



**STATEMENT OF**  
**MR. ROBERT STEPHAN**  
**ACTING UNDERSECRETARY FOR**  
**INFORMATION ANALYSIS AND INFRASTRUCTURE**  
**PROTECTION**

**AND**

**ASSISTANT SECRETARY FOR**  
**INFRASTRUCTURE PROTECTION**

**U.S. DEPARTMENT OF HOMELAND SECURITY**

**BEFORE THE**  
**SENATE HOMELAND SECURITY AND GOVERNMENTAL**  
**AFFAIRS COMMITTEE**  
**JUNE 15, 2005**

## **Introduction**

Good morning, Chairman Collins, Senator Lieberman and distinguished members of the Committee. It is my privilege to come before you today to discuss Department of Homeland Security (DHS) efforts to reduce the risk posed to the chemical sector from potential terrorist attack, as well as to discuss the way ahead regarding the security of this critical infrastructure sector.

Security of the chemical sector is vitally important: It is a very high priority for DHS to reduce the risk from terrorism by implementing collaborative security strategies with Federal, State, local, and private sector partners—to protect the nation's chemical infrastructure.

My discussion with you today will include a focus on the risk landscape associated with the chemical sector and important collaborative steps that have been taken to close security gaps under the existing voluntary public-private sector partnership framework. I note that considerable progress has been made through voluntary efforts, but that further progress is required.

As part of his Second Stage Review of DHS policies, operations and structure, Homeland Security Secretary Michael Chertoff tasked his team to review the current state of security and ensure that we have the proper tools to address threats facing the chemical industry, now and in the future. To that end, we are currently assessing the need for a carefully measured, risk-based regulatory regime in this sector.

Today, I can report on his behalf that Secretary Chertoff has concluded that from the regulatory perspective, the existing patchwork of authorities does not permit us to regulate the industry effectively. To close the existing gaps and reduce risk across the chemical sector, the Federal Government should adhere to certain core principles.

First, we must recognize that not all facilities present the same level of risk, and that the most scrutiny should be focused on those that, if attacked, could endanger the greatest number of lives, have the greatest economic impact or present other very significant risks. There are certainly many chemical facilities in the United States that pose relatively low risk. Second, facility security should be based on reasonable, clear, and equitable performance standards. The Department should develop enforceable performance standards based on the types and severity of potential risks posed by terrorists, and facilities should have the flexibility to select among appropriate site-specific security measures that will effectively address those risks. Third, we should recognize the progress many responsible companies have made to date. Many companies have made significant capital investments in security since 9/11 and we should build on that progress.

This testimony will first speak to the nature of chemical sector vulnerability, and then will summarize the significant efforts by DHS and the industry since the September 11th attacks to improve security for the chemical sector. We will, of course, look forward to working with you in the coming weeks on the particulars of proposed legislation.

### **What Is the Threat to the Chemical Sector?**

The chemical sector, as with all critical infrastructure, is potentially a target for terrorist attack. While we have no specific, credible information indicating an immediate threat to the chemical sector, DHS remains concerned about the potential public health and economic harm should an attack occur. The chemical sector consists of widely varied and distributed facilities. The particular vulnerability of any specific facility obviously depends on the type and quantity of chemicals at a site, the physical layout, location of sensitive targets, access points, geographic location, and other variables. Therefore each facility must have a vulnerability assessment – and a security plan -- tailored to its unique characteristics.

DHS has identified five areas as the focus of our primary preparedness work with the industry: (1) access and access control; (2) operational security; (3) process control; (4) facility systems operations; and (5) local first responder and external response and recovery coordination. These preparedness planning variables must be refined with reference to potential methods of attack. These include perhaps most importantly: insider threats or sabotage; cyber attack; and attacks using explosives or other weaponry.

DHS has established the Homeland Infrastructure Threat and Risk Analysis Center (HITRAC) to develop products to help inform infrastructure owners and operators of any threats they may potentially face, as well as to better inform their security planning and investment decisions.

HITRAC is currently working in partnership with industry to develop an updated threat assessment for the chemical sector detailing plausible terrorist threats on a sector basis. This effort includes available intelligence as well as operational tactics, techniques, and procedures derived from study of overseas terrorist operations.

### **Federal Government Actions to Reduce Risk in the Chemical Sector**

In December 2003, the President issued Homeland Security Presidential Directive 7 (HSPD-7), *Critical Infrastructure Identification, Prioritization, and Protection*, which assigned DHS overall responsibility for coordinating the national effort to ensure the security of America's critical infrastructure and key resource sectors. Additionally, HSPD-7 requires DHS to develop a sector specific plan for the chemical sector and to work with public and private sector partners to implement necessary protective measures aimed at reducing the vulnerabilities of this critical infrastructure. Pursuant to the HSPD-7 guidelines, DHS has worked to improve the security of the chemical sector.

A large number of security visits have been completed and protective measures are being implemented for a number of the highest-consequence chemical sites in the United States -- sites that could potentially affect in excess of 50,000 people if attacked. Most of these highest-consequence sites have received numerous visits by DHS technical advisors to assess and improve site security. The Department continues to visit other chemical facilities on a priority basis in coordination with State Homeland Security and Emergency Management officials, State and local law enforcement, and site owners and operators.

### **Protective Measures Implemented**

To date, the Federal government has established the following protective measures programs:

- **Buffer Zone Protection Plans (BZPPs).** BZPPs identify and recommend security measures and local law enforcement coordination for the area surrounding a facility, or “outside the fence,” making it more difficult to plan or launch an attack. DHS trains local law enforcement in assessing buffer zone security and validates BZPPs provided by State and local officials. DHS is currently distributing \$13.6 million to State and local governments in FY05 to develop BZPPs. DHS efforts are intended to:
  - Improve the level of deterrence in and around the facility through increased staff and community awareness, increased and more efficient police presence, improved response time and efficiency, etc.
  - Improve the probability of detection of an attack in planning or in the early stages of execution, thereby preventing an attack or reducing the likelihood of success.
  - Increase the time and logistical support necessary to execute a successful terrorist attack, thereby increasing the likelihood of detection during the planning and preparatory phase.
  - Increase the efficacy of both defense and response measures through prior planning and coordination.
  - Increase the physical assets available for both defense and emergency response in the event of an attack.
- **Site Assistance Visits (SAVs).** SAVs are essentially “inside-the-fence” vulnerability assessments of critical infrastructure facilities conducted by DHS in conjunction with local law enforcement. SAVs have been conducted at 38 of the highest-consequence chemical facilities. An additional 50 SAVs of high-risk chemical facilities are planned in FY06. Sites are subject to SAVs for a variety of reasons, including:
  - Determination that the facility is highly consequential, that is, the loss of the facility, for any reason, would have significant national or regional economic and/or public health effects.
  - Determination that the facility is of such complexity that an SAV would be beneficial to a subsequent or concurrent BZPP execution.
  - Determination that the facility is under threat.

- Request by the owner/operator of a facility that is sufficiently consequential to justify the visit.
  - The facility meets the minimum level of consequentiality, combined with the presence of an SAV team in the immediate vicinity, usually performing another SAV in the same community. Such visits are performed as an efficiency measure.
  - Proximity to a National Security Special Event.
- **The Maritime Transportation Security Act (MTSA) and Port Security Grants.** Currently, 238 chemical sites fall within the port system as defined by MTSA. Under the MTSA requirements, all 238 of these facilities have been required to: assess their vulnerabilities using an accepted methodology; determine gaps; plan and implement measures to close those gaps; and audit results. These sites also are required to develop and implement detailed security plans, which are audited by the United States Coast Guard and the owner/operator. DHS' Office of Infrastructure Protection (IP) has worked closely with the Coast Guard to ensure that the MTSA-approved methodology is consistent with the overall IP approach. The effect of this effort has been to establish a baseline level of security at these 238 chemical facilities, against which the Coast Guard can make specific recommendations for enhanced security.

Additionally, over the past four years, 287 Port Security Grants have been issued under MTSA, totaling over \$100 million to facilities that include some of the highest-risk chemical facilities nationwide.

- **Facility Security Assessments/Facility Security Plans (FSAs/FSPs).** Under MTSA, owners of chemical facilities located along waterways are required to complete FSAs and FSPs and submit them to the Coast Guard for approval. All chemical facilities subject to MTSA are currently operating with approved FSPs and the Coast Guard has completed on-site compliance inspections to verify these facilities are operating in accordance with their respective FSP. The Coast Guard will visit these and all facilities subject to MTSA annually, at a minimum, to ensure continued compliance.
- **FBI Chemical Sector Outreach Initiative.** The FBI, in coordination with IP, has visited more than 220 chemical facilities for the purposes of conducting terrorism response training, threat briefings, and counterterrorism awareness training.
- **Tabletop exercises.** As part of IP's Exercise Program, tabletop exercises have been conducted at six high-consequence chemical facilities. Additionally, the chemical sector was a participant in Exercise TOPOFF 3, from the corporate level to the individual facility level. The findings from these exercises are compiled in After Action Reports, which serve as a basis for taking corrective actions including upgrading security plans and operating procedures, and planning future exercises.

## Increased Information Sharing

Without the active participation of the chemical sector, DHS will not succeed in reducing the vulnerabilities and risks to the chemical critical infrastructure of the United States. DHS and the chemical sector continue to build a strong partnership based on information sharing and active collaboration. A number of new programs have been implemented, including:

- **Chemical Sector Coordinating Council.** Under the National Infrastructure Protection Plan (NIPP), DHS and other Federal agencies are working with sector asset owner/operators to develop protection plans for the chemical sector as well as sector-coordinating mechanisms to ensure collaboration on the identification, prioritization, and coordination of sector critical infrastructure protection programs. This effort also facilitates the sharing of information concerning physical and cyber threats, vulnerabilities, incidents, potential protective measures, and best practices.

The Chemical Sector Coordinating Council (SCC) was formed voluntarily by stakeholders within the chemical sector in May 2004, and currently comprises representatives from sixteen key stakeholder associations. The SCC is a single point of contact to facilitate organization and coordination of sector policy development, infrastructure protection planning, and plan implementation activities, including sector-wide planning, development of sector best practices, promulgation of programs and plans, development of requirements for effective information sharing, research and development, and cross-sector coordination.

The Chemical SCC is working closely with the Department to draft the nation's strategic vision for a more secure chemical sector. The Chemical Sector-Specific Plan, which will be completed by November 2005, is a component of the NIPP and will provide a framework for government and private-sector partnership in reducing the overall risk of the sector to terrorist attack.

- **Homeland Security Information Network-Chemical (HSIN-Chemical).** The Chemical SCC also is piloting the Homeland Security Information Network–Chemical (HSIN-Chemical) and will actively participate in the vetting of new HSIN-Chemical users. HSIN-Chemical is a highly secure, two-way information sharing mechanism. It allows private industry users in the chemical sector to receive immediate reports of threats to the sector directly from the Homeland Security Operations Center and our chemical Sector Specialists. Via the creation of online workgroups, industry leaders can collaborate with far flung members of their own company or with security managers from other chemical companies to coordinate response activities and share information. The HSIN-Chemical pilot program completed phase one on June 6, 2005. Phase two will reach beyond the Chemical SCC as we enroll security directors from dozens of large and small chemical companies, while continuing to make refinements to the system. In phase three, HSIN-Chemical will be open to all chemical company employees with a need for access to sensitive security information.

- **Security Guidance to the Private Sector.** Based on data gathered from SAVs and BZPPs, DHS has developed three types of security guidance documents. “Characteristics and Common Vulnerabilities” reports identify the common characteristics and vulnerabilities of chemical sites. “Potential Indicators of Terrorist Activity” reports provide information on how to detect terrorist activity near critical sites. “Protective Measure” reports identify best practices and other protective measures for use at specific critical infrastructure/key resources types. These reports have been distributed to all State Homeland Security Offices, with guidance to share these reports with the owners/operators of critical infrastructure and the law enforcement community within each State, as well as Captains of the Port. The reports are also being distributed via the Sector Coordinating Council structure of the NIPP. I would be happy to share this material with this Committee.
- **National Infrastructure Coordinating Center (NICC).** The National Infrastructure Coordinating Center (NICC) is a 24/7 operations center focused on the Nation’s critical infrastructure. It provides industry an immediate point of entry for reporting suspicious incident and threat related information to government. The NICC is a component of the Homeland Security Operations Center, but its mission is to work with industry to both receive and disseminate threat and incident-related information.
- **Sector Specialists.** The Office of Infrastructure Protection has Sector Specialists working closely with both industry and the intelligence community to improve the flow of threat and incident information. The Sector Specialists participate in chemical companies’ security exercises and disaster drills; conduct sector outreach; ensure the sector receives necessary threat and intelligence related products; and inform the Department and the intelligence community of the sector’s infrastructure protection actions and concerns.

## **Training**

DHS facilitates the provision of various training courses to asset owner/operators, state, local, and tribal governments, and local law enforcement agencies responsible for the protection of chemical facilities. Such courses include: BZPP Workshops; Terrorism Awareness and Prevention Training; Advanced Bomb Technician Training; Surveillance Detection; and First Responder/Preventer Training. DHS facilitates this training through several mechanisms, including using prepared, contractor delivered training programs that have been certified by DHS’ Office of State and Local Government Coordination and Preparedness, as well as in-house instruction teams deployed from the Office of Infrastructure Protection, which also delivers DHS-certified training. To date, over 200 participants from the chemical sector have participated in the training courses offered, including tabletop exercises with three major chlorine plants.

## Industry Actions to Reduce Risk in the Chemical Sector

It also is important to identify work that the chemical sector has done to date, in close partnership with DHS. The owners and operators in the chemical sector are voluntarily undertaking a variety of security initiatives:

- **Responsible Care Security Code.** In 2002, the American Chemistry Council (ACC) developed the Responsible Care Security Code (RCSC) to help chemical companies achieve continuous improvement in security performance using a risk-based approach to: identify, assess, and address vulnerabilities; prevent or mitigate incidents; enhance training and response capabilities; and maintain and improve relationships with key stakeholders. A component of the RCSC is the requirement for independent third-party verification of security improvements and competent completion of the Security Vulnerability Assessment.

In total, 150 chemical companies belong to the ACC, representing approximately 80-90 percent of U.S. chemical production by capacity. Implementation of the RCSC is mandatory for all ACC members, as well as members of a variety of other chemical sector industry associations, including the Synthetic Organic Chemical Manufacturers Association and the Chlorine Institute.

- **Examples of Specific Actions.** The ACC estimates its members spent \$2 billion securing their sites in the 15 months following September 11<sup>th</sup> and an additional \$1.1 billion toward security in 2004. These resources have been used to conduct vulnerability assessments, develop security plans and procedures, and make investments in physical and cyber security improvements for facilities of concern, including: tighter access controls, better surveillance, new process controls and equipment, enhanced crisis management and emergency response procedures, better information/computer security, and more stringent background checks. Similarly, the Chlorine Institute formulated a detailed chlorine-specific security regime that was made mandatory for all of their members.

## Reducing Risks in the Chemical Sector

Under the existing voluntary framework that governs the chemical sector, DHS will continue to develop and implement new programs that will allow the Nation to continue to make progress toward reducing risk in America's chemical sector. Programs currently in development include:

- **Risk Analysis and Management for Critical Asset Protection (RAMCAP).** RAMCAP provides chemical sector owners and operators self-assessment tools to assess risk at chemical facilities. RAMCAP data will help DHS to prioritize all chemical facilities of concern in the United States according to relative consequence, vulnerability, and level of threat. Results from RAMCAP assessments will allow comparison of assets from across sectors, allowing for better prioritization of national critical infrastructure protective efforts and resources. The overarching RAMCAP

program will substantially improve information included in the National Asset Database, asset prioritization, comparative risk analysis, and owner/operator awareness of the vulnerabilities and consequences at their sites.

- **Consultation & Assistance Program (CAP).** The CAP program is a new initiative being launched in conjunction with several private sector partners, the American Chemistry Council, the Chlorine Institute, and the Synthetic Organic Chemical Manufacturer Association. Under the CAP program, DHS protective security advisors will visit more than 1,000 chemical facilities in FY06.

### **Closing Gaps: The Path Forward**

At DHS, a major focus of the past two years has been developing tools for assessing risk and working cooperatively with local jurisdictions and companies to implement appropriate protective measures. As we further assess the status of the chemical sector's largely voluntary security regime, we also have been evaluating whether or not the current scope and level of effort will be sufficient to address remaining gaps and emerging threats. In short, while most companies have been eager to cooperate with the Department, it has become clear that the entirely voluntary efforts of these companies alone will not sufficiently address security for the entire sector. Based upon work done to date, however, we now have greater clarity about the tasks ahead, tested tools and a more considerable knowledge-base that will help close potential security gaps.

By exploring all available means to enhance the existing, purely voluntary system, we can ensure that: (1) all facilities have in place a core base of preparedness; (2) those facilities that pose the greatest threat are receiving the more focused attention that a risk-based regulatory regime will bring; and (3) that the nation's approach to chemical sector security will be based on reasonable, clear, equitable and enforceable performance standards that reflect the diversity of the chemical sector.

### **Conclusion**

The effort to counter the threat and mitigate the risk associated with a terrorist attack on the Nation's chemical sector continues to be one of the Department's most important priorities.

Since September 2001, this Administration has worked in partnership with stakeholders to enhance the overall security of the chemical sector. Through a combination of sector governance structures, information sharing mechanisms, risk assessment and risk-based planning approaches, programmatic initiatives, local law enforcement enhancements, and voluntary industry efforts, the chemical sector has demonstrated considerable progress in bolstering its aggregate security posture, but further progress is needed. By developing a comprehensive, risk-based plan for the chemical sector we expect to close remaining security gaps in this vitally important area.

This concludes my prepared remarks. I would be happy to answer any questions you may have at this time.