



# National Infrastructure Protection Plan

## Chemical Sector

Homeland Security Presidential Directive 7 (HSPD-7) identified 17 critical infrastructure and key resources (CI/KR) sectors and designated Federal Government Sector-Specific Agencies (SSAs) for each of the sectors. Each sector is responsible for developing and submitting Sector-Specific Plans and sector-level performance feedback to the Department of Homeland Security (DHS) to enable national cross-sector CI/KR protection program gap assessments. SSAs are responsible for collaborating with private sector security partners and encouraging the development of appropriate information-sharing and analysis mechanisms within the sector.

### Sector Overview

The Chemical Sector is an integral component of the U.S. economy, employing nearly 1 million people, and earning revenues of more than \$460 billion per year. The Chemical Sector can be divided into one of four main segments, based on the end product produced: (1) basic chemicals, (2) specialty chemicals, (3) life sciences, and (4) consumer products. There are well over one hundred thousand “chemical facilities” in the United States, encompassing everything from production facilities to hardware stores.

The great majority of Chemical Sector facilities are privately owned, requiring DHS to work closely with the private sector and its industry associations in order to identify assets, assess risks, prioritize assets, develop and implement protective programs, and measure program effectiveness.

The Chemical Sector is dependent on, depended on by, and overlaps with a wide range of other sectors, including:

- **Transportation Systems** for the movement of raw materials and finished products;

- **Energy** for power and feedstock materials, as well as being a customer of certain chemicals;
- **Drinking Water and Water Treatment Systems** for chemical process operations and as a customer for critical chemicals;
- **Agriculture and Food** as a customer for fertilizers, pesticides, and other chemicals;
- **Information Technology and Telecommunications** for critical services; and
- Many other CI/KR sectors.

All of these sectors are working together to ensure that their efforts support each other.

### Sector Partnerships

SSAs are responsible for working with other Federal, State, local, tribal, and private sector security partners to implement the NIPP sector partnership model and risk management framework, develop protective programs and related requirements, and provide sector-level CI/KR

protection guidance in line with the overarching guidance established by DHS pursuant to HSPD-7.

In May 2004, the chemical industry formed a Sector Coordinating Council (SCC) of 16 trade associations to work with DHS and other Federal agencies to ensure that the efforts of the private sector are informed by Federal activities. This council also serves as a critical mechanism for ensuring that the concerns and perspectives of the private sector are considered in Federal actions. Currently, the SCC's association members are believed to represent the majority of the owners and operators of the Chemical Sector because they encompass entities engaged in the storage, transportation, delivery, and use of chemicals not adequately addressed by other critical infrastructure sectors.

The Federal agencies that are involved in the coordination of the Chemical Sector include several different divisions within DHS; the Environmental Protection Agency; and the Departments of Commerce, Justice, and Transportation. These Federal agencies have come together to form the Chemical Government Coordinating Council, which serves as a Federal counterpart to the SCC.

### CI/KR Protection Issues

From a homeland security perspective, the most pressing concern in the Chemical Sector is the potential for terrorists to attack assets in such a way as to create harmful consequences to public health and safety. More than 15,000 U.S. facilities produce, use, or store more than 140 chemicals that, if released above certain threshold amounts, have the potential to pose great risk to human health and the environment. Thus, reducing the risk inherent in toxic chemicals has been a leading DHS priority in this sector. The potential economic impact of a successful terrorist attack against the Chemical Sector is also a major concern.

While the Maritime Transportation Security Act of 2002 establishes direct authority concerning terrorism-related security at chemical facilities in the maritime domain and the Bioterrorism Act addresses water treatment facilities, the majority of facilities are not currently covered by security regulations. Consequently, the decision to secure chemical facilities overwhelmingly lies with the individual asset owners and operators, although a few States and localities have begun enacting regulations addressing chemical facility security. In addition, a considerable number of Federal laws impose safety or other requirements on the production, storage, use, and transportation of chemicals. These laws indirectly help protect chemical facilities.

### Priority Programs

Within the Chemical Sector, protective programs primarily occur on two distinct levels: (1) overarching, sector-wide protective programs led by DHS as the SSA; and (2) asset-specific protective programs that are, for the most part, performed voluntarily by asset owners and operators.

Some of the programs underway today include:

- **Comprehensive Review (CR) Program.** The Chemical CR program is a collaborative Federal, State, local, and private sector effort to analyze the security posture and the response capabilities of high-consequence chemical facilities and their surrounding community. DHS coordinates this interagency effort and has set aside approximately \$25 million in grant funds to address gaps identified through the CR assessment process. Grants issued under this program will be strictly risk-based and carefully targeted at creating or reinforcing specific capabilities in the communities surrounding chemical facilities.
- **Chemical Security Training.** On-line and onsite train-the-trainer security programs specific to the chemical industry are being created by the DHS Chemical Security Office. These programs range from the most basic Chemical Security Awareness training intended for all chemical facility employees to the most technical explosives detection courses specifically designed for the chemical plant security officer.
- **Buffer Zone Protection Program (BZPP).** This program is designed to identify and recommend security measures and local law enforcement coordination for the area surrounding a facility (the "Buffer Zone"), making it more difficult for a potential attacker to conduct surveillance, or to plan or launch an attack. DHS provides a standardized template for use in the creation of a Buffer Zone Plan (BZP), which can be used to receive grant money that is available for training, equipment, and recommended buffer zone protective measures.

In addition to the protective measures being performed or facilitated by the Federal government, members of the Chemical Sector's private sector are voluntarily leading the development and implementation of numerous protective activities. These protective activities run the gamut of the protective spectrum, ranging from participation in and sponsorship of awareness training to the physical hardening of facilities to the completion of facility security plans. To encourage sector participation in many of these initiatives, many prominent Chemical Sector industry associations require individual corporations to implement selected protective initiatives as a prerequisite to association membership.



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