

# Executive Memorandum

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## Principles for Congressional Action on Chemical Security

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Since 9/11, Congress has struggled to pass legislation to limit the danger from terrorist attacks that exploit the country's chemical infrastructure (e.g., manufacturing and storage facilities and the pipelines, trucks, and rail cars that transport chemicals). A law is needed, but Congress needs to remember that chemicals are an integral part of American life. Trying to "childproof" the United States against every conceivable vulnerability that terrorists could exploit in the chemical infrastructure would be both impossible and counterproductive. Common-sense legislation that focuses on catastrophic threats is warranted. Otherwise, the government should focus its efforts on finding and stopping terrorist groups rather than hamstringing industries that are integral to the U.S. economy.

**Getting Realistic About the Threat.** Since chemicals are everywhere, the opportunities for terrorists are almost infinite. Tanker trucks, rail cars, ships, pipelines, barrels of poisons carried in trucks, other hazardous materials, and chemical manufacturing and storage facilities are all potential weapons in the hands of a terrorist. In addition to striking industrial entities, small-scale attacks could use an arsenal of contaminants and toxins that are available to virtually anyone or "secured" in areas with little or no security. Fuels, pesticides, and solvents can all be used as poisons and con-

taminants. In fact, terrorist groups overseas are showing a growing tendency to use readily available materials to conduct strikes. Such a major al-Qaeda attack was recently foiled in Jordan.

However, there are good reasons not to treat all threats equally.

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- Terrorists could use chemicals to strike the United States in an infinite number of ways, but not all threats are equal.
  - Congress should pass common-sense legislation to safeguard chemical infrastructure where a disaster might cause catastrophic damage.
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- **The U.S. frequently deals with events similar to the consequences of a low-level terrorist attack.** America's chemical safety record is not bad, but transportation corri-

dors are still the scenes of numerous hazardous material incidents—in some cases, up to 40 percent of the accidents recorded in individual states. Indeed, chemical accidents, fires, and spills—many causing death and property damage—are hardly an unknown occurrence anywhere in the United States. Many happen near densely populated areas. A study of chemical releases in New York over a five-year period found that more than half were near residences. Seventy-five percent occurred within one-quar-

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This paper, in its entirety, can be found at:  
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ter mile of a household. Chemical accidents throughout the United States have caused significant damage. From 1986 to 1999, releases from pipelines caused an average of 23 fatalities, 113 injuries, and \$68 million in damage per year. Responders routinely deal with such hazardous-material incidents.

- **In many cases, open-air chemical attacks, unless they involve truly massive amounts of material, are a poor choice for terrorists.** Achieving the right environmental conditions for a lethal attack against a large open-area target is difficult. In high temperatures, the chemicals will evaporate. In the cold, they will condense and fall to the ground. High winds will disperse chemicals rapidly. Complex, urban terrain can also significantly alter the dispersal pattern of chemical agents. These unpredictable factors make such attacks less attractive to terrorists.

**What the Federal Government Should Worry About.** Some potential threats need attention. In 1984, a chemical release from a pesticide factory in a suburb of Bhopal, India, sickened 200,000 people and killed 2,500. This accident demonstrates the potential effects of a deliberate attack. An Environmental Protection Agency (EPA) survey of 15,000 chemical facilities found that in a worst-case scenario, a toxic chemical release could affect an average of 40,247 people.

Worrying about every worst-case scenario is probably not realistic, especially since most of them are highly improbable, but caution is warranted in some cases. There are likely a few hundred facilities in the United States where a widespread release might have truly catastrophic results. These should be the focus of legislation.

**Getting Realistic About Security.** The U.S. needs legislation that requires the private sector to implement reasonable measures to reduce the likelihood of catastrophic chemical disasters. The legislation should:

- **Establish** requirements only for critical chemical infrastructure of national significance where a disaster might cause catastrophic damage. The rest of the industry should continue to follow voluntary guidelines.

- **Create** performance-based requirements for the chemical infrastructure modeled on the requirements for maritime infrastructure instituted by the Maritime Transportation and Security Act. Appropriate measures would include requiring vulnerability assessments, security plans, and security officers but would allow the private sector to determine the best way to implement its security.
- **Call** for plans to address access control, perimeter security, and security of critical areas.
- **Require** periodic testing of security and response plans.
- **Require** the Department of Homeland Security (DHS) to approve and periodically audit vulnerability assessments and security plans.
- **Task** the DHS with establishing training standards for security officers and requiring background checks for key security personnel.
- **Establish** penalties for noncompliance.
- **Direct** the EPA to establish national standards for the transport of hazardous materials (HAZMAT). The EPA should specify which hazardous materials and what amounts are highly dangerous. The requirement for background checks for all HAZMAT transporters should be eliminated. Instead, background checks should be required only for individuals transporting highly dangerous materials.
- **Require** the DHS to coordinate chemical security policies with the EPA and the Department of Transportation.

**Conclusion.** It is long past time for a common-sense law on chemical security. It is inconceivable to think that the United States might well mark the fifth anniversary of the 9/11 attacks without having addressed this vital issue. It is time for Congress to act responsibly.

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