEORGIA PLANT	AUGUSTA	GA	2,300,000
3	ICI AMERICAS INC. - ST. GABRIEL SITE	ST. GABRIEL	LA	2,300,000
5	FORMOSA PLASTICS CORPORATION,TEXAS	POINT COMFORT	TX	1,632,200
6	OLIN CORPORATION, CHARLESTON TN PLANT	CHARLESTON	TN	1,200,000
7	ASARCO INC./ AMARILLO COPPER REFINERY	AMARILLO	TX	340,000
8	ASHLAND SPECIALTY CHEMICAL COMPANY-PUEBLO, CO	PUEBLO	CO	300,000
8	GENERAL CHEMICAL CORPORATION	PITTSBURG	CA	300,000
10	ULTRA PURE ONE (UP-1) PLANT	BRYAN	TX	250,000
11	ARCH CHEMICALS - MESA FACILITY	QUEEN CREEK	AZ	230,000
12	HOLTRACHEM MANUFACTURING COMPANY	ORRINGTON	ME	216,000
13	DOW CORNING CORPORATION CARROLLTON SITE	CARROLLTON	KY	213,130
14	SIVENTO, INC.	THEODORE	AL	190,000
15	CYTEC INDUSTRIES, WILLOW ISLAND PLANT	WILLOW ISLAND	WV	180,000
16	DOVER CHEMICAL CORPORATION	DOVER	OH	160,000
16	WITCO CORPORATION, SISTERSVILLE PLANT	FRIENDLY	WV	160,000
18	DETREX, CHEMICALS DIVISION	ASHTABULA	OH	157,500
19	MALLINCKRODT BAKER, INC. PHILLIPSBURG, NJ PLANT	PHILLIPSBURG	NJ	157,472
20	ASHLAND SPECIALTY CHEMICAL CO. - EASTON, PA	GLENDON	PA	130,000
21	TIPPECANOE LABORATORIES	LAFAYETTE	IN	120,000
21	ELF ATOCHEM NORTH AMERICA, INC. - WICHITA PLANT	WICHITA	KS	120,000
23	HICKSON DANCHEM CORPORATION	DANVILLE	VA	107,404

Table 8. Facilities storing more than 100,000 pounds of Hydrogen fluoride (hydroflouric acid, conc. >=50%)

	Facility Name	City	State	Maximum amount in a single process (lbs.)
1	DUPONT LOUISVILLE WORKS	LOUISVILLE	KY	5,300,000
2	ALIEDSIGNAL, GEISMAR PLANT	GEISMAR	LA	5,000,000
3	DUPONT COMPANY - CORPUS CHRISTI PLANT	INGLESIDE	TX	4,718,500
4	LA PORTE PLANT	LA PORTE	TX	4,000,000
5	VON ROLL AMERICA, INC	EAST LIVERPOOL	OH	3,900,000
6	ELF ATOCHEM NORTH AMERICA, INC. - WICHITA PLANT	WICHITA	KS	3,400,000
7	ICI AMERICAS INC. - ST. GABRIEL SITE	ST. GABRIEL	LA	2,600,000
8	CHALMETTE REFINING, L.L.C.	CHALMETTE	LA	2,497,223
9	AUSIMONT USA, INC.- THOROFARE PLANT	THOROFARE	NJ	2,000,000
10	MOBIL JOLIET REFINERY	CHANNAHON	IL	1,752,910
11	OCCIDENTAL CHEMICAL CORPORATION - NIAGARA PLANT	NIAGARA FALLS	NY	1,200,000
11	ELF ATOCHEM NORTH AMERICA, INC. - CALVERT CITY, KY	CALVERT CITY	KY	1,200,000
13	CHEMTECH PRODUCTS, INC.	ALORTON	IL	1,196,435
14	CORDOVA-3M COMPANY	CORDOVA	IL	1,100,000
15	MURPHY OIL USA, INC. MERAUX REFINERY	MERAUX	LA	957,000
16	DUPONT CHAMBERS WORKS	DEEPWATER	NJ	900,000
17	ALLIEDSIGNAL, INC., EL SEGUNDO WORKS	EL SEGUNDO	CA	800,000
17	BP AMOCO TEXAS CITY BUSINESS UNIT	TEXAS CITY	TX	800,000
19	MARATHON ASHLAND PETROLEUM, LLC LAREFININGDIVISION	GARYVILLE	LA	700,000
20	BP AMOCO ALLIANCE REFINERY	BELLE CHASSE	LA	660,000
21	GENERAL CHEMICAL CORPORATION	PITTSBURG	CA	610,000
22	ALLIEDSIGNAL/METROPOLIS WORKS	METROPOLIS	IL	600,000
23	PVD MIDWEST REFINING, LLC	LEMONT	IL	544,600
24	MATLACK BULK INTERMODAL SERVICES (DBA) MBIS	FAIRPORT HARBOR	OH	540,000
24	GENERAL CHEMICAL CORPORATION	CLAYMONT	DE	540,000
26	ALLIEDSIGNAL INC. BATON ROUGE PLANT	BATON ROUGE	LA	480,000
27	MARATHON ASHLAND PETROLEUM, LLC ILREFININGDIVISION	ROBINSON	IL	440,000
28	PHILLIPS PETROLEUM SWEENY COMPLEX	SWEENY	TX	420,000
29	KOCH PETROLEUM GROUP L.P. - CC WEST REFINERY	CORPUS CHRISTI	TX	410,000
30	SUNOCO, INC. (R&M) - PHILADELPHIA REFINERY	PHILADELPHIA	PA	400,000
31	FARMLAND INDUSTRIES INC. COFFEYVILLE REFINERY	COFFEYVILLE	KS	382,000
32	CLARK PORT ARTHUR REFINERY	PORT ARTHUR	TX	380,000
33	CONOCO REFINERY, PONCA CITY, OKLA	PONCA CITY	OK	360,000
34	MARATHON ASHLAND PETROLEUM TEXAS REFINING	TEXAS CITY	TX	350,000
35	LAROCHE INDUSTRIES INC. - GRAMERCY FACILITY	GRAMERCY	LA	340,182
36	DELTA DISTRIBUTORS, DALLAS	DALLAS	TX	310,200
37	THE DOW CHEMICAL COMPANY, PITTSBURG, CA SITE	PITTSBURG	CA	300,000
38	CHEVRON SALT LAKE REFINERY	SALT LAKE CITY	UT	280,000
38	VALERO REFINING COMPANY - TEXAS	TEXAS CITY	TX	280,000
40	GREAT LAKES CHEMICAL, SOUTH PLANT	EL DORADO	AR	278,139
41	ULTRAMAR INC., WILMINGTON REFINERY	WILMINGTON	CA	270,000
42	EL DORADO REFINING COMPANY	EL DORADO	KS	260,000
43	ARMCO INC BUTLER OPERATIONS - MAIN PLANT	BUTLER	PA	250,000
43	MOBIL OIL TORRANCE REFINERY	TORRANCE	CA	250,000
45	CLARK BLUE ISLAND REFINERY	BLUE ISLAND	IL	245,000
46	CATLETTSBURG REFINING, LLC	CATLETTSBURG	KY	240,000
46	VALERO REFINING CO. - NEW JERSEY	PAULSBORO	NJ	240,000
48	OHIO REFINING DIVISION	CANTON	OH	238,000
49	ARCH CHEMICALS - MESA FACILITY	QUEEN CREEK	AZ	232,000
50	CROWN CENTRAL PETROLEUM, HOUSTON REFINERY	PASADENA	TX	230,000
51	TRAINER REFINERY	TRAINER	PA	220,000

	Facility Name	City	State	Maximum amount in a single process (lbs.)
52	ULTRA PURE ONE (UP-1) PLANT	BRYAN	TX	210,000
52	VALERO REFINING COMPANY - TEXAS, CORPUS CHRISTI	CORPUS CHRISTI	TX	210,000
54	CLARK REFINING & MARKETING, INC.	HARTFORD	IL	200,000
54	AIR PRODUCTS, HOMETOWN	TAMAQUA	PA	200,000
56	MARATHON ASHLAND PETROLEUM LLC MNREFINING DIVISION	ST. PAUL PARK	MN	190,000
56	ARMCO INC BUTLER OPERATIONS - STAINLESS PLANT	BUTLER	PA	190,000
58	TPI PETROLEUM INC.	ARDMORE	OK	185,016
59	CABOT PERFORMANCE MATERIALS	BOYERTOWN	PA	180,000
60	PHILLIPS 66 WOODS CROSS REFINERY	WOODS CROSS	UT	170,000
60	WILLOUGHBY QUARTZ PLANT	WILLOUGHBY	OH	170,000
62	WILLIAMS REFINING LLC	MEMPHIS	TN	163,000
63	TOSCO REFINING COMPANY	FERNDALE	WA	154,734
64	CITGO CORPUS CHRISTI REFINERY EAST PLANT	CORPUS CHRISTI	TX	150,000
64	WASHINGTON STEEL - MASSILLON PLANT	MASSILLON	OH	150,000
66	FRONTIER REFINING INC.	CHEYENNE	WY	146,000
67	KENTUCKY GLASS PLANT	LEXINGTON	KY	140,000
68	CONOCO BILLINGS REFINERY	BILLINGS	MT	130,000
68	CONDEA VISTA COMPANY	WESTLAKE	LA	130,000
68	COASTAL REFINING & MARKETING INC.	CORPUS CHRISTI	TX	130,000
68	CENEX HARVEST STATES LAUREL REFINERY	LAUREL	MT	130,000
68	NATIONAL COOPERATIVE REFINERY ASSOCIATION	MCPHERSON	KS	130,000
73	HUKILL CHEMICAL CORPORATION	BEDFORD	OH	126,000
74	P. B. & S. CHEMICAL COMPANY, INC (24)	HENDERSON	KY	121,680
75	WASHINGTON STEEL - WASHINGTON PLANT	CANTON TOWNSHIP	PA	110,000
76	ALLEGHENY LUDLUM CORPORATION BRACKENRIDGE FACILITY	BRACKENRIDGE	PA	107,500
77	BPAMOCO MANDAN REFINERY	MANDAN	ND	107,000
78	ALLEGHENY LUDLUM CORPORATION WEST LEECHBURG	WEST LEECHBURG	PA	103,300
79	TEXTILE CHEMICAL COMPANY, INC	READING	PA	101,500
80	SOCO-LYNCH VERNON FACILITY	LOS ANGELES	CA	100,000
80	DIAMOND SHAMROCK REFINING - THREE RIVERS	THREE RIVERS	TX	100,000
80	BORDEN & REMINGTON	FALL RIVER	MA	100,000
80	SOLUTIA - CHOCOLATE BAYOU	ALVIN	TX	100,000

Table 9. The 100 facilities storing the highest amounts of formaldehyde in a single process

	Facility Name	City	State	Maximum amount in a single process (lbs.)
1	DUPONT WASHINGTON WORKS	PARKERSBURG	WV	28,000,000
2	BORDEN CHEMICALS AND PLASTICS, OLP - GEISMAR	GEISMAR	LA	4,600,000
3	ISP TECHNOLOGIES INC, TEXAS CITY	TEXAS CITY	TX	3,596,000
4	BORDEN CHEMICAL, INC., FAYETTEVILLE PLANT	FAYETTEVILLE	NC	3,000,000
5	CELANESE ACETATE - CELRIVER SITE	ROCK HILL	SC	2,800,000
6	NEW MEXICO ADHESIVES, L.L.C.	LAS VEGAS	NM	2,675,000
7	NESTE RESINS CORPORATION - MONCURE, NC	MONCURE	NC	2,467,500
8	PRAXAIR - GEISMAR, LA	GEISMAR	LA	2,300,000
8	BORDEN CHEMICAL, INC.	LOUISVILLE	KY	2,300,000
10	TICONA POLYMERS, INC.	BISHOP	TX	2,100,000
11	CYTEC INDUSTRIES INC., WALLINGFORD CT PLANT	WALLINGFORD	CT	2,080,500
12	ISP TECHNOLOGIES INC, SEADRIFT	LONG MOTT	TX	2,024,100
13	NOVARTIS CROP PROTECTION, INC. - ST. GABRIEL PLANT	ST. GABRIEL	LA	2,000,000
14	SOLUTIA - CHOCOLATE BAYOU	ALVIN	TX	1,862,880
15	TENNESSEE EASTMAN DIVISION	KINGSPORT	TN	1,700,000
15	WRIGHT CHEMICAL CORPORATION	RIEGELWOOD	NC	1,700,000
15	MONSANTO COMPANY LULING PLANT	LULING	LA	1,700,000
18	NESTE RESINS CORPORATION - SPRINGFIELD, OR	SPRINGFIELD	OR	1,660,746
19	HERCULES INCORPORATED - MCW PLANT	LOUISIANA	MO	1,500,000
20	REILLY INDUSTRIES	INDIANAPOLIS	IN	1,384,500
21	BORDEN CHEMCAL, INC. - FREMONT PLANT	FREMONT	CA	1,300,000
21	BORDEN CHEMICAL, INC. HOPE PLANT	HOPE	AR	1,300,000
21	BORDEN CHEMICAL, INC. BAYTOWN PLANT	BAYTOWN	TX	1,300,000
24	LA PORTE PLANT	LA PORTE	TX	1,260,000
25	GEORGIA PACIFIC RESINS INC. HOUSTON, TEXAS PLANT	HOUSTON	TX	1,222,000
26	GEORGIA-PACIFIC RESINS, INC.	ALBANY	OR	1,200,000
26	GEORGIA-PACIFIC RESINS, INC.	VIENNA	GA	1,200,000
26	GEORGIA-PACIFIC RESINS, INC.	TAYLORSVILLE	MS	1,200,000
26	GEORGIA-PACIFIC RESINS, INC.	RUSSELLVILLE	SC	1,200,000
30	BORDEN CHEMICAL, INC., MISSOULA PLANT	MISSOULA	MT	1,100,000
31	NESTE RESINS CORPORATION - TOLEDO, OH	TOLEDO	OH	1,048,310
32	BAYER ADDYSTON OHIO PLANT	ADDYSTON	OH	1,000,000
32	DEGUSSA-HULS CORPORATION	THEODORE	AL	1,000,000
34	GEORGIA-PACIFIC RESINS, INC.	DENTON	NC	986,800
35	BORDEN CHEMICAL, INC., MALVERN PLANT	MALVERN	AR	950,000
36	INTERMOUNTAIN ADHESIVES, L.L.C.	RAPID CITY	SD	900,000
37	NESTE RESINS CORPORATION - ANDALUSIA, AL	ANDALUSIA	AL	857,560
38	THE DOW CHEMICAL COMPANY, TEXAS OPERATIONS	FREEPORT	TX	853,220
39	BORDEN CHEMICAL, INC. DIBOLL PLANT	DIBOLL	TX	845,000
40	BORDEN CHEMICAL, INC. - MOREAU	SOUTH GLENS FALLS	NY	840,000
41	BORDEN CHEMICAL, INC., DEMOPOLIS PLANT	DEMOPOLIS	AL	800,000
41	BORDEN CHEMICAL, INC., SPRINGFIELD PLANT	SPRINGFIELD	OR	800,000
41	BASF CORPORATION - FREEPORT SITE	FREEPORT	TX	800,000
44	SOLUTIA INC., INDIAN ORCHARD PLANT	SPRINGFIELD	MA	780,000
45	BORDEN CHEMICAL, INC., SHEBOYGAN PLANT	SHEBOYGAN	WI	750,000
46	BAYER CORPORATION - NEW MARTINSVILLE PLANT	NEW MARTINSVILLE	WV	650,000
47	BORDEN CHEMICAL, INC. - VICKSBURG	VICKSBURG	MS	615,000
48	D. B. WESTERN MINNESOTA, L.L.C.	VIRGINIA	MN	595,000

	Facility Name	City	State	Maximum amount in a single process (lbs.)
49	CYTEC KALAMAZOO, MICHIGAN PLANT	KALAMAZOO	MI	590,000
50	BAYER CORPORATION - BAYTOWN, TEXAS PLANT	BAYTOWN	TX	540,000
51	GEORGIA-PACIFIC RESINS, INC. CROSSETT, AR PLANT	CROSSETT	AR	537,560
52	BORDEN CHEMICAL, INC. - LA GRANDE PLANT	LA GRANDE	OR	510,000
53	MORTON INTERNATIONAL MOSS POINT ACS	MOSS POINT	MS	500,000
54	GATX TERMINALS CORPORATION - CARTERET TERMINAL	CARTERET	NJ	494,210
55	BORDEN CHEMICAL, INC. - KENT PLANT	KENT	WA	490,000
56	EASTMAN CHEMICAL COMPANY, TEXAS EASTMAN DIVISION	LONGVIEW	TX	480,000
57	HAMPSHIRE CHEMICAL CORPORATION	DEER PARK	TX	402,004
58	SCHENECTADY INTERNATIONAL INC.	ROTTERDAM JUNCTION	NY	390,000
59	HAMPTON FACILITY	HAMPTON	SC	384,000
59	GEORGIA-PACIFIC RESINS, INC.	ELK GROVE	CA	384,000
61	OCCIDENTAL CHEMICAL CORP. - KENTON FACILITY	KENTON	OH	378,000
62	AKZO NOBEL CHEMICALS INC.	MORRIS	IL	361,000
63	PLASTICS ENG. CO. NORTH AVE. PLANT	SHEBOYGAN	WI	340,000
63	SIMPSON TIMBER COMPANY, OREGON OVERLAYS DIVISION	PORTLAND	OR	340,000
65	OCCIDENTAL CHEMICAL CORPORATION, DUREZ PLANT	NIAGARA FALLS	NY	339,000
66	CAPITAL RESIN CORPORATION	COLUMBUS	OH	337,400
67	GEO SPECIALTY CHEMICALS, INC.	CEDARTOWN	GA	305,000
68	GEORGIA-PACIFIC RESINS, INC.	LOUISVILLE	MS	293,400
69	GEORGIA-PACIFIC RESINS, INC.	UKIAH	CA	288,000
70	OWENS CORNING KANSAS CITY PLANT	KANSAS CITY	KS	280,000
71	BORDEN CHEMICAL, INC., PMC PLANT	DALLAS	TX	275,000
72	BORDEN CHEMICAL, INC. - MOUNT JEWETT	MT JEWETT	PA	270,000
73	AKZO NOBEL CHEMICALS INC.	LIMA	OH	268,000
74	GEORGIA-PACIFIC RESINS, INC.	PORT WENTWORTH	GA	265,000
75	HAMPTON, SOUTH CAROLINA PLANT	HAMPTON	SC	253,440
76	ANGUS CHEMICAL CO.-STERLINGTON PLANT	STERLINGTON	LA	250,000
76	HOUSTON PLANT	PASADENA	TX	250,000
78	GEORGIA-PACIFIC RESINS, INC.	WHITE CITY	OR	247,820
79	GEORGIA-PACIFIC RESINS, INC.	GRAYLING	MI	243,650
79	COLUMBUS, OH PLANT	COLUMBUS	OH	243,650
81	MUSCATINE PLANT - MONSANTO COMPANY	MUSCATINE	IA	240,000
81	HUNTSMAN PETROCHEMICAL CORPORATION CONROE PLANT	CONROE	TX	240,000
83	NESTE RESINS CORPORATION - WINNFIELD, LA	WINNFIELD	LA	225,000
84	GEORGIA-PACIFIC RESINS, INC.	EUGENE	OR	195,500
85	GEORGIA-PACIFIC RESINS, INC. VIRGINIA, MINNESOTA	VIRGINIA	MN	194,900
86	GENCORP PERFORMANCE CHEMICALS, CHESTER PLANT	CHESTER	SC	193,131
87	BORDEN CHEMICAL, INC.	MORGANTON	NC	192,762
88	SPAULDING COMPOSITES COMPANY	DEKALB	IL	190,000
89	INDSPEC CHEMICAL CORPORATION	PETROLIA	PA	184,700
90	UNION CARBIDE SOUTH CHARLESTON PLANT	SOUTH CHARLESTON	WV	161,000
91	WITCO CORPORATION - MAPLETON PLANT	MAPLETON	IL	160,000
92	NEPERA, INC.	HARRIMAN	NY	150,000
93	BUCKMAN LABORATORIES, INCORPORATED	CADET	MO	150,000
94	ALLIEDSIGNAL FRICTION MATERIALS - GREEN ISLAND	GREEN ISLAND	NY	144,000
95	NESTE RESINS CORPORATION - SPOKANE, WA	SPOKANE	WA	142,500
96	OWENS CORNING NEWARK PLANT	NEWARK	OH	142,000
97	DUPONT BELLE PLANT	BELLE	WV	140,000
97	ALBRIGHT & WILSON AMERICAS - CHARLESTON, SC PLANT	CHARLESTON	SC	140,000
97	PERSTORP COMPOUNDS, INC.	FLORENCE	MA	140,000
100	BAYPORT MARINE TERMINAL	SEABROOK	TX	135,520

The 25 Facilities in Alabama storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	OLIN CORPORATION MCINTOSH, ALABAMA PLANT	MCINTOSH	31,000,000	Chlorine
2	LAROCHE INDUSTRIES	CHEROKEE	25,235,004	Ammonia (anhydrous)
3	SOLUTIA INC. - DECATUR PLANT	DECATUR	17,776,000	Acrylonitrile
4	DPC ENTERPRISES	MOBILE	13,000,000	Chlorine
5	OCCIDENTAL CHEMICAL CORP. MUSCLE SHOALS PLANT	MUSCLE SHOALS	4,770,000	Chlorine
6	CELANESE CHEMICALS, INC. - BUCKS, ALABAMA	BUCKS	4,000,000	Cyclohexylamine
7	CIBA SPECIALTY CHEMICALS CORP. - MCINTOSH PLANT	MCINTOSH	3,400,000	Epichlorohydrin
8	OCCIDENTAL CHEMICAL CORPORATION, MOBILE PLANT	MOBILE	1,940,000	Chlorine
9	DEGUSSA-HULS CORPORATION	THEODORE	1,000,000	Formaldehyde (solution)
10	ALABAMA RIVER PULP COMPANY, INC.	PERDUE HILL	900,000	Chlorine
11	TANNER INDUSTRIES, INC.	LINCOLN	865,000	Ammonia (anhydrous)
12	NESTE RESINS CORPORATION - ANDALUSIA, AL	ANDALUSIA	857,560	Formaldehyde (solution)
13	ACORDIS CELLULOSIC FIBERS INC.	AXIS	820,000	Carbon disulfide
14	BORDEN CHEMICAL, INC., DEMOPOLIS PLANT	DEMOPOLIS	800,000	Formaldehyde (solution)
15	CHAMPION INTL. CORP. COURTLAND MILL	COURTLAND	720,000	Chlorine
16	HARCROS CHEMICALS INC. -- MUSCLE SHOALS	MUSCLE SHOALS	700,000	Chlorine
17	HEXCEL CORPORATION	DECATUR	684,000	Acrylonitrile
18	GE PLASTICS - BURKVILLE	BURKVILLE	620,000	Chlorine
19	ZENECA AG PRODUCTS - COLD CREEK PLANT	BUCKS	620,000	Phosphorus trichloride
20	TESSENDERLO KERLEY, INC. - EUFAULA FACILITY	EUFAULA	579,360	Ammonia (anhydrous)
21	BENJAMIN MOORE & COMPANY, PELL CITY, ALABAMA PLANT	PELL CITY	380,000	Vinyl acetate monomer
22	DEMOPOLIS MILL	DEMOPOLIS	360,000	Chlorine
23	M&M CHEMICAL COMPANY	ATTALA	256,000	Vinyl acetate monomer
24	ROBERTSDALE	ROBERTSDALE	252,352	Ammonia (anhydrous)
25	FLORENCE	FLORENCE	200,000	Ammonia (conc >=20%)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

Appendix B

ALASKA

Facilities in Alaska storing the largest amounts of extremely hazardous substances.*

Facility Name	City	Maximum amount in a single process (lbs)	Chemical
ALASKA NITROGEN PRODUCS LLC	KENAI	150,000,000	Ammonia (anhydrous)
GREAT WESTERN CHEMICAL COMPANY - ANCHORAGE	ANCHORAGE	88,000	Chlorine
WESTWARD SEAFOODS, INC.	DUTCH HARBOR	80,000	Ammonia (anhydrous)
TRIDENT SEAFOODS CORPORATION AKUTAN, ALASKA	AKUTAN	60,000	Ammonia (anhydrous)
PETERSBURG FISHERIES, INC.	PETERSBURG	54,413	Ammonia (anhydrous)
JOHN M. ASPLUND WASTEWATER TREATMENT FACILITY	ANCHORAGE	50,000	Chlorine
E C PHILLIPS & SON	KETCHIKAN	47,000	Ammonia (anhydrous)
ALYESKA SEAFOODS, INC.	UNALASKA	46,000	Ammonia (anhydrous)
DUTCH HARBOR	DUTCH HARBOR	35,000	Ammonia (anhydrous)
TRIDENT SEAFOODS CORPORATION - ST. PAUL, ALASKA	ST. PAUL	30,000	Ammonia (anhydrous)
TRIDENT SEAFOODS CORPORATION SAND POINT, ALASKA	SAND POINT	30,000	Ammonia (anhydrous)
EKUK PLANT	DILLINGHAM	25,000	Ammonia (anhydrous)
TYSON FOODS, INC. KODIAK, AK.	KODIAK	19,000	Ammonia (anhydrous)
EXCURSION INLET PLANT	EXCURSION INLET	19,000	Ammonia (anhydrous)
PETER PAN SEAFOODS INC. - KING COVE PLANT	KING COVE	17,000	Ammonia (anhydrous)
GREAT WESTERN CHEMICAL COMPANY - FAIRBANKS	FAIRBANKS	4,900	Chlorine
KETCHIKAN CHLORINATION PLANT	KETCHIKAN	4,000	Chlorine

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Arizona storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	APACHE NITROGEN PRODUCTS, INC.	BENSON	9,175,000	Ammonia (anhydrous)
2	FERTIZONA COOLIDGE - LLC	COOLIDGE	898,000	Ammonia (anhydrous)
3	HILL BROTHERS CHEMICAL CO. - PHOENIX FACILITY	PHOENIX	550,000	Chlorine
4	DPC ENTERPRISES	GLENDALE	400,000	Chlorine
5	91ST AVENUE WWTP	TOLLESON	330,000	Chlorine
6	THE DUNE COMPANY OF YUMA, ARIZONA	YUMA	300,000	Ammonia (anhydrous)
7	CASA GRANDE CHEMICALS, INCORPORATED	CASA GRANDE	275,000	Ammonia (anhydrous)
8	ARCH CHEMICALS - MESA FACILITY	QUEEN CREEK	232,000	Hydrogen fluoride (conc >=50%
9	ALKEMIN, S. DE R.L. DE C.V.	SAHUARITA	230,000	Carbon disulfide
10	23RD AVENUE WASTEWATER TREATMENT PLANT	PHOENIX	210,000	Chlorine
11	FERTIZONA CASA GRANDE - LLC	CASA GRANDE	206,723	Ammonia (anhydrous)
12	FERTIZONA WILLCOX - LLC	WILLCOX	206,723	Ammonia (anhydrous)
13	FERTIZONA SAN TAN - LLC	SACATON	206,723	Ammonia (anhydrous)
14	FERTIZONA FENNEMORE - LLC	WADDELL	206,723	Ammonia (anhydrous)
15	FERTIZONA ROLL - LLC	ROLL	206,723	Ammonia (anhydrous)
16	FERTIZONA YUMA - LLC	YUMA	206,723	Ammonia (anhydrous)
17	FERTIZONA BUCKEYE - LLC	BUCKEYE	206,723	Ammonia (anhydrous)
18	HASA INC	ELOY	180,000	Chlorine
19	THE DUNE COMPANY OF ROLL, ARIZONA	ROLL	170,000	Ammonia (anhydrous)
20	THE DUNE COMPANY OF POSTON, ARIZONA	POSTON	170,000	Ammonia (anhydrous)
21	WESTERN FARM SERVICE, WELLTON	WELLTON	170,000	Ammonia (anhydrous)
22	WILBUR-ELLIS COMPANY, SACATON	SACATON	160,000	Ammonia (anhydrous)
23	BOC EDWARDS - PHOENIX	PHOENIX	156,000	Hydrogen chloride (anhydrous)
24	TESSENDERLO KERLEY, INC. - PHOENIX FACILITY	PHOENIX	150,000	Ammonia (anhydrous)
25	WESTERN FARM SERVICE, SOMERTON	SOMERTON	142,500	Ammonia (conc >=20%)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Arkansas storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	TERRA NITROGEN LIMITED PARTNERSHIP, BLYTHEVILLE P	BLYTHEVILLE	90,000,000	Ammonia (anhydrous)
2	EL DORADO CHEMICAL COMPANY	EL DORADO	41,000,000	Ammonia (anhydrous)
3	ALBEMARLE CORPORATION WEST PLANT	MAGNOLIA	3,721,612	Chlorine
4	ALBEMARLE CORPORATION SOUTH PLANT	MAGNOLIA	3,600,000	Chlorine
5	GREAT LAKES CHEMICAL, WEST PLANT	MAGNOLIA	1,500,000	Bromine
6	GREAT LAKES CHEMICAL, CENTRAL PLANT	EL DORADO	1,326,000	Bromine
7	BORDEN CHEMICAL, INC. HOPE PLANT	HOPE	1,300,000	Formaldehyde (solution)
8	GREAT LAKES CHEMICAL, SOUTH PLANT	EL DORADO	1,125,000	Bromine
9	GREAT LAKES CHEMICAL, NEWELL PLANT	EL DORADO	1,040,000	Bromine
10	BORDEN CHEMICAL, INC., MALVERN PLANT	MALVERN	950,000	Formaldehyde (solution)
11	GEORGIA-PACIFIC CROSSETT PAPER OPERATIONS	CROSSETT	760,000	Chlorine
12	GEORGIA-PACIFIC RESINS, INC. CROSSETT, AR PLANT	CROSSETT	537,560	Formaldehyde (solution)
13	POTLATCH CORPORATION, ARKANSAS PULP AND PAPERBOARD	MCGEHEE	360,000	Chlorine
14	CIBA SPECIALTY CHEMICALS WATER TREATMENTS, INC.	WEST MEMPHIS	341,000	Methyl chloride
15	VISKASE CORPORATION	OSCEOLA	320,000	Carbon disulfide
16	TETRA CHEMICALS - WEST MEMPHIS FACILITY	WEST MEMPHIS	260,500	Bromine
17	CONAGRA FROZEN FOODS	RUSSELLVILLE	256,494	Ammonia (anhydrous)
18	CYPRESS CHEMICAL COMPANY	HELENA	255,685	Ammonia (anhydrous)
19	ARKANSAS EASTMAN DIVISION	BATESVILLE	246,000	Oleum (Fuming Sulfuric acid)
20	ALLIED UNIVERSAL CORPORATION	W. MEMPHIS	180,000	Chlorine
21	GEORGIA-PACIFIC ASHDOWN OPERATIONS	ASHDOWN	180,000	Chlorine
22	CONAGRA FROZEN FOODS	BATESVILLE	170,000	Ammonia (anhydrous)
23	CEDAR CHEMICAL CORPORATION	HELENA	153,000	Nitric acid (conc >=80%)
24	TYSON FOODS, INC. PINE BLUFF, AR. (FP-JP)	PINE BLUFF	144,122	Ammonia (anhydrous)
25	U. S. VANADIUM CORPORAITON	HOT SPRINGS	140,000	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in California storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	CALAMCO	STOCKTON	80,000,000	Ammonia (anhydrous)
2	WEST SACRAMENTO PLANT	WEST SACRAMENTO	79,000,000	Ammonia (anhydrous)
3	WESTERN FARM SERVICE, IMPERIAL	IMPERIAL	7,144,000	Ammonia (conc >=20%)
4	BUTTE COUNTY RICE GROWERS ASSOCIATION	RICHVALE	6,108,170	Ammonia (anhydrous)
5	JOHN TAYLOR FERTILIZERS COMPANY, INC. - RIO LINDA	RIO LINDA	5,107,200	Ammonia (conc >=20%)
6	SYCAMORE	GRIMES	3,600,000	Ammonia (conc >=20%)
7	AGRIFORM - WOODLAND	WOODLAND	3,120,000	Ammonia (conc >=20%)
8	COLUSA COUNTY FARM SUPPLY	WILLIAMS	3,000,000	Ammonia (conc >=20%)
9	CHEVRON EL SEGUNDO REFINERY	EL SEGUNDO	2,210,000	Ammonia (conc >=20%)
10	GLENN FERTILIZER COMPANY	WILLOWS	1,800,000	Ammonia (conc >=20%)
11	COLUSA SIMPLOT SOILBUILDERS	COLUSA	1,600,000	Ammonia (conc >=20%)
12	WESTERN FARM SERVICE, SANTA FE GRADE, FIREBAUGH	FIREBAUGH	1,549,725	Ammonia (conc >=20%)
13	UNION CARBIDE CORPORATION	TORRANCE	1,445,220	Vinyl acetate monomer
14	BORDEN CHEMCAL, INC. - FREMONT PLANT	FREMONT	1,300,000	Formaldehyde (solution)
15	TOSCO SAN FRANCISCO AREA REFINERY AT AVON	MARTINEZ	1,300,000	Ammonia (anhydrous)
16	CHEMICAL UNLOADING FACILITY	PERRIS	1,230,000	Chlorine
17	WESTWAY TERMINAL COMPANY, INC.	SAN PEDRO	1,207,611	Vinyl acetate monomer
18	LOS ANGELES AQUEDUCT FILTRATION PLANT	SYLMAR	1,136,000	Chlorine
19	FOAMEX, LP	ORANGE	1,118,858	Toluene diisocyanate (unspecified isomer)
20	MARTINEZ REFINING COMPANY, EQUILON ENTERPRISES LLC	MARTINEZ	1,100,000	Oleum (Fuming Sulfuric acid)
21	SACRAMENTO REGIONAL WASTEWATER TREATMENT PLANT	ELK GROVE	1,080,000	Chlorine
22	JOINT WATER POLLUTION CONTROL PLANT	CARSON	1,080,000	Chlorine
23	KEMIRON PACIFIC, INC. - MOJAVE FACILITY	MOJAVE	1,080,000	Chlorine
24	JOHN TAYLOR FERTILIZER COMPANY INC., - MAXWELL	MAXWELL	1,065,000	Ammonia (conc >=20%)
25	CHEVRON RICHMOND REFINERY	RICHMOND	960,000	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Colorado storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	STATELINE ANHYDROUS AMMONIA PLANT	HOLYOKE	2,590,673	Ammonia (anhydrous)
2	HAXTUN ANHYDROUS AMMONIA PLANT	HAXTUN	1,944,248	Ammonia (anhydrous)
3	BURLINGTON ANHYDROUS AMMONIA PLANT	BURLINGTON	1,936,350	Ammonia (anhydrous)
4	CENTER ANHYDROUS AMMONIA PLANT	CENTER	1,919,996	Ammonia (anhydrous)
5	THREE MILE LOCATION	MONTE VISTA	1,715,520	Ammonia (anhydrous)
6	STRATTON ANHYDROUS AMMONIA PLANT	STRATTON	1,551,420	Ammonia (anhydrous)
7	BURLINGTON RETAIL FERTILIZER CO.	BURLINGTON	1,425,000	Ammonia (anhydrous)
8	DPC INDUSTRIES, INC.	HUDSON	1,200,000	Chlorine
9	FRUITA ANHYDROUS AMMONIA PLANT	FRUITA	716,040	Ammonia (anhydrous)
10	STERLING DEALER FERTILIZER (SDF)	STERLING	670,000	Ammonia (anhydrous)
11	ECKLEY : NH3 PLT	ECKLEY	493,000	Ammonia (anhydrous)
12	KIRK ANHYDROUS AMMONIA PLANT	KIRK	457,470	Ammonia (anhydrous)
13	COORS BREWERY, GOLDEN	GOLDEN	410,000	Ammonia (anhydrous)
14	CHEMPAK INDUSTRIES / HI-LEX CORPORATION	DENVER	360,000	Chlorine
15	IDALIA ANHYDROUS AMMONIA PLANT	IDALIA	351,000	Ammonia (anhydrous)
16	CHEYENNE WELLS AMMONIA FACILITY	CHEYENNE WELLS	336,000	Ammonia (anhydrous)
17	ANTON ANHYDROUS AMMONIA PLANT	ANTON	328,185	Ammonia (anhydrous)
18	ASHLAND SPECIALTY CHEMICAL COMPANY-PUEBLO, CC	PUEBLO	300,000	Hydrochloric acid (conc >=37%)
19	ROGGEN : NH3 PLT	ROGGEN	289,000	Ammonia (anhydrous)
20	SCHRAMM : NH3 PLT	YUMA	263,000	Ammonia (anhydrous)
21	FARMLAND COOP, INC.	BRUSH	261,699	Ammonia (anhydrous)
22	CLARKVILLE : NH3 PLT	YUMA	257,000	Ammonia (anhydrous)
23	HIGH PLAINS CO-OP	STERLING	240,576	Ammonia (anhydrous)
24	FARMERS ELEV. CO. OVID - NH3	OVID	240,000	Ammonia (anhydrous)
25	IDALIA SATELLITE LOCATION	IDALIA	230,000	Ammonia (anhydrous)

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The 25 Facilities in Connecticut storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	CYTEC INDUSTRIES INC., WALLINGFORD CT PLANT	WALLINGFORD	2,080,500	Formaldehyde (solution)
2	DOW CHEMICAL, ALLYN'S POINT PLANT	GALES FERRY	641,000	Acrylonitrile
3	STANCHEM, INC.	EAST BERLIN	312,000	Vinyl acetate monomer
4	H. KREVIT & CO., INC.	NEW HAVEN	180,000	Chlorine
5	KING INDUSTRIES, INC.	NORWALK	150,000	Oleum (Fuming Sulfuric acid)
6	BRIDGEPORT ENERGY LLC	BRIDGEPORT	94,000	Ammonia (conc >=20%)
7	VANDERBILT CHEMICAL CORPORATION	BETHEL	84,134	Carbon disulfide
8	UNIROYAL CHEMICAL COMPANY, INC	NAUGATUCK	80,000	Carbon disulfide
9	BAYER CORP.-PHARMA DIVISION, WEST HAVEN CT	WEST HAVEN	70,000	Ammonia (anhydrous)
10	MACDERMID, INC.	WATERBURY	52,000	Formaldehyde (solution)
11	ATLANTIC COAST POLYMERS, INC.	PLAINFIELD	48,880	Formaldehyde (solution)
12	LAKE GAILLARD WATER TREATMENT PLANT	NORTH BRANFORD	48,000	Chlorine
13	PFIZER GLOBAL MANUFACTURING - GROTON PLANT	GROTON	47,000	Bromine
14	H.P. HOOD INC..	SUFFIELD	44,000	Ammonia (conc >=20%)
15	BOZZUTO'S, INC. WAREHOUSE DISTRIBUTION FACILITY	CHESHIRE	40,000	Ammonia (anhydrous)
16	CITY OF WATERBURY WATER TREATMENT PLANT	THOMASTON	36,000	Chlorine
17	HARTFORD WATER POLLUTION CONTROL FACILITY	HARTFORD	36,000	Chlorine
18	SYBRON CHEMICALS	NORWICH	33,300	Formaldehyde (solution)
19	WEST HARTFORD FILTER PLANT	WEST HARTFORD	32,000	Chlorine
20	BHC EASTON LAKETREATMENT PLANT	EASTON	26,000	Chlorine
21	BHC TRAP FALLS WATER TREATMENT PLANT	SHELTON	24,000	Chlorine
22	PUTNAM FILTER PLANT	GREENWICH	24,000	Chlorine
23	THE STOP & SHOP NORTH HAVEN DISTRIBUTION CENTEI	NORTH HAVEN	22,600	Ammonia (anhydrous)
24	WEST RIVER WATER TREATMENT PLANT	WOODBRIDGE	20,000	Chlorine
25	CLEAN HARBORS OF CONNECTICUT, INC.	BRISTOL	20,000	Acrylonitrile

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Appendix B

DISTRICT OF COLUMBIA

Facilities in the District of Columbia storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	BLUE PLAINS WASTEWATER TREATMENT PLANT	WASHINGTON	180,000	Chlorine
2	DALECARLIA WATER TREATMENT PLANT	WASHINGTON	130,000	Chlorine
3	MCMILLAN WATER TREATMENT PLANT	WASHINGTON	110,000	Chlorine

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The 25 Facilities in Delaware storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	DUPONT - EDGE MOOR, DE FACILITY	EDGE MOOR	9,825,600	Chlorine
2	GENERAL CHEMICAL CORPORATION	CLAYMONT	6,630,000	Oleum (Fuming Sulfuric acid)
3	OCCIDENTAL CHEMICAL CORP., DELAWARE CITY PLANT	NEW CASTLE	2,200,000	Chlorine
4	UNIQEMA	NEW CASTLE	357,000	Ethylene oxide
5	ALLIEDSIGNAL INC. - DELAWARE PLANT	CLAYMONT	290,000	Boron trifluoride
6	REICHHOLD, INC.	CHESWOLD	240,000	Vinyl acetate monomer
7	FORMOSA PLASTICS CORPORATION, DELAWARE	DELAWARE CITY	240,000	Vinyl acetate monomer
8	TERRA INTERNATIONAL, INC. - BRIDGEVILLE, DE	BRIDGEVILLE	160,000	Ammonia (anhydrous)
9	CHLORAMONE, INC.	DELAWARE CITY	128,000	Chlorine
10	MOTIVA ENTERPRISES LLC - DELAWARE CITY REFINERY	DELAWARE CITY	65,000	Ammonia (anhydrous)
11	E.A.R. SPECIALTY COMPOSITES CORPORATION	NEWARK	57,000	Toluene diisocyanate (unspecified isomer)
12	ROYSTER - CLARK MILFORD	MILFORD	50,000	Ammonia (conc >=20%)
13	BURRIS RETAIL LOGISTICS	HARRINGTON	50,000	Ammonia (anhydrous)
14	UNITED STATES COLD STORAGE, MILFORD	MILFORD	44,900	Ammonia (anhydrous)
15	TOWNSENDS INC.	MILLSBORO	40,000	Ammonia (anhydrous)
16	CITY OF WILMINGTON WATER POLLUTION CONTROL FAC.	WILMINGTON	40,000	Chlorine
17	MOUNTAIRE FARMS OF DELMARVA, INC.-PROCESSING PLANT	SELBYVILLE	31,500	Ammonia (anhydrous)
18	CANNON COLD STORAGE	BRIDGEVILLE	26,000	Ammonia (anhydrous)
19	BURRIS REFRIGERATED LOGISTICS, NEW CASTLE DE.	NEW CASTLE	21,000	Ammonia (anhydrous)
20	ALLEN FAMILY FOODS, INC.- HARBESON	HARBESON	18,000	Ammonia (anhydrous)
21	PERDUE FARMS INCORPORATED	GEORGETOWN	14,656	Ammonia (anhydrous)
22	AGRILINK FOODS-BRIDGEVILLE	BRIDGEVILLE	14,000	Ammonia (anhydrous)
23	PERDUE FARMS INCORPORATED	MILFORD	13,900	Ammonia (anhydrous)
24	DELAWARE REFRIGERATED SERVICES	NEW CASTLE	12,280	Ammonia (anhydrous)
25	TOWN OF SELBYVILLE WASTEWATER TREATMENT FACILITY	SELBYVILLE	8,000	Chlorine

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The 25 Facilities in Florida storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	IMC-AGRICO COMPANY, PORT SUTTON TERMINAL	TAMPA	100,000,000	Ammonia (anhydrous)
2	FARMLAND HYDRO, L.P. (TAMPA TERMINAL)	TAMPA	98,000,000	Ammonia (anhydrous)
3	CF INDUSTRIES, INC., TAMPA TERMINAL	TAMPA	75,000,000	Ammonia (anhydrous)
4	SOLUTIA INC - PENSACOLA PLANT	GONZALEZ	7,600,000	Ammonia (anhydrous)
5	ESCAMBIA PLANT	PACE	4,200,000	Cyclohexylamine
6	GEORGIA-PACIFIC CORPORATION, PALATKA OPERATIONS	PALATKA	3,780,000	Chlorine
7	WSA, INC. DBA PCS PHOSPHATE - WHITE SPRINGS	WHITE SPRINGS	2,300,000	Ammonia (anhydrous)
8	P. B. & S. CHEMICAL COMPANY, INC (52)	ORLANDO	1,659,170	Chlorine
9	BUCKEYE FLORIDA, LIMITED PARTNERSHIP	PERRY	1,626,000	Chlorine
10	U. S. AGRI-CHEMICALS, BARTOW PLANT	BARTOW	1,440,000	Ammonia (anhydrous)
11	CARGILL FERTLIZER, INC.	BARTOW	1,400,000	Ammonia (anhydrous)
12	IMC-AGRICO COMPANY NEW WALES PLANT	MULBERRY	1,400,000	Ammonia (anhydrous)
13	RAYONIER FERNANDINA BEACH DISSOLVING SULFITE MILL	FERNANDINA BEACH	1,080,000	Chlorine
14	NITRAM, INC.	TAMPA	910,000	Ammonia (anhydrous)
15	FARMLAND HYDRO, L.P. (GREEN BAY PLANT)	BARTOW	900,000	Ammonia (anhydrous)
16	FOAMEX - ORLANDO, FLORIDA	ORLANDO	793,042	Toluene diisocyanate (unspecified isomer)
17	HARCROS CHEMICALS INC. -- TAMPA	TAMPA	770,000	Chlorine
18	FLEXIBLE FOAM PRODUCTS, INC.	MIAMI	750,000	Toluene 2,4-diisocyanate
19	STERLING FIBERS, INC.	PACE	745,000	Acrylonitrile
20	PINEY POINT PHOSPHATES, INC.	PALMETTO	640,000	Ammonia (anhydrous)
21	TANNER INDUSTRIES, INC.	APOPKA	535,000	Ammonia (conc >=20%)
22	MULBERRY PHOSPHATES, INC.	MULBERRY	500,000	Ammonia (anhydrous)
23	DPC ENTERPRISES	TAMPA	450,000	Chlorine
24	TROPICANA PRDUCTS, INC.	BRADENTON	400,000	Ammonia (anhydrous)
25	TRADEMARK NITROGEN	TAMPA	388,000	Ammonia (anhydrous)

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The 25 Facilities in Georgia storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	PCS PHOSPHATE	GARDEN CITY	98,000,000	Ammonia (anhydrous)
2	PCS NITROGEN FERTIIZER, L.P. AUGUSTA, GA PLANT	AUGUSTA	72,000,000	Ammonia (anhydrous)
3	GENERAL CHEMICAL CORPORATION	AUGUSTA	14,400,000	Oleum (Fuming Sulfuric acid)
4	OLIN CORPORATION AUGUSTA, GEORGIA PLANT	AUGUSTA	3,400,000	Chlorine
5	GILMAN PAPER COMPANY, ST, MARYS KRAFT DIVISION	ST. MARYS	3,240,000	Chlorine
6	DSM CHEMICALS NORTH AMERICA, INC.	AUGUSTA	3,000,000	Oleum (Fuming Sulfuric acid)
7	RAYONIER SPECIALTY PULP PRODUCTS, JESUP MILL	JESUP	2,520,000	Chlorine
8	H.B. FULLER - COVINGTON PLANT	COVINGTON	1,600,000	Vinyl acetate monomer
9	KEMIRA PIGMENTS, INC.	SAVANNAH	1,300,000	Chlorine
10	GEORGIA-PACIFIC RESINS, INC.	VIENNA	1,200,000	Formaldehyde (solution)
11	SOUTHERN STATES- CLYO, GA (7610)	CLYO	1,040,400	Ammonia (anhydrous)
12	MCKENZIE SERVICE COMPANY- BAINBRIDGE, GA (6100)	BAINBRIDGE	780,300	Ammonia (anhydrous)
13	THE PROCTER & GAMBLE MANUFACTURING COMPANY	AUGUSTA	650,000	Oleum (Fuming Sulfuric acid)
14	SOUTHERN STATES COOPERATIVE- CORDELE, GA (7620)	CORDELE	520,200	Ammonia (anhydrous)
15	LAROCHE INDUSTRIES INC.	COLUMBUS	425,650	Ammonia (anhydrous)
16	AMERICUS	AMERICUS	400,000	Ammonia (conc >=20%)
17	MARTIN RESOURCES, INC.	ROCHELLE	390,000	Ammonia (anhydrous)
18	GEO SPECIALTY CHEMICALS, INC.	CEDARTOWN	361,000	Oleum (Fuming Sulfuric acid)
19	PVS TECHNOLOGIES, INC. (AUGUSTA)	AUGUSTA	360,000	Chlorine
20	THE CLOWHITE COMPANY	HAMPTON	360,000	Chlorine
21	CALLAWAY CHEMICAL COMPANY	DALTON	350,000	Ammonia (anhydrous)
22	GRIFFIN WAREHOUSE, INC. HWY 32	DOUGLAS	339,900	Ammonia (anhydrous)
23	WEST OAK PLANT	MARIETTA	320,000	Carbon disulfide
24	KENSINGTON PLANT	CHICKAMAUGA	300,000	Acrylonitrile
25	CALLAWAY CHEMICAL COMPANY - LOS PLANT	COLUMBUS	300,000	Epichlorohydrin

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Facilities in Hawaii storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	BREWER ENVIRONMENTAL INDUSTRIES, LLC -BARBERS PT	KAPOLEI	120,000	Chlorine
2	BREWER ENVIRONMENTAL INDUSTRIES, LLC - WAIKAPU	WAILUKU	120,000	Chlorine
3	AES HAWAII INC.	KAPOLEI	109,012	Ammonia (anhydrous)
4	BREWER ENVIRONMENTAL INDUSTRIES, LLC - HILO	HILO	70,000	Chlorine
5	BREWER ENVIRONMENTAL INDUSTRIES, LLC - KAHULUI	KAHULUI	60,000	Ammonia (anhydrous)
6	BREWER ENVIRONMENTAL INDUSTRIES, LLC - PORT ALLEN	ELEELE	50,000	Ammonia (anhydrous)
7	BREWER ENVIRONMENTAL INDUSTRIES, LLC - PUHI	LIHUE	48,000	Chlorine
8	WAILUKU/KAHULUI WWRF	KAHULUI	18,000	Chlorine
9	KIHEI WWRF	KIHEI	18,000	Chlorine
10	LAHAINA WWRF	LAHAINA	16,000	Chlorine
11	UNICOLD CORPORATION	HONOLULU	11,000	Ammonia (anhydrous)
12	EAST HONOLULU WASTEWATER TREATMENT PLANT	HONOLULU	10,000	Chlorine
13	MEADOW GOLD DAIRIES-HONOLULU	HONOLULU	9,943	Ammonia (anhydrous)
14	U.S. ARMY GARRISON, HAWAII	SCHOFIELD BARRACKS	8,000	Chlorine
15	RESORT WATER RECLAMATION PLANT	WAIKOLOA	6,000	Chlorine
16	WAIMEA WATER TREATMENT PLANT	KAMUELA	4,000	Chlorine
17	KAUNAKAKAI WWRF	KAUNAKAKAI	1,500	Chlorine

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The 25 Facilities in Idaho storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	AGRIUM CONDA PHOSPHATE OPERATIONS	SODA SPRINGS	1,220,000	Ammonia (anhydrous)
2	POTLATCH CORP. IDAHO PULP AND PAPERBOARD DIVISION	LEWISTON	1,080,000	Chlorine
3	UNION WAREHOUSE & SUPPLY COMPANY	GRANGEVILLE	760,000	Ammonia (conc >=20%)
4	SUNDANCE AG.	BURLEY	414,182	Carbon disulfide
5	UNITED CO-OP AGRONOMY CENTER	PAUL	410,000	Ammonia (anhydrous)
6	BINGHAM COOP	BLACKFOOT	320,000	Ammonia (anhydrous)
7	WESTERN FARM SERVICE, CALDWELL	CALDWELL	300,000	Ammonia (conc >=20%)
8	CENEX/LAND O'LAKES AGRONOMY CENTER - REXBURG	REXBURG	290,000	Ammonia (anhydrous)
9	WESTERN FARM SERVICE, BANCROFT	BANCROFT	265,200	Ammonia (anhydrous)
10	WESTERN FARM SERVICE, RUPERT	RUPERT	246,720	Ammonia (anhydrous)
11	CENEX/LAND O'LAKES AGRONOMY CENTER - FILER	FILER	220,000	Ammonia (anhydrous)
12	(35) THE MCGREGOR COMPANY GENESEE RETAIL	GENESEE	190,000	Ammonia (anhydrous)
13	WESTERN FARM SERVICE, ROBERTS	ROBERTS	188,530	Ammonia (anhydrous)
14	UAP NORTHWEST, BLACKFOOT	BLACKFOOT	160,000	Ammonia (anhydrous)
15	UAP NORTHWEST, BURLEY	BURLEY	160,000	Ammonia (anhydrous)
16	WESTERN FARM SERVICE, CRAIGMONT	CRAIGMONT	153,000	Ammonia (anhydrous)
17	WESTERN FARM SERVICE, BUHL	BUHL	150,000	Ammonia (conc >=20%)
18	DON SIDING COMPLEX, SOUTH OF HIGHWAY 30	POCATELLO	150,000	Ammonia (anhydrous)
19	LEWISTON GRAIN GROWERS-NEZ PERCE	NEZ PERCE	140,000	Ammonia (anhydrous)
20	LAMB-WESTON, INC. TWIN FALLS PLANT	TWIN FALLS	137,833	Ammonia (anhydrous)
21	WESTERN FARM SERVICE, CULDESAC	CULDESAC	132,600	Ammonia (anhydrous)
22	VIRGINIA STORAGE FACILITY	VIRGINIA	132,600	Ammonia (anhydrous)
23	(38) THE MCGREGOR COMPANY PRAIRIE RETAIL	NEZ PERCE	130,000	Ammonia (anhydrous)
24	(36) THE MCGREGOR COMPANY GRANGEVILLE RETAIL	GRANGEVILLE	130,000	Ammonia (anhydrous)
25	(37) THE MCGREGOR COMPANY TAMMANY RETAIL	LEWISTON	130,000	Ammonia (anhydrous)

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The 25 Facilities in Illinois storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	ET-4 TRILLA TERMINAL	MATTOON	140,000,000	Ammonia (anhydrous)
2	CF INDUSTRIES, INC. - ALBANYTERMINAL	ALBANY	120,000,000	Ammonia (anhydrous)
3	CF INDUSTRIES, INC. - KINGSTON MINESTERMINAL	KINGSTON MINES	80,000,000	Ammonia (anhydrous)
4	ROYSTER-CLARK NITROGEN EAST DUBUQUE FACILITY	EAST DUBUQUE	78,000,000	Ammonia (anhydrous)
5	WOOD RIVER TERMINAL	EAST ALTON	73,000,000	Ammonia (anhydrous)
6	PEKIN TERMINAL	CREVE COUER	73,000,000	Ammonia (anhydrous)
7	T/A TERMINALS, INC./MEREDOSIA TERMINAL	MEREDOSIA	72,000,000	Ammonia (anhydrous)
8	CF INDUSTRIES, INC. - COWDENTERMINAL	COWDEN	60,000,000	Ammonia (anhydrous)
9	CF INDUSTRIES, INC. - SENECA TERMINAL	SENECA	60,000,000	Ammonia (anhydrous)
10	ROYSTER-CLARK NITROGEN NIOTA TERMINAL	NIOTA	59,200,000	Ammonia (anhydrous)
11	FARMHUT CO., L.L.C.	HENRY	40,127,840	Ammonia (anhydrous)
12	CF INDUSTRIES, INC. - JOLIET TERMINAL	JOLIET	40,000,000	Ammonia (anhydrous)
13	CF INDUSTRIES, INC. - PERU TERMINAL	PERU	40,000,000	Ammonia (anhydrous)
14	MAGIC WATERS	CHERRY VALLEY	20,002,000	Chlorine
15	GE PLASTICS - OTTAWA	OTTAWA	6,654,393	Acrylonitrile
16	ROYSTER-CLARK NITROGEN, MEREDOSIA TERMINAL	MEREDOSIA	3,850,000	Ammonia (anhydrous)
17	ROYSTER-CLARK NITROGEN, MARSEILLES TERMINAL	MARSEILLES	3,850,000	Ammonia (anhydrous)
18	SOLUTIA W.G. KRUMMRICH PLANT	SAUGET	2,880,000	Chlorine
19	CABOT CORPORATION	TUSCOLA	2,500,000	Methyltrichlorosilane
20	NATIONAL STARCH AND CHEMICAL COMPANY	MEREDOSIA	2,325,000	Vinyl acetate monomer
21	ADM EAST COMPLEX	DECATUR	1,800,000	Ammonia (anhydrous)
22	MOBIL JOLIET REFINERY	CHANNAHON	1,752,910	Hydrogen fluoride (conc >=50%)
23	GATX ARGO TERMINAL	ARGO	1,400,000	Vinyl acetate monomer
24	CHEMTECH PRODUCTS, INC.	ALORTON	1,196,435	Hydrogen fluoride (conc >=50%)
25	KANKAKEE POLYMER PLANT	KANKAKEE	1,118,000	Vinyl acetate monomer

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Indiana storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	HUNTINGTON TERMINAL	HUNTINGTON	150,000,000	Ammonia (anhydrous)
2	ET-8 WALTON TERMINAL	WALTON	140,000,000	Ammonia (anhydrous)
3	ET-6 CRAWFORDSVILLE TERMINAL	CRAWFORDSVILLE	140,000,000	Ammonia (anhydrous)
4	CF INDUSTRIES, INC. - TERRE HAUTE TERMINAL	ROSEDALE	60,000,000	Ammonia (anhydrous)
5	CF INDUSTRIES, INC. - FRANKFORT TERMINAL	FRANKFORT	60,000,000	Ammonia (anhydrous)
6	CF INDUSTRIES, INC. - HUNTINGTON TERMINAL	HUNTINGTON	60,000,000	Ammonia (anhydrous)
7	CF INDUSTRIES, INC. - MOUNT VERNON TERMINAL	MOUNT VERNON	30,000,000	Ammonia (anhydrous)
8	JCC 70S	SHELBY	15,000,000	Ammonia (anhydrous)
9	JCC 40	KERSEY	15,000,000	Ammonia (anhydrous)
10	JCC 80	TEFFT	15,000,000	Ammonia (anhydrous)
11	JCC 34	FOWLER	15,000,000	Ammonia (anhydrous)
12	JCC 45	OTTERBEIN	12,000,000	Ammonia (anhydrous)
13	JCC 78	KENTLAND	12,000,000	Ammonia (anhydrous)
14	JCC 70	ROSELAWN	9,300,000	Ammonia (anhydrous)
15	WALTON WHOLESALE AND RETAIL FARM CENTER	WALTON	7,400,000	Ammonia (conc >=20%)
16	REILLY INDUSTRIES	INDIANAPOLIS	1,384,500	Formaldehyde (solution)
17	RICHLAND	CHRISNEY	1,181,425	Ammonia (anhydrous)
18	CHRISNEY BRANCH	CHRISNEY	1,181,425	Ammonia (anhydrous)
19	ULRICH CHEMICAL, INC.	TERRE HAUTE	1,131,050	Chlorine
20	FOAMEX INTERNATIONAL, INC.	FORT WAYNE	960,000	Toluene diisocyanate (unspecified isomer)
21	FOAMEX L.P.	AUBURN	940,000	Toluene diisocyanate (unspecified isomer)
22	FOAMEX L.P.	ELKHART	900,000	Toluene diisocyanate (unspecified isomer)
23	CARPENTER CO., ELKHART DIV.	ELKHART	800,000	Toluene diisocyanate (unspecified isomer)
24	GE PLASTICS - MT. VERNON	MT. VERNON	660,000	Chlorine
25	LAROCHE INDUSTRIES INC.	JEFFERSONVILLE	531,882	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Iowa storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	FARMLAND INDUSTRIES, FORT DODGE NITROGEN PLANT	FORT DODGE	180,000,000	Ammonia (anhydrous)
2	AGRIUM U.S. INC. EARLY TERMINAL	EARLY	160,540,000	Ammonia (conc >=20%)
3	WT-5 MARSHALLTOWN TERMINAL	MARSHALLTOWN	140,000,000	Ammonia (anhydrous)
4	CF INDUSTRIES, INC. - GARNER TERMINAL	GARNER	120,000,000	Ammonia (anhydrous)
5	CF INDUSTRIES, INC. - SPENCER TERMINAL	SPENCER	120,000,000	Ammonia (anhydrous)
6	PCS NITROGEN FERTILIZER, L.P. CLINTON PLANT	CAMANCHE	100,000,000	Ammonia (anhydrous)
7	WT-4 WASHINGTON TERMINAL	KEOTA	70,000,000	Ammonia (anhydrous)
8	SERGEANT BLUFF TERMINAL	SERGEANT BLUFF	61,000,000	Ammonia (anhydrous)
9	FARMLAND INDUSTRIES, INC. - GARNER IA TERMINAL	GARNER	60,357,000	Ammonia (anhydrous)
10	TERRA NITROGEN - PORT NEAL PLANT	SERGEANT BLUFF	60,000,000	Ammonia (anhydrous)
11	COLWELL CO-OP	CHARLES CITY	2,900,000	Ammonia (conc >=20%)
12	PRAIRIE LAND COOPERATIVE HUBBARD NH3	HUBBARD	2,000,000	Ammonia (anhydrous)
13	FARMERS ELEVATOR COMPANY - BONDURANT NH3	BONDURANT	1,618,700	Ammonia (anhydrous)
14	CENEX/LAND O'LAKES AGRONOMY CENTER - BATAVIA	BATAVIA	1,300,000	Ammonia (anhydrous)
15	VERTEX CHEMICAL CORPORATION CAMANCHE, IA	CAMANCHE	1,079,950	Chlorine
16	CEDAR VALLEY FS, INC. JANESVILLE	JANESVILLE	860,000	Ammonia (anhydrous)
17	NEW COOPERATIVE INC.-ROELYN	MOORLAND	759,100	Ammonia (anhydrous)
18	SWIFT & COMPANY	MARSHALLTOWN	715,862	Ammonia (anhydrous)
19	PRAIRIE LAND COOPERATIVE ELLSWORTH NH3	ELLSWORTH	639,000	Ammonia (anhydrous)
20	FARMERS COOPERATIVE EXCHANGE PRAIRIE CITY NH3	PRAIRIE CITY	634,000	Ammonia (anhydrous)
21	NORTHWOOD COOPERATIVE ELEVATOR NORTHWOOD NH	NORTHWOOD	621,000	Ammonia (anhydrous)
22	MUSCATINE PLANT - MONSANTO COMPANY	MUSCATINE	620,000	Acrylonitrile
23	GATEWAY COOPERATIVE - CONROY NH3	CONROY	604,000	Ammonia (anhydrous)
24	FARMER'S COOP SOCIETY SIOUX CENTER	SIOUX CENTER	600,000	Ammonia (anhydrous)
25	FARMERS COOPERATIVE ELEVATOR - BUFFALO CTR NH3	BUFFALO CENTER	563,000	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Kansas storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	FARMLAND INDUSTRIES, INC-DODGE CITY NITROGEN PLANT	DODGE CITY	120,000,000	Ammonia (anhydrous)
2	FARMLAND INDUSTRIES, INC. CONWAY AMMONIA TERMINAL	MCPHERSON	61,000,000	Ammonia (anhydrous)
3	AGRIUM U.S. INC. FRIEND TERMINAL	SCOTT CITY	40,450,000	Ammonia (conc >=20%)
4	FARMLAND INDUSTRIES-LAWRENCE NITROGEN PLANT	LAWRENCE	30,000,000	Ammonia (anhydrous)
5	VULCAN CHEMICALS, WICHITA PLANT	WICHITA	14,931,000	Chloroform
6	ELF ATOCHEM NORTH AMERICA, INC. - WICHITA PLANT	WICHITA	3,400,000	Hydrogen fluoride (conc >=50%)
7	HARCROS CHEMICALS INC - KANSAS CITY	KANSAS CITY	1,440,000	Ethylene oxide
8	REICHHOLD, INC.	KANSAS CITY	790,000	Vinyl acetate monomer
9	WRIGHT	WRIGHT	525,000	Ammonia (anhydrous)
10	SENECA FERTILIZER, INC.	SENECA	400,000	Ammonia (anhydrous)
11	FARMLAND INDUSTRIES INC. COFFEYVILLE REFINERY	COFFEYVILLE	382,000	Hydrogen fluoride (conc >=50%)
12	GOODLAND : NH3 PLT	GOODLAND	377,000	Ammonia (anhydrous)
13	BROWN COUNTY COOPERATIVE ASSOCIATION	ROBINSON	377,000	Ammonia (anhydrous)
14	FARMERS COOPERATIVE ELEVATOR COMPANY	HALSTEAD	359,000	Ammonia (anhydrous)
15	FARMERS COOP ELEVATOR CO.	GARDEN PLAIN	350,000	Ammonia (anhydrous)
16	DODGE CITY COOPERATIVE EXCHANGE(FORD)	FORD	350,000	Ammonia (anhydrous)
17	UCB FILMS, INC.	TECUMSEH	340,000	Carbon disulfide
18	OBERLIN : NH3 PLT	OBERLIN	320,000	Ammonia (anhydrous)
19	13 MI. NORTH NH3 PLT	TRIBUNE	316,000	Ammonia (anhydrous)
20	LAROCHE INDUSTRIES INC.	KANSAS CITY	315,415	Ammonia (anhydrous)
21	FARMERS COOP GRAIN ASSOCIATION	CONWAY SPRINGS	307,000	Ammonia (anhydrous)
22	MIDWEST COOPERATIVE	STUDLEY	306,500	Ammonia (anhydrous)
23	FARMERS COOPERATIVE GRAIN COMPANY	CALDWELL	306,000	Ammonia (anhydrous)
24	HERKIMER COOP BUSINESS ASSOCIATION	MARYSVILLE	306,000	Ammonia (anhydrous)
25	HELENA CHEMICAL COMPANY - GARDEN CITY	GARDEN CITY	305,127	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Kentucky storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	HENDERSON TERMINAL	HENDERSON	90,000,000	Ammonia (anhydrous)
2	CITGO PETROLEUM CORPORATION - LOUISVILLE TERMINAL	LOUISVILLE	15,805,818	Chloroform
3	AIR PRODUCTS AND CHEMICALS, INC. VAM DISTRIBUTION	CALVERT CITY	11,700,000	Vinyl acetate monomer
4	ARCH CHEMICALS INC.	BRANDENBURG	6,500,000	Propylene oxide
5	DUPONT LOUISVILLE WORKS	LOUISVILLE	5,300,000	Hydrogen fluoride (conc >=50%)
6	DOW CORNING CORPORATION CARROLLTON SITE	CARROLLTON	4,167,500	Dimethyldichlorosilane
7	WESTLAKE MONOMERS/CA&O CORPORATION	CALVERT CITY	3,200,000	Chlorine
8	BORDEN CHEMICAL, INC.	LOUISVILLE	2,300,000	Formaldehyde (solution)
9	CARPENTER CO. - RUSSELLVILLE DIVISION	RUSSELLVILLE	1,225,000	Toluene diisocyanate (unspecified isomer)
10	ELF ATOCHEM NORTH AMERICA, INC. - CALVERT CITY, KY	CALVERT CITY	1,200,000	Hydrogen fluoride (conc >=50%)
11	P. B. & S. CHEMICAL COMPANY, INC (24)	HENDERSON	1,070,715	Sulfur dioxide (anhydrous)
12	ROHM AND HAAS COMPANY - LOUISVILLE PLANT	LOUISVILLE	600,000	Ammonia (conc >=20%)
13	HAMPSHIRE CHEMICAL CORPORATION	OWENSBORO	500,977	Vinyl acetate monomer
14	AIR PRODUCTS AND CHEMICALS, INC. - MAIN PLANT	CALVERT CITY	433,000	Vinyl acetate monomer
15	DUPONT DOW ELASTOMERS L.L.C. - LOUISVILLE PLANT	LOUISVILLE	360,000	Chlorine
16	FANCY FARM	FANCY FARM	308,431	Ammonia (anhydrous)
17	ELF ATOCHEM NORTH AMERICA, INC. CARROLLTON PLANT	CARROLLTON	292,000	Methyl chloride
18	THE ENSIGN-BICKFORD COMPANY - GRAHAM, KY	GRAHAM	280,000	Nitric acid (conc >=80%)
19	AGRI-CHEM, INC.	HOPKINSVILLE	280,000	Ammonia (anhydrous)
20	AGRI-CHEM, INC.	HOPKINSVILLE	280,000	Ammonia (anhydrous)
21	MILES FARM SUPPLY	OWENSBORO	280,000	Ammonia (anhydrous)
22	CROP PRODUCTION SERVICES	MORGANFIELD	280,000	Ammonia (anhydrous)
23	AGRI-CHEM, INC.	HOPKINSVILLE	280,000	Ammonia (anhydrous)
24	ISP CHEMICALS, INC.	CALVERT CITY	260,000	Ammonia (anhydrous)
25	ADAIRVILLE	ADAIRVILLE	252,353	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Louisiana storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	TAFT TERMINAL	TAFT	240,000,000	Ammonia (anhydrous)
2	VULCAN CHEMICALS	GEISMAR	190,000,000	Chloroform
3	STERLINGTON FACILITY	STERLINGTON	130,000,000	Ammonia (anhydrous)
4	CF INDUSTRIES, INC. DONALDSONVILLE NITROGEN CMPLX	DONALDSONVILLE	130,000,000	Ammonia (anhydrous)
5	BORDEN CHEMICALS AND PLASTICS, OLP - GEISMAR	GEISMAR	70,000,000	Ammonia (anhydrous)
6	FARMLAND INDUSTRIES, INC. POLLOCK NITROGEN PLANT	POLLOCK	60,000,000	Ammonia (anhydrous)
7	TRIAD NITROGEN, INC.	DONALDSONVILLE	60,000,000	Ammonia (anhydrous)
8	FAUSTINA PLANT	ST. JAMES	50,000,000	Ammonia (anhydrous)
9	CYTEC-FORTIER PLANT	WAGGAMAN	50,000,000	Ammonia (anhydrous)
10	PCS NITROGEN FERTILIZER, L. P.--GEISMAR, LA	GEISMAR	44,000,000	Ammonia (anhydrous)
11	GEORGIA GULF CORPORATION - PLAQUEMINE FACILITY	PLAQUEMINE	36,000,000	Chlorine
12	OCCIDENTAL CHEMICAL TAFT PLANT	HAHNVILLE	25,000,000	Chlorine
13	THE DOW CHEMICAL COMPANY-LOUISIANA OPERATIONS	PLAQUEMINE	23,617,660	Propylene oxide
14	DELTA TERMINAL SERVICES, INC.	HARVEY	19,000,000	Toluene 2,4-diisocyanate
15	BASF CORPORATION GEISMAR SITE	GEISMAR	18,000,000	Chlorine
16	RHODIA, INC., BATON ROUGE FACILITY	BATON ROUGE	15,540,580	Oleum (Fuming Sulfuric acid)
17	NORCO CHEMICAL PLANT - WEST SITE	NORCO	14,000,000	Epichlorohydrin
18	DUPONT DOW ELASTOMERS L.L.C., PONTCHARTRAIN SITE	LAPLACE	9,000,000	Chlorine
19	PIONEER CHLOR ALKALI COMPANY, INC.	ST. GABRIEL	8,930,000	Chlorine
20	LYONDELL CHEMICAL WORLDWIDE, INC.	WESTLAKE	8,400,000	Toluene diisocyanate (unspecified isomer)
21	PPG INDUSTRIES INC., LAKE CHARLES PLANT	LAKE CHARLES	6,800,000	Chlorine
22	UNION CARBIDE CORPORATION TAFT/ STAR COMPLEX	TAFT	6,277,353	Ethylenediamine
23	MONSANTO COMPANY LULING PLANT	LULING	6,000,000	Ammonia (anhydrous)
24	DUPONT BURNSIDE PLANT	DARROW	5,400,000	Oleum (Fuming Sulfuric acid)
25	ALIEDSIGNAL, GEISMAR PLANT	GEISMAR	5,000,000	Hydrogen fluoride (conc >=50%)

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The 25 Facilities in Maine storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	HOLTRACHEM MANUFACTURING COMPANY	ORRINGTON	416,000	Chlorine
2	S.D WARREN (WESTBROOK MILL)	WESTBROOK	360,000	Chlorine
3	A.E. STALEY MANUFACTURING COMPANY- HOULTON	HOULTON	310,000	Propylene oxide
4	GENERAL ALUM & CHEMICAL CORP	SEARSPORT	237,000	Ammonia (conc >=20%)
5	FORT JAMES CORPORATION, OLD TOWN MILL	OLD TOWN	180,000	Chlorine
6	PIONEER PLASTICS CORPORATION	AUBURN	135,000	Formaldehyde (solution)
7	MONSON COMPANIES, INC.	SOUTH PORTLAND	87,950	Chlorine
8	MCCAIN FOODS USA, INC. - EASTON, ME FACILITY	EASTON	55,000	Ammonia (anhydrous)
9	NATIONAL STARCH AND CHEMICAL CO.	ISLAND FALLS	42,900	Propylene oxide
10	GEORGIA-PACIFIC CORP. PULP & BLEACHED BOARD DIV.	BAILEYVILLE	41,100	Chlorine dioxide
11	S.D. WARREN CO. (SOMERSET MILL)	SKOWHEGAN	36,684	Chlorine dioxide
12	BOWATER/GREAT NORTHERN PAPER, INC.	MILLINOCKET	32,000	Chlorine
13	PORTLAND WASTEWATER TREATMENT PLANT	PORTLAND	32,000	Chlorine
14	JASPER WYMAN & SON	MILBRIDGE	21,549	Ammonia (anhydrous)
15	ANDROSCOGGIN MILL	JAY	20,000	Chlorine dioxide
16	BOWATER/GREAT NORTHERN PAPER, INC.	EAST MILLINOCKET	20,000	Chlorine
17	JASPER WYMAN & SON C&D DIVISION	DEBLOIS	19,333	Ammonia (anhydrous)
18	HANCOCK FOODS INC.	ELLSWORTH	19,000	Ammonia (anhydrous)
19	ATLANTIC CUSTOM PROCESSORS, LLC	FORT FAIRFIELD	19,000	Ammonia (anhydrous)
20	STANDISH WATER TREATMENT FACILITY	STANDISH	16,000	Chlorine
21	AMERICOLD LOGISTICS PLANT # 80573	PORTLAND	14,500	Ammonia (anhydrous)
22	BARBER FOODS	PORTLAND	13,000	Ammonia (anhydrous)
23	LAKE AUBURN INTAKE FACILITY	AUBURN	12,000	Chlorine
24	CHERRYFIELD FOODS	CHERRYFIELD	10,200	Ammonia (anhydrous)
25	BIDDEFORD AND SACO WATER COMPANY - PUMPING STATION	BIDDEFORD	9,800	Chlorine

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The 25 Facilities in Maryland storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	HAWKINS POINT PLANT	BALTIMORE	1,800,000	Chlorine
2	CONDEA VISTA COMPANY	BALTIMORE	1,400,000	Chlorine
3	TANNER INDUSTRIES, INC.	HAVRE DE GRACE	1,171,000	Ammonia (anhydrous)
4	DELTA CHEMICAL CORPORATION	BALTIMORE	600,000	Chlorine
5	FMC CORPORATION AGRICULTURAL PRODUCTS GROUP	BALTIMORE	480,000	Oleum (Fuming Sulfuric acid)
6	INDIAN HEAD DIVISION, NAVAL SURFACE WARFARE CENTER	INDIAN HEAD	418,535	Oleum (Fuming Sulfuric acid)
7	BACK RIVER WASTEWATER TREATMENT FACILITY	BALTIMORE	360,000	Chlorine
8	WILLARD AGRI-SERVICE OF FREDERICK, INC.	FREDERICK	330,000	Ammonia (conc >=20%)
9	CROP PRODUCTION SERVICES	CENTREVILLE	310,000	Ammonia (anhydrous)
10	MEYERS LIQUID FERTILIZER CO., INC.	MT.AIRY	300,000	Ammonia (conc >=20%)
11	LEBANON CHEMICAL CORPORATION - BALTIMORE	BALTIMORE	290,000	Ammonia (anhydrous)
12	CROP PRODUCTION SERVICES	WORTON	250,000	Ammonia (anhydrous)
13	CLEAN HARBORS OF BALTIMORE, INC.	BALTIMORE	207,770	Carbon disulfide
14	AIR PRODUCTS POLYMERS, L.P.	ELKTON	195,000	Vinyl acetate monomer
15	WILLARD AGRI-SERVICE OF LYNCH	LYNCH	175,000	Ammonia (anhydrous)
16	TERRA INTERNATIONAL, INC. - NEWARK, MD	NEWARK	140,000	Ammonia (anhydrous)
17	HASTINGS GARAGE, INC	EAST NEW MARKET	131,000	Ammonia (anhydrous)
18	POTOMAC WATER FILTRATION PLANT	POTOMAC	120,000	Chlorine
19	RED STAR YEAST & PRODUCTS, BALTIMORE PLANT	BALTIMORE	116,000	Ammonia (anhydrous)
20	BETHLEHEM STEEL CORP. - SPARROWS POINT DIVISION	BALTIMORE	82,500	Sulfur dioxide (anhydrous)
21	RHTNE-POULENC SURFACTANTS AND SPECIALTIES, LP	BALTIMORE	80,000	Ammonia (conc >=20%)
22	PATAPSCO WASTEWATER TREATMENT FACILITY	BALTIMORE	80,000	Chlorine
23	IPI NORTH EAST, INC.	ELKTON	74,000	Toluene diisocyanate (unspecified isomer)
24	PATUXENT WATER FILITRATION PLANT	LAUREL	72,000	Chlorine
25	ASHBURTON FILTRATION PLANT	BALTIMORE	70,000	Chlorine

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Massachusetts storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	SOLUTIA INC., INDIAN ORCHARD PLANT	SPRINGFIELD	2,600,000	Vinyl acetate monomer
2	BORDEN & REMINGTON	FALL RIVER	345,000	Ammonia (conc >=20%)
3	HERCULES - CHICOPEE PLANT	CHICOPEE	210,000	Epichlorohydrin
4	PERSTORP COMPOUNDS, INC.	FLORENCE	140,000	Formaldehyde (solution)
5	CREST FOAM	NEWBURYPORT	122,000	Toluene 2,4-diisocyanate
6	MONSON COMPANIES, INC.	LEOMINSTER	120,000	Toluene diisocyanate (unspecified isomer)
7	THE DODGE COMPANY	CAMBRIDGE	109,145	Formaldehyde (solution)
8	CLEAN HARBORS OF BRAINTREE, INC.	BRAINTREE	101,807	Carbon disulfide
9	THE TRUESDALE COMPANY	BRIGHTON	94,000	Toluene diisocyanate (unspecified isomer)
10	LYNN REGIONAL WASTEWATER TREATMENT PLANT	LYNN	64,000	Chlorine
11	ATTLEBORO REFINING COMPANY, INC.	ATTLEBORO	62,833	Hydrochloric acid (conc >=37%)
12	C&S WHOLESALE GROCERS INC. WEST	WESTFIELD	56,000	Ammonia (anhydrous)
13	C&S WHOLESALE GOCERS INC. HATFIELD	HATFIELD	54,000	Ammonia (anhydrous)
14	NORUMBEGA CHEMICAL FEED FACILITY	WESTON	52,500	Chlorine
15	WYMAN-GORDON COMPANY NORTH GRAFTON PLANT	NORTH GRAFTON	52,000	Hydrogen fluoride (conc >=50%)
16	VAN WATERS & ROGERS INC.	SALEM	50,000	Ethylenediamine
17	GOOD HUMOR CORPORATION FRAMINGHAM	FRAMINGHAM	50,000	Ammonia (anhydrous)
18	POLYMETALLURGICAL CORP.	NORTH ATTLEBORO	46,000	Ammonia (anhydrous)
19	HOLLAND COMPANY, INC.	ADAMS	45,100	Ammonia (anhydrous)
20	SPRINGFIELD REGIONAL WASTEWATER TREATMENT FACILITY	AGAWAM	40,000	Chlorine
21	GORTON'S	GLOUCESTER	40,000	Ammonia (anhydrous)
22	FRIENDLY ICE CREAM CORPORATION - WILBRAHAM	WILBRAHAM	40,000	Ammonia (anhydrous)
23	LOWELL WASTEWATER TREATMENT PLANT	LOWELL	40,000	Chlorine
24	WEST LYNN CREAMERY	LYNN	39,000	Ammonia (anhydrous)
25	TECHALLOY COMPANY, INC. - NORTHAMPTON WIIRE PLANT	NORTHAMPTON	34,204	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Michigan storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	CF INDUSTRIES, INC. - PORT HURON TERMINAL	KIMBALL	60,000,000	Ammonia (anhydrous)
2	DOW CORNING -- MIDLAND PLANT	MIDLAND	6,738,122	Hydrogen chloride (anhydrous)
3	BASF CORPORATION - WYANDOTTE SITE	WYANDOTTE	5,070,000	Propylene oxide
4	ELF ATOCHEM NORTH AMERICA, INC. - RIVERVIEW, MI	RIVERVIEW	4,000,000	Chlorine
5	DETROIT WASTEWATER TREATMENT PLANT	DETROIT	900,000	Chlorine
6	SOLUTIA TRENTON PLANT	TRENTON	719,000	Vinyl acetate monomer
7	CYTEC KALAMAZOO, MICHIGAN PLANT	KALAMAZOO	590,000	Formaldehyde (solution)
8	LAROCHE INDUSTRIES INC.	OWOSSO	455,713	Ammonia (anhydrous)
9	PVS TECHNOLOGIES, INC. (DETROIT)	DETROIT	360,000	Chlorine
10	JCI JONES CHEMICALS INC RIVERVIEW FACILITY	RIVERVIEW	360,000	Chlorine
11	S.D. WARREN CO. (MUSKEGON MILL)	MUSKEGON	360,000	Chlorine
12	PATTERSON LABORATORIES, INC	DETROIT	360,000	Chlorine
13	WOODBRIDGE CORPORATION - WHITMORE LAKE PLANT	WHITMORE LAKE	337,000	Toluene diisocyanate (unspecified isomer)
14	BASF CORPORATION LIVONIA SITE	LIVONIA	330,000	Toluene diisocyanate (unspecified isomer)
15	TANNER INDUSTRIES, INC.	INKSTER	319,000	Ammonia (anhydrous)
16	BLISSFIELD	BLISSFIELD	310,800	Ammonia (conc >=20%)
17	MENDON	MENDON	252,352	Ammonia (anhydrous)
18	GEORGIA-PACIFIC RESINS, INC.	GRAYLING	243,650	Formaldehyde (solution)
19	HEMLOCK SEMICONDUCTOR CORP.	HEMLOCK	233,376	Hydrogen chloride (anhydrous)
20	BIOLAB INCORPORATED	ADRIAN	225,000	Bromine
21	HAMILTON FARM BUREAU COOPERATIVE, INC.	HAMILTON	224,400	Ammonia (anhydrous)
22	CROP PRODUCTION SERVICES	LAKE ODESSA	220,000	Ammonia (anhydrous)
23	ZEELAND FARM SERVICES	ZEELAND	216,000	Ammonia (anhydrous)
24	BIL MAR FOODS - ZEELAND, MICHIGAN	ZEELAND	215,000	Ammonia (anhydrous)
25	CN CARGOFLO	WARREN	213,671	Toluene diisocyanate (unspecified isomer)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Minnesota storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	CF INDUSTRIES, INC. - GLENWOOD TERMINAL	GLENWOOD	120,000,000	Ammonia (anhydrous)
2	CF INDUSTRIES, INC. - PINE BEND TERMINAL	ROSEMOUNT	120,000,000	Ammonia (anhydrous)
3	FARMLAND INDUSTRIES BARNESVILLE AMMONIA TERMINAL	BARNESVILLE	68,868,682	Ammonia (anhydrous)
4	FARMLAND INDUSTRIES INC.- MURDOCK AMMONIA TERMINAL	MURDOCK	63,580,928	Ammonia (anhydrous)
5	FARMLAND VERNON CENTER AMMONIA TERMINAL	VERNON CENTER	56,000,000	Ammonia (anhydrous)
6	CONTINENTAL NITROGEN & RESOURCES CORPORATION	ROSEMOUNT	16,800,000	Ammonia (anhydrous)
7	DPC INDUSTRIES, INC	ROSEMOUNT	1,200,000	Chlorine
8	BELLE PLAINE COOPERATIVE	BELLE PLAINE	768,000	Ammonia (anhydrous)
9	FARMERS COOP ASSN	JACKSON	720,000	Ammonia (anhydrous)
10	CRYSTAL COOPERATIVE - LAKE CRYSTAL	LAKE CRYSTAL	670,000	Ammonia (anhydrous)
11	WATONWAN FARM SERVICE CO.	ST. JAMES	610,000	Ammonia (anhydrous)
12	FARMERS UNION COOP OIL ASSOCIATION	RANDOLPH	600,000	Ammonia (anhydrous)
13	D. B. WESTERN MINNESOTA, L.L.C.	VIRGINIA	595,000	Formaldehyde (solution)
14	FARMERS COOPERATIVE OF HANSKA	HANSKA	580,000	Ammonia (anhydrous)
15	CENTRAL CO-OP	OWATONNA	570,000	Ammonia (anhydrous)
16	LA SALLE FARMERS GRAIN COMPANY (MAD AG)	MADELIA	550,000	Ammonia (anhydrous)
17	CENTRAL CO-OP	HAYFIELD	520,000	Ammonia (anhydrous)
18	COOPERATIVE OIL ASSN OF MT. LAKE	MT. LAKE	515,000	Ammonia (anhydrous)
19	ARGYLE CO-OP WHSE ASSN.	ARGYLE	510,000	Ammonia (anhydrous)
20	CENTRAL CO-OP	BLOOMING PRAIRIE	503,000	Ammonia (anhydrous)
21	NEW VISION COOP	BREWSTER	500,000	Ammonia (anhydrous)
22	HUTCHINSON CO-OP	HUTCHINSON	493,000	Ammonia (anhydrous)
23	COTONWOOD COOP OIL CO.	COTTONWOOD	490,000	Ammonia (anhydrous)
24	FARMERS UNION COOP OIL ASSOCIATION	HASTINGS	490,000	Ammonia (anhydrous)
25	FARMERS UNION COOP OIL ASSOCIATION	HAMPTON	480,000	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Mississippi storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	MISSISSIPPI CHEMICAL CORPORATION	YAZOO CITY	76,000,000	Ammonia (anhydrous)
2	MISSISSIPPI PHOSPHATES CORPORATION	PASCAGOULA	48,200,000	Ammonia (anhydrous)
3	DUPONT DELISLE PLANT	PASS CHRISTIAN	8,800,000	Chlorine
4	HAMILTON FACILITY	HAMILTON	4,200,000	Titanium tetrachloride
5	GE PLASTICS - BAY ST. LOUIS	BAY ST. LOUIS	4,062,000	Acrylonitrile
6	LEAF RIVER PULP OPERATIONS	NEW AUGUSTA	3,452,760	Chlorine dioxide
7	CARPENTER CO., TUPELO DIVISION	VERONA	3,250,000	Toluene diisocyanate (unspecified isomer)
8	VICKSBURG CHEMICAL COMPANY	VICKSBURG	1,800,000	Ammonia (anhydrous)
9	SFA, INC. DBA FIVE COUNTY FARMERS	CLARKSDALE	1,575,900	Ammonia (anhydrous)
10	TRI S FERTILIZER PLANT	SCHLATER	1,320,000	Ammonia (anhydrous)
11	GEORGIA-PACIFIC RESINS, INC.	TAYLORSVILLE	1,200,000	Formaldehyde (solution)
12	CHEVRON PASCAGOULA REFINERY	PASCAGOULA	800,000	Ammonia (anhydrous)
13	FOAMEX,TUPELO WEST	VERONA	740,000	Toluene diisocyanate (unspecified isomer)
14	BORDEN CHEMICAL, INC. - VICKSBURG	VICKSBURG	615,000	Formaldehyde (solution)
15	ZEON CHEMICALS L.P. - MISSISSIPPI PLANT	HATTIESBURG	584,000	Epichlorohydrin
16	FIRST CHEMICAL CORPORATION	PASCAGOULA	510,000	Ammonia (anhydrous)
17	MORTON INTERNATIONAL MOSS POINT ACS	MOSS POINT	500,000	Formaldehyde (solution)
18	VITAFOAM, INCORPORATED	TUPELO	450,000	Toluene diisocyanate (unspecified isomer)
19	ETHYL PETROLEUM ADITIVES, INC.	NATCHEZ	436,800	Oleum (Fuming Sulfuric acid)
20	BRYAN FOODS, INC.	WEST POINT	400,000	Ammonia (anhydrous)
21	SOUTHERN STATES COOPERATIVE- GREENVILLE, MS (7640)	GREENVILLE	390,150	Ammonia (anhydrous)
22	INTERNATIONAL PAPER - NATCHEZ MILL	NATCHEZ	360,000	Chlorine
23	GEORGIA-PACIFIC RESINS, INC.	LOUISVILLE	293,400	Formaldehyde (solution)
24	TALLAHATCHIE FARMERS SUPPLY, INC.	CHARLESTON	288,915	Ammonia (anhydrous)
25	HERCULES INCORPORATED, HATTIESBURG, MS. PLANT	HATTIESBURG	277,000	Epichlorohydrin

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Missouri storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	LAROCHE INDUSTRIES, INC. CRYSTAL CITY OPERATIONS	FESTUS	60,012,570	Ammonia (anhydrous)
2	CF INDUSTRIES, INC. - PALMYRA TERMINAL	PALMYRA	60,000,000	Ammonia (anhydrous)
3	ICI EXPLOSIVES USA INC	JOPLIN	2,103,500	Ammonia (anhydrous)
4	DYNO NOBEL, INC.	LOUISIANA	1,600,000	Ammonia (anhydrous)
5	HERCULES INCORPORATED - MCW PLANT	LOUISIANA	1,500,000	Formaldehyde (solution)
6	DPC ENTERPRISES	FESTUS	1,000,000	Chlorine
7	BAYER, AGRICULTURE DIVISION	KANSAS CITY	509,000	Carbon disulfide
8	KANSAS CITY FOAM	RIVERSIDE	429,562	Toluene diisocyanate (unspecified isomer)
9	KANSAS CITY, MISSOURI WATER TREATMENT PLANT	KANSAS CITY	426,000	Chlorine
10	JOHNSON CONTROLS, INC	JEFFERSON CITY	420,000	Toluene diisocyanate (unspecified isomer)
11	GLASGOW COOP ASSN. GLASGOW BRANCH	GLASGOW	390,000	Ammonia (anhydrous)
12	CRAIG SUPPLY CO.	CRAIG	375,600	Ammonia (anhydrous)
13	ANHEUSER-BUSCH, INC. ST. LOUIS BREWERY	ST. LOUIS	340,000	Ammonia (anhydrous)
14	TYSON FOODS, INC SEDALIA, MO.	SEDALIA	319,961	Ammonia (anhydrous)
15	ARCHIMICA (MISSOURI) INC.	SPRINGFIELD	312,100	Bromine
16	DYNO NOBEL CARTHAGE PLANT	CARTHAGE	300,000	Nitric acid (conc >=80%)
17	LINCOLN COUNTY FARMERS COOP	TROY	280,000	Ammonia (anhydrous)
18	BREHMER FERTILIZER SERVICES	DEXTER	280,000	Ammonia (anhydrous)
19	BUCKMAN LABORATORIES, INCORPORATED	CADET	270,000	Carbon disulfide
20	TANNER INDUSTRIES, INC.	NEOSHO	260,400	Ammonia (anhydrous)
21	CONSUMERS OIL COMPANY, INC.	MARYVILLE	260,000	Ammonia (anhydrous)
22	ST. LOUIS COUNTY WATER COMPANY CENTRAL PLANT	ST. LOUIS	260,000	Chlorine
23	BIOKYOWA, INC.	CAPE GIRARDEAU	250,000	Ammonia (anhydrous)
24	RICKETTS FARM SERVICE, INC ANHYDROUS AMMONIA PLANT	SALISBURY	244,950	Ammonia (anhydrous)
25	MACZUK - BRUNSWICK	BRUNSWICK	233,660	Ammonia (anhydrous)

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The 25 Facilities in Montana storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	MONTANA SULPHUR & CHEMICAL COMPANY	NE OF BILLINGS	3,080,000	Hydrogen sulfide
2	BORDEN CHEMICAL, INC., MISSOULA PLANT	MISSOULA	1,100,000	Formaldehyde (solution)
3	DPC INDUSTRIES, INC.	BILLINGS	500,000	Chlorine
4	MOUNTAIN VIEW - CO-OP - DUTTON ELEVATOR	DUTTON	300,000	Ammonia (anhydrous)
5	CENEX HARVEST STATES-CHESTER	CHESTER	280,000	Ammonia (anhydrous)
6	AG GRAIN, INC. @ PLENTYWOOD MONTANA	PLENTYWOOD	240,762	Ammonia (anhydrous)
7	JUPITER SULPHUR, LLC. - BILLINGS	BILLINGS	220,000	Ammonia (anhydrous)
8	BOOTLEGGER PLANT	N. OF GREAT FALLS	180,000	Ammonia (anhydrous)
9	HIGHWOOD PLANT	N. OF HIGHWOOD	180,000	Ammonia (anhydrous)
10	MOUNTAIN VIEW CO-OP - POWER	POWER	150,000	Ammonia (anhydrous)
11	MOUNTAIN VIEW CO-OP - BRADY	BRADY	150,000	Ammonia (anhydrous)
12	LEWISTOWN PROPANE & FERTILIZER CO-WINIFRED PLANT	WINIFRED	149,175	Ammonia (anhydrous)
13	CENEX HARVEST STATES-CONRAD	CONRAD	140,000	Ammonia (anhydrous)
14	CENEX HARVEST STATES-CHOTEAU	CHOTEAU	140,000	Ammonia (anhydrous)
15	CENEX HARVEST STATES-SUNBURST	SUNBURST	140,000	Ammonia (anhydrous)
16	CENEX HARVEST STATES-HAVRE	HAVRE	140,000	Ammonia (anhydrous)
17	CENEX HARVEST STATES-WINIFRED	WINIFRED	140,000	Ammonia (anhydrous)
18	CENEX HARVEST STATES-BROADVIEW	BROADVIEW	140,000	Ammonia (anhydrous)
19	CENEX HARVEST STATES-VALIER	VALIER	140,000	Ammonia (anhydrous)
20	CENEX HARVEST STATES-CHESTER (LEASED)	CHESTER	140,000	Ammonia (anhydrous)
21	CENEX HARVEST STATES-CUT BANK	CUT BANK	140,000	Ammonia (anhydrous)
22	CENEX HARVEST STATES-RUDYARD	RUDYARD	140,000	Ammonia (anhydrous)
23	AG WISE, INC.	KREMLIN	138,000	Ammonia (anhydrous)
24	UAP NORTHWEST, BIG SANDY	BIG SANDY	135,000	Ammonia (anhydrous)
25	UAP NORTHWEST, CHESTER	HAVRE	134,000	Ammonia (anhydrous)

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The 25 Facilities in Nebraska storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	FARMLAND INDUSTRIES, INC. - HASTINGS TERMINAL	HASTINGS	140,000,000	Ammonia (anhydrous)
2	WT-11 DAVID CITY TERMINAL	DAVID CITY	140,000,000	Ammonia (anhydrous)
3	WT-12 AURORA TERMINAL	AURORA	140,000,000	Ammonia (anhydrous)
4	FARMLAND INDUSTRIES, INC., BEATRICE NITROGEN PLANT	BEATRICE	132,000,000	Ammonia (anhydrous)
5	TERRA NITROGEN LIMITED PARTNERSHIP, BLAIR TERMINAL	BLAIR	100,000,000	Ammonia (anhydrous)
6	FARMLAND GREENWOOD AMMONIA FACILITY	GREENWOOD	60,000,000	Ammonia (anhydrous)
7	AGRIUM U.S INC. HOMESTEAD NITROGEN OPERATIONS	BEATRICE	40,400,000	Ammonia (anhydrous)
8	CF INDUSTRIES, INC. - FREMONTTERMINAL	FREMONT	40,000,000	Ammonia (anhydrous)
9	PCS NITROGEN FERTILIZER, L.P. LAPLATTE PLANT	LAPLATTE	30,000,000	Ammonia (anhydrous)
10	CF INDUSTRIES, INC. - AURORA TERMINAL	AURORA	30,000,000	Ammonia (anhydrous)
11	CARGILL AGHORIZONS - HOLDREGE WHOLESALE	HOLDREGE	3,000,000	Ammonia (anhydrous)
12	CENEX/LAND O'LAKES AGRONOMY CENTER - BRULE	BRULE	3,000,000	Ammonia (anhydrous)
13	GRANT ANHYDROUS AMMONIA PLANT	GRANT	1,956,679	Ammonia (anhydrous)
14	VENANGO ANHYDROUS AMMONIA PLANT	VENANGO	1,956,679	Ammonia (anhydrous)
15	DPC INDUSTRIES, INC.	OMAHA	1,750,000	Chlorine
16	CENEX/LAND O'LAKES AGRONOMY CENTER - GOTHENBURG	GOTHENBURG	1,500,000	Ammonia (anhydrous)
17	PERRY FERTILIZER PLANT	MCCOOK	1,460,000	Ammonia (anhydrous)
18	CENEX/LAND O'LAKES AGRONOMY CENTER- GRANT (MAIN)	GRANT	1,350,000	Ammonia (anhydrous)
19	FARMLAND SERVICE COOP GOTHENBURG	GOTHENBURG	1,300,000	Ammonia (anhydrous)
20	FARMLAND IND. INC. GRANT NE.	GRANT	1,115,010	Ammonia (anhydrous)
21	CENEX/LAND O'LAKES AGRONOMY CENTER - COZAD	COZAD	1,050,000	Ammonia (anhydrous)
22	FARMLAND SERVICE COOP COZAD	COZAD	880,000	Ammonia (anhydrous)
23	CENEX/LAND O'LAKES AGRONOMY CENTER - EUSTIS	EUSTIS	750,000	Ammonia (anhydrous)
24	FRENCHMAN VALLEY COOP	IMPERIAL	730,000	Ammonia (anhydrous)
25	BATTLE CREEK FARMERS COOPERATIVE - OSMOND, NE	OSMOND	692,000	Ammonia (anhydrous)

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Facilities in Nevada storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	COASTAL CHEM, INC. - BATTLE MOUNTAIN, NEVADA	BATTLE MOUNTAIN	6,100,000	Ammonia (anhydrous)
2	TITANIUM METALS CORPORATION	HENDERSON	5,000,000	Titanium tetrachloride
3	PIONEER CHLOR ALKALI COMPANY INC. - HENDERSON	HENDERSON	1,536,000	Chlorine
4	THATCHER COMPANY OF NEVADA, LLC	HENDERSON	540,000	Chlorine
5	CYANCO	WINNEMUCCA	410,000	Ammonia (anhydrous)
6	SOUTHERN NEVADA WATER SYSTEM	BOULDER CITY	204,000	Chlorine
7	SIERRA CHEMICAL CO., SPARKS	SPARKS	202,150	Chlorine
8	KERR-MCGEE CHEMICAL LLC (HENDERSON, NV)	HENDERSON	200,000	Boron trichloride
9	TRUCKEE MEADOWS WATER RECLAMATION FACILITY	RENO	68,000	Chlorine
10	SAGUARO POWER COMPANY	HENDERSON	51,237	Ammonia (anhydrous)
11	GOOD HUMOR CORPORATION HENDERSON	HENDERSON	48,000	Ammonia (anhydrous)
12	ADVANCED SPECIALTY GASES	DAYTON	36,000	Hydrogen fluoride (conc >=50%)
13	US FOODSERVICE - LAS VEGAS	NORTH LAS VEGAS	24,000	Ammonia (anhydrous)
14	POOL CHLOR OF NEVADA INC.	LAS VEGAS	16,000	Chlorine
15	NEVADA CHEMICAL COMPANY	LAS VEGAS	16,000	Chlorine
16	LAS VEGAS ICE & COLD STORAGE CO., INC.	LAS VEGAS	13,600	Ammonia (anhydrous)
17	HAWTHORNE ARMY DEPOT	HAWTHORNE	4,300	Chlorine
18	NEW AMERICAN TEC	FALLON	934	Nickel carbonyl

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Facilities in New Hampshire storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	HAMPSHIRE CHEMICAL CORPORATION	NASHUA	945,655	Hydrocyanic acid
2	PSNH MERRIMACK GENERATING STATION	BOW	480,000	Ammonia (anhydrous)
3	NASHUA CORPORATION - MERRIMACK FACILITY	MERRIMACK	84,000	Vinyl acetate monomer
4	OSRAM SYLVANIA PRODUCTS, INC. - EXETER FACILITY	EXETER	43,800	Hydrogen fluoride (conc >=50%)
5	HIGH LINER FOODS, INC.	PORTSMOUTH	38,000	Ammonia (anhydrous)
6	ANHEUSER-BUSCH, INC. MERRIMACK BREWERY	MERRIMACK	36,000	Ammonia (anhydrous)
7	COLD REGIONS RESEARCH AND ENGINEERING LABORATORY	HANOVER	20,000	Ammonia (anhydrous)
8	COCA-COLA BOTTLING COMPANY, NNE, INC. LPC	LONDONDERRY	13,300	Ammonia (anhydrous)
9	WYMAN GORDON TITANIUM CASTINGS, LLC	FRANKLIN	1,211	Hydrogen fluoride (conc >=50%)

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The 25 Facilities in New Jersey storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	GENERAL CHEMICAL CORPORATION	NEWARK	5,000,000	Oleum (Fuming Sulfuric acid)
2	GATX TERMINALS CORPORATION - CARTERET TERMINAL	CARTERET	3,505,302	Vinyl acetate monomer
3	BASF CORPORATION WASHINGTON NJ SITE	WASHINGTON	3,200,000	Propylene oxide
4	AIR PRODUCTS POLYMERS LP	DAYTON	3,000,000	Vinyl acetate monomer
5	DUPONT CHAMBERS WORKS	DEEPWATER	2,710,000	Chlorine
6	AUSIMONT USA, INC.- THOROFARE PLANT	THOROFARE	2,000,000	Hydrogen fluoride (conc >=50%)
7	HERCULES INCORPORATED - PARLIN PLANT	PARLIN	1,700,000	Nitric acid (conc >=80%)
8	IMTT-BAYONNE	BAYONNE	1,649,935	Ethylenediamine
9	SOLUTIA DELAWARE RIVER PLANT	BRIDGEPORT	1,440,000	Chlorine
10	VALERO REFINING CO. - NEW JERSEY	PAULSBORO	1,200,000	Hydrogen sulfide
11	INFINEUM USA L.P. BAYWAY CHEMICAL PLANT	LINDEN	1,100,000	Chlorine
12	KUEHNE CHEMICAL CO., INC.	SOUTH KEARNY	999,999	Chlorine
13	AKZO NOBEL CHEMICALS INC.	EDISON	750,000	Titanium tetrachloride
14	MIDDLESEX COUNTY UTILITIES AUTHORITY	SAYREVILLE	720,000	Chlorine
15	COGEN TECHNOLOGIES LINDEN VENTURE, LP	LINDEN	560,000	Ammonia (conc >=20%)
16	AIR PRODUCTS AND CHEMICALS, INC.	PAULSBORO	410,000	Toluene diisocyanate (unspecified isomer)
17	FISHER SCIENTIFIC COMPANY - SOMERVILLE SITE -USEPA	BRIDGEWATER	400,000	Chloroform
18	BFGOODRICH PEDRICKTOWN PLANT	PEDRICKTOWN	370,000	Acrylonitrile
19	SCHWEITZER-MAUDUIT INTERNATIONAL, INC.	SPOTSWOOD	360,000	Chlorine
20	GENERAL FOAM -EAST RUTHERFORD, LLC	EAST RUTHERFORD	360,000	Toluene diisocyanate (unspecified isomer)
21	UNION CARBIDE CORPORATION - UCAR EMULSION SYSTEMS	SOMERSET	312,800	Vinyl acetate monomer
22	BENJAMIN MOORE & COMPANY, NEWARK, NJ PLANT	NEWARK	310,800	Vinyl acetate monomer
23	HETERENE CHEMICAL CO., INC.	PATERSON	250,000	Ethylene oxide
24	COLORITE POLYMERS	BURLINGTON	224,000	Vinyl acetate monomer
25	CIBA SPECIALTY CHEMICALS WATER TREATMENTS, INC.	OLD BRIDGE	210,000	Methyl chloride

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in New Mexico storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	NEW MEXICO ADHESIVES, L.L.C.	LAS VEGAS	2,675,000	Formaldehyde (solution)
2	FOAMEX, L.P.	SANTA TERESA	810,000	Toluene diisocyanate (unspecified isomer)
3	DPC INDUSTRIES, INC.	ALBUQUERQUE	600,000	Chlorine
4	BOC GASES - LOVINGTON	LOVINGTON	350,000	Hydrogen chloride (anhydrous)
5	TERRA INTERNATIONAL, INC. - VADO, NM	VADO	160,000	Ammonia (anhydrous)
6	POOLE CHEMICAL - CLOVIS, NM	CLOVIS	160,000	Ammonia (anhydrous)
7	TESSENDERLO KERLEY, INC. - ARTESIA FACILITY	ARTESIA	156,000	Ammonia (anhydrous)
8	CURRY COUNTY FERTILIZER, LLC. - PRINCE	CLOVIS	140,000	Ammonia (anhydrous)
9	SOUTHSIDE WATER RECLAMATION PLANT	ALBUQUERQUE	100,000	Chlorine
10	FRIONA WHEATGROWERS, GRADY LOCATION	GRADY	70,860	Ammonia (anhydrous)
11	LEPRINO FOODS COMPANY ROSWELL, NM PLANT	ROSWELL	70,200	Ammonia (anhydrous)
12	CINIZA REFINERY	JAMESTOWN	66,546	Hydrogen fluoride (conc >=50%)
13	SPRA-GREEN INC.	PORTALES	56,000	Ammonia (anhydrous)
14	WILBUR-ELLIS COMPANY, FORREST	FORREST	52,000	Ammonia (anhydrous)
15	CURRY COUNTY FERTILIZER, LLC. - NORTH	CLOVIS	51,000	Ammonia (anhydrous)
16	TAOS WASTEWATER TREATMENT PLANT	TAOS	50,000	Ammonia (anhydrous)
17	HIGH PLAINS ETHANOL INC., PORTALES FACILITY	PORTALES	46,000	Ammonia (anhydrous)
18	JOHNSON SPACE CENTER WHITE SANDS TEST FACILITY	LAS CRUCES	46,000	Methyl hydrazine
19	AERO FARM CHEMICAL	TEXICO	40,000	Ammonia (anhydrous)
20	WAL-MART DISTRIBUTION CENTER #6084	LOS LUNAS	38,600	Ammonia (anhydrous)
21	DPC INDUSTRIES, INC.	HOBBS	30,000	Sulfur dioxide (anhydrous)
22	RINCHEM COMPANY, INC. - EAST WAREHOUSE	ALBUQUERQUE	29,000	Hydrochloric acid (conc >=37%)
23	REUBEN PREPARED FOODS	SANTA TERESA	27,000	Ammonia (anhydrous)
24	CREAMLAND DAIRIES, INC.	ALBUQUERQUE	26,000	Ammonia (anhydrous)
25	GRIFFITH MICRO SCIENCE - SANTA TERESA	SANTA TERESA	20,000	Ethylene oxide

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The 25 Facilities in New York storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	OCCIDENTAL CHEMICAL CORPORATION - NIAGARA PLANT	NIAGARA FALLS	17,000,000	Chlorine
2	OLIN CORPORATION NIAGARA FALLS, NY - FOOTE YARD	NIAGARA FALLS	13,200,000	Chlorine
3	KRAFT FOODS, INC.	WALTON	7,664,417	Ammonia (anhydrous)
4	OLIN CORPORATION NIAGARA FALLS, NEW YORK PLANT	NIAGARA FALLS	3,100,000	Chlorine
5	GE SILICONES	WATERFORD	2,700,000	Dimethyldichlorosilane
6	JCI JONES CHEMICALS, INC. - WARWICK PLANT	WARWICK	1,300,000	Chlorine
7	PVS CHEMICALS, INC. (NEW YORK)	BUFFALO	1,000,000	Oleum (Fuming Sulfuric acid)
8	BORDEN CHEMICAL, INC. - MOREAU	SOUTH GLENS FALI	840,000	Formaldehyde (solution)
9	BUCKBEE-MEARS CORTLAND	CORTLAND	720,000	Chlorine
10	JCI JONES CHEMICALS, INC. CALEDONIA PLANT	CALEDONIA	720,000	Chlorine
11	LAROCHE INDUSTRIES INC.	LYONS	651,052	Ammonia (anhydrous)
12	GENERAL CHEMICAL CORPORATION	SOLVAY	455,000	Ammonia (anhydrous)
13	INDEPENDENCE STATION	OSWEGO	450,000	Ammonia (conc >=20%)
14	AES SOMERSET L.L.C.	BARKER	405,450	Ammonia (anhydrous)
15	SCHENECTADY INTERNATIONAL INC.	ROTTERDAM JUNCT	390,000	Formaldehyde (solution)
16	ARCH CHEMICALS, INC	ROCHESTER	360,000	Chlorine
17	FINCH PRUYN & CO., INC.	GLENS FALLS	360,000	Ammonia (anhydrous)
18	THATCHER COMPANY OF NEW YORK	WILLIAMSON	360,000	Sulfur dioxide (anhydrous)
19	OCCIDENTAL CHEMICAL CORPORATION, DUREZ PLANT	NIAGARA FALLS	339,000	Formaldehyde (solution)
20	GENOA AG CENTER INC.	GENOA	300,000	Ammonia (anhydrous)
21	TONAWANDA - 3M COMPANY	TONAWANDA	300,000	Carbon disulfide
22	BENJAMIN MOORE & COMPANY, JOHNSTOWN, NY PLANT	JOHNSTOWN	240,000	Vinyl acetate monomer
23	ELMER'S PRODUCTS GUILFORD ROAD FACILITY	BAINBRIDGE	233,000	Vinyl acetate monomer
24	NUTRITE CORP.	COHOCTON	196,600	Ammonia (anhydrous)
25	CITY OF NIAGARA FALLS WASTEWATER TREATMENT PLANT	NIAGARA FALLS	180,000	Chlorine

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in North Carolina storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	BORDEN CHEMICAL, INC., FAYETTEVILLE PLANT	FAYETTEVILLE	3,000,000	Formaldehyde (solution)
2	NESTE RESINS CORPORATION - MONCURE, NC	MONCURE	2,467,500	Formaldehyde (solution)
3	VITAFOAM INCORPORATED - OLYMPIC PLANT	GREENSBORO	2,040,000	Toluene diisocyanate (unspecified isomer)
4	WILMINGTON FACILITY	WILMINGTON	2,000,000	Oleum (Fuming Sulfuric acid)
5	WRIGHT CHEMICAL CORPORATION	RIEGELWOOD	1,700,000	Formaldehyde (solution)
6	GEORGIA-PACIFIC RESINS, INC.	DENTON	986,800	Formaldehyde (solution)
7	TRINITY MANUFACTURING, INC.	HAMLET	900,000	Chlorine
8	ELIZABETH CITY	ELIZABETH CITY	799,200	Ammonia (conc >=20%)
9	LAROCHE INDUSTRIES INC.	CONCORD	741,015	Ammonia (anhydrous)
10	JCI JONES CHEMICALS, INC. - CHARLOTTE PLANT	CHARLOTTE	720,000	Chlorine
11	ROYSTER-CLARK, INC. SHAWBORO #1	SHAWBORO	510,000	Ammonia (anhydrous)
12	VITAFOAM INCORPORATED - HIGH POINT	HIGH POINT	509,000	Toluene diisocyanate (unspecified isomer)
13	SMITHFIELD PACKING CO. (TARHEEL)	TARHEEL	460,000	Ammonia (anhydrous)
14	ROHM AND HAAS COMPANY - CHARLOTTE PLANT	CHARLOTTE	420,000	Vinyl acetate monomer
15	FOAMEX L.P.	CONOVER	400,000	Toluene diisocyanate (unspecified isomer)
16	PCS PHOSPHATE CO., INC.	AURORA	390,000	Ammonia (anhydrous)
17	ROYSTER-CLARK, INC. WILMINGTON	WILMINGTON	368,000	Ammonia (anhydrous)
18	HARVIN REACTION TECHNOLOGY, INC.	GREENSBORO	344,000	Propylene oxide
19	MALLINCKRODT INC.	RALEIGH	293,760	Ammonia (anhydrous)
20	HENKEL CORPORATION/CHARLOTTE, NC MFG. PLAN	CHARLOTTE	290,000	Ethylene oxide
21	INTERNATIONAL PAPER COMPANY - RIEGELWOOD M	RIEGELWOOD	280,600	Sulfur dioxide (anhydrous)
22	HIGH POINT CHEMICAL CORPORATION	HIGH POINT	280,000	Ethylene oxide
23	CARPENTER CO., CONOVER DIVISION	CONOVER	280,000	Toluene diisocyanate (unspecified isomer)
24	SOUTHERN STATES COOP- STATESVILLE, NC (5900)	STATESVILLE	260,100	Ammonia (anhydrous)
25	WILSON	WILSON	236,060	Ammonia (conc >=20%)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in North Dakota storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	CF INDUSTRIES, INC. - GRAND FORKS TERMINAL	GRAND FORKS	120,000,000	Ammonia (anhydrous)
2	AGRIUM U.S. INC. LEAL TERMINAL	ROGERS	80,600,000	Ammonia (conc >=20%)
3	GREAT PLAINS SYNFUELS PLANT	BEULAH	65,455,000	Ammonia (anhydrous)
4	CF INDUSTRIES, INC. -VELVA TERMINAL	VELVA	60,000,000	Ammonia (anhydrous)
5	CARGILL INCORPORATED	LAKOTA	660,000	Ammonia (anhydrous)
6	SOURIS NH3 PLANT	SOURIS	480,000	Ammonia (anhydrous)
7	NEWBURG FERTILIZER PLANT	NEWBURG	400,000	Ammonia (anhydrous)
8	FINLEY FARMERS GRAIN AND ELEVATOR COMPANY	FINLEY	360,000	Ammonia (anhydrous)
9	GWINNER FACILITY	GWINNER	343,848	Ammonia (anhydrous)
10	OAKES FACILITY, STATION #28	OAKES	340,000	Ammonia (anhydrous)
11	KRAMER NH3 PLANT	KRAMER	340,000	Ammonia (anhydrous)
12	S&S AGRI SERVICE, INC.	PETERSBURG	320,000	Ammonia (anhydrous)
13	DAKOTA QUALITY GRAIN COOPERATIVE -PARSHALL, ND	PARSHALL	300,000	Ammonia (anhydrous)
14	KENMARE ANHYDROUS PLANT	KENMARE	300,000	Ammonia (anhydrous)
15	MOTT EQUITY EXCHANGE	MOTT	298,560	Ammonia (anhydrous)
16	FARMERS OIL COMPANY ANHYDROUS PLANT-COOPERSTOWN	COOPERSTOWN	298,560	Ammonia (anhydrous)
17	RAUB AG SERVICE LLC	RYDER	298,350	Ammonia (anhydrous)
18	LYNCHBURG PLANT	DURBIN	295,000	Ammonia (anhydrous)
19	WOODS PLANT	LEONARD	295,000	Ammonia (anhydrous)
20	OSNABROCK FARMERS COOP ELEVATOR	OSNABROCK	293,480	Ammonia (anhydrous)
21	SUN PRAIRIE GRAIN-COTEAU	COTEAU	280,000	Ammonia (anhydrous)
22	CENEX HARVEST STATES-HORACE	HORACE	280,000	Ammonia (anhydrous)
23	CENEX HARVEST STATES-COURTENAY	COURTENAY	280,000	Ammonia (anhydrous)
24	CRYSTAL CO-OP	CRYSTAL	270,000	Ammonia (anhydrous)
25	FREGIEN'S FERTILIZER INC.	JUD	270,000	Ammonia (anhydrous)

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The 25 Facilities in Ohio storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	PCS NITROGEN OHIO L. P.	LIMA	125,938,200	Ammonia (anhydrous)
2	ROYSTER-CLARK NITROGEN, NORTH BEND PLANT	NORTH BEND	36,000,000	Ammonia (anhydrous)
3	BP CHEMICALS, INC.	LIMA	25,737,460	Acrylonitrile
4	BAYER ADDYSTON OHIO PLANT	ADDYSTON	10,000,000	Acrylonitrile
5	VON ROLL AMERICA, INC	EAST LIVERPOOL	8,700,000	Chloroform
6	QUEEN CITY TERMINALS, INC.	CINCINNATI	5,800,000	Vinyl acetate monomer
7	DUPONT FORT HILL PLANT	NORTH BEND	2,000,000	Oleum (Fuming Sulfuric acid)
8	ARISTECH CHEMICAL CORPORATION	HAVERHILL	1,720,000	Ammonia (anhydrous)
9	MARSULEX, INC. OREGON REFINERY SERVICES	OREGON	1,200,000	Oleum (Fuming Sulfuric acid)
10	TOMEN AGRO, INC.	PERRY	1,080,000	Chlorine
11	NESTE RESINS CORPORATION - TOLEDO, OH	TOLEDO	1,048,310	Formaldehyde (solution)
12	DOW CHEMICAL COMPANY	IRONTON	912,000	Acrylonitrile
13	JCI JONES CHEMICALS, INC.-BARBERTON, OHIO	BARBERTON	900,000	Chlorine
14	MILL CREEK WWTP	CINCINNATI	720,000	Chlorine
15	FRANKLIN INTERNATIONAL - POLYMER DIVISION	COLUMBUS	700,220	Vinyl acetate monomer
16	TANNER INDUSTRIES, INC.	PAINESVILLE	676,000	Ammonia (anhydrous)
17	SCOTT EQUITY EXCHANGE CO. - VAN WERT BRANCH	VAN WERT	636,666	Ammonia (anhydrous)
18	AK STEEL CORPORATION	MIDDLETOWN	625,320	Ammonia (anhydrous)
19	WENSINK FARM SEEDS , INC	MONROEVILLE	575,000	Ammonia (anhydrous)
20	H.B. FULLER -BLUE ASH PLANT	BLUE ASH	560,000	Vinyl acetate monomer
21	MATLACK BULK INTERMODAL SERVICES (DBA) MBIS	FAIRPORT HARBOR	540,000	Hydrogen fluoride (conc >=50%)
22	DOVER CHEMICAL CORPORATION	DOVER	540,000	Chlorine
23	NYLONGE CORPORATION	ELYRIA	498,200	Carbon disulfide
24	THE GLIDDEN COMPANY	HURON	468,720	Vinyl acetate monomer
25	BFGOODRICH PERFORMANCE MATERIALS AKRON PLANT	AKRON	450,000	Acrylonitrile

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The 25 Facilities in Oklahoma storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	FARMLAND INDUSTRIES, INC., ENID NITROGEN PLANT	ENID	120,000,000	Ammonia (anhydrous)
2	TERRA NITROGEN COMPANY, WOODWARD PLANT	WOODWARD	80,000,000	Ammonia (anhydrous)
3	TERRA NITROGEN LIMITED PARTNERSHIP,VERDIGRIS PLANT	CLAREMORE	62,000,000	Ammonia (anhydrous)
4	ADVANCE CHEMICAL DISTRIBUTION, INC. (N)	NOWATA	700,000	Chlorine
5	ADVANCE CHEMICAL DISTRIBUTION, INC. (PC)	CATOOSA	600,000	Chlorine
6	JUPITER SULPHUR, LLC - PONCA CITY FACILITY	PONCA CITY	393,975	Ammonia (anhydrous)
7	CONOCO REFINERY, PONCA CITY, OKLA	PONCA CITY	360,000	Hydrogen fluoride (conc >=50%)
8	FARMERS GRAIN COMPANY	POND CREEK	329,600	Ammonia (anhydrous)
9	TODDS' ELEVATOR	GEARY	316,000	Ammonia (anhydrous)
10	FARMERS GRAIN COMPANY	KREMLIN	306,425	Ammonia (anhydrous)
11	BAKER PETROLITE CORPORATION - SAND SPRINGS PLANT	SAND SPRINGS	300,000	Propylene oxide
12	HOOKER EQUITY EXCHANGE	HOOKER	296,564	Ammonia (anhydrous)
13	FARMERS COOPERATIVE ELEVATOR & SUPPLY CO.	BENDER	280,160	Ammonia (anhydrous)
14	BLACKWELL COOPERATIVE ELEVATOR ASSOCIATION	BLACKWELL	262,650	Ammonia (anhydrous)
15	FARMERS COOPERATIVE ELEVATOR & SUPPLY CO.	KILDARE	262,650	Ammonia (anhydrous)
16	NORTH CADDO COOPERATIVE	HINTON	260,000	Ammonia (anhydrous)
17	COOP SERVICES INC., CHATTANOOGA	CHATTANOOGA	260,000	Ammonia (anhydrous)
18	UNITED COOPERATIVE INC	MARSHALL	260,000	Ammonia (anhydrous)
19	STATE LINE GRAIN COMPANY	MANCHESTER	260,000	Ammonia (anhydrous)
20	CRESCENT COOPERATIVE ASSOCIATION	CRESCENT	260,000	Ammonia (anhydrous)
21	PERRYTON EQUITY EXCHANGE - TURPIN OKLAHOMA BRANCH	TURPIN	251,277	Ammonia (anhydrous)
22	FARMERS COOPERATIVE MILL AND ELEVATOR, CARNEGIE	CARNEGIE	250,000	Ammonia (anhydrous)
23	FARMERS COOPERATIVE ASSOCIATION	PONCA CITY	245,140	Ammonia (anhydrous)
24	FARMERS COOPERATIVE ASSOCIATION	PERRY	245,140	Ammonia (anhydrous)
25	ELKHART COOP KEYES BRANCH	KEYES	240,000	Ammonia (anhydrous)

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The 25 Facilities in Oregon storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	RIVERGATE TERMINAL	PORTLAND	101,000,000	Ammonia (anhydrous)
2	COASTAL ST. HELENS CHEMICAL	ST. HELENS	3,300,000	Ammonia (anhydrous)
3	OREMET WAH CHANG-NORTH PLANT	ALBANY	1,800,000	Chlorine
4	NESTE RESINS CORPORATION - SPRINGFIELD, OR	SPRINGFIELD	1,660,746	Formaldehyde (solution)
5	OREMET-WAH CHANG SOUTH CAMPUS	ALBANY	1,300,000	Titanium tetrachloride
6	GEORGIA-PACIFIC RESINS, INC.	ALBANY	1,200,000	Formaldehyde (solution)
7	PENDLETON GRAIN GROWERS-MCKENNON STATION	PENDLETON	810,000	Ammonia (anhydrous)
8	BORDEN CHEMICAL, INC., SPRINGFIELD PLANT	SPRINGFIELD	800,000	Formaldehyde (solution)
9	BOISE CASCADE	ST. HELENS	720,000	Chlorine
10	POPE & TALBOT, INC. HALSEY PULP MILL	HALSEY	720,000	Chlorine
11	BORDEN CHEMICAL, INC. - LA GRANDE PLANT	LA GRANDE	510,000	Formaldehyde (solution)
12	TIDEWATER UMATILLA TERMINAL	UMATILLA	435,000	Ammonia (anhydrous)
13	THE AMALGAMATED SUGAR COMPANY, LLC	NYSSA	360,000	Sulfur dioxide (anhydrous)
14	SIMPSON TIMBER COMPANY, OREGON OVERLAYS DIVISION	PORTLAND	340,000	Formaldehyde (solution)
15	WILCO FARMERS	STAYTON	320,000	Ammonia (anhydrous)
16	HERCULES INCORPORATED -- PORTLAND PLANT	PORTLAND	307,700	Epichlorohydrin
17	WESTERN FARM SERVICE, LAGRANDE	LAGRANDE	300,000	Ammonia (conc >=20%)
18	CENEX/LAND O'LAKES AGRONOMY CENTER - HARRISBURG	HARRISBURG	300,000	Ammonia (anhydrous)
19	GEORGIA-PACIFIC RESINS, INC.	WHITE CITY	247,820	Formaldehyde (solution)
20	ELF ATOCHEM NORTH AMERICA, INC.	PORTLAND	220,000	Chlorine
21	GEORGIA-PACIFIC RESINS, INC.	EUGENE	195,500	Formaldehyde (solution)
22	WESTERN FARM SERVICE, ATHENA	ATHENA	190,000	Ammonia (conc >=20%)
23	OREGON CHERRY GROWERS, INC - THE DALLES	THE DALLES	180,000	Sulfur dioxide (anhydrous)
24	OREGON CHERRY GROWERS, INC. - SALEM	SALEM	180,000	Sulfur dioxide (anhydrous)
25	CASCADE FRUIT COMPANY	THE DALLES	180,000	Sulfur dioxide (anhydrous)

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The 25 Facilities in Pennsylvania storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	DYNO NOBEL INC. (DONORA PLANT)	DONORA	18,022,528	Ammonia (anhydrous)
2	WELLAND CHEMICAL, INC.	NEWELL	17,614,240	Ammonia (anhydrous)
3	INDSPEC CHEMICAL CORPORATION	PETROLIA	2,524,100	Oleum (Fuming Sulfuric acid)
4	SUNOCO, INC. (R&M) MARCUS HOOK REFINERY	MARCUS HOOK	2,300,000	Ethylene oxide
5	RHODIA INC. MORRISVILLE PLANT	MORRISVILLE	1,600,000	Phosphorus trichloride
6	FLEXSYS AMERICA L.P.	MONONGAHELA	1,482,000	Carbon disulfide
7	FOAMEX EDDYSTONE PLANT	EDDYSTONE	1,291,800	Toluene diisocyanate (unspecified isomer)
8	TANNER INDUSTRIES, INC.	PHILADELPHIA	1,240,000	Ammonia (conc >=20%)
9	JAMES AUSTIN COMPANY	MARS	720,000	Chlorine
10	CHEMPLY DIV. OF E+E (US) INC.	BUNOLA	704,000	Chlorine
11	LAROCHE INDUSTRIES INC.	DONORA	702,078	Ammonia (anhydrous)
12	MANLEY-REGAN CHEMICALS DIV. OF E+E (US) INC.	MIDDLETOWN	690,000	Chlorine
13	FOAMEX CORRY PLANT	CORRY	590,000	Toluene diisocyanate (unspecified isomer)
14	SAMUEL S. BAXTER WATER TREATMENT PLANT	PHILADELPHIA	540,000	Chlorine
15	LONZA INC.	WILLIAMSPORT	540,000	Chlorine
16	OCCIDENTAL CHEMICAL CORP. - POTTSTOWN PLANT	POTTSTOWN	412,600	Vinyl acetate monomer
17	SUNOCO, INC. (R&M) - PHILADELPHIA REFINERY	PHILADELPHIA	400,000	Hydrogen fluoride (conc >=50%)
18	ROHM AND HAAS PHILADELPHIA PLANT	PHILADELPHIA	380,000	Oleum (Fuming Sulfuric acid)
19	APPLETON PAPERS INC. - SPRING MILL	ROARING SPRING	360,000	Chlorine
20	TANNER INDUSTRIES, INC.	MORRISVILLE	316,000	Ammonia (anhydrous)
21	LEBANON CHEMICAL CORPORATION - LEBANON	LEBANON	290,000	Ammonia (anhydrous)
22	BORDEN CHEMICAL, INC. - MOUNT JEWETT	MT JEWETT	270,000	Formaldehyde (solution)
23	ARMCO INC BUTLER OPERATIONS - MAIN PLANT	BUTLER	250,000	Hydrogen fluoride (conc >=50%)
24	OSRAM SYLVANIA PRODUCTS, INC. TOWANDA	TOWANDA	240,000	Ammonia (conc >=20%)
25	CARTEX CORPORATION - FAIRLESS HILLS PLANT	FAIRLESS HILLS	224,000	Toluene diisocyanate (unspecified isomer)

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RHODE ISLAND

Facilities in Rhode Island storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	TANNER INDUSTRIES, INC.	EAST PROVIDENCE	514,000	Ammonia (anhydrous)
2	GEORGE MANN & COMPANY, INC.	PROVIDENCE	180,000	Chlorine
3	CLARIANT CORPORATION - COVENTRY	COVENTRY	128,000	Sulfur trioxide
4	AIR PRODUCTS AND CHEMICALS, INC.	CUMBERLAND	115,000	Epichlorohydrin
5	OSRAM SYLVANIA PRODUCTS, INC.	CENTRAL FALLS	46,200	Hydrogen fluoride (conc >=50%)
6	A. T. WALL COMPANY	WARWICK	35,356	Ammonia (anhydrous)
7	HAYES HEAT TREATING	CRANSTON	35,000	Ammonia (conc >=20%)
8	PAWTUCKET POWER	PAWTUCKET	27,680	Ammonia (conc >=20%)
9	WEST WARWICK REGIONAL WASTEWATER TREATMENT FAC.	WEST WARWICK	24,000	Chlorine
10	PROVIDENCE WATER TREATMENT PLANT	HOPE	24,000	Chlorine
11	TANNER INDUSTRIES, INC.	EAST PROVIDENCE	23,000	Ammonia (anhydrous)
12	PAWTUCKET WATER SUPPLY BOARD	CUMBERLAND	18,000	Chlorine
13	SUPERVALU, INC.	CRANSTON	17,000	Ammonia (anhydrous)
14	WARWICK WASTEWATER TREATMENT FACILITY	WARWICK	14,000	Chlorine
15	DYSTAR L.P. - COVENTRY	COVENTRY	12,000	Chlorine
16	BERCEN, INC.	CRANSTON	10,000	Formaldehyde (solution)
17	WOONSOCKET REGIONAL WASTEWATER COMMISSION	WOONSOCKET	6,000	Chlorine
18	CHARLES HAMMAN WATER TREATMENT PLANT	WOONSOCKET	5,250	Chlorine
19	QUONSET POINT WASTEWATER TREATMENT FACILITY	NORTH KINGSTOWI	4,000	Chlorine
20	WATER POLLUTION CONTROL	NEWPORT	2,000	Chlorine
21	CITY OF NEWPORT STATION #1	NEWPORT	2,000	Chlorine
22	LAWTON VALLEY WATER TREATMENT PLANT	PORTSMOUTH	2,000	Chlorine

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The 25 Facilities in South Carolina storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	TIN PRODUCTS, INC.	LEXINGTON	4,200,000	Chlorine
2	NATIONAL STARCH AND CHEMICAL COMPANY WOODRUFF	ENOREE	3,900,000	Vinyl acetate monomer
3	CELANESE ACETATE - CELRIVER SITE	ROCK HILL	2,800,000	Formaldehyde (solution)
4	GEORGIA-PACIFIC RESINS, INC.	RUSSELLVILLE	1,200,000	Formaldehyde (solution)
5	TANNER INDUSTRIES, INC.	SWANSEA	1,126,000	Ammonia (anhydrous)
6	BASF CORPORATION WHITESTONE SITE	SPARTANBURG	1,100,000	Ethylene oxide
7	GENCORP PERFORMANCE CHEMICALS, CHESTER PLANT	CHESTER	940,000	Vinyl acetate monomer
8	ALBRIGHT & WILSON AMERICAS - CHARLESTON, SC PLANT	CHARLESTON	730,000	Phosphorus trichloride
9	BOWATER INCORPORATED COATED PAPER DIVISION	CATAWBA	720,000	Chlorine
10	CLARIANT CORPORATION, LEEDS PLANT	CARLISLE	560,000	Sulfur dioxide (anhydrous)
11	WILLAMETTE INDUSTRIES, INC., MARLBORO MILL	BENNETTSVILLE	540,000	Chlorine
12	GIANT CEMENT COMPANY	HARLEYVILLE	490,000	Vinyl acetate monomer
13	ALBEMARLE CORPORATION	ORANGEBURG	430,000	Phosphorus trichloride
14	HAMPTON FACILITY	HAMPTON	384,000	Formaldehyde (solution)
15	RHONE-POULENC SURFACTANTS & SPECIALTIES, L.P.	SPARTANBURG	350,000	Ethylene oxide
16	ARCHIMICA INC.	ELGIN	336,000	Bromine
17	AIR PRODUCTS POLYMERS, L. P.	PIEDMONT	330,000	Vinyl acetate monomer
18	NESTLE FROZEN FOOD DIVISON	GAFFNEY,	301,831	Ammonia (anhydrous)
19	PARA-CHEM SOUTHERN, INC.	SIMPSONVILLE	299,898	Vinyl acetate monomer
20	HAMPTON, SOUTH CAROLINA PLANT	HAMPTON	253,440	Formaldehyde (solution)
21	HARTSVILLE	HARTSVILLE	226,320	Ammonia (conc >=20%)
22	ORANGEBURG	ORANGEBURG	224,313	Ammonia (anhydrous)
23	HENKEL CORPORATION/MAULDIN, SC MANUFACTURING PLANT	MAULDIN	220,000	Ethylene oxide
24	BP AMOCO POLYMERS, INC.	PIEDMONT	220,000	Acrylonitrile
25	GOLD KIST SUMTER PROCESSING PLANT	SUMTER	200,000	Ammonia (anhydrous)

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The 25 Facilities in South Dakota storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	BATH FACILITY, STATION #19	ABERDEEN	2,000,000	Ammonia (anhydrous)
2	INTERMOUNTAIN ADHESIVES, L.L.C.	RAPID CITY	900,000	Formaldehyde (solution)
3	TULARE FACILITY, STATION #18	TULARE	620,000	Ammonia (anhydrous)
4	FARMERS COOPERATIVE COMPANY	BROOKINGS	370,000	Ammonia (anhydrous)
5	MINNKOTA FARMERS COOPERATIVE	BALTIC	350,000	Ammonia (anhydrous)
6	CONDE FACILITY, STATION #14	CONDE	343,848	Ammonia (anhydrous)
7	BRISTOL FACILITY, STATION #06	BRISTOL	340,000	Ammonia (anhydrous)
8	COLUMBIA FACILITY, STATION #07	COLUMBIA	320,000	Ammonia (anhydrous)
9	GROTON FACILITY, STATION #12	GROTON	310,000	Ammonia (anhydrous)
10	HURON FACILITY, STATION #20	HURON	302,000	Ammonia (anhydrous)
11	JOHN MORRELL & CO.	SIOUX FALLS	300,000	Ammonia (anhydrous)
12	LANGFORD FACILITY, STATION #29	LANGFORD	300,000	Ammonia (anhydrous)
13	MCLAUGHLIN FACILITY, STATION #36	MCLAUGHLIN	282,189	Ammonia (anhydrous)
14	NORTHERN PLAINS COOPERATIVE-SELBY	SELBY	280,000	Ammonia (anhydrous)
15	FRANKFORT FACILITY, STATION #09	FRANKFORT	280,000	Ammonia (anhydrous)
16	REDFIELD FACILITY, STATION #24	REDFIELD	280,000	Ammonia (anhydrous)
17	BERESFORD FARMERS CO-OP ELEVATOR	BERESFORD	210,000	Ammonia (anhydrous)
18	CHAMBERLAIN FACILITY, STATION #36	CHAMBERLAIN	180,000	Ammonia (anhydrous)
19	MELLETTE FACILITY, STATION #11	MELLETTE	176,000	Ammonia (anhydrous)
20	BRENTFORD FACILITY, STATION #05	BRENTFORD	176,000	Ammonia (anhydrous)
21	CENEX HARVEST STATES-CORSICA	CORSICA	170,000	Ammonia (anhydrous)
22	VIBORG COOP ELEVATOR - FERTILIZER FACILITY	VIBORG	160,555	Ammonia (anhydrous)
23	CLARK COMMUNITY OIL FERTILIZER PLANT	CLARK	160,000	Ammonia (anhydrous)
24	HAMLIN COUNTY COOP OIL COMPANY	HAYTI	160,000	Ammonia (anhydrous)
25	EASTERN FARMERS COOP-GARRETSON	GARRETSON	160,000	Ammonia (anhydrous)

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Tennessee storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	OLIN CORPORATION, CHARLESTON TN PLANT	CHARLESTON	26,000,000	Chlorine
2	INTERTRADE HOLDINGS, INC.	COPPERHILL	20,316,591	Oleum (Fuming Sulfuric acid)
3	DUPONT JOHNSONVILLE PLANT	NEW JOHNSONVILLE	18,000,000	Chlorine
4	DUPONT MEMPHIS PLANT	MEMPHIS	4,778,196	Hydrocyanic acid
5	HOLSTON ARMY AMMUNITION PLANT	KINGSPORT	3,147,388	Nitric acid (conc >=80%)
6	ICI ACRYLICS	MEMPHIS	3,000,000	Oleum (Fuming Sulfuric acid)
7	TENNESSEE EASTMAN DIVISION	KINGSPORT	1,700,000	Formaldehyde (solution)
8	P. B. & S. CHEMICAL COMPANY, INC (08)	CHATTANOOGA	1,664,900	Chlorine
9	VERTEX CHEMICAL CORPORATION MEMPHIS, TN	MEMPHIS	1,283,494	Chlorine
10	DPC ENTERPRISES	CHATTANOOGA	1,000,000	Chlorine
11	FOAMEX MORRISTOWN PLANT #1	MORRISTOWN	900,000	Toluene diisocyanate (unspecified isomer)
12	ALCO CHEMICAL DIV. OF NATIONAL STARCH & CHEMICAL C	CHATTANOOGA	553,000	Carbon disulfide
13	FOAMEX MILAN PLANT	MILAN	500,000	Toluene 2,4-diisocyanate
14	WORTH CHEMICAL CORPORATION	CHATTANOOGA	450,000	Chlorine
15	ZENECA SPECIALTIES MT. PLEASANT SITE	MT. PLEASANT	431,000	Phosphorus trichloride
16	WOODBRIDGE FOAM FABRICATING, INC.	CHATTANOOGA	420,000	Toluene diisocyanate (unspecified isomer)
17	ALLTRISTA ZINC PRODUCTS, L.P.	GREENEVILLE	360,000	Chlorine
18	TANNER INDUSTRIES, INC.	NASHVILLE	342,000	Ammonia (anhydrous)
19	INLAND PAPERBOARD & PACKAGING, INC.	NEW JOHNSONVILLE	300,000	Ammonia (anhydrous)
20	VISKASE CORPORATION	LOUDON	290,000	Carbon disulfide
21	CARGILL, INC.	MEMPHIS	262,300	Sulfur dioxide (anhydrous)
22	GREAT LAKES CHEMICAL NEWPORT PLANT	NEWPORT	260,000	Bromine
23	ROHM AND HAAS COMPANY - KNOXVILLE PLANT	KNOXVILLE	250,000	Vinyl acetate monomer
24	SPONTEX, INC.	COLUMBIA	220,700	Carbon disulfide
25	AMERICAN CROP SERVICES, INC. - UNION CITY, TN	UNION CITY	196,274	Ammonia (anhydrous)

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The 25 Facilities in Texas storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	SAN JACINTO RIVER AUTHORITY WW PLANT - SO2	THE WOODLANDS	800,012,000	Sulfur dioxide (anhydrous)
2	NECHES INDUSTRIAL PARK,INC.	BEAUMONT	89,000,000	Ammonia (anhydrous)
3	BP CHEMICALS, INC.	PORT LAVACA	70,000,000	Acrylonitrile
4	BAYPORT MARINE TERMINAL	SEABROOK	70,000,000	Vinyl acetate monomer
5	STERLING CHEMICALS INCORPORATED	TEXAS CITY	66,120,000	Ammonia (anhydrous)
6	FARMLAND INDUSTRIES, INC.	FARNSWORTH	60,207,000	Ammonia (anhydrous)
7	BASF CORPORATION - FREEPORT TERMINAL	FREEPORT	60,000,000	Ammonia (anhydrous)
8	BASF CORPORATION - FREEPORT SITE	FREEPORT	60,000,000	Ammonia (anhydrous)
9	SOLUTIA - CHOCOLATE BAYOU	ALVIN	34,771,000	Acrylonitrile
10	LYONDELL - CHANNELVIEW PLANT	CHANNELVIEW	34,500,000	Propylene oxide
11	LYONDELL CHEMICAL - BAYPORT PLANT	PASADENA	34,500,000	Propylene oxide
12	DUPONT BEAUMONT PLANT	BEAUMONT	34,000,000	Ammonia (anhydrous)
13	RHODIA, HOUSTON PLANT	HOUSTON	33,080,000	Oleum (Fuming Sulfuric acid)
14	INTERCONTINENTAL TERMINALS COMPANY	DEER PARK	32,463,270	Acrylonitrile
15	DU PONT VICTORIA PLANT	VICTORIA	30,000,000	Ammonia (anhydrous)
16	HOUSTON AMMONIA TERMINAL	PASADENA	30,000,000	Ammonia (anhydrous)
17	PAKTANK CORPORATION - DEER PARK TERMINAL	DEER PARK	28,006,860	Chloroform
18	LBC PETROUNITED/ BAYPORT TERMINAL	SEABROOK	24,897,600	Vinyl acetate monomer
19	UNION CARBIDE CORPORATION	TEXAS CITY	23,500,000	Vinyl acetate monomer
20	ODFJELL TERMINALS (BAYTANK) INC.	SEABROOK	21,000,000	Chloroform
21	STOLTHAVEN HOUSTON, INC.	HOUSTON	16,800,000	Epichlorohydrin
22	AGRIFOS FERTILIZE L P	PASADENA	15,000,000	Ammonia (anhydrous)
23	SHELL DEER PARK REFINING COMPANY	DEER PARK	13,700,000	Epichlorohydrin
24	HUNTSMAN CORP., OLEFINS & OXIDES (O&O) PLANT	PORT NECHES	12,400,000	Ethylene oxide
25	OXY VINYLS, LP - BATTLEGROUND CHLOR-ALKALI PLANT	LAPORTE	12,000,000	Chlorine

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The 25 Facilities in Utah storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	LAROCHE INDUSTRIES, INC. - GENEVA NITROGEN PLANT	OREM	8,558,812	Ammonia (anhydrous)
2	THATCHER COMPANY	SALT LAKE CITY	1,200,000	Sulfur dioxide (anhydrous)
3	THE ENSIGN-BICKFORD COMPANY - SPANISH FORK, UT	SPANISH FORK	630,000	Nitric acid (conc >=80%)
4	AMERICAN PACIFIC CORPORATION, UTAH OPERATIONS	CEDAR CITY	423,740	Ammonia (anhydrous)
5	CHEVRON SALT LAKE REFINERY	SALT LAKE CITY	280,000	Hydrogen fluoride (conc >=50%)
6	WHITE MESA URANIUM MILL	BLANDING	280,000	Ammonia (anhydrous)
7	GARLAND BRANCH	GARLAND	270,000	Ammonia (anhydrous)
8	CENTRAL VALLEY WATER RECLAMATION	SALT LAKE CITY	180,000	Chlorine
9	WESTERN ZIRCONIUM	OGDEN	180,000	Chlorine
10	BRUSH WELLMAN, INC.	DELTA	180,000	Ammonia (anhydrous)
11	PHILLIPS 66 WOODS CROSS REFINERY	WOODS CROSS	170,000	Hydrogen fluoride (conc >=50%)
12	NESTLE FROZEN DIVISION	SPRINGVILLE	160,000	Ammonia (anhydrous)
13	UTAH WINTER SPORTS PARK	PARK CITY	135,000	Ammonia (anhydrous)
14	THE ALTA GROUP - SALT LAKE CITY OPERATIONS	SALT LAKE CITY	130,000	Titanium tetrachloride
15	KENNECOTT UTAH COPPER CORP. SMELTER AND REFINERY	MAGNA	119,000	Sulfur dioxide (anhydrous)
16	SOUTH VALLEY WATER RECLAMATION FACILITY	WEST JORDAN	80,000	Chlorine
17	NORTH DAVIS COUNTY SEWER DISTRICT	SYRACUSE	70,000	Chlorine
18	BIG WEST OIL LLC	NORTH SALT LAKE	70,000	Hydrogen fluoride (conc >=50%)
19	LEWISTON BRANCH	LEWISTON	62,000	Ammonia (anhydrous)
20	LITTLE COTTONWOOD WATER TREATMENT PLANT	SANDY	40,000	Chlorine
21	JORDAN VALLEY WATER TREATMENT PLANT	BLUFFDALE	32,000	Chlorine
22	ALBERTSON'S INCORPORATED REFRIGERATED DISTRIBUTION	NORTH SALT LAKE	31,000	Ammonia (anhydrous)
23	E. A. MILLER	HYRUM	30,000	Ammonia (anhydrous)
24	CENTRAL WEBER SEWER IMPROVEMENT DISTRICT	OGDEN	28,000	Chlorine
25	SFI-LOGAN	LOGAN	26,688	Ammonia (anhydrous)

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Facilities in Vermont storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	ST. ALBANS PLANT	ST. ALBANS	31,410	Ammonia (anhydrous)
2	WATERBURY FACILITY	WATERBURY	16,500	Ammonia (anhydrous)
3	AGRIMARK	MIDDLEBURY	12,900	Ammonia (anhydrous)
4	NORTH SPRINGFIELD PLANT	NORTH SPRINGFIELD	12,000	Ammonia (anhydrous)
5	MONTPELIER WATER POLLUTION CONTROL FACILITY	MONTPELIER	8,000	Chlorine
6	NEWPORT WASTEWATER TREATMENT FACILITY	NEWPORT	1,000	Chlorine

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Virginia storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	ALLIEDSIGNAL - HOPEWELL PLANT	HOPEWELL	40,000,000	Ammonia (anhydrous)
2	RADFORD ARMY AMMUNITION PLANT	RADFORD, VA	2,100,000	Nitric acid (conc >=80%)
3	HERCULES - HOPEWELL PLANT	HOPEWELL	850,000	Chlorine
4	PRILLAMAN CHEMICAL, SUFFOLK DIVISION	SUFFOLK	600,000	Chlorine
5	LAROCHE INDUSTRIES INC.	SUFFOLK	545,710	Ammonia (anhydrous)
6	CIBA SPECIALTY CHEMICALS WATER TREATMENTS, INC.	SUFFOLK	535,000	Acrylonitrile
7	DUPONT SPRUANCE PLANT	CHESTERFIELD	520,000	Chloroform
8	ROYSTER - CLARK WEST POINT	WEST POINT	500,000	Ammonia (anhydrous)
9	SOLITE CORP., DBA VIRGINIA SOLITE	CASCADE	460,000	Vinyl acetate monomer
10	JCI JONES CHEMICALS INC MILFORD PLANT	MILFORD	360,000	Chlorine
11	SEWELL PRODUCTS, INC. - SALEM PLANT	SALEM	360,000	Chlorine
12	ROYSTER - CLARK NORFOLK	CHESAPEAKE	339,300	Ammonia (anhydrous)
13	STONEWALL PLANT	ELKTON	300,000	Hydrogen chloride (anhydrous)
14	CITY OF RICHMOND WATER PURIFICATION PLANT	RICHMOND	265,000	Chlorine
15	CITY OF RICHMOND WASTEWATER TREATMENT PLANT	RICHMOND	237,000	Chlorine
16	HERCULES INCORPORATED FRANKLIN VIRGINIA	COURTLAND	210,000	Phosphorus trichloride
17	INTERNATIONAL PAPER-FRANKLIN, VIRGINIA	FRANKLIN	180,000	Chlorine
18	CONAGRA FROZEN FOODS	CROZET	177,565	Ammonia (anhydrous)
19	ANHEUSER-BUSCH, INC. WILLIAMSBURG BREWERY	WILLIAMSBURG	170,000	Ammonia (anhydrous)
20	CELANESE CHEMICAL DIVISION - AMINES PLANT	PORTSMOUTH	140,000	Ammonia (anhydrous)
21	SMITHFIELD PACKING CO. (SMIITHFIELD, VA)	SMITHFIELD	130,000	Ammonia (anhydrous)
22	HOPEWELL WATER TREATMENT PLANT	HOPEWELL	120,000	Chlorine
23	ROYSTER - CLARK CHESAPEAKE	CHESAPEAKE	119,000	Ammonia (conc >=20%)
24	GWALTNEY OF SMITHFIELD	SMITHFIELD	110,000	Ammonia (anhydrous)
25	HICKSON DANCHEM CORPORATION	DANVILLE	107,404	Hydrochloric acid (conc >=37%)

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The 25 Facilities in Washington storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	KENNEWICK PLANT - HEDGES AREA	KENNEWICK	100,200,000	Ammonia (anhydrous)
2	CF INDUSTRIES, INC. - RITZVILLE TERMINAL	RITZVILLE	60,280,000	Ammonia (conc >=20%)
3	KENNEWICK PLANT - FINLEY AREA	KENNEWICK	44,000,000	Ammonia (anhydrous)
4	KENNEWICK PLANT - KENNEWICK AREA	KENNEWICK	6,400,000	Ammonia (anhydrous)
5	(21) BOETTCHER	CENTRAL FERRY	4,500,000	Ammonia (anhydrous)
6	PIONEER CHLOR ALKALI COMPANY, INC.	TACOMA	1,900,000	Chlorine
7	GEORGIA-PACIFIC WEST, INC.	BELLINGHAM	1,500,000	Chlorine
8	NUCHEM	POMEROY	930,000	Ammonia (anhydrous)
9	WALLA WALLA FARMERS COOP - WALLA WALLA FERTILIZER	WALLA WALLA	866,400	Ammonia (conc >=20%)
10	BOISE CASCADE WALLULA MILL	WALLULA	720,000	Chlorine
11	ALL-PURE CHEMICAL - TACOMA PLANT	TACOMA	720,000	Chlorine
12	COLUMBIA COUNTY FARM BUREAU	DAYTON	686,000	Ammonia (conc >=20%)
13	BORDEN CHEMICAL, INC. - KENT PLANT	KENT	490,000	Formaldehyde (solution)
14	WILBUR-ELLIS COMPANY	WALLA WALLA	483,327	Ammonia (conc >=20%)
15	WESTERN FARM SERVICE, HARRINGTON	HARRINGTON	450,000	Ammonia (conc >=20%)
16	TIDEWATER SNAKE RIVER TERMINAL	PASCO	435,000	Ammonia (anhydrous)
17	GRANGE SUPPLY COMPANY OF ODESSA - FERTILIZER	ODESSA	433,200	Ammonia (conc >=20%)
18	(01) THE MCGREGOR COMPANY COLFAX RETAIL	COLFAX	430,000	Ammonia (anhydrous)
19	FOAMEX LP - KENT FACILITY	KENT	400,000	Toluene diisocyanate (unspecified isomer)
20	WESTERN FARM SERVICE, REARDAN	REARDAN	375,000	Ammonia (conc >=20%)
21	JCI - JONES CHEMICALS, INC. TACOMA PLANT	TACOMA	360,000	Chlorine
22	EAST SECTION RECLAMATION PLANT	RENTON	360,000	Chlorine
23	WASHOUGAL PLANT	WASHOUGAL	350,000	Carbon disulfide
24	TESSENDERLO KERLEY, INC. - FINLEY FACILITY	KENNEWICK	348,600	Ammonia (anhydrous)
25	POMEROY GRAIN GROWERS, INC.	POMEROY	340,000	Ammonia (conc >=20%)

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The 25 Facilities in West Virginia storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	DUPONT WASHINGTON WORKS	PARKERSBURG	28,000,000	Formaldehyde (solution)
2	DUPONT BELLE PLANT	BELLE	20,000,000	Ammonia (anhydrous)
3	LYONDELL NORTH CHARLESTON DISTRIBUTION TERMINAL	CHARLESTON	9,763,000	Propylene oxide
4	NORTH CHARLESTON DISTRIBUTION TERMINAL	CHARLESTON	5,606,940	Vinyl acetate monomer
5	PPG INDUSTRIES, INC., NATRIUM	NEW MARTINSVILLE	4,717,755	Carbon disulfide
6	GE PLASTICS - WASHINGTON	WASHINGTON	3,700,000	Acrylonitrile
7	BAYER CORPORATION - NEW MARTINSVILLE PLANT	NEW MARTINSVILLE	3,000,000	Toluene diisocyanate (unspecified isomer)
8	LYONDELL SOUTH CHARLESTON PLANT	SOUTH CHARLESTON	2,275,000	Propylene oxide
9	UNION CARBIDE INSTITUTE PLANT	INSTITUTE	1,744,200	Ethylene oxide
10	P. B. & S. CHEMICAL COMPANY, INC. (64)	ST. ALBANS	1,247,444	Chlorine
11	FMC CORPORATION - NITRO, WV PLANT	NITRO	750,000	Phosphorus trichloride
12	CLEARON CORP.	SOUTH CHARLESTON	720,000	Chlorine
13	RHONE POULENC INSTITUTE PLANT	INSTITUTE	670,000	Ammonia (anhydrous)
14	FLEXSYS NITRO PLANT	NITRO	430,000	Carbon disulfide
15	AKZO NOBEL CHEMICALS, INC.	GALLIPOLIS FERRY	400,000	Phosphorus trichloride
16	TANNER INDUSTRIES, INC.	KENOVA	336,000	Ammonia (anhydrous)
17	CITY OF WHEELING WATER POLLUTION CONTROL FACILITY	WHEELING	220,000	Chlorine
18	WITCO CORPORATION, SISTERSVILLE PLANT	FRIENDLY	200,000	Acrylonitrile
19	LYONDELL ACN RAILCAR AT UCC MASSEY RAILYARD	SOUTH CHARLESTON	190,000	Acrylonitrile
20	TANNER INDUSTRIES, INC.	MORGANTOWN	180,230	Ammonia (anhydrous)
21	CYTEC INDUSTRIES, WILLOW ISLAND PLANT	WILLOW ISLAND	180,000	Hydrochloric acid (conc >=37%)
22	UNION CARBIDE SOUTH CHARLESTON PLANT	SOUTH CHARLESTON	161,000	Formaldehyde (solution)
23	GE SPECIALTY CHEMICALS INC. MORGANTOWN SOUTH PLANT	MORGANTOWN	146,000	Phosphorus trichloride
24	GE SPECIALTY CHEMICALS INC. MORGANTOWN NORTH PLANT	MORGANTOWN	146,000	Phosphorus trichloride
25	CENTURY ALUMINUM OF WEST VIRGINIA, INC.	RAVENSWOOD	110,000	Chlorine

*Extremely hazardous substances as defined by the U.S. Environmental Protection Agency under the Clean Air Act, Section 112(r).

The 25 Facilities in Wisconsin storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	BORDEN CHEMICAL, INC., SHEBOYGAN PLANT	SHEBOYGAN	750,000	Formaldehyde (solution)
2	WAUSAU-MOSINEE PAPER CORPORATION (BROKAW, WI)	BROKAW	720,000	Chlorine
3	VULCAN CHEMICALS	PORT EDWARDS	600,000	Chlorine
4	HYDRITE CHEMICAL CO. - OSHKOSH	OSHKOSH	593,000	Chlorine
5	P. H. GLATFELTER COMPANY - BERGSTROM DIVISION	NEENAH	360,000	Chlorine
6	WISCONSIN TISSUE MILLS, INC.	MENASHA	360,000	Chlorine
7	PLASTICS ENG. CO. NORTH AVE. PLANT	SHEBOYGAN	340,000	Formaldehyde (solution)
8	WOODBRIDGE CORPORATION - BRODHEAD	BRODHEAD	328,000	Toluene diisocyanate (unspecified isomer)
9	GENCORP PERFORMANCE CHEMICALS-GREENBAY LATEX PLANT	GREEN BAY	313,000	Acrylonitrile
10	HERCULES INCORPORATED - MILWAUKEE PLANT	MILWAUKEE	305,000	Epichlorohydrin
11	REDDY AG SERVICE, INC. (MAIN OFFICE)	STITZER	303,051	Ammonia (anhydrous)
12	ROYSTER - CLARK MADISON	MADISON	290,000	Ammonia (anhydrous)
13	NORTHERN FS, INC - ELKHORN	ELKHORN	280,000	Ammonia (anhydrous)
14	ABITEC CORPORATION	JANESVILLE	270,000	Ethylene oxide
15	KRAFT FOODS, INC.	MADISON	239,255	Ammonia (anhydrous)
16	FARMERS CO-OP S & S ASSOC-GALESVILLE AGRONOMY PLT.	GALESVILLE	238,000	Ammonia (anhydrous)
17	TOMAH PRODUCTS, INCORPORATED	MILTON	230,000	Methyl chloride
18	COTTAGE GROVE COOPERATIVE - HIGHWAY N COMPLEX	COTTAGE GROVE	222,300	Ammonia (anhydrous)
19	GRAND RIVER COOPERATIVE - ANHYDROUS AMMONIA	MARKESAN	210,000	Ammonia (anhydrous)
20	REDDY AG SERVICE, INC. (STORAGE LOT)	STITZER	198,603	Ammonia (anhydrous)
21	EAST TROY - NH3	EAST TROY	190,540	Ammonia (anhydrous)
22	POYNETTE AGRONOMY	POYNETTE	181,860	Ammonia (anhydrous)
23	WABASH ALLOYS, L.L.C	OAK CREEK	180,000	Chlorine
24	ONLINE PACKAGING, INC.	PLOVER	180,000	Chlorine
25	FRASER PAPERS INC - PARK FALLS OPERATIONS	PARK FALLS	180,000	Chlorine

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The 25 Facilities in Wyoming storing the largest amounts of extremely hazardous substances.*

	Facility Name	City	Maximum amount in a single process (lbs)	Chemical
1	COASTAL CHEM, INC. - CHEYENNE WYOMING	CHEYENNE	67,000,000	Ammonia (anhydrous)
2	SF PHOSPHATES LIMITED COMPANY	ROCK SPRINGS	5,130,000	Ammonia (anhydrous)
3	RIVERTON FACILITY	RIVERTON	1,200,000	Oleum (Fuming Sulfuric acid)
4	FMC CORPORATION, GREEN RIVER, WYOMING FACILITY	GREEN RIVER	360,000	Ammonia (anhydrous)
5	COLORADO INTERSTATE GAS CO. - TABLE ROCK PLANT	ROCK SPRINGS	240,000	Ammonia (anhydrous)
6	FRONTIER REFINING INC.	CHEYENNE	146,000	Hydrogen fluoride (conc >=50%)
7	TORRINGTON SIMPLOT SOILBUILDERS	TORRINGTON	145,000	Ammonia (anhydrous)
8	ANSCHUTZ RANCH EAST GAS PLANT	EVANSTON	143,723	Ammonia (anhydrous)
9	PANHANDLE COOPERATIVE FERTILIZER (TORRINGTON)	TORRINGTON	130,000	Ammonia (anhydrous)
10	HIGH PLAINS COOP FERTILIZER (PINE BLUFF, WY)	PINE BLUFF	130,000	Ammonia (anhydrous)
11	POWER RESOURCES, INC. - HIGHLAND URANIUM PROJECT	DOUGLAS	90,000	Ammonia (anhydrous)
12	EXXON COMPANY, U.S.A. SHUTE CREEK FACILITY	KEMMERER	80,000	Hydrogen sulfide
13	JIRDON AGRI CHEMICALS, INC.	TORRINGTON	63,000	Ammonia (anhydrous)
14	BAIROIL OC CO2 PLANT	BAIROIL	51,667	Ammonia (anhydrous)
15	SINCLAIR WYOMING REFINERY	SINCLAIR	42,000	Chlorine
16	UAP NORTHWEST, BASIN	WORLAND	40,000	Ammonia (anhydrous)
17	EXXON COMPANY, U.S.A. BLACK CANYON DEHY. FACILITY	LABARGE	19,000	Hydrogen sulfide
18	EVANSTON WATER TREATMENT PLANT	EVANSTON	16,000	Chlorine
19	RAY L. SHERARD WATER TREATMENT PLANT	CHEYENNE	10,000	Chlorine
20	DRY CREEK WASTEWATER FACILITY	CHEYENNE	10,000	Chlorine
21	CROW CREEK WASTEWATER FACILITY	CHEYENNE	10,000	Chlorine
22	ROUNDTOP WATER TREATMENT PLANT	CHEYENNE	8,000	Chlorine
23	BIG GOOSE WATER TREATMENT PLANT	SHERIDAN	8,000	Chlorine
24	SHERIDAN WATER TREATMENT PLANT	SHERIDAN	8,000	Chlorine
25	GILLETTE WASTEWATER TREATMENT FACILITY	GILLETTE	8,000	Chlorine

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Appendix C

Health Hazards of Selected Extremely Hazardous Substances*

ACRYLONITRILE
Acrylonitrile is a flammable and reactive liquid, clear or slightly yellowish in color, with a faint odor. It is used to make synthetic fibers and polymers. Acute exposure irritates the eyes, nose, throat and lungs. High exposure levels can cause weakness, headache, confusion, nausea, vomiting, and collapse. At the highest exposure levels fluid build-up in the lungs (pulmonary edema) may lead to death. Chronic exposure may interfere with the thyroid gland. Acrylonitrile is a probable human carcinogen.

AMMONIA
Ammonia is a corrosive colorless gas with a strong odor. It is used in making fertilizer, plastics, dyes, textiles, detergents, and pesticides. Acute ammonia exposure can irritate the skin; burn the eyes, causing temporary or permanent blindness; and cause headaches, nausea, and vomiting. High levels can cause fluid in the respiratory system (pulmonary or laryngeal edema) which may lead to death. Chronic exposure damages the lungs; repeated exposure can lead to bronchitis with coughing or shortness of breath.

CARBON DISULFIDE
Carbon disulfide is a flammable colorless or faintly yellow liquid with a strong, disagreeable odor. It is used in manufacturing viscose rayon, cellophane, carbon tetrachloride, and flotation agents. Acute exposure can severely irritate the eyes, skin, and nose, and can cause headaches, nausea, dizziness, unconsciousness, and death. Chronic exposure can damage the developing fetus, and may cause spontaneous abortions in women and sperm abnormalities in men. Repeat exposures can also cause nervous system damage including tingling, weakness, and severe mood, personality, and mental changes that can be long lasting (for months or years).

CHLORINE
Chlorine is a greenish-yellow gas with a strong, irritating odor. It is used in making other chemicals, as a disinfectant, in bleaching, and for purifying water and sewage. Acute exposure can severely burn the eyes and skin, causing permanent damage, and may cause throat irritation, tearing, coughing, nose bleeds, chest pain, fluid build-up in the lungs (pulmonary edema), and death. Chronic exposure can damage the teeth, and irritate the lungs, causing bronchitis, coughing, and shortness of breath. A single high exposure can permanently damage the lungs.

CHLOROFORM
Chloroform is a colorless liquid used in making dyes, drugs, and pesticides. Acute exposure to chloroform can irritate and burn the skin, eyes, nose, and throat, and cause dizziness, lightheadedness, headache, confusion, and irregular heartbeat which may lead to death. Chloroform is a probable carcinogen and is suspected of causing birth defects. Chronic chloroform exposure can damage the skin, liver, kidneys, and nervous system.

DIMETHYL DICHLOROSILANE
Dimethyl dichlorosilane is a colorless liquid that is flammable and corrosive. It is used to make silicones. Direct contact can severely irritate and burn the skin and eyes. Breathing dimethyl dichlorisilane can irritate the lungs, including fluid build-up (pulmonary edema) at high exposures.

EPICHLOROHYDRIN
Epichlorihydrin is a reactive colorless liquid with a slightly irritating, chloroform-like odor. It is used to make plastics, resins, and glycerin. Acute exposure to epichlorohydrin vapor irritates the eyes, nose, bronchial tubes, and lungs. High levels can chemically burn the lungs or cause dangerous fluid build-up, which may lead to death. Eye contact may cause permanent damage, and skin contact can cause painful blistering which may be delayed in onset for minutes or hours. Chronic exposure can damage the kidneys, liver, and lungs. Epichlorohydrin is a probable human carcinogen, and may decrease fertility in males.

ETHYLENE OXIDE
Ethylene is a colorless gas that is highly flammable, reactive, and explosive. It is used to make antifreeze, polyesters, and detergents, and is used for industrial sterilization. Acute exposure can irritate the eyes, skin, nose, throat, and lungs, and may cause shortness of breath, headache, nausea, vomiting, diarrhea, drowsiness, weakness, and loss of muscle control. Higher exposure levels may cause loss of consciousness, fluid in the lungs (pulmonary edema), and death. Chronic exposure to ethylene oxide may cause cancer and birth defects, as well as damage to the liver, kidneys, and nervous system.

ETHYLENEDIAMINE
Ethylenediamine is a flammable and corrosive colorless liquid with an ammonia-like odor. It is used as a solvent, a stabilizer for rubber latex, and in antifreeze solutions. Breathing ethylenediamine can irritate the nose, throat, and lungs, and contact can irritate and blister the skin, leading to recurrent skin allergy. High exposure may cause liver, kidney and lung damage, including lung allergy.

FORMALDEHYDE
Formaldehyde is a flammable, colorless gas with a pungent, suffocating odor. It is used in manufacturing plastics and other chemicals, such as adhesive resins in particleboard, plywood, foam insulation, and other products. Acute exposure irritates and burns the skin, eyes, nose, mouth, and throat. Higher levels can cause a build-up of fluid in the lungs (pulmonary edema) or spasm in the windpipe, either of which may be fatal. Chronic exposure may cause both an asthma-like allergy and bronchitis with symptoms of coughing and shortness of breath. Formaldehyde causes cancer of the nasal passages in animals and is considered a probable human carcinogen.

HYDROCHLORIC ACID (HYDROGEN CHLORIDE)
Hydrochloric acid is a corrosive colorless to slightly yellow gas with a strong odor. It is used in metal processing, analytical chemistry, and in making other chemicals. Acute exposure to hydrochloric acid can cause severe burns of the skin and eyes, leading to permanent damage and blindness. Breathing hydrochloric acid vapor irritates the mouth, nose, throat, and lungs, causing coughing, shortness of breath, fluid build-up in the lungs (pulmonary edema), and possibly death. Chronic exposure damages the lungs and may erode the teeth.

HYDROCYANIC ACID (HYDROGEN CYANIDE)
Hydrocyanic acid is a flammable and reactive pale blue liquid or gas with a bitter, almond-like odor. The gas is used in industry to kill rodents and insects. The liquid is used in making other chemicals such as acrylates and acrylonitrile. Acute exposure can irritate and burn the skin, eyes, and throat, and can cause dizziness, headache, and nausea. High levels can lead rapidly to convulsions or sudden death. Chronic exposure damages the thyroid gland and nervous system.

HYDROFLUORIC ACID (HYDROGEN FLUORIDE)
Hydrofluoric acid is a corrosive colorless fuming liquid or gas with a strong irritating odor. It is used in etching glass and in making other chemicals, including gasoline. Breathing the vapor causes extreme respiratory irritation (with cough, fever, chills, and tightness) that may be fatal. Contact can severely burn the skin and eyes, resulting in permanent eye damage or blindness. Long term exposure may damage the liver and kidneys, and causes fluorosis, with symptoms of weight loss, malaise, anemia, and osteosclerosis.

PROPYLENE OXIDE
Propylene oxide is a flammable and reactive liquid that is clear or colorless. It is used as a fumigant and in making lubricants, detergents, and other chemicals. Acute exposure can severely burn the skin and eyes. Inhaling the vapor can irritate the nose, throat, and lungs, and cause difficulty breathing. Exposure can lead to headache, dizziness, and passing out. Propylene oxide is a probable carcinogen and a mutagen (capable of causing mutations in genetic material).

SULFUR DIOXIDE
Sulfur dioxide is a colorless gas with a sharp pungent odor. It may be shipped and stored as a compressed liquefied gas. Sulfur dioxide is used in the manufacture of sulfuric acid, sulfur trioxide, and sulfites; in solvent extraction; and as a refrigerant, among other uses. Acute exposure irritates the eyes and air passages. High exposures to the skin and eyes can cause severe burns and blindness, and breathing high levels can lead to death.

SULFURIC ACID
Sulfuric acid is an oily liquid that is highly corrosive. It is used in fertilizers, chemicals, dyes, petroleum refining, etching and analytical chemistry, and in making iron, steel, and industrial explosives. Breathing sulfuric acid can irritate the lungs; high levels can cause death through a dangerous build-up of fluid in the lungs (pulmonary edema). Contact can severely burn the skin and eyes. Repeat exposure can cause erosion and pitting of the teeth, stomach upset, nose bleeds, tearing of the eyes, emphysema, and bronchitis.

TITANIUM TETRACHLORIDE
Titanium tetrachloride is a colorless to light yellow liquid that has a penetrating acid odor. It is used to make titanium pigments, iridescent glass, artificial pearls, and as a catalyst in polymerization. Titanium tetrachloride is highly irritating to the skin, eyes, and mucous membranes. Acute exposure can burn the skin, eyes, throat, and lungs. Chronic exposure can lead to chronic bronchitis, wheezing, and build-up of fluid in the lungs.

TOLUENE-2,4-DIISOCYANATE
Toluene-2,4-Diisocyanate is a colorless to pale yellow liquid with a strong fruity odor. It is used to make polyurethane foams, elastomers, and coatings. Contact can irritate and burn the eyes and skin, and breathing vapor can irritate the nose, throat, and lungs, leading to coughing, chest tightness, and shortness of breath. High levels can lead to fluid in the lungs (pulmonary edema). Chronic exposure may cause concentration and memory problems. Toluene-2,4-Diisocyanate is a probable carcinogen.

VINYL ACETATE
Vinyl acetate is a flammable and reactive colorless liquid with a sharp sweet odor. It is used in making polyvinyl resins. Acute exposure to vinyl acetate can irritate the eyes, nose, throat, and skin, and cause shortness of breath. High levels can cause fatigue, irritability and dizziness. Prolonged contact can blister and burn the skin.

* Extremely hazardous substances are defined by the U.S. EPA under the Clean Air Act, Section 112(r).

Appendix D

Questions for Local Governments to Ask Chemical Facilities About Y2K-Readiness[1]

1. Has your facility established an overall program to manage Y2K-readiness, including contingency plans? What is the name, address, and phone number of the responsible person?

2. Have you obtained any independent, third-party verification of your Y2K remediation and testing program? If so, by which entity or entities?

   - Independent Contractor/Consultant
   - Major Customers
   - State Government
   - Other

3. Have you identified periods or specific dates of increased risk for Y2K-related problems at your facility? If so, please identify them.

4. Are you planning a "safety holiday" (temporary shutdown of high-risk operations), or significantly scaled-back operations to protect against potential Y2K problems during any or all of these high-risk dates? If not, why not?

5. In case of Y2K-related plant shutdowns, are you committed to maintaining employee pay and benefits?

6. Do you intend to inform, or have you already informed:

   a. the community, and
   b. the EPA, and
   c. emergency responders,

   of potential risks (including worst-case scenarios) associated with Y2K problems? If so, describe how.

7. Are you willing to release the Community Impact Section (of the off-site consequence analysis) of your Risk Management Plan which addresses the potential worst-case accident scenarios at your facility?

[1] Compiled by NJ Work Environment Council, Public Research Works, and Texans United.

Twenty Key Questions for a Chemical Company Near You

Starting in 1999, some 66,000 facilities that use extremely hazardous substances will be required by the Clean Air Act, section 112(r), to disclose to workers and the public what could go wrong in chemical accidents, from the most-likely accidents to worst-case scenarios. The scenarios are part of larger Risk Management Plans, and are typically shown on a map as a worst-case circle or "vulnerability zone" around a facility.

In communities across the country, the chemical industry is promoting "community dialogues" (public relations events) to release hazard information. Below are twenty sample questions that every plant manager should be able to answer—even if no PR event is planned for your area. Remember that the primary goal is to *prevent* chemical hazards, rather than to find better ways to respond to accidents.

Questions for companies:

1 What chemicals do you have on-site that can hurt my family where we live, work, or play?

2 How many people could be killed or hurt in the worst-case circle around your facility (including all neighborhoods, schools, hospitals, nursing homes, office buildings, highways, jails, sports arenas, and shopping malls)?

3 How confident can I be that sensors and alarms will alert us to a chemical release, particularly at night?

4 If there is a release, how will I get information to protect my family?

5 What if property values go down because we live in your worst-case circle—will you negotiate buyouts or otherwise compensate us?

6 Do you have enough insurance—and how much—to cover potential losses within the worst-case release zone? Were you ever denied liability insurance for safety reasons?

7 What practical steps are you taking against potential sabotage, such as reducing hazards, widening buffer zones, and increasing site security?

8 What steps have you taken to fix "year 2000" computer problems that could cause a release?

9 How many victims (including contaminated victims) can local fire fighters, emergency medical services, and hospitals handle in a worst-case release?

10 What truck, rail, or barge routes do you use to ship chemicals through the community?

11 Is your worst-case scenario distance shorter than EPA's (using EPA's reference table of worst-case dispersion distances)? If so, why?

12 Can we inspect your facility with an expert of our choosing?

13 Will you put supporting documents in the local library (such as process hazards analyses, offsite consequences analyses, safety audits, and hazard reduction plans)?

Hazard reduction questions:

14 What safety changes do you plan to reduce chemical hazards?
Will you make inherent safety changes such as:
a. Substituting less hazardous chemicals?
b. Reducing storage quantities and shipping?
c. Switching to ambient temperatures and pressures?
d. Simplifying processes to anticipate errors?
Will you make other safety changes such as:
e. Using safer shipping and handling?
f. Installing secondary containment?
g. Adding automatic sensors and shutoffs?
h. Adding devices to neutralize or destroy leaks?

15 On what schedule do you plan to make these safety changes?

16 How much will these changes reduce the worst-case vulnerability zone?

"Shelter in place" questions:

17 If you are telling people to "shelter in place," do you have any real life examples that sheltering works in a major release?

18 How long will it take (in minutes) for:
...you to find a leak?
...you to decide to report?
...you to notify the fire department?
...the fire chief to arrive on-scene?
...the chief to order protective action?
...responders to notify the public?
...workers & neighbors to shelter-in-place?
...workers and neighbors to evacuate?
...all of these events added together?

19 How long will it take (in minutes) for:
...a toxic cloud to reach my house (school, library, hospital, etc.)?
...toxic gases to filter into places where people "shelter in place"?

20 Given these time estimates, how big is the zone where neither sheltering nor evacuation will work?

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Federal Databases of Chemical Fires, Spills, and Explosions

Seven major Federal databases track fires, spills, and explosions involving hazardous chemicals. Incompatibility among these systems makes it difficult to form a complete national picture of accidental releases.

Incident Reporting Information System (IRIS)
National Response Center
Content: 330,000 initial incident reports since 1982
Access: (202) 267-2185; FOIA required*
Notes: Incidents involving releases are also in ERNS

Emergency Response Notification System (ERNS)
Environmental Protection Agency
Content: 300,000 initial notification reports since 1986
Access: (202) 260-2342; assisted search
Notes: Also on RTK NET; (202) 234-8494 or http://rtk.net

Accidental Release Information Program (ARIP)
Environmental Protection Agency
Content: 4,800 verified reports on serious accidents since 1986
Access: (202) 260-8942; assisted search
Notes: Verified subset of ERNS data

Hazardous Materials Incident Reporting System (HMIRS)
Department of Transportation
Content: 220,000 transportation accidents since 1971
Access: (202) 366-4555; assisted search
Notes: $35 minimum for data search requests

Hazardous Liquid Pipeline Accident Database (HLPAD)
Department of Transportation
Content: 2,000 pipeline spills, fires, or explosions since 1985
Access: (202) 366-4569; FOIA required*
Notes: Costs apply for data searches

Integrated Management Information System (IMIS)
Occupational Safety and Health Administration
Content: 100+ injurious accidents *each year* from workplace inspections
Access: (202) 219-7008; two week response time
Notes: Injuries may not involve chemicals

Hazardous Substances Emergency Events Surveillance (HSEES)
Agency for Toxic Substances and Disease Registry
Content: 11,000+ releases with public health consequences since 1990
Phone: (404) 639-6203; no direct public access
Notes: Published reports available

* Freedom of Information Act (FOIA)