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IS THE FEDERAL GOVERNMENT DOING ENOUGH TO SECURE CHEMICAL FACILITIES AND IS MORE AUTHORITY NEEDED?

HEARING

BEFORE THE

COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

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IS THE FEDERAL GOVERNMENT DOING ENOUGH TO SECURE CHEMICAL FACILITIES AND IS MORE AUTHORITY NEEDED?

WEDNESDAY, JUNE 15, 2005

U.S. SENATE,
COMMITTEE ON HOMELAND SECURITY
AND GOVERNMENTAL AFFAIRS,
Washington, DC.

The Committee met, pursuant to notice, at 10:24 a.m., in room 562, Dirksen Senate Office Building, Hon. Susan M. Collins, Chairman of the Committee, presiding.

Present: Senators Collins, Chafee, Lieberman, Akaka, Carper, Lautenberg, and Pryor.

OPENING STATEMENT OF CHAIRMAN COLLINS

Chairman COLLINS. The Committee will come to order.

Good morning. First, let me apologize for the late start of the hearing this morning. We had a vote on the Senate floor, and it seemed to make more sense to vote first; rather than start the hearing and immediately have to recess it. So I appreciate your indulgence.

Today the Committee is holding its second hearing on the security of our Nation's chemical industry against terrorist attack. Our first hearing, on April 27, examined the chemical sector's vulnerability to terrorism. Today we will seek answers to the central questions that hearing raised: What has been done to secure these vital facilities? What remains to be done? And is Federal legislation needed?

We will hear from our distinguished panel of witnesses that Federal legislation is indeed needed to give the Department of Homeland Security the authority it needs to improve the security of chemical sites.

The clear statement from the Administration that it supports new legislation and will work with this Committee to draft a bill is a welcome and appreciated development. While I had hoped for more detail on what specific authority the Administration believes is needed, the acknowledgement that current laws are inadequate is a positive first step.

In the case of chemical security legislation, the devil truly will be in the details. In September 2003, and again in March 2004, President Bush stated his support for legislation that establishes "uniform standards" for the security of chemical facilities. Yet, a bi-

partisan legislative approach backed by the Administration has not emerged.

There have been previous efforts. Former EPA Administrator Christine Todd Whitman worked with Tom Ridge, then-Director of the White House Office of Homeland Security, to develop legislation that would have given the EPA authority to regulate chemical plant security. According to Governor Whitman, however, the legislation was killed by a combination of congressional opposition and tepid Administration support.

In the previous Congress, despite the efforts of Senators Inhofe and Corzine, a consensus was not reached on a chemical security bill. But this issue is simply too important to give in to gridlock and to accept inaction. We need to work together, and we need to eliminate the stumbling blocks that have tripped up legislative efforts in the past.

The stakes are high. As we learned at our first hearing, the EPA has catalogued some 15,000 facilities in the United States that manufacture, store, or use hazardous chemicals for productive, legitimate purposes in amounts that could cause extensive harm if turned against us as weapons. The Department of Homeland Security uses a different methodology, but still has identified some 3,400 facilities that could affect more than a thousand people if attacked.

Only a fraction of our Nation's chemical facilities are regulated for security by the Federal Government, or subscribe to voluntary industry security standards.

The potential for a catastrophe is not merely theoretical. This Committee is cognizant of the 1984 tragedy in Bhopal, India, where more than 3,000 people died after an accidental release at a pesticide plant, and thousands of others suffered injury.

And just a year ago, in Dalton, Georgia, a reactor overheated and released a plume of toxic vapor. This accident sent 150 people to the hospital. Carolyn Merritt, the Chairman of the U.S. Chemical Safety and Hazard Investigation Board, testified before this Committee and described this incident as the poster child of our chemical vulnerability. In January of this year, a derailed train car in South Carolina released chlorine gas, a common chemical used throughout industry. Ten people were killed by these toxic fumes, and 250 were injured.

Nor is the potential for terrorists to instigate a chemical catastrophe merely theoretical. As Steven Flynn of the Council of Foreign Relations told this Committee at our first hearing, the chemical industry is at "the top of the list" of al Qaeda and other terrorist groups. The chemical industry, testified Commander Flynn, "absolutely screams at you as essentially a weapon of mass destruction."

In describing the risks associated with attacks on chemical facilities, we often hear the phrases "time bombs" and "Achilles' heel." At first glance, these metaphors seem apt. In truth, however, they miss the mark. Time bombs succeed in their deadly work because they are hidden; the intended victims do not know of their existence until it is too late. These chemical facilities are not hidden. We know they exist. We know precisely where they are, and what they contain. And so do the terrorists.

Preparing for a potential attack on a chemical facility is primarily about prevention; but it is also about response. I look forward to the testimony we will hear today from the EPA witness on the Agency's role as coordinator of response to chemical releases, whether accidental or intentional, at most chemical facilities. We will also hear from the Department of Homeland Security about investigations of chemical sites and other actions that it is taking to strengthen security.

I have quoted two witnesses from the Committee's first hearing to remind us of the threat of a terrorist attack on our chemical infrastructure, and also of the deaths that have resulted from accidental releases. A statement by a third witness reminds us of why this Committee must act.

Richard Falkenrath, the former Deputy Assistant to the President for Homeland Security, called the failure to regulate the security of facilities "a major disappointment." He testified further that, "To date, the Federal Government has made no material reduction in the inherent vulnerability of hazardous chemical targets within the United States."

It is time to reduce the vulnerability of our Nation's chemical facilities to terrorist attack. And it is time for us to work together with the Administration, with industry and environmental groups and other interested parties, to draft a bipartisan bill.

Senator Lieberman.

OPENING STATEMENT OF SENATOR LIEBERMAN

Senator LIEBERMAN. Madam Chairman, thank you very much for calling this second in a series of hearings on the security of our Nation's chemical plants. With thousands of facilities scattered throughout our 50 States, chemical security is a key component of our overall homeland defense.

We have been told in no uncertain terms by independent observers that not nearly enough has been done to address this danger. The experts have told us that the consequences of an attack on one of these chemical facilities could well dwarf the horror we witnessed and experienced on September 11, 2001.

Madam Chairman, your willingness to take on this problem, this deficiency in our homeland defense, is a real act of public service. And I am confident that together we will bring forth legislation this year that will diminish greatly our vulnerabilities in this particular area.

We have been warned of the dangers of a chemical catastrophe over and over again; and yet we are still at a great distance from putting anything approaching a meaningful chemical facility security apparatus in place.

The Department of Homeland Security has launched a number of voluntary security initiatives with the chemical industry. But the GAO, the Government Accountability Office, says that these programs are still in their infancy. And others have questioned the likelihood that voluntary programs are enough to protect our security.

Allow me to quote Richard Falkenrath again. He said earlier, "It is a fallacy to think that profit-maximizing corporations engaged in a trade as inherently dangerous as the manufacture and shipment

of chemicals will ever voluntarily provide a level of security that is appropriate, given the larger external risk to society as a whole."

As representatives of that larger society which faces that larger risk, we in the Federal Government, I believe, have a responsibility to act. Thus far, from the Administration, unfortunately, we have seen inaction and indecision.

In October 2002, as you referenced, then-EPA Administrator Whitman and soon-to-be-Homeland Security Secretary Ridge promised to work with Congress on legislation, saying that voluntary measures alone were insufficient to provide the level of security that the American people deserve. Almost 3 years later, nothing really has happened. The existing approach continues to be what it was then.

Now, this morning, we will hear an announcement from the Department that is encouraging; which is to say that the Department today, under Secretary Chertoff, has essentially come to the same conclusion that Ms. Whitman and Secretary Ridge did earlier, and that is that voluntary measures are not enough.

But I want to appeal to the representatives of the Department of Homeland Security and the Environmental Protection Agency that are here today, to not let this commitment go the way of the good intentions expressed more than 2 years ago—2½, nearly 3 years ago—by Administrator Whitman and Secretary Ridge.

I appeal to you, as soon as possible, with a real sense of urgency, to come forward with specifics about the kind of regulatory and protective system that you feel the country needs. I think you will find in Senator Collins and me and Members of this Committee a willingness to work with the Administration in a genuinely bipartisan way, because this is a critical national security, and homeland security threat.

I look forward to your testimony, and I look forward to working with you to diminishing the present and clear danger that faces the American people from an attack or an accident at a chemical facility, as quickly as we possibly can. Thank you.

Chairman COLLINS. Thank you, Senator Lieberman.

I would now like to welcome our panel of witnesses. Our first witness is Colonel Robert B. Stephan. He has perhaps the longest title of any witness who has come before this Committee. He is the Acting Under Secretary for Information Analysis and Infrastructure Protection at the Department of Homeland Security, and the Assistant Secretary for Infrastructure Protection.

So assuming that I got that right, we do welcome you.

He also served in the Air Force for 24 years, and he has been the Senior Director for Critical Infrastructure Protection at the Executive Office of the President. And we very much appreciate your being here.

Our next witness after the Colonel will be Thomas P. Dunne, who is the Deputy Assistant Administrator for the Office of Solid Waste and Emergency Response at the EPA. Previously, he held several senior level positions at the EPA.

We are very pleased that both of you could join us here today. Colonel Stephan, we are going to start with you.

TESTIMONY OF ROBERT B. STEPHAN,[1] ACTING UNDER SECRETARY FOR INFORMATION ANALYSIS AND INFRASTRUCTURE PROTECTION, U.S. DEPARTMENT OF HOMELAND SECURITY

Mr. STEPHAN. Madam Chairman, thank you for acknowledging my many titles. I also have to admit that I must exercise multiple personalities with those titles in order to get the job done here at the Department.

But good morning Madam Chairman, Senator Lieberman, and distinguished Members of the Committee. It is absolutely my privilege to come before you today to discuss the Department of Homeland Security's efforts, in partnership with many other stakeholders across the country, to reduce the risk posed to the chemical sector—a vitally important sector in our criteria—from potential terrorist attack; as well as to give you some idea of the road ahead regarding the security of this critical infrastructure sector.

I think I need to begin by saying that, first and foremost, it is very high priority for the Department of Homeland Security to reduce the risk from terrorism by implementing collaborative security strategies with Federal, State, local, and private-sector partners, to adequately protect the Nation's chemical infrastructure from terrorist attack.

My discussion with you today will include a focus on the risk landscape associated with this chemical sector and the important collaborative steps that have been taken to close security gaps under the existing voluntary public/private sector partnership; but also to note, very importantly, that considerable progress has been made through these voluntary efforts. But just as importantly, further progress is required to close remaining important security gaps.

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

To close the existing gaps and reduce risk across the chemical business, the Federal Government should adhere to certain core principles regarding any proposed regulatory structure. First, we must recognize that not all facilities within this sector present the same level of risk, and that the most scrutiny should absolutely be focused on those facilities that, if attacked, could endanger the greatest number of American lives, have the greatest impact on the American economy, or present other significant risks.

Second, facility security should be based on reasonable, clear, equitable, and measurable performance standards. A regulatory framework should include enforceable performance standards based on the types and severity of the potential risk posed by the terrorists. Facilities should have the flexibility to select among appropriate, site-specific security measures that will effectively address those risks.

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[1] The prepared statement of Mr. Stephan appears in the Appendix on page 35.

Third, we should recognize the progress that many responsible companies in this industry have made to date. Many companies have made significant capital investments in security since the September 11 attacks, and we should build upon that progress collaboratively in constructing delicately the road ahead.

What is the threat to the chemical sector? The chemical sector, just like all other critical infrastructure that we are concerned about, is a potential target for terrorist attack. While we, at this time, have no specific credible information indicating an immediate threat to the chemical sector, the Department remains concerned about the potential public health and economic consequences should a successful attack take place.

The chemical sector consists of widely varied and distributed facilities. It presents a comprehensive, sweeping challenge to us. The particular vulnerability of any specific facility within this overall landscape obviously depends on the type and quantity of chemicals onboard a site, the physical layout and location of sensitive target sets within a site, access points, geographic location, and many other variables. Therefore, each facility must have a risk assessment and a security plan that is tailored to its unique security environment and considerations.

In December 2003, President Bush issue Homeland Security Presidential Directive 7, which assigned DHS overall responsibility for coordinating the national effort to ensure the protection and security of America's critical infrastructures and key resources in 17 different categories.

Additionally, this document requires DHS to develop a sector-specific plan for the chemical sector, and to work with public and private sector partners across the board to implement the necessary protective measures aimed at reducing the vulnerabilities inherent in this sector.

In line with the President's guidance, a large number of security visits have been completed by DHS, the Coast Guard, and the Infrastructure Protective Division, and protective measures are being implemented for the highest-risk chemical sites in the United States. The Department continues to visit other chemical facilities on a priority basis in coordination with various State homeland security advisors, emergency management officials, State and local law enforcement officials, and actual individual site owners and operators.

DHS and the chemical sector also continue to build a strong partnership based on information sharing and active collaboration. I am pleased to report to you that these efforts have yielded a very solid information-sharing backbone and network, as well as a comprehensive approach to assessing risk for the sector.

It is also important to identify the work that the chemical sector itself has done to date, in a close partnership with DHS, to take care of its security responsibilities. The owners and operators across the chemical sector to a large degree are voluntarily undertaking a variety of important security initiatives.

In 2002, the American Chemistry Council developed the Responsible Care Security Code to help chemical companies achieve improvement across the board in security performance through a focused approach based on identifying, assessing, and addressing

vulnerabilities; preventing or mitigating incidents; enhancing training and response activities and capabilities; and maintaining and improving relationships with key Federal, State, and local governmental partners.

A component of this Responsible Care Security Code is the requirement for an independent third-party verification of the security enhancements, as well as the competent completion of the site vulnerability assessments that they are tasked to do under this code. The ACC estimates that its members have spent over $2 billion in securing various sites across the industry, in terms of their membership, since the September 11 attacks.

Closing the gaps, and the path forward. At DHS, a major focus of the past 2 years has been developing tools for assessing risks and working cooperatively with local jurisdictions and companies themselves to implement appropriate protective measures. As we further assess the status of the chemical sector's largely voluntary security regime, we have also been evaluating whether or not the current scope and level of effort will be sufficient to address important 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 chemical sector.

Based upon work done to date, however, we now have much greater clarity regarding the tasks ahead, tested tools, and a considerable knowledge base that will help us make informed decisions as we go about closing these remaining serious security gaps.

By exploring all available means to enhance the existing voluntary system, we want to ensure that all facilities have in place a core base of preparedness; that those facilities that pose the greatest risk are receiving more focused attention; and that the Nation's approach to the chemical sector's security problem will be based on reasonable, clear, equitable, and enforceable and measurable performance standards that reflect the diversity of the chemical sector as well as the responsible security investments that have been made across the industry to date.

Since September 2001, the Administration has worked in partnership with numerous stakeholders to enhance the overall security of this vitally important sector. Through a combination of governance structures, information-sharing mechanisms, risk assessment and risk-based planning approaches, programmatic initiatives, local law enforcement enhancements, voluntary industry efforts, the chemical sector has demonstrated considerable progress in bolstering its security posture.

But further progress is required, is needed. By developing a comprehensive risk-based approach for the chemical sector, we expect to be able to obtain more closures in a significant way to close remaining gaps in this vitally important area.

This concludes my prepared remarks. I would be happy to answer any questions at your time, or defer to you, Madam Chairman.

Chairman COLLINS. Thank you. Mr. Dunne.

TESTIMONY OF THOMAS P. DUNNE,[1] DEPUTY ASSISTANT ADMINISTRATOR, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. DUNNE. Thank you, Madam Chairman and Members of the Committee. My name is Thomas Dunne, and I am the Deputy Assistant Administrator for EPA's Office of Solid Waste and Emergency Response.

I am pleased to appear today to discuss aspects of EPA's Emergency Response Program and, in particular, the chemical site security issues. I will summarize my written statement, but I ask that my entire written statement be submitted for the record.

Chairman COLLINS. Without objection.

Mr. DUNNE. EPA's Emergency Response Program conducts emergency clean-up actions at oil and chemical spills and hazardous waste sites, and is involved with preparing and planning for chemical emergencies, working with a network of State and local emergency planning organizations.

EPA's response can cover a wide range of emergencies, including the World Trade Center in New York City, Capitol Hill anthrax and Ricin clean-ups, and helping to manage a multi-State effort to recover debris from the space shuttle Columbia disaster.

In addition to our emergency support functions, EPA has partnered with the Department of Homeland Security and other Federal agencies to develop and implement the National Response Plan, the National Incident Management System, and the National Infrastructure Protection Plan.

EPA is also responsible for the development and implementation of Federal regulations for reporting under the Emergency Planning and Community Right To Know Act, the emergency release reporting requirements under the Comprehensive Environmental Response Compensation and Liability Act, the oil spill prevention response planning requirements under the Oil Pollution Act, and chemical accident prevention and mitigation under the Clean Air Act.

In response to the terrible consequences of the Bhopal, India chemical disaster in 1984, Congress established chemical accident prevention programs by enacting the Emergency Planning and Community Right To Know Act, and Section 112(r) of the Clean Air Act. EPCRA requires States to create State emergency response commissions, known as SERCs, and requires local communities to form local emergency planning committees, called LEPCs, that would prepare local emergency response plans for chemical accidents.

EPCRA has also required chemical facilities to provide LEPCs with the information needed for emergency planning, and to submit annual chemical inventory reports to SERCs, LEPCs, and local fire departments. EPCRA does not require facilities to take actions to prevent chemical accidents.

Section 112(r) of the Clean Air Act required stationary facilities that handle extremely hazardous materials to prevent and mitigate accidental releases into the air. It also required EPA to develop

[1] The prepared statement of Mr. Dunne appears in the Appendix on page 44.

risk-management requirements for the subset of chemical facilities that had large quantities of the most dangerous chemicals.

EPA subsequently required certain chemical facilities to conduct hazard assessments; develop and implement accident prevention and response programs; analyze the consequences of worst-case and alternative release scenarios; and provide a report called the "Risk Management Plan," or also, RMPs. Approximately 15,000 facilities are subject to these RMP requirements.

Following the September 11 terrorist attacks, one of the actions taken by the President was to assign EPA with chemical and drinking water security responsibilities. EPA considered using its authorities under Section 112(r) to require facilities that handle extremely hazardous substances to secure them against terrorist attack. However, EPA concluded that using the Clean Air Act Section 112(r) and its language regarding accidental releases to require facilities to take additional security measures for a terrorist attack would subject the agency to a significant legal vulnerability and result in protracted litigation.

As a practical matter, the issue was overtaken by the creation of the Department of Homeland Security. After the creation of the Department, Homeland Security Presidential Directive 7 made the Department the lead for the chemical and hazardous material sector concerning infrastructure protection issues.

The Department is the lead Federal agency for chemical security, and EPA serves in a supporting role by providing information and analytical support as needed.

That completes my statement, Madam Chairman. I would be pleased to answer any questions that you or the Committee may have.

Chairman COLLINS. Thank you very much, Mr. Dunne.

Colonel, of the 17 critical infrastructure and key resource sectors that the Department is focusing on, where does chemical security, the security of chemical sites, rank in the Department's priorities?

Mr. STEPHAN. Well, Senator, according to HSPD–7, the President's guidelines are very clear. They push us towards a focus on those sectors, first and foremost, that may be through a terrorist attack used as weapons of mass destruction or produce mass effects against American citizens and the economy. In terms of those guidelines, we clearly feel that the chemical sector is right up there as one of the top priority sectors of the 17.

Chairman COLLINS. I know that the Department, along with the EPA, has visited many of these chemical facilities, done inspections, and made recommendations for security improvements. But, at our first hearing on this issue, the GAO testified that, despite the potentially catastrophic damage that could be inflicted by an attack on a chemical site, a comprehensive security assessment of these facilities has not been completed yet.

GAO testified that, "While DHS and EPA have visited a number of facilities to discuss security, the results of these visits are at this point unclear." Could you share with us some of your general findings as a result of these site visits?

Mr. STEPHAN. Yes, ma'am. Just to clarify some of the numbers that are important to consider here, as you correctly pointed out, we consider among the top tier of chemical facilities across the

United States, using EPA metrics that my colleague, Tom, could probably go into in a little greater detail—there are about 3,400 things that we consider high-risk, with the respect to the ability to impact a thousand people or greater.

Within that, we also have several upper-echelon tiers gradated so that we have a category between 10,000 and 50,000; 50,000 to 500,000; and then, above 500,000. Of the top two tiers, the DHS will have visited, between the Infrastructure Protection Division and the Coast Guard, every single one of the top tier sites.

Chairman COLLINS. And how many facilities are in the top tiers?

Mr. STEPHAN. Two hundred and seventy-two, ma'am. And each of those sites is developing and required to turn in to the Department of Homeland Security IP Division buffer zone protection plans, which are very sophisticated, law-enforcement-produced—State and local law-enforcement-produced, under the supervision of the homeland security advisors for the States—detailed plans in terms of how the law enforcement—what response law enforcement would take; capabilities that need to be addressed, both in terms of information connectivity, information sharing, actual response, personal protective gear for law enforcement folks. That kind of information is due to us in a comprehensive set of plans by September 30 of this year.

In addition to that category of planning, the Department has made site visits to what we consider to be about three dozen or so of the most high-risk top-tier facilities; actual inside-the-fence vulnerability assessments, in partnership and at the invitation of the facility owners and operators. And the degree of cooperation that we have seen during those particular visits has been very good.

We have seen various instances, evidence of the $2 billion-plus that I mentioned in my formal testimony being spent in terms of improved physical enhancements across the sector; improved cyber enhancements in terms of security across the sector; additional staffing; linkages in terms of information networks, both with us and with State and local law enforcement, that would provide the bulk of the reinforced response in the event of a terrorist attack.

We have seen guidelines, the Responsible Care Code, as I mentioned during my testimony. For the members of the chemical sector that participate in that code, there I think have been very legitimate, very real, and very qualitative improvements in security across the board.

But again, there is a certain percentage of the sector—I want to estimate, based on input from my folks and as a result of these visits, in coordination with ACC and other major associations, roughly 20 percent or so of the capacity—that we would be concerned about in terms of risk, that is unaccounted for under the Responsible Care Code. And therefore, I cannot come to the President or to you with a straight face and say, "Ma'am, I absolutely know what is going on there. I am comfortable with it 100 percent."

Some of them do let us in. Some of them let us take a lengthier look than others. But again, once you get beyond the Responsible Care Code, there are really no good metrics, solid metrics. About 20 percent of things that we consider very important that I just cannot report on favorably, one way or the other, to you.

Chairman COLLINS. And that is one reason that the Administration is supporting legislation, so you will have the authority to require a vulnerability assessment of every high-risk chemical site? Is that correct?

Mr. STEPHAN. What we would like to do, in any kind of regulatory framework that we would envision that security focus—there are certain general principles that would have to be brought to the table and considered; a credible, competent, credited risk assessment approach, with a risk assessment methodology that has been accepted in some way, shape, or form.

We have to have security planning, using a risk-based approach, based upon those vulnerability assessments or risk assessments. We would have to have implementing measures put in place that are risk-based, that reflect the risks and the vulnerabilities that come about during the assessment process. We would have to have some ability to audit those activities, and some general mechanism to ensure compliance with everything that I said.

A lot of these elements have been in various legislative proposals that you and others have seen over the past couple of years. And that basic framework remains the framework that needs to be answered and brought to the table, I think, in any kind of proposed regulatory structure.

Chairman COLLINS. Thank you.

Mr. Dunne, I am trying to understand how we go from the EPA's listing of some 15,000 chemical sites that either store, use, or manufacture high-risk hazardous chemicals, to DHS's list of 3,400 chemical sites that are high-risk.

The EPA, for example, has estimated that there are 123 facilities that, if there was a release, could affect a million or more people. I realize we are not talking about casualties necessarily here, but an effect on a million or more people. DHS seems to have a far more conservative estimate, and comes up with some 300 facilities that could affect a population of greater than 50,000 people.

I am trying to understand what the scope is here, and how we go from 15,000 facilities on the EPA's list to 3,400 facilities on DHS's list. I would like you to start, and then I will ask you, Colonel, to comment.

Mr. DUNNE. Well, the 15,000 facilities come about because the legislation calls for the amount, quantity of facilities, and the types of chemicals that are used or stored there. There are 140 different chemicals. And then we gauge in terms of what quantity represents a potential problem. And it turns out it is 15,000.

When we went out with the original regulations in 1999, it was 15,000. We have had a couple thousand go off the list, and a couple thousand come on. So the number has not really changed.

The point of the 123 facilities, I have read the statement and I have read news reports about that. And it is generally overstated, in terms of what the concern is. Of those 123 facilities, there are a million people in the surrounding areas. So if you took the facilities as a point, a central point, and you reached out and drew a radius around it, there would be a million people that, depending upon circumstances, could be affected. It certainly does not mean anything in terms of fatalities or casualties.

The fact is that I believe DHS—and I will let Bob speak more directly to it—took a look at analyzing, and that seems to me a very reasonable approach, in terms that we do know that wind blows in one way; you have atmospheric circumstances that override that. A million people are not going to be affected in any one place.

Now, the closer you are to a facility, depending upon the release and the type of chemical, it could create problems. So actually, the 123 is now 110 in the most recent count that our staff did on it. And I do not think it is a drop-off, in terms of their logic. Because it seems to me that what they did is focus on what are the targets that would be of most serious concern, and honing in on those at the beginning, and then working your way down the list.

Chairman COLLINS. Thank you. Colonel, I will come back to you, since my time has expired, in the second round.

Senator Lieberman.

Senator LIEBERMAN. Thanks, Madam Chairman. It seems to me that the big question that has been decided but not acted upon is whether voluntary measures by the chemical industry are enough in the face of the threat posed here that everyone agrees on. And the answer, I believe we will all come to, is that voluntary measures are not enough.

I appreciate and admire the voluntary measures that have been taken by the industry, but I think when you set the reality against the enormous threat from either a terrorist attack or an accident, the Federal Government has to speak for the national security, the homeland security, and the public safety, and ask more.

And I gather from your statement today—I conclude from your statement today that the Administration has reached that conclusion. I quote from, Colonel Stephan, your printed testimony before the Committee 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 some extent, that mirrors the conclusion that Administrator Whitman and Secretary Ridge articulated about 2½ years ago. So let me begin with a general question; which is that the cynics or the skeptics would say, well, how is this any different, the announcement that you are making this morning on Secretary Chertoff's behalf, than the statement that Administrator Whitman and Secretary Ridge made 2½ years ago, which has produced nothing—I mean, nothing regulatory—since then?

Mr. STEPHAN. Sir, thank you for that assessment. I think I want to make one clear point; that this is not a change in Bush Administration policy, in terms of going back as far as the President's physical critical infrastructure protection strategy that was released in February 2003.

Basically, he has stated clearly our willingness to work with Members of Congress on this issue because it was, even back in those days, beginning to be apparent that voluntary efforts alone and voluntary codes were not necessarily going to get us to the end state across the sector that we would be comfortable with.

And the Administration has participated in numerous efforts and aspects of a dialogue with both houses of Congress over the past

couple of years, to try to figure out what the appropriate solution might be.

I think there are two key and very distinct differences that I am bringing to the table for you today. Before I get to that, though, the new team is onboard. Secretary Chertoff assumed his responsibilities back in February. I assumed these current responsibilities about 7 weeks ago. Secretary Chertoff asked me to take a look, under his second stage review, at this chemical security issue, as well as the infrastructure protection mission area at large; but drilling down within that the things that we think are absolutely the most important and significant, need to be accelerated in terms of our approach.

Having said that, basically agreeing with the conclusion that has been on the table for the past couple of years, two new dynamics. We now have a very clear understanding, I think, of where the voluntary security regime that has been in vogue for the last 3 years has taken us. The extent that we are going to be able to get the effects we are looking for out of that voluntary regime is now fairly clear.

That regime was just coming on the table, in terms of the private sector roll-out of that Responsible Care Code that I discussed, 2 years ago. So now we clearly understand, working in partnership with industry, the extent to where that is going to take us on the security spectrum.

Added to that is 2 years ago, to come to you all with a reasonable approach was not as possible as it is today, in terms of risk management. We did not have the risk assessment tools—the science. The technology was just not there 2 years ago.

I am happy to report that, in partnership, in full collaboration with the chemical sector across the board, we have been working diligently for the past year or so to develop an acceptable, measurable, risk-based formula that brings together consequences, vulnerability, and threat into a tool that is Web-based, and that we are now finished and ready to deploy uniformly across the chemical sector.

So because of the technology, building upon the baseline of the voluntary efforts that have been put into practice up to this point, we can come back to you, I think, with a much more measurable, sophisticated approach, other than some kind of blanket authority to do lots of things across the sector that may or may not be relevant based on a risk metric.

Senator LIEBERMAN. I hear you, and I appreciate that. And so you have got a better risk-based analysis now, which would be the basis for legislation. And you have lived for some period of time under the voluntary system. You know what it can do and what it can not do.

Mr. STEPHAN. Correct.

Senator LIEBERMAN. What are the major shortcomings of the voluntary system, would you say? What is not being done that we would want to do legislatively and by regulatory system?

Mr. STEPHAN. Yes, sir, I think basically two answers to that question. For the operational capacity that we believe to be high-risk, around 20 percent of the overall sector that is not participating in any kind of measurable voluntary code, that would allow

us to get to that part of the problem and tighten down the loop in terms of that.

Senator LIEBERMAN. Let me make sure I understand that. You are saying, based on the risk analysis you are able to do now, that 20 percent of those facilities that you would consider to be high-risk have not assumed on a voluntary basis their responsibility?

Mr. STEPHAN. We believe that about 20 percent of the operational capacity, in terms of output of the chemical sector, is not governed by any kind of voluntary practice or voluntary security code.

Senator LIEBERMAN. Is that 20 percent of those you consider high-risk, or 20 percent of the overall community that is chemical?

Mr. STEPHAN. That is 20 percent of the overall capacity that we would consider to be high-risk.

Senator LIEBERMAN. Got it. I am sorry, go ahead.

Mr. STEPHAN. Yes, sir. So that would attempt to close the gaps on that end of the spectrum.

The other piece that we really want to get to is the pieces of industry that have very responsibly been making some very significant investments and enhancements over the past couple of years. We want a way to make sure that we can measure those, using risk-based metrics and criteria, to ensure that those kinds of measures that have been put in place, based upon the unique requirements of every individual facility that we consider to be at high risk, are appropriate or having a measurable effect that we can then take to the President, report progress, take to you and report progress; and to be able to sustain all of that momentum, very importantly, over time, as we move further and further beyond September 11.

Senator LIEBERMAN. I hear you. Let me ask this—there was general feeling on Capitol Hill that EPA under Administrator Whitman had put together a legislative proposal to go beyond voluntary initiatives and have some mandated security requirements on part of the chemical industry, but it never made it to the Hill.

My question to you, and to you Colonel Stephan, as we begin anew, is whether what you are saying is you are prepared to support legislation, or work with us, that a Committee like ours would come up with? Or is the Administration intending to make a specific legislative proposal in this area?

Mr. DUNNE. Well, let me start, and then Bob can answer. In terms of any legislation that was developed at EPA or other places in the Administration, there were discussions, but there was nothing actually developed as such. And it was somewhat abandoned, as we had given consideration to see if we could use Section 112(r) and whether or not that was a good idea. And besides the lawyers bantering back and forth for a period of time, both within EPA and also other agency departments, it was decided not to go the legislative route.

And at the same time, when we looked at Section 112(r) we thought, from both a legal and a policy consideration, we would have been bogged down in the courts in regulations and, to this day, we probably would not have anything out. So there was never a serious legislative proposal that was forthcoming that would have come to OMB and be transmitted to the Hill.

Senator LIEBERMAN. So Colonel, let me ask you the question. Is the Administration going to make a specific legislative proposal to the Committee? Or are you wanting to just work with Senator Collins and me and the other Members as we develop legislation?

Mr. STEPHAN. What we would like to do, as the point I made earlier, is that we basically own the metrics, the tool that is going to allow us to take what, I think, is a reasonable, rational, measured, and effective approach to this. So we own that methodology. What we have to do is take that methodology in accelerated fashion and build a proposed regulatory framework around that methodology through the policy coordination processes of the Homeland Security Council.

Having established and put some more granularity, some more bones on the skeleton of my testimony I delivered today, we would like to then work with you, based upon that knowledge base we have, the technology that has been pushing us over the last 2 years—work collaboratively with our partners in Congress to put the right solution on the table.

Senator LIEBERMAN. So if I hear you correctly, the Administration is not intending to send us a proposal. But you are saying today you want to work with us on developing a proposal?

Mr. STEPHAN. Yes, sir, but a proposal based upon the regulatory principles and framework that our technology permits.

Senator LIEBERMAN. Understood. My time is up. But I do want to say finally that there has been some attempt to deal with this problem of chemical plant security in the Environment Committee. Unfortunately, it has been gridlocked. There, the focus was naturally on the environmental consequences of chemical security. Here, we are focused on homeland security. But there is an overlap, naturally.

And I do think that—with all respect, because I am on that Committee, too—I think Senator Collins and I begin with a strong nonpartisan interest, from a homeland security point of view, in getting something done.

So I welcome what you have said today. And again, I look forward to working with you, with a real sense of urgency, to get something done to protect the American people as soon as possible. Thank you.

Chairman COLLINS. Thank you. Senator Chafee.

OPENING STATEMENT OF SENATOR CHAFEE

Senator CHAFEE. Well, thank you, Madam Chairman. And as Senator Lieberman said, we worked on the Environment and Public Works Committee—Senator Lautenberg, Senator Carper, and Senator Corzine—all working on trying to get some compromises on the environmental issues. And it was difficult. I think we got hung up on inherent safer technologies.

But now as we go forward I am questioning, as Senator Lieberman did, on the voluntary aspects, as it exists now. And if I understand correctly, 20 percent are not participating, high-risk. And is there a cost to those companies that are participating, the 80 percent that are participating, that give an unfair advantage to those that are not, Colonel?

Mr. STEPHAN. Sir, I am not quite sure I understand the question.

Senator CHAFEE. If I heard your answer correctly, 20 percent under the voluntary scenario are not participating in undergoing—introducing safer measures. Do I hear that right?

Mr. STEPHAN. That is correct.

Senator CHAFEE. And so there must be a cost advantage to them. And that is my question. Those companies, the 80 percent that are participating, are incurring costs that the other companies are not incurring; and thus there is an unfair advantage. Does that mean we should enact legislation, considering that there is unfair advantage, those companies that are not incurring these costs?

Mr. STEPHAN. OK, sir, thank you. Again, I am not an industry expert on this topic. And I would defer any real granular answer back to you to one of the industry associations, itself.

But to my understanding, most of the capacity that we are worried about that would be high-risk that does not fall within the voluntary regime constitute or are represented by mid-sized to smaller companies that still have very considerable amounts of chemicals or types of chemicals onboard their sites that would cause us to place them in the high-risk category. Therefore, the profit margins there are something that are a very serious concern to that aspect of the industry.

Having said that, I think that we can, with the risk assessment methodologies and tools that we have come up with now, work out some solutions that are facilities-based, as opposed to sector-based, that would bring down the same thing across the board at every single facility.

I think we are better now. We are able to make better and more informed judgments. And we could adjust the security framework based upon risk and based upon a menu of options that would meet a certain criteria that these companies would be allowed to pick from; hopefully, some solutions are more cost effective than others.

Senator CHAFEE. Well, once again, we worked hard on the EPW Committee, and look forward to working with you here to get some fair legislation. Thank you.

Chairman COLLINS. Thank you. Senator Carper.

OPENING STATEMENT OF SENATOR CARPER

Senator CARPER. Thanks, Madam Chairman. It is sort of ironic—I will follow up on what Senator Chafee was saying—that four of the five Members that are here today are folks who also serve on Environment and Public Works. And we have worked in these vineyards a little bit earlier. And I think one of the reasons why most of the folks that are here today are from EPW is because of our familiarity with these issues and our interest in these issues.

I am from Delaware; Senator Lautenberg over here, is from New Jersey. Chemical facilities and the products that they produce are important to my State and, obviously, to his. I understand our new Secretary, Secretary Chertoff, is actually from New Jersey. And I just was kind of wondering out loud—and you do not have to answer this question—but maybe one of the reasons why there is some renewed interest or some stronger interest in this issue, in trying to work with us to find a path forward, might be because—what's the old saying—all politics is local, and he comes from a

State where these issues are important. And they have even more chemical plants in New Jersey than we do in Delaware.

And we know that in our State an incident at a chemical plant can be devastating. We know that we are vulnerable to some extent in our State and other States, as well—probably, all States, if you have got 15,000 chemical plants out there; probably covers just about everybody. And it is important for us, I think, to not wait for the terrorists to show us that we need to do more.

The first question I want to ask just to the two of you, how long have you all been working together on these issues? Is this a new partnership? Is this something that you all have been working on for a couple of years? Is this the first time you have met?

Mr. DUNNE. Well, we have been working together on the National Response Plan and National Incident Management System for going on 3 years. And in terms of this subject matter, Bob is relatively new to it, but our office has been involved in it for 3 years, since it was discussed at EPA back at that time.

Mr. STEPHAN. That's right. We have been working together with the EPA since the Department's existence. And with the issuance of HSPD–7, they are the sector lead for the water sector and all things security-wise associated with the water sector. We have a good partnership; a partnership, a framework, that was nurtured in fact during our joint work on the National Incident Management System and the National Response Plan. So I think it has been a great and effective partnership. And we play off each other's authorities and strengths in order to tackle problems jointly.

In terms of the comments that you made earlier, I just want to emphasize that the President has focused us, through HSPD–7, on the sectors that are of highest risk to the Nation in terms of public health and safety, economic consequences, and the like. And because of the chemical sector's potential to be used as a weapon of mass destruction or weapon of mass effects under certain scenarios, that is clearly specified or called out in the President's guidance to us.

And in terms of Secretary Chertoff's State of residence, he represents very well the great State of New Jersey, but the man is risk-based in everything I have seen him do since he has taken office. And I think that is the right approach for this time. And I am just happy that the technology that we now have at our fingertips is able to basically facilitate or enable the furtherance of that approach.

Senator CARPER. The title of today's hearing is "Is the Federal Government Doing Enough To Secure Chemical Facilities and Is More Authority Needed?" And let me just ask each of you, just without a lot of jargon, just as plainspoken as you can be, just answer that question for me. I will say it again: Is the Federal Government Doing Enough To Secure Chemical Facilities and Is More Authority Needed? Just very plainspoken.

Mr. STEPHAN. Yes, sir. I'll say absolutely, no one is ever doing enough when it comes to critical infrastructures. That is as plainspoken as I can get. But I will say we have made important advancements. And the newspaper accounts that I read and the pronouncements from academics and others that say we have done nothing is absolutely the farthest possible thing from the truth that

I can envision, based upon going over this in considerable depth with my team since I assumed this position.

We are working with the industry. We are doing risk assessments. We partner developed the methodology that is going to guide us both to the future; set up information-sharing mechanisms that work——

Senator CARPER. This is important to us. It is important to our States and to our country. So what I hope flows out of here is the opportunity for us to work with Senator Collins and Senator Lieberman. And we are pretty good in this Committee working across the aisle, and have got great leadership.

Mr. STEPHAN. Yes, sir.

Senator CARPER. And we just want to be able to work with you. My view—and this is just the way I look at it—you all have a lot to say grace over, since the Department was created. And you must feel like a lot of days you have been drinking out of a fire hydrant in the last several years; probably still feel that way some days.

So there is a lot for you to focus on. You now have a chance to focus on this. And we just want to work with you to get the job done and to make our communities and our chemical facilities safer.

Mr. STEPHAN. OK.

Senator CARPER. I will go back and restate the title of the hearing: Is the Federal Government Doing Enough To Secure Chemical Facilities and Is More Authority Needed? Let's focus on the second half of that, "And Is More Authority Needed?"

Mr. STEPHAN. Yes, sir. Doing a lot; need to do more. And more authority is clearly needed.

Senator CARPER. And give us some idea what context, what format authority might take.

Mr. STEPHAN. What we would like to do is work in partnership, again, with you all, to figure out what the right mix is for this sector, based on some key principles; that we use a risk-based approach to setting up this regulatory framework that takes individual facilities into consideration, so that we do not attempt to put a cookie cutter in place and expect that is going to do the job for us in any sense.

We are better than we were 2 years ago. We have the technology to help us inform that structure. We want to make sure what we put in place is equitable, fair, takes into account responsible investments that have been made. But at the end of the day, it has to be effective and it has to be measurable.

But it also cannot be the same. Because one important aspect that we all are concerned about, if we put a detailed reg out that says, "Every chemical facility will approach it in this manner, using the following steps," I do not know a better cookbook to give to al Qaeda than that outlines exactly the level of security by facility across the country. We have to be very careful we do not do that; and allow a menu of options to be selected flexibly, as long as they are measurable, effective, and get the job done.

Senator CARPER. Mr. Dunne, do you want to jump in here?

Mr. DUNNE. Well, I would agree with Bob that authority is needed. But I do think the knowledge base in the last 2½ years has grown appreciably, much more than when we were thinking about

the program before DHS became a reality. And I think they have developed tools that certainly were not at our disposal back when we were looking at the project at EPA. So I would support what he said in terms of authority.

And coming from a regulatory agency, one of our problems with regulatory programs is trying to fit everything under one big regulation. And it is a problem. And as you know, Senator, our RMP plans are available to the public under community right to know, but there is certain information——

Senator CARPER. I'm sorry, say it again. What plans are available?

Mr. DUNNE. The management plans on this Clean Air Act, under Section 112(r). But there are also consequences, which only can be seen in reading rooms. And there are 50 reading rooms. I think we have got to be careful about how much we provide outside of the realm of the facility and the law enforcement people and the Federal Government officials. I think there is a real danger of having plans floating around, where any terrorist, or almost any amateur—it doesn't have to be a professional terrorist—can get their hands on information. So I think it has to be a thoughtful approach.

And I would agree that coming up here at a public hearing, if we did have the answer, what should go in the legislation, ought to be really thought out in terms of what are we doing to protect the American public and what are we doing to make sure the security of the country is being held that we are not aiding and abetting enemies.

Senator CARPER. All right, good. My time has expired. Madam Chairman, thanks very much.

Chairman COLLINS. Thank you. Senator Lautenberg.

OPENIN STATEMENT OF SENATOR LAUTENBERG

Senator LAUTENBERG. Thank you, Madam Chairman, for convening this hearing as you have. It has been too long since we have had the horrible experience that has shaken our resolve and our comfort in that we are doing whatever we should to protect our people from assault. And Madam Chairman, I ask unanimous consent that my opening statement be included in the record.

Chairman COLLINS. Without objection.

[The prepared statement of Senator Lautenberg follows:]

PREPARED STATEMENT OF SENATOR LAUTENBERG

Madam Chairman, thank you for convening this hearing on this critical topic.

My concern about the security of chemical plants dates back to the late 1990's. It's now 2005 and time to stop talking and start acting to confront the terrible risks that have not diminished since September 11.

New Jersey has some 1,600 chemical facilities within its borders—not one of which is now legally required to take any of the risk-reduction steps identified by the experts in our last hearing.

Today, I want to hear what the Department of Homeland Security has accomplished in the last 30 months to protect our children and our families.

The GAO tells us that between 10 and 100 million Americans live in a vulnerable zone of potential sickness and death.

The Congressional Research Service has calculated that more than 8,000 schools, or hospitals, or both, are near one of the nation's chemical facilities.

In the wake of September 11, we can not any longer afford to keep talking about these risks—it is time for action.

The 9/11 Commission cautioned that we must not focus so much on the last attack that we miss the next attack to strike our country.

I'm afraid we have failed to absorb that lesson as well as we should.

And chemical plant security is one of the most glaring examples of that failure.

There are about 15,000 chemical facilities in the country. More than half of them are located near our families, where our children and grandchildren live and play. More than one thousand human beings could be killed.

For example, according to EPA the largest "zone of vulnerability" to wide-spread death and injury is in South Kearney, New Jersey where twelve million people live.

Mr. Chairman, the attacks of September 11 were devastating. My State lost 700 of our friends, neighbors and loved ones that day. We all hope that we never see the like of it again.

But the fact is, a terrorist attack on a chemical facility could be even worse.

And by ignoring the threat, we might be inviting such an attack, because terrorism experts say our enemies like to focus on poorly secured "soft" targets.

I would urge my colleagues on the Committee, who I know are very committed to this issue, to move forward from this hearing toward a legislative remedy.

I thank all the witnesses who are with us today, and I look forward to hearing their views on this crucial issue.

Senator LAUTENBERG. I thank you for that.

Mr. Stephan—and I thank you both for your testimony—in light of the announcement this morning that we have seen in the paper and the news that the Bush Administration is now endorsing mandatory requirements for increased security at chemical plants, have you looked at the Corzine bill, my colleague's bill, in terms of what he would like to see done with the Chemical Hazards Board, the management of these facilities, to better conform to our security needs? Have you looked at that?

Mr. STEPHAN. Sir, in developing this framework—and again, I want to emphasize that this is not a new approach. The policy has always been that we are willing to partner with Congress to figure out the right legislative solution to fix some gaps across this sector. I, personally, have not gotten in depth into any of the previous amendments or potential pieces of legislation that have come forward, being new to this. But I can assure you that as we take a look at working together to develop what is the right regulatory framework for this sector, that we need to consider all things that have previously been on the table, and measure them against the baseline criteria——

Senator LAUTENBERG. Yes, well, not meaning to cut you short, but it is an important proposal, as are some others that are there. And I would hope that DHS would take a prompt and thorough look at these things, to give us their view on what we ought to be doing.

Mr. Dunne, there is a significant difference between the figures that the EPA lists as facilities that need attention and DHS. EPA reports that there are 110 facilities where an explosion could harm a million people. And I am not sure I caught the nuance that you were trying to bring here.

The focus is only perhaps on those places where a million people could be injured as a result of an accident or a terrorist attack, obviously? DHS reports that there are 300 facilities—far larger number—where an explosion could harm about 50,000 people.

Now, where do you draw the line on these data? Are we concerned about quantity of those at risk? Because I mean, if 500 people were to die from a chemical attack or an accident, we would be up in arms about it. We would be turning loose all of our facili-

ties to do something with that. What do you see is the explanation for the difference?

Mr. DUNNE. Well, I am not too sure we really differ. The 123, or now 110—may be somewhat out of context. It is a hypothetical, analytical modeling tool that was used to develop that. It isn't saying, in effect, that if you happen to be one of a million people around a facility that you are going to be affected. It is potentially that. And it shouldn't be taken out of that context.

I think what DHS has done, as they have gotten sophisticated and learned more and more about the tools is try to isolate those facilities that are considered the most vulnerable, based on what is there in terms of the quantity and the type of chemical, and also in terms of the surrounding area in terms of the population. I think there are some similarities, and there obviously is some overlap.

Senator LAUTENBERG. But Mr. Dunne, we are dealing here with huge numbers of people. And whether the effect is kind of peripheral or whether it is lethal, I mean, we have an obligation to do what we can.

I consider—and I have said this publicly many times—that the front in this war that we are in in Iraq extends all the way across America. I believe that is where the front is. And we do not spend anywhere near the amount of money protecting our citizens on American soil that we do trying to help Iraq correct its problems and to protect our service people over there.

So I am not sure where the defining line is that says, "Well, this deserves attention." I think they all deserve attention. I am author of the Right-To-Know law. The Right-To-Know law carries virtually no penalties; but it has had enormous conformity by private industry. And we have reduced toxic emissions by 40 percent across this country as a result of that.

But this goes way beyond that kind of thing. And I think it is agreed, is it not—and I ask both you and Mr. Stephan—that sanctions are in order, in order to get people to conform to the need to alert the public to what it is that they are carrying, what the possibility is if there is an accident or an attack.

Aren't we at a different point in time, in terms of trying to split hairs about whether or not 50,000 people is a reasonable size market to protect? Or might it be 500 people? The million-person number is so devastating it is almost unimaginable, but New Jersey has a facility identified as a place where 12 million people could lose their lives. But to any one of those families, or to someone who lost someone in Oklahoma, the devastation is beyond comprehension. So where do we go with these numbers that you have put out here?

Mr. DUNNE. I am not too sure what you mean, where we are going. We have 15,000 facilities and——

Senator LAUTENBERG. Well, I will tell you where we are going. I will tell you directly where we go. There is a huge difference in the numbers between the two parties. I would like you to explain, tell me why their's is wrong. Their's says we have to talk about 300 facilities; and as I hear you, well, it is not 123, it is 110. Just explain your numbers a little more.

Mr. DUNNE. Well, I do not think that we have a different approach. I am not too sure our numbers are different. A 123 to 110 is just a fact, in terms of what we receive in reports.

Senator LAUTENBERG. They are saying 300.

Mr. DUNNE. Well, ours was not based on anything more than the population around facilities or covered under the RMP. And I think what they are talking about is completely different in terms of how you size a program up in terms of where you go first in terms of vulnerability that creates potentially the biggest problem. I do not think there is any difference, Senator.

Senator LAUTENBERG. Help me, Colonel Stephan. Do you see any difference between your 300 identified facilities where an explosion could harm about 50,000 people, and EPA's, where they say there are 110 facilities where an explosion could harm a million people? Are we saying that 50 is a good place to start, or do we only look at places where a million people could be harmed?

Mr. STEPHAN. No, sir. Well, every human life is important, but numbers mean different things to different people. What the EPA numbers mean to them is, based upon this point on the map that represents the geographic center of this production site, for example, based upon the most toxic chemical onboard that site at a threshold quantity, there is a ring drawn around that site "X"-number of miles out from the center.

What that 12 million figure represents, not 12 million deaths; 12 million people that could somehow be affected, depending on wind direction, wind speed, atmospheric factors that have to be taken into account from a safety or planning perspective. The State-level councils, the local-level councils, the emergency responder awareness, the safety issues, the gearage, all of that factors into that. And that is what they have to be concerned about.

What I have to be concerned about is taking those baseline numbers that we get from the EPA—and we agree on the baseline numbers—and I have got to drill down further, because 12 million people are not going to die if that one chemical plant is affected. We have to use a more sophisticated approach, based on plume modeling, wind direction, wind speed, atmospheric conditions, so on and so forth, to drill down on that aggregate number of 12 million.

And when you do that, you get to a significantly less percentage of the population that would result in actual fatalities or be affected in some way, demonstrating visible signs of being affected by the chemical agent.

So we worry about that, in terms of our risk-based metrics, on where to drill down, how to come up with the numbers that we have. They have to be more over-arching in nature, because everybody inside that circle—the law enforcement guys, the firemen, the emergency management folks—have to go through training awareness and be equipped so that they can respond in case the wind just happens to unluckily blow in their direction on that day.

Senator LAUTENBERG. Madam Chairman, I hope the record will be kept open for questions, because we obviously have disparity here that leaves me, at least, kind of scratching my head and saying, "I don't get it." Thank you.

Chairman COLLINS. Thank you, Senator. Actually, with Senator Akaka's indulgence, I was going to ask Colonel Stephan to conclude

the answer to my question, which speaks to this very issue. But if the Senator is on a tight time frame, then I will go directly to you.

Senator AKAKA. I would appreciate that.

Chairman COLLINS. Go right ahead, Senator. Then we will come back to my question.

OPENING STATEMENT OF SENATOR AKAKA

Senator AKAKA. Thank you very much, Madam Chairman. I thank you so much for holding this hearing. You all know that this follows the recent chemical security hearing we have had. At that hearing, we learned that the United States has a great deal of work ahead to strengthen and ensure the security of the chemical sector in the post-September 11 environment.

And all the witnesses that testified, testified that the voluntary efforts to secure the chemical industry are insufficient, and so we are having this hearing. And they advocated at that time for more Federal regulation of the chemical industry.

I would like to welcome our witnesses. I had another commitment, Madam Chairman, this morning, and I regret that I was not able to hear the witnesses' testimony. And I ask that my full statement be placed in the record.

Chairman COLLINS. Without objection.

[The prepared statement of Senator Akaka follows:]

PREPARED STATEMENT OF SENATOR AKAKA

Madam Chairman, thank you for holding this hearing. I would like to add my welcome to our distinguished witnesses from the Department of Homeland Security (DHS) and the Environmental Protection Agency (EPA).

At our recent chemical security hearing, we learned that the United States has a great deal of work ahead to strengthen and ensure the security of the chemical sector in the post-September 11 environment. All the witnesses at the last hearing testified that the current, voluntary efforts to secure the chemical industry are insufficient. They advocated for more Federal regulation of the chemical industry. Given the potential economic consequences and lives that could be lost as a result of an attack on our chemical facilities, I believe that we need to consider giving DHS greater authority to regulate the chemical industry. However, we must move forward carefully and ensure that the Department is given the necessary tools to undertake this new challenge.

I am concerned that the proposals from the last hearing lacked adequate analysis of the human, financial, and organizational resources required to regulate an industry. Dr. Richard Falkenrath, The Brookings Institution, proposed that DHS be responsible for promulgating regulations, certifying companies, verifying the certification, enforcing compliance, and offering an appeals process. If this were to occur, how would the Department be reorganized and how many additional personnel would be required?

It was suggested by Dr. Stephen Flynn, Council on Foreign Relations, that the Department use contractors to execute many of these new responsibilities. As a longstanding supporter of the Federal civil service, this suggestion troubles me. His proposal would contribute to a growing trend at DHS: More and more critical positions being contracted out, while the government is losing the opportunity to develop institutional knowledge and a cadre of skilled and dedicated employees. For the same reason that passenger and baggage screening was federalized after September 11, I question whether it is advisable to have contractors enforcing Federal regulations in the chemical sector.

Furthermore, the EPA has a special expertise in the chemical sector from which DHS should draw upon. Some fear greater EPA involvement in chemical security regulation could lead to more environmental and safety scrutiny of the chemical industry. But I think it is wrong to preclude the involvement of EPA.

For these reasons, I urge my colleagues on this Committee, many of whom have spent the past few years committed to building and improving DHS, to examine thoroughly how regulation will be implemented and what would be required of DHS.

Madam Chairman, I welcome this opportunity to explore these issues in greater detail. I look forward to the testimony of our witnesses.

Senator AKAKA. Under Secretary Stephan, I would like to follow up on an issue raised by Senator Collins in her opening statement. At the April 27 hearing, two of the witnesses proposed granting DHS extensive chemical security regulatory authority that would include promulgating regulations, certifying facilities, verifying the certification, and enforcing compliance.

Under Secretary Stephan, I understand that DHS has not specifically asked for such authority. However, if Congress mandates that DHS regulate chemical security in the manner I just described, what financial and human resources will the Department need? And in answering this, I ask you to be as specific as possible.

Mr. STEPHAN. Yes, sir. Thank you for that question. I believe that I do not have good numbers associated with a sweeping, overarching, very tightly restrictive, all-encompassing regulatory framework. I do not have precise numbers for you, because that has not been our approach up to this point. I just know those numbers would be very significant.

That is one of the reasons we are coming to Congress, to work in partnership, to look at assembling a regulatory framework that is risk-based, so that we do not have to apply the exact same standards across the board pertinent to every facility, with no other consideration.

What we have to do is implement a regime, I think, that is risk-based, is measured, gets the effectiveness and the efficiencies that we are looking for in a measurable, reportable manner; that treats individual facilities based on risk differently, based upon a common approach; but to allow a menu of options based on standards that we would promulgate and allow the facility owners and operators different ways to get at that problem.

In this kind of regime, I think we could perform the regulatory function without a great influx of new people, new government employees, if we adopt this measured approach. We are adopting the measured approach not because the numbers are bigger or smaller in terms of government employees, but we think it is the right approach. The right approach, coincidentally, I think will drive us to a smaller number of Federal employees as a requirement.

Senator AKAKA. Mr. Secretary, to answer my question specifically, I would ask you to provide us with those numbers that you do not have now, for the record.

Mr. STEPHAN. Yes, sir. We will go back and provide you an answer.

Senator AKAKA. Secretary, if DHS is given regulatory authority over chemical security, should the regulating office be part of the Office of Infrastructure Protection, or separate? And if separate, do you think its director should be Senate confirmed?

Mr. STEPHAN. Well, that is an interesting set of questions, there. So let me answer that in this way. I think that the responsibility for the critical infrastructure protection rests within the information analysis and infrastructure protection component of the Department. I believe that that responsibility should squarely rest within that component.

Due to the wisdom of the people that came together to create the Homeland Security Act, my position is not Senate confirmable. And I would not like to have anyone working for me that has a more stringent requirement that do not have to meet. So that would be my answer back on that point.

Senator AKAKA. Secretary, I am concerned about a trend at DHS of relying on private contractors to fill critical functions within the Department. For example, I understand that the new domestic Nuclear Detection Office will be run almost entirely by contractors. My question to you is, would you expect chemical security regulation to be executed by career employees, or contractors? And what role would you see contractors playing?

Mr. STEPHAN. Sir, in terms of the manpower and the subject matter expertise necessary to execute that mission, absolutely no exceptions, the program management responsibilities should rest with a government employee, under all circumstances. That is the way the Federal Government operates. That is the way we assure accountability and measurable progress across what we do.

Not to say that there need to be integrated into this mix appropriately the subject matter expertise that we would need to in order to be able to have on our staff the ability to have vulnerability folks, consequence folks, threat-focused individuals, that may or may not exist within the Federal family or the government family at this point.

Any use of contractors that we would employ would involve tight supervisory controls levied upon them by Federal Government employees.

Senator AKAKA. One reason I ask that is that it is critical that we are able to keep developments and new ideas within the Federal level. And if we had contractors do that, it doesn't really—it is not administered by the Federal Government.

Deputy Administrator Dunne, the EPA has special expertise in the chemical industry, if DHS assumes the responsibility for chemical security regulation, what role do you think EPA should play?

Mr. DUNNE. Well, I think we would continue in a support role. And I appreciate the fact that I think you recognize that you can only have one department or agency in charge of this effort. I think splitting authorities would be the wrong thing to do.

And we would provide whatever assistance that is necessary, similarly to the way we do in responding to emergencies when there is a presidential declaration. We respond on a regular basis with whom we have a long working relationship, with FEMA. And we would continue to support Bob and his people in terms of any efforts in terms of our expertise, which is really in the inside-the-gate chemical side of the business; not outside-the-gate. We are not security experts.

Senator AKAKA. Does DHS plan to involve EPA, do you think, in regulation of the chemical industry?

Mr. STEPHAN. The ownership, I believe, of the regulatory authorities needs to be squarely within one department. That would be the Department of Homeland Security. That is not to say that we would not need a partnership with the EPA. Because as much as people would like to, you can't completely drive a wedge between safety and security concerns. They have to be woven together.

And I think we have a great partnership with the EPA. We would like to rely upon the solid baseline and safety that they have set up through their regulatory structure over the years, and be a partner with them to solve this problem. But clearly, the authority for security for the chemical sector needs to reside with the Department of Homeland Security.

Senator AKAKA. Thank you very much for your responses.

Madam Chairman, I thank you for being so generous and letting me go forward. And I will submit my other questions for the record.

Chairman COLLINS. Thank you very much, Senator.

Colonel, I want to get back to the numbers issue. I am very aware that the EPA uses a different methodology than DHS. But as Senator Lautenberg's questions, and mine, have shown, there is confusion over how we get from the 15,000 high-risk facilities identified by the EPA to the 3,400 facilities identified by DHS.

And I think because many of the legislative proposals that we are going to consider are likely to have a tiered approach to regulation, it is important to understand how we define the highest-risk facilities. So, if you could, explain to the Committee how DHS took the 15,000 RMP facilities list, with which it is my understanding you started, and narrowed it down to the 3,400 facilities. I am not critical of the narrowing down. I just need to understand it.

Mr. STEPHAN. And let me provide to you as much clarity as a political science major can provide in the math issue area, here.

Working from that initial list of 15,000 that has been the baseline that both the EPA and the Department of Homeland Security have used, did an initial chop on that list. From that initial chop, approximately 2,000 entries were struck because they were redundant. For example, one particular facility on the list actually appeared twice; once for its fluorine content on-site, and once for its sulphur dioxide content. So we had several facilities that were listed several times, and we boiled that down simply by eliminating the redundant entries.

Then, another 3,000, generally, were struck from the list because they were no longer RMP-applicable, under the EPA meaning of that term. Specifically, they had gone out of business; they were a tenant plant on a larger site whose host organism or entity had been reported in as part of the reporting requirements; they were part of a joint venture and both partners reported them accidentally; or they had reduced chemical holdings on-site below the threshold required by the EPA.

So as we are now winnowing down, based upon redundancies and based on facilities that no longer met the EPA requirement, we come out through another winnowing window.

There were another 8,000 on the list of these sites that we believe are under somebody else's existing regulatory framework with the security component. For example, 4,000 water facilities that are under, in the President's structural organization of the CIP mission area, the EPA's responsibility, using the Bioterrorism Act, the Safe Drinking Water Act; allows them authorities to demand vulnerability assessments, takes some protective measures, so on and so forth.

When we boiled all of those out, that got us down to about the 3,400 list of things that we consider to be high risk, that fell within

no one else's regulatory purview, so that we could drill down and focus on those as kind of a nexus of our initial concern.

As we work with you to build this regulatory framework, the very first thing we are going to have to do is come to an adequate agreed-upon definition of what the chemical sector actually is; because without that, we will be going all over the place. Because I think—there are actually, if you put the whole world of anything that has a bottle of chemicals on it somewhere in the United States of America, I think there are about 66,000 of those things out there.

So we have to be very careful that we drill down; figure out what needs to be inside this regime, what is adequately being taken care of under another regulatory framework, as long as that framework is risk-based. So we are going to have to work up-front to build in the definitional pieces of this.

Chairman COLLINS. Thank you. That explanation was very clear and very helpful. There is another numbers issue on which I want to make sure we have clarity. In your testimony, you referred to the 20 percent gap. These are chemical facilities that are not adhering to voluntary industry codes, and we do not know much about them as far as their security. But it is my understanding that you are talking about 20 percent of the high-risk pool. Is that correct?

Mr. STEPHAN. That is correct.

Chairman COLLINS. And this is an important point, because it is my understanding that out of the 15,000 high-risk facilities that the EPA has identified, only about 1,000 facilities adhere to the voluntary codes. Is that accurate?

Mr. STEPHAN. I would have to defer to the EPA on that question.

Chairman COLLINS. Mr. Dunne.

Mr. DUNNE. I think it is a little bit more than 1,000; but correct, about 7 or 8 percent, I think. But there are other associations that have similar types of codes, so I would think that maybe it is a couple of thousand out of the 15,000 that are following some kind of security measure right now.

Chairman COLLINS. Thank you. That is helpful. Mr. Dunne, at the Committee's last hearing, Carolyn Merritt, who chairs the U.S. Chemical Safety and Hazard Investigation Board, testified that, "Many incidents that the Chemical Safety Board has investigated reveal serious gaps in how well companies, emergency responders, government authorities, and the public are prepared for a major chemical release. These gaps in preparedness leave Americans vulnerable." She went on to say that, "In her judgment, many communities are not even ready for a small chemical release." Do you agree with that assessment?

Mr. DUNNE. Well, I do not know how many cases the lady has really looked at. They only investigate a handful of cases after there is an accident. I am not too sure how you draw that conclusion.

Madam Chairman, there are established by law, under the Emergency Planning and Community Right To Know Act, over 3,900 local emergency planning committees. And they are set up by States. They are not mandated by the Federal Government. States have got them. And they range from one LEPC a State in a couple

of cases, to hundreds in other States. So you have got a real split in terms of how this approach is taken by the States.

We did a survey back in 1999 to see how many of them were really active, out of the 3,900. And the conclusion, I believe, was about 59 to 60 percent are active. And "active" means a variety of things. We can take you down to areas in the country where there are processing and refineries right there, and you will see LEPCs that are getting money from the industry people to staff and have appropriate administrative support; to people in other areas of the country where an LEPC may be meeting once a year and having discussions.

I think, in terms of the emergency response community, they are getting better and better. There is an enormous effort and a large amount of money that has gone into training and exercises and acquiring protection.

Are we there? Nowhere near it, I suspect. And I think by and large the larger companies are fairly well prepared, from what we can understand, at least in the safety, and not talking to the security. And I am sure there are small- or medium-sized firms that are the major concern.

So I can't really respond directly to her statement, but I can say that I am sure we are not well prepared across the board all the time.

Chairman COLLINS. Let's talk about some specifics. I understand that the Administration wants to work with this Committee, and I very much appreciate that commitment. But let me start by asking you about a set of principles that the Administration developed in February 2003 to apply to chemical security legislation.

One principle that the Administration endorsed at that time was to require an assessment of each facility's vulnerability to various modes of attack, and strategies to counter the vulnerabilities identified. I asked you a question related to this at the beginning of the hearing. Does that sound to you like a reasonable requirement to include in legislation?

Mr. STEPHAN. Madam Chairman—and again, I will have to apologize, because I do not have any details that have been vetted through my policy framework and approved by Secretary Chertoff to bring to you today; but we are working on those in accelerated manner.

As I discussed, however, earlier, there is just a certain set of things that would be an appropriate part, or an appropriate portion of any framework dealing with security from a regulatory perspective. People have got to be doing some kind of sanctioned approach to risk assessments. Some people have got to be taking action based upon those risk assessments, implementing measures that are measurable. And there has to be a system in place to develop an auditing or a tracking of all this, and then a compliance piece to all of it.

So I think if I were speaking about the chemical sector or any other sector, to get at a regulatory structure it has got to have those key components embedded somewhere, somehow. The devil is in the details, as you pointed out earlier.

Chairman COLLINS. But surely, you can't get to the audit and compliance areas unless you have some sort of baseline require-

ment for a vulnerability assessment and for the development of strategies to counter the vulnerabilities. I mean, that seems to me to be so basic to the legislation that I think it is safe for you to say "Yes." [Laughter.]

Mr. STEPHAN. Safety is always a concern. But again, I have no specific pieces of the framework. I can't imagine a framework that did not include assessing——

Chairman COLLINS. I can't, either.

Mr. DUNNE [continuing]. Or not necessarily focused on vulnerability, but risk; because we have to take into account consequences, threat, and vulnerabilities, as part of an overall risk-based approach.

Chairman COLLINS. Well, let me turn to another possible framework, because we are searching for the right way to do this. Mr. Dunne, for example, you brought up the interesting point that we do not want to provide a road map to the terrorists. I think that is an excellent point that we are going to have to keep in mind.

Secretary Chertoff has indicated that the framework that was established under the Maritime Transportation Security Act has proven highly successful. The MTSA requires the Coast Guard to promulgate performance-based regulations and to form area maritime security committees, to designate a Federal maritime security coordinator, to complete facility and area maritime security plans, compile a list of critical infrastructure in our ports.

Is that a possible framework for us to look to when it comes to regulating chemical security, in your view?

Mr. STEPHAN. Yes. And that is absolutely one of the frameworks that we are going to consider, because we do think that particular way of doing business has achieved a certain level of success. We just have to, again, map it against whatever these criteria end up being that we can mutually agree upon, and see if there are any deltas between the NTSA approach and whatever the overall more encompassing approach would be.

The second bit of interesting news there, though, is the Coast Guard appears to have achieved an incredible amount of efficiency and acceptance as a regulator. And we would love to model the Coast Guard's approach to dealing with the private sector yet getting the job done efficiently and effectively. So we want to actually sit down with them, and we have in a preliminary sort of way, to figure out how they have been able to crack that code.

Chairman COLLINS. I think the Coast Guard is an ideal model for us to take a look at, and I certainly agree with you on the acceptance and the respect that the public has in dealing with the Coast Guard on a lot of port security and maritime interdiction issues as well.

I want to turn to the buffer zone program. It is ironic to me that you testified today, as the Secretary frequently has, that we should have a completely risk-based approach to funding, but that is not really what the buffer zone protection program funding is based on. Isn't it a flat $50,000, with only a 15 percent variance up or down, regardless of what the site is?

Mr. STEPHAN. Yes, ma'am, that is correct. And right now, the buffer zone protection plan scheme of maneuver does have a risk component to it; in that it is targeted against what we consider to

be the top 272 highest-risk facilities in the chemical sector. So that portion of it—in terms of drilling down to who would be eligible, who we are going to work with, who we think needs this level of focus—that is completely risk-based.

This first year of its implementation, we basically did the best we could, in terms of trying to come up with some equitable way to push some quality improvements and capability out the door. I think, based upon not having the risk management tool that we now are ready to deploy across the sector, that is the best foot forward we could have put a year ago when we came up—or over a year ago when we came up with the idea for this program.

I think, beginning with the next budget cycle, you will be able to see from us a much more measured risk-based approach, simply because the technology has now caught up with us. And we want to fully employ that in terms of determining criticality against which we will base our decisions about where to push the buffer zone protection plan grant monies.

Chairman COLLINS. Mr. Dunne, you gave us one caution as we draft this legislation, about spelling out too many requirements that might result in plans that were available to the public and could be used to cause us harm, to be turned against us. Do you have any other cautions for this Committee, as we draft this legislation?

Mr. DUNNE. Well, when you referred to the principle, that was interesting. I would agree that, where necessary, assessments have to be done and a plan has got to be done, and it has got to be able to be checked. We had discussions back 3 years ago that, if this either was done through our own regulation or we were going to go by law, that we were of the belief that the plans and the assessments and the vulnerability analysis should not leave that facility; should stay with the unit there.

Now, the Water Bioterrorism Act does have the water plans coming to EPA. It is locked; it is secured. And that has got very limited access. Law enforcement and some of the DHS people have some access to it, and it is a very limited number of people.

I think on the security side, in terms of what is being done inside that facility, it can be very dangerous unless we protect those sources. So I would think that doing the analysis and doing the plans on the recovery is really necessary, but limiting the access to that information is really necessary.

Chairman COLLINS. Is that in conflict with the community right-to-know law?

Mr. DUNNE. No, actually, the risk management plans under Section 112(r) are available to the public. In fact, we had a long, spirited debate within the Agency whether or not the executive summaries ought to be released. After September 11, we decided to withhold those.

We recently have just let those go. But in terms of consequences, they are only available in reading rooms in 50 areas, either EPA's offices or the FBI offices. And they are not visited that often. Mainly, I was told today, they are visited more by the press. And they are paper copies only, and you can only go in and look at one facility at a time, and there is a limited number of times you can.

And so we have tried to restrict that information. And actually, there was a law passed in 1999 that led us to it. This is not something that EPA just dreamt up. There was a security law, and the acronym is "SFRA." And we do take a look at whether or not—if this got into the wrong hands, could they create harm. And that is why we make sure that we adhere to that principle that was put in the act in 1999.

Chairman COLLINS. It seems to me that there is a potential tension here because, on the one hand, you certainly do not want to provide terrorists with information on how to attack a facility and what its vulnerabilities are; on the other hand, you do want local law enforcement and emergency response officials to understand the vulnerabilities in order to improve their preparedness. How do we strike the right balance on that?

Mr. DUNNE. Well, no, I do not think there is a conflict in that. Actually, under the safety plans, that information is available. Law enforcement, fire departments, and other people have to prepare outside the gate for emergency response. And that is why the Congress had the States come up with local emergency planning committees. So I do not think there is a conflict.

There are certain conditions within a facility that, if it became known to a person who wanted to create harm, could create havoc for us. So I make the distinction in terms of keeping those plans inside the gate. But I think the law enforcement community, fire people, and the emergency response people should have access, in terms of what the vulnerabilities are and what type of activities they are going to have to undertake to plan and prepare for a response.

Chairman COLLINS. Colonel, any advice to us, any cautions, as we proceed to draft legislation?

Mr. STEPHAN. Ma'am, again, just to restate a few key points, we are really looking to do this in a fair and balanced, yet effective manner. Because this sector is vitally important to the Nation in terms of what it represents to our economy, what it represents to the daily lives of Americans across the country.

By that same token, it is a very important security risk, not only because of the economic consequences involved, but the public health and safety dimension of all this. That drives us to it.

We think now we are grown up enough, we are mature enough in both our knowledge base, the stuff that the private sector has done, and the technologies that we have to use to guide a risk assessment process. Let's work together to make sure we put the right structure in place, so that we are not crippling—or helping al Qaeda and the like by crippling a vital part of our economy while trying to secure it.

I think there is a way we can take a measured, balanced approach so that we can close the remaining gaps for that 20 percent or so capacity we are worried about; make sure we can sustain the good efforts that have been done by industry voluntarily over time; and to make sure that those voluntary efforts are achieving the effects we want to see.

And I think there is a way to do that, and we have some really smart, gifted, talented people that will help us on our end put those principles in motion. And we want to do it on an accelerated

track through our policy process, and sit down and work with you to see what this means as quickly as we can.

Chairman COLLINS. Thank you. I want to thank you both for your testimony today. We are on an accelerated time-frame for completing this legislation. I intend to hold additional hearings, to hear from industry groups, homeland security experts, environmental groups, and others that have an interest in this area. My hope then is to use the August recess to complete the drafting of a bill, and then introduce it—I hope, with bipartisan support—in September.

I tell you that time-frame because we will need the Administration's assistance and guidance and input very quickly. I am convinced that legislation is needed. I am very pleased to hear the Administration endorse a legislative goal. But we need your help on specifics. We have not talked much about what the legislation should contain today.

So I look forward to continuing our dialogue and to working with you on an expedited basis. I want to thank you for your help today.

This hearing record will remain open for 15 days. I also want to thank my staff for all of their work on this important issue. The Committee hearing is now adjourned.

[Whereupon at 12:06 p.m., the Committee was adjourned.]

APPENDIX

PREPARED STATEMENT OF SENATOR VOINOVICH

Chairman Collins, thank you for holding this hearing today. The chemical industry is a critical component of our Nation's infrastructure. I complement your attention to the security of this industry and I look forward to working with the Members of the Committee, the Department of Homeland Security, and the Stakeholder community to ensure that our Nation's chemical sector is secure from the threat of terrorist attacks.

As I have previously noted, the chemical industry contributes to our high quality of life, whether it be enhanced crop production, improved water chlorination, effective household cleaners or advanced life-saving medications. However, these benefits do not come without risk.

During the Committee's first chemical security hearing on April 27, we heard alarming statistics that warned of a devastating loss of life in the event of a terrorist attack against a major chemical facility. Depending on the severity of the attack, the statistics ranged from 10,000 to an unfathomable 2.4 million casualties.

Today, we will hear from both the Environment Protection Agency (EPA) and the Department of Homeland Security (DHS). I understand that, since assuming jurisdiction of chemical industry security, DHS has made significant modifications to both the method of risk assessment and the strategy for prevention and protection from terrorist attacks. I look forward to obtaining the Department's risk assessment and learning the actions it is taking to mitigate our vulnerabilities.

However, I believe that the Federal Government can not protect against every threat. Therefore, I want to reiterate my support for a balanced approach between self-regulation by industry and more proactive Federal action. Industry leaders, like the American Chemistry Council, should be commended for building a strong foundation for chemical safety. It is my hope that the significant safety measures developed by industry will be further built upon and incorporated into our overall chemical security efforts.

As we further explore this issue, we must be governed by four guiding principles:

- First, efforts to enhance the security of our facilities should be sharply focused on prevention, protection, and consequence management of potential terrorist attacks;
- Second, Federal action to address chemical vulnerabilities must not be burdened with extraneous issues that are strictly environmental in nature;
- Third, critical information must be protected from unnecessary public disclosure, providing it only to responsible government authorities that need to have access to such information; and
- Fourth, Federal action should adhere to a comprehensive cost-benefit analysis, not placing industry at a competitive disadvantage.

In Ohio, the chemical industry directly employs 48,900 people: The impact of these jobs reverberates throughout Ohio, as one job in the chemical industry creates another 6.2 jobs for the State's economy.

The chemical industry is experiencing economic hardship as a result of rising natural gas costs. As we move forward in efforts to secure your chemical industry infrastructure from a terrorist attack, we must be certain that our efforts do not unwittingly create onerous Federal regulations that jeopardize the industry's viability.

As I have said before, it is not economically feasible to protect everything; doing so would bankrupt the Nation. Accordingly, all security enhancements including the security of our Nation's chemical infrastructure should be based, first and foremost, on risk and vulnerability.

Chairman Collins, thank you for holding this hearing. I look forward to working with you on this issue.

PREPARED STATEMENT OF SENATOR COLEMAN

I want to thank Chairman Collins and Senator Lieberman for holding this important hearing to examine what the Federal Government is doing to secure chemical facilities to determine if more authority is needed.

Securing the chemical sector is a complex undertaking but vital to protecting our homeland. There are literally thousands of chemical facilities that work with large quantities of hazardous materials throughout the country and they are located in or near major cities as well as rural areas. Minnesota has 20 chemical facilities that are considered to be "high-risk" on the National Asset Database and chemical security is of concern to the residents of Minnesota.

As a result of the 1984 accident at the Union Carbide pesticide plant in Bhophal, India, Congress passed the Emergency Planning and Community Right-to-Know Act, or EPCRA, to reduce the risk to the general public associated with the accidental release of hazardous chemicals from chemical facilities by requiring State and local governments as well as facility operators to prepare plans for any accidental releases. In addition to the EPCRA, the Clean Air Act required chemical owners and operators to prepare Risk Management Plans, or RMPs to summarize the potential threat and worst-case scenario.

The focus of these laws and requirements were enacted during a different period when the Federal Government was rightly concerned with the safety of these facilities. However, in the post-September 11 world, we have had to create new prevention and response plans that focus on intentional threats to our critical assets. Although there is not a uniform standard for securing chemical facilities, it is important to note that the Department of Homeland Security has taken steps to identify and prioritize the highest-risk chemical facilities and provide guidance to the owners and operators on increasing security in and around their facilities. The chemical industry has also made investments in traditional physical security measures and many facilities have voluntarily adopted the Responsible Care security recommendations of the American Chemistry Council.

While these efforts have increased security, it is clear much work still remains in terms of securing the chemical sector. Instead of security being a cost of doing business—it needs to become a way of doing business. And as we move forward, it is crucial that Congress, the Administration and the industry work together to ensure that sufficient prevention and response plans are in place at our Nation's chemical facilities.

I look forward to hearing the testimony of our panelists about the state of security in the chemical sector and what additional authority may be necessary to maintain or increase that security.

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 11th 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.

STATEMENT OF
THOMAS P. DUNNE
DEPUTY ASSISTANT ADMINISTRATOR
OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE
COMMITTEE ON HOMELAND SECURITY
AND GOVERNEMENT AFFAIRS
UNITED STATES SENATE

June 15, 2005

Madam Chairwoman and members of the Committee, I am Thomas Dunne, Deputy Assistant Administrator of the Office of Solid Waste and Emergency Response (OSWER), U.S. Environmental Protection Agency (EPA). I am pleased to be here to discuss EPA's Emergency Response Program and the issue of chemical site security.

INTRODUCTION

EPA's Office of Solid Waste and Emergency Response manages EPA's response to environmental emergencies, EPA's national planning and preparedness functions, as well as development and implementation of Federal regulations to prevent hazardous chemical accidents and oil spills.

In carrying out our emergency response functions, we work closely with EPA's 10 regional offices, our Federal agency partners, and state and local authorities to respond to major environmental emergencies and to conduct emergency removal actions at oil spill and hazardous waste sites. In this capacity, we respond to several hundred major oil spills and hazardous chemical releases each year. EPA has more than 200 highly trained Federal response officials, known as On Scene Coordinators (OSCs), stationed throughout the country, who are ready to quickly respond to release reports. We have two specialized Environmental Response Teams and a Radiological Emergency Response Team available at all times. We are also in the process of staffing a new National Decontamination Team - a cadre of highly specialized and experienced emergency responders, engineers and scientists dedicated to providing immediate technical decontamination expertise at the scene of a chemical, biological, or radiological attack. The events EPA responds to cover a wide range of emergencies, including the anthrax attacks that affected Senate office buildings, the collapse of the World Trade Center in New York City, a multi-state effort to recover every surviving piece of the Space Shuttle Columbia, and many others.

In addition to managing our field emergency response functions, EPA has also partnered with the Department of Homeland Security and other Federal agencies in development and implementation of the National Response Plan (NRP), the National Incident Management System (NIMS), and the National Infrastructure Protection Plan (NIPP) and to carry out EPA's responsibilities under those plans. The NRP and NIMS

align the old national response system into a more cohesive structure that integrates the incident management and emergency response capabilities and resources of Federal, State, and local governments into a national framework for domestic incident management. The NIPP provides a risk management framework for the coordinated protection of our critical infrastructure and key resources.

Lastly, we are responsible for development and implementation of Federal regulations for hazardous chemical inventory reporting under the Emergency Planning and Community Right-to-Know Act (EPCRA), emergency release reporting requirements contained in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), oil spill prevention and response planning requirements under the Oil Pollution Act (OPA), and chemical accident prevention and mitigation under the Clean Air Act (CAA).

EPCRA AND THE CAA RISK MANAGEMENT PROGRAM

Congress passed both EPCRA and CAA section 112(r), establishing the chemical accident prevention program, in response to the December 1984 toxic chemical disaster in Bhopal, India, and subsequent chemical accidents that occurred in the United States in the mid to late 1980s. EPCRA calls on U.S. states to create State Emergency Response Commissions (SERCs) and local communities to form Local Emergency Planning Committees (LEPCs) to prepare local emergency response plans for chemical accidents. EPCRA also requires chemical facilities to provide LEPCs with information necessary for emergency planning, and to submit annual chemical inventory reports and information about the facility's hazardous chemicals to SERCs, LEPCs and local fire departments.

As its name suggests, EPCRA promotes hazard information sharing and emergency planning. However, EPCRA does not require facilities to take actions to prevent chemical accidents from occurring. Major chemical accidents continued to occur in the U.S. throughout the late 1980s, and in 1990 Congress added section 112(r) to the Clean Air Act (CAA) to address the problem. CAA section 112(r) imposes a "general duty" on all stationary facilities handling extremely hazardous chemicals to prevent and mitigate accidental releases of those chemicals into the air. It also directs EPA to promulgate risk management requirements for the subset of facilities having large quantities of the most dangerous chemicals.

In accordance with Congress' direction, EPA listed 140 chemicals and threshold quantities, based on potential harm to human health and the environment in the event of an air release. Facilities having a listed chemical present in more than a threshold quantity must conduct a hazard assessment, develop and implement an accident prevention and emergency response program, analyze the potential consequences of worst-case and alternative (less severe) release scenarios, and provide a summary report - called a Risk Management Plan, or RMP - to EPA. Approximately 15,000 chemical facilities are subject to RMP requirements.

RMPs contain valuable information about a chemical facility and its hazards. In addition to providing the address and physical location of the facility, RMPs report the identity and quantity of each regulated chemical on site, information about the measures taken by the facility to prevent accidental releases, facility emergency planning information, the history of significant accidents at the facility over the last five years, and the facility's Offsite Consequence Analysis (OCA) information, which provides the facility's analytical estimate of the potential consequences of hypothetical worst-case and alternative release scenarios. EPA maintains a national electronic database of RMPs, known as RMP*Info, which is currently the most comprehensive database of chemical facility hazard information in existence.

Both EPCRA and CAA section 112 (r) contribute to facility safety and emergency preparedness to reduce the vulnerability of facilities and their communities to terrorist attacks. EPCRA's reporting requirements ensure that communities are made aware of hazardous chemicals located in their area, and SERCs and LEPCs established under the law help prepare communities to respond to any catastrophic releases of those chemicals. The CAA requirement for facilities to assess and address their chemical hazards reduces the risk that any unanticipated release will seriously threaten public health and the environment. The CAA requirement that facilities have emergency response plans in place also helps lessen the potential consequences of any unanticipated release, however caused. In addition, the national RMP database created under the CAA has proven to be one of the Federal government's most important sources of information on the risks associated with U.S. hazardous chemical facilities.

Following September 11 terrorist attacks, the President initially assigned EPA with the responsibility for addressing the security of the chemical and drinking water sectors. In that capacity, EPA considered whether it had authority under CAA section 112(r) to require facilities handling extremely hazardous substances to secure themselves against terrorist attack. The CAA section 112(r) requirements apply to "accidental releases" of extremely hazardous substances, and the Act defines "accidental releases" as "unanticipated releases" from stationary sources to ambient (or outdoor) air. While an argument could be made that concern for "unanticipated releases" might require some measures that would diminish the effect of a terrorist attack, EPA concluded that a broad interpretation would be subject to significant legal vulnerability. It would be legally questionable to conclude that EPA's 112 (r) authority can be stretched to mandate that facilities install particular types of perimeter fencing, vehicle barriers, armed protection, cyber security, anti-sabotage or other security measures specifically designed to defeat intentional terrorist attacks. The Agency also recognized that even if the CAA were interpreted to reach terrorist-caused releases, it would not address all the ways in which a terrorist might attempt to use a chemical facility to harm the public. Because the CAA definition of "accidental releases" is limited to outdoor air releases from stationary sources, a CAA chemical security program could not reach releases to water, land or indoor air, or theft of chemicals from facilities for release elsewhere. In light of these legal and policy concerns, EPA decided against interpreting the CAA to require facilities subject to section 112(r) to protect them against terrorist attack.

FEDERAL CHEMICAL SITE SECURITY LEGISLATION

Two U.S. laws enacted since September 11, 2001 mandate security requirements for some categories of chemical facilities. The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 requires larger community water utilities (many of which use large quantities of hazardous chemicals such as chlorine and ammonia) to conduct security vulnerability assessments, implement emergency preparedness and response plans, and submit the vulnerability assessments to EPA. The Bioterrorism Act does not require that utilities make specific security-related improvements. However, EPA does have authority under section 1431 of the Safe Drinking Water Act to require a water system, or any person, to take any action necessary to address an imminent and substantial endangerment to public health as a result of potential or threatened contamination of public water systems. Such actions might include requiring a utility or a group of utilities to enhance security in response to certain threats to the water supply. The Bioterrorism Act also requires EPA to study methods to prevent, detect, and respond to terrorist threats to the safety and security of water distribution systems and infrastructure.

A second new law, the Maritime Transportation Security Act (MTSA), requires ports, vessels, and port facilities to conduct vulnerability assessments, develop transportation security plans, and develop security incident response plans. For chemical facilities located within a port, this law requires specific security measures.

PRIVATE SECTOR EFFORTS

Since September 11, 2001, many hazardous chemical facilities have already made significant investments in traditional physical security measures such as perimeter fences and lighting, security guards, access controls and the like, as well as measures to improve operational security, employee screening, and security of electronic systems. For example, shortly after 9/11, one of the first steps taken by the American Chemistry Council was to add a new Security Code to the existing Responsible Care program, and issue site security guidelines for the U.S. chemical industry. The new Security Code requires ACC member companies to conduct a security vulnerability assessment, implement security enhancements, and independently verify those enhancements using a third-party audit. Other trade associations representing industries that manufacture or use hazardous chemicals have also implemented non-regulatory programs to enhance security. Some facilities have also taken steps to reduce their level of inherent risk by employing safer production technologies or substituting less hazardous chemicals for highly toxic chemicals.

COORDINATION WITH DHS

After the creation of the Department of Homeland Security (DHS), Homeland Security Presidential Directive 7 made DHS the lead agency for interacting with the chemical industry and the hazardous materials sector on infrastructure protection issues in the chemical sector. At that time, EPA and DHS effected a transition of ongoing

Federal chemical security efforts to DHS in a series of meetings between the two agencies. DHS is currently the lead Federal agency for chemical sector security, and EPA serves in a supporting role by providing information and analytical support as requested.

CONCLUSION

In closing, the Federal government and the chemical sector have made significant progress in improving the security of facilities handling extremely hazardous substances. At the same time, only a fraction of U.S. hazardous chemical facilities are currently subject to Federal security requirements under the Bioterrorism Act or the MTSA. While organizations such as the American Chemistry Council should be recognized for their important voluntary efforts, we cannot be sure that every high-risk chemical facility has taken voluntary action to secure itself against terrorism. As DHS continues its efforts to address chemical site security issues, EPA stands ready to support them in those initiatives.

Questions For the Record
Senate Homeland Security and Governmental Affairs Committee
"Is the Federal Government Doing Enough to Secure Chemical Facilities and Is More Authority Needed?"
June 15, 2005
Acting Under Secretary Robert B. Stephan

Questions for the Record from Senator Norm Coleman

1. Under the Maritime Transportation Security Act (MTSA), 238 chemical sites located in ports have been required to assess their vulnerabilities using an accepted methodology; determine any gaps; and then plan and implement measures to close those gaps. These sites also are required to develop and implement detailed security plans, which are audited by the United States Coast Guard and the owner of the chemical plant. You concluded that 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.

- Do you think this system would be an effective model for implementing a baseline level of security at chemical facilities around the country?

Response: MTSA is a useful model, but is specifically tailored to certain type of facilities. Namely, those adjacent waterways, or part of a port system, and where the US Coast Guard has jurisdiction.

The MTSA was written as a performance based regulation because of the vast differences that exist between facilities. A small facility that processes concrete, for example, is going to have different security needs from a large chemical facility that uses large quantities of volatile chemicals. The performance based nature of the regulation permits the owners of both facilities to assess their security vulnerabilities and develop strategies and security measures to mitigate those vulnerabilities appropriately. Because of this approach, the Coast Guard was able to establish a baseline level of security for all maritime facilities, including chemical facilities that were required to submit Facility Security Plans (FSP) because of their regulated maritime activities.

Assuming that enabling legislation substantially similar to MTSA, but with broader applicability, was enacted, the Department's preference would be to develop regulations for chemical facilities that provide that each regulated chemical facility review their site-specific operations, physical plant, and chemical hazards to identify their security vulnerabilities and, then, develop security measures to mitigate those identified vulnerabilities. The agency with regulatory authority under such a scheme would review the proposed security measures and make a determination of adequacy or provide recommendations for enhancements.

2. As we contemplate the security of the chemical industry, we need to be mindful of the positive steps taken by the chemical industry on their own volition to strengthen the security of their own facilities as well as the efforts and actions of the Department of Homeland Security.

- Given the actions of DHS and the industry, what additional authorities does DHS believe are necessary to enhance their ability to further secure our chemical facilities?

Response: The Department believes that current voluntary efforts alone will not sufficiently address the security concerns of the entire sector. Any new authorities should allow DHS to

enforce reasonable, clear, and measurable performance standards, based on risk, that reflect the diversity of the sector and take into account protective measures taken by industry to date.

3. The 1984 incident in Bhopal, India thrust the idea of chemical safety upon the Federal Government, just as the horrific attacks of September 11th forced the Federal Government to address homeland security. Recognizing the interdependencies of safety and security is essential as we address the chemical industry. While the EPA effectively addresses the safety of these facilities, we need to ensure that security is also being addressed, yet we cannot conflate these fundamentally different terms. Security encompasses the risks facilities face from a potential attack, while safety needs to apply to all facilities.

- From your unique perspectives, can you both address the relationship of DHS and EPA as it pertains to the safety and security of our chemical facilities?

Response: Although DHS and the EPA are equally concerned with protecting the welfare of the general public, our respective missions, and therefore our approach to evaluating the hazard and risks associated with the chemical sector, are different. While the EPA's assessments are focused on safety and protecting against accidental releases, DHS' focus is on the security of the sector in the context of the threat of deliberate attack. Both agencies understand the differences between these approaches and continue to work cooperatively.

- How is DHS ensuring that it focuses on security and those facilities that present the highest risk? Is intelligence incorporated into the protective actions and priorities DHS outlines for the chemical sector?

Response: In 2003, DHS conducted consequence analysis of the chemical sector to identify the most hazardous or highest consequence sites. Using the EPA Risk Management Plan (RMP) database as the foundation for this analysis, DHS:

- Evaluated possible impacts of intentional attack using the accidental release model used in EPA safety programs
- Reviewed the amount and type of toxic materials stored at sites
- Identified population density in the vicinity of sites storing large amounts of toxic chemicals
- Conducted plume modeling for more detailed prediction of potential effects

Through this analysis, DHS identified approximately 3,400 chemical manufacturing facilities of national consequence, or in other words with the potential to adversely affect* 1,000 or more people under a catastrophic breach scenario. The definition of 'adverse affects' is guided by the American Industrial Hygiene Association's (AIHA) Level of Concern of Emergency Response Planning Guidance Level 2 (ERPG-2); which is an emergency response level used to describe the effects of human exposure to a chemical release. Specifically, ERPG-2 is a guidance for

* As defined by the Environmental Protection Agency (EPA)

chemical facilities where an intentional chemical release results in a maximum airborne concentration below, and which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual's ability to take protective actions. Any asset determined to be of national consequence is subjected to a risk analysis, which is a combined assessment of:

- Consequence (estimates of the damage a successful attack would cause)
- Threat (estimates of the likelihood that a particular target or type of target will be selected for attack based on the best available Intelligence)
- Vulnerability –– assess which elements of infrastructure or individual are most susceptible to attack and how attacks against these elements would be most likely carried out.

One of the Department's principal risk-assessment tools is RAMCAP (Risk Assessment Methodology for Critical Asset Protection). RAMCAP (and other risk methodologies) enables the Office of Infrastructure Protection to compare the risk of critical infrastructure assets within the chemical sector, thereby enabling DHS to prioritize of protective efforts and effective use of available resources.

4. Today is the first time that I can recount DHS publicly requesting regulatory authority. As the Committee considers legislation, we need to ensure that we do not place too many onerous requirements upon industry and that new regulations complement existing MTSA and EPA regulations. This is a difficult task, yet necessary to strengthen our homeland security. As DHS contemplates regulation, I am interested in what other sectors may be affected by regulations.

- Does DHS believe that it will regulate other sectors? How will DHS ensure that its regulations do not conflict with EPA regulations?

Response: The Department will continue to work closely with the EPA and its other Federal partners to ensure that any new regulations are not duplicative or in direct conflict with existing regulatory efforts. Currently, the Department has no plans to regulate other sectors.

5. As a former Mayor, I am very familiar with the critical role that first responders – local police and firefighters – will play in responding to any terrorist incident. In addition to preparing for an accidental spill, first responders need to be prepared to respond to a terrorist attack upon a chemical industry. To properly respond, this response capability needs to be exercised.

- Do DHS and EPA work on the specifics of responding to a chemical site after an attack, rather than an accident? Are exercises conducted at the local level? And, finally, are state and local governments included in these exercises?

Response: The Department is in the process of planning Comprehensive Reviews for the nation's Chemical Sector. These reviews, which are a combined effort by the Federal government, including the EPA, local authorities and emergency response personnel, and owner/operators to review existing security practices and capabilities at all levels, also examine local response plans for an attack on a specific facility.

As part of DHS Exercise Program, tabletop exercises that simulate an attack on a facility were conducted at six of the highest consequence chemical facilities. These exercises included state and local participants, and results have been compiled for use in planning future exercises, upgrading security plans and operating procedures, taking corrective actions, and allocating resources.

Questions for the Record from Senator Joseph I. Lieberman

Site Assistance Visits

1. Since there are currently no legislated security standards covering most chemical facilities, DHS has worked with the industry on a voluntary basis to assess vulnerabilities and recommend improvements. However, without authority to require that security be enhanced, or ensure compliance, DHS has to rely on the willingness of the owner or operator to cooperate. You testified that the Department has conducted 38 "Site Assistance Visits" (SAVs) at 38 of the highest consequence facilities, and an additional 50 visits are planned for FY 06 and that the Department has identified some 300 facilities which could place at least 50,000 citizens at risk.

A. What is the Department's timetable for visiting high-risk chemical facilities? How many do you plan to visit each year?

Response: DHS has identified about 3,400 chemical sites that could adversely affect 1,000 or more people if attacked. Within that, there are categories between 1,000 and 50,000 people affected, 50,000 to 500,000 people possibly affected, and then above 500,000. The Department is in the process of planning Comprehensive Reviews (CR) for the chemical sector, which is a combined effort by the Federal government, local authorities, emergency response personnel, and owner/operators to review existing security practices and capabilities at all levels. DHS had planned to start visiting the highest consequence sites, tiers one and two, in Fall of 2005, and to complete the CRs at these sites early in 2006. However, the DHS response efforts to Hurricane Katrina have greatly impacted the CR schedule. Although an official revised schedule has not been established, it is safe to assume that all dates have been pushed back.

B. Would DHS timetable be accelerated with additional resources? If so, do you plan to request that Congress provide more?

Response: The Department plans to evaluate high-risk chemical facilities in the near future via the Comprehensive Review effort, and at this time does not plan to request additional resources.

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Acting Under Secretary Robert B. Stephan

"High Risk Facilities"

2. You further testified that the facilities not currently abiding by a voluntary chemical code represents 20% of the country's "high-risk" chemical operating capacity.

A. How does DHS define "high-risk chemical operating capacity?"
B. What factors does the Department take into account when determining whether a facility represents part of this capacity?

Response A & B: The 3,400 chemical sites identified by DHS that could adversely affect 1,000 people if attacked.

Need for Safer Technologies

3. Some advocates contend that it is virtually impossible to adequately protect some chemical facilities from physical attack; for example a facility with its tanks located near the fence line, and abutting a major highway. Numerous scenarios can be envisioned where physical security at a chemical plant – no matter how robust – might fail. Given that reality, wouldn't it be easier to guard such a place if the facility had implemented available and cost-effective improvements to reduce the amount of acutely dangerous chemicals used in the process, used a safer chemical to perform the same task, reduced hazardous pressures or temperatures, or manufactured the chemical just in time for it to be used in the process?

Response: In some cases, changes in processes may reduce the risk to a chemical facility. In fact, private sector owners and operators typically evaluate a number of options when determining what processes they will use. In fact, such consideration is an embedded practice in the chemical sector.

Within the industry, inherently safer technology (IST) includes the procedures cited in the question. Although it is the site owner-operators' right to evaluate and employ the process that they deem fit (within the confines of the law) it is important to note that, when applied to security, IST will most often simply move vulnerability from one place to another. Additionally, misapplication of IST to security issues may sometimes compromise safety.

4. In your written statement, you point out that "the particular vulnerability of any specific facility obviously depends on the type and quantity of chemicals at a site, the physical layout, and 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." How important is the type and quantity of chemicals to the vulnerability assessment for security planning purposes?

Response: When evaluating risk, the Department must weigh the potential consequences associated with an attack, and does so by closely examining the facility itself and the chemicals in or near that facility. The quantity and type of chemicals contained within a specific facility are an important factor in determining the consequences of a terrorist attack. For example, chlorine is more immediately hazardous, and is therefore more consequential, to people than bleach. A site that stores or manufactures chlorine will of necessity fall into a higher risk category.

DHS role in security of rail shipments

5. Concern over the rail shipment of hazardous chemicals has been mounting. In 2001, a joint study commissioned by the U.S. Coast Guard and the National Transportation Safety Board found that the rupture of one 90-ton tank car of chlorine gas could produce a potentially lethal toxic cloud nearly 20 miles wide. The Naval Research Laboratory also testified in the same year that an attack or accident involving one of these tank cars could put more than 100,000 people at risk in just 15 to 30 minutes and cause "exposed individuals to die at a rate of 1,000 per second." Moreover, the EPA estimated that a "worst-case" accident involving just one 90-ton tank car of chlorine gas would cause a "danger zone" of 14 miles, and at a 2004 press conference, representatives from the FBI said that rail cars are an easy target for terrorists.

A. In 2003, the GAO concluded that DHS and DOT should develop a specific plan to determine the adequacy of rail security measures already in place and to identify gaps in rail security. Has such a plan been prepared? Do you believe it should be prepared and if so, by when?

Response: The Department is working in conjunction with the Department of Transportation (DOT) and railroad property owners to perform site visits. The purpose of these visits is to determine transportation security gaps and vulnerabilities. From the information gathered, DHS and DOT will form best practices that will ultimately lead to the plan cited above. In determining the adequacy of rail security measures, mitigating factors such as the strategic placement of rail cars in rail yards will be taken into account.

Certain classes of hazardous materials (HAZMAT), such as those chemicals classified as toxic by inhalation (TIH), may pose a threat to public safety, security, or the environment during transportation because of their physical and chemical properties. In April 2004, the Homeland Security Council (HSC) tasked the Department of Homeland Security (DHS) and the Department of Transportation (DOT) with taking action to improve the security of TIH shipments by rail. As part of the approach to implement the HSC's recommendations, DHS and DOT have been working on various initiatives that support the development of a national risk-based plan. The Departments are focusing on the assessments of vulnerabilities of high threat urban areas where TIH materials are transported; identification of practical alternatives to placards on rail tank cars; new rail car design standards; and ways to enhance the development and implementation of HAZMAT security plans, which are required by Federal regulations issued in March 2003, to improve the adequacy and effectiveness of industry security plans.

The High Threat Urban Areas (HTUAs) Corridor Assessment program is part of this effort. A DHS/DOT team working in partnership with the participating railroad owners/operators is conducting vulnerability assessments of HTUAs where TIH materials are transported by rail in significant quantity. The purpose of these studies is to develop mitigation strategies to address identified vulnerabilities.

In passenger rail, TSA has been actively conducting Corporate Security Reviews (CSRs) which provide DHS with a baseline of existing security. A primary goal of the CSRs is to identify gaps in security of passenger rail and mass transit operations. This effort is greatly enhanced by the Surface Transportation Inspector program; implemented through a $10 million appropriation in the Department of Homeland Security Appropriations Act for Fiscal Year 2005. To date, more than 60 inspectors have been deployed to the field. TSA expects to have hired all 100 inspectors by October 2005. The inspectors will identify gaps in security and inspect for compliance with security measures.

The Department is also actively working on pilot projects that will assist in the effort to identify gaps in rail security. These pilot projects will, through the cooperative efforts of our partners in the private sector, and State and local governments, leverage technology to our advantage to create a virtual fence to gather and disseminate data, while protecting privacy and securing critical and highly trafficked urban areas.

B. Do you support legislation that would require DHS to prepare a vulnerability assessment of freight rail transportation and to identify security risks that are specific to the rail transport of hazardous materials?

Response: The Transportation Security Administration (TSA) recognizes that S.1379 includes a provision that would require DHS to complete vulnerability assessments of rail freight and rail passenger transportation, which includes the identification of vulnerabilities specific to the transportation of hazardous materials. In the 108th Congress, DHS submitted an official views letter commenting on similar legislation, S. 2273. That letter stated that DHS generally concurred with the objectives of the legislation.

DHS is particularly interested in leveraging industry efforts as part of its risk assessments. For example, the Office of State and Local Government Coordination and Preparation (OSLGCP) is in the process of awarding a grant to fund a risk assessment tool for application in the freight rail environment. That tool, the Rail Corridor Risk Management Tool (RCRMT), will be developed in coordination and cooperation with DOT and various agencies within DHS, along with the full participation of industry. Additionally, the Department has created a multi-agency task force that teams with industry partners, to conduct comprehensive security reviews of the rail corridors in HTUAs that facilitate the shipment of TIH materials. In addition to other HTUAs, an assessment has been completed on the NCR rail corridor. Additional assessments are ongoing.

6. My understanding is that as part of the RAMCAP program, DHS relies exclusively on the in-house chemical engineering expertise within the owners and operators' facilities and does not any chemical engineers on staff at DHS to verify the findings and conclusions made by the facilities' chemical engineers.

A. Is that correct?

Response: Although the Department has designed RAMCAP to incorporate the knowledge and expertise of industry personnel, it does not depend exclusively on their conclusions when analyzing data. DHS security experts, field personnel, and contracted subject matter experts will verify and validate RAMCAP submissions to ensure information provided is accurate and representative as possible of each specific facility.

B. If so, how are you able to have independent assurance of the facilities' chemical engineers findings and conclusions?

Response: As mentioned above, DHS security experts, field personnel, and contracted specialists will work cooperatively to assess each facility's RAMCAP submission.

C. Do you see a need for DHS to hire or contract independent chemical engineers to participate in the RAMCAP process?

Response: The Department has already secured the necessary subject matter expertise needed to support the RAMCAP process.

Questions for the Record from Senator Daniel K. Akaka

1. In your written testimony you stated that the Office of Infrastructure Protection (IP) has sector specialists who assist with security assessments in their field of expertise.

   Will you please tell me how many chemical sector specialists IP currently has on staff?

Response: Currently the Office of Infrastructure Protection (IP) has three federal chemical sector specialists on staff, with plans to hire more. The Department has also contracted subject matter experts to augment federal sector specialists for each of the numerous critical infrastructure sectors for which IP has overarching responsibility.

2. GAO reported at the April 27th hearing that DHS has not yet determined the number and type of facilities that should be considered part of the chemical infrastructure sector.

   Why hasn't this been done and when will a definition of the chemical infrastructure sector be complete?

Questions For the Record
Senate Homeland Security and Governmental Affairs Committee
"Is the Federal Government Doing Enough to Secure Chemical Facilities and Is More Authority Needed?"
June 15, 2005
Acting Under Secretary Robert B. Stephan

Response: The Department of Homeland Security (DHS), as a policy and operational matter, defines the chemical sector as encompassing fixed facilities, as determined by the Secretary, the primary purpose of which is to manufacture chemicals and to serve as a transfer terminal and/or storage facility for chemicals.

3. What financial and human resources will be required for DHS to execute chemical security regulation that includes: promulgating regulations; certifying facilities; verifying the certification; and enforcing compliance?

Response: To a large extent, resource requirements will depend on the specific authorities granted in the enabling legislation. Any estimates at this time would be highly speculative.

4. In response to a question I asked you at the hearing about the use of contractors in chemical security regulation, you stated that while federal employees would manage a chemical security regulation office, you could envision using contractors to do other jobs such as inspections. The Environmental Protection Agency (EPA) has a cadre of federal employees with special expertise in the chemical industry.

   Have you considered using EPA employees to help with the inspection and verification functions instead of contracting out the jobs to non-federal personnel?

Response: The Department will continue to work closely with all of its Federal partners in the National Infrastructure Protection Plan, and continue to leverage the expertise of other departments and agencies, where it exists and as appropriate.

Post-Hearing Questions for the Record
Submitted to Thomas P. Dunne
From Senator Norm Coleman

"Is the Federal Government Doing Enough to Secure Chemical Facilities and Is More Authority Needed?"

June 15, 2005

Coleman --The 1984 incident in Bhopal, India thrust the idea of chemical safety upon the Federal Government, just as the horrific attacks of September 11th forced the Federal Government to address homeland security. Recognizing the interdependencies of safety and security is essential as we address the chemical industry. While the EPA effectively addresses the safety of these facilities, we need to ensure that security is also being addressed, yet we cannot conflate these fundamentally different terms. Security encompasses the risks facilities face from a potential attack, while safety needs to apply to all facilities.

Question: From your unique perspectives, can you both address the relationship of DHS and EPA as it pertains to the safety and security of our chemical facilities?

Answer: EPA's authorities for chemical facility safety are principally contained in section 112(r) of the Clean Air Act (CAA), which authorizes EPA to issue accidental release prevention, mitigation and correction regulations that include, among other things, "design, equipment, work practice, and operational requirements." The CAA and EPA's regulations (40 CFR Part 68) require facilities that have more than threshold quantities of any of 140 listed highly toxic or flammable substances to implement a chemical accident prevention program, emergency response program, and to submit to EPA a description of that program called a Risk Management Plan (RMP) that includes a worst case scenario. Implementation of these requirements also contributes to site security by, for example, ensuring that chemical processes are properly operated, well-maintained and that emergency response plans are in place.

Homeland Security Presidential Directive 7 (HSPD-7) designates DHS as the lead federal department for security of chemical sector infrastructure and assets. DHS also serves as overall coordinator for the supporting efforts of other appropriate departments and agencies, including EPA. Therefore, in terms of chemical facility security, EPA currently serves in a supporting role to DHS, participating in DHS-led efforts such as the chemical sector Government Coordinating Council (GCC). The GCC is a mechanism to provide effective coordination of critical infrastructure strategies and activities, policy, and communication across government to support the nation's homeland security mission. EPA and DHS have also worked together with organizations such as the Center for Chemical Process Safety to develop methods for chemical facilities to assess their security vulnerabilities.

Although the two can involve different approaches, chemical facility safety and security are overlapping imperatives. For example, hazardous chemical containment is a critical consideration for both facility safety and security. Safety measures taken in this regard will generally focus on process design and management measures aimed at preventing loss of containment. Such measures might include vessel design features, equipment inspections, installation of process control devices, alarms and interlocks, and implementation of operating procedures to maintain process parameters within specified limits. Some of these safety features will have the secondary benefit of enhancing facility security, but by themselves might not be sufficient to ensure facility security. From a security standpoint, additional measures outside the traditional realm of process safety might be necessary to address unique security concerns, such as prevention of external attack or equipment sabotage. Therefore, as the Department of Homeland Security moves forward in its efforts to provide for security of the chemical sector, it is important that EPA and DHS continue to work together to ensure that safety and security requirements are well-coordinated.

Coleman --As a former Mayor, I am very familiar with the critical role that first responders – local police and firefighters – will play in responding to any terrorist incident. In addition to preparing for an accidental spill, first responders need to be prepared to respond to a terrorist attack upon a chemical industry. To properly respond, this response capability needs to be exercised.

Question: Do DHS and EPA work on the specifics of responding to a chemical site after an attack, rather than an accident? Are exercises conducted at the local level? And, finally, are state and local governments included in these exercises?

Answer: DHS and EPA, along with many other departments and agencies at the federal, state, and local level work together to prepare for chemical emergencies, whether those emergencies involve accidents or terrorism. An important initiative toward this end is the development and implementation of a National Response Plan (NRP), and a new National Incident Management System (NIMS). The NRP and NIMS align the old U.S. national response system into a more cohesive structure that integrates the capabilities and resources of various governmental jurisdictions, incident managers, and emergency response organizations into a national framework for domestic incident management. The NIMS provides a nationwide template enabling Federal, State, local, and tribal governments, and private sector and nongovernmental organizations to work together to prevent, prepare for, respond to, and recover from domestic incidents regardless of cause, size, or complexity. The NRP incorporates and supersedes previous national response plans, and has become the Federal all-hazards plan that provides the structure and mechanisms for national-level policy and operational direction for domestic incident management.

Under these plans, numerous exercises involving federal, state, and local government are periodically conducted to improve our ability, at all levels of government, to respond to terrorist attacks. For example, earlier this year DHS led the Top Officials 3 (TOPOFF-3) exercise, which simulated simultaneous chemical and biological terrorist attacks in Connecticut and New Jersey. This exercise involved real on-scene deployment of local, state, and federal responders and response resources, intensive drill interplay by state and federal government departments at headquarters operations centers, and involvement of foreign countries including Canada and Great Britain.

Post-Hearing Questions for the Record
Submitted to Thomas P. Dunne
from Senator Daniel K. Akaka

"Is the Federal Government Doing Enough to Secure Chemical Facilities and Is More Authority Needed?"

June 15, 2005

Question: In your opinion, has DHS worked effectively with the EPA to capitalize on the RMP vulnerability and preparedness information since DHS became the lead on chemical security, and where could cooperation improve?

Answer: In December 2003, Homeland Security Presidential Directive 7 designated the Department of Homeland Security (DHS) as the lead agency for chemical sector security. Since that time, EPA has worked with DHS on chemical security issues as requested on various occasions. For example, EPA provides updated versions of the RMP database to DHS, and has provided analytical support upon request. EPA is also a member of DHS Chemical Sector Risk Analysis and Management for Critical Asset Protection (RAMCAP) project team, which involves development of sector-specific screening tools and collection of industry specific information to allow prioritization of chemical sector assets, development of a sector-specific Security Vulnerability Analysis (SVA) methodology, and documentation of industry security practices. Additionally, EPA participates on DHS's chemical sector Government Coordinating Council (GCC). The GCC is a mechanism to provide effective coordination of critical infrastructure strategies and activities, policy, and communication across government to support the nation's homeland security mission.

Post-Hearing Questions for the Record
Submitted to Thomas P. Dunne
From Senator Joseph I. Lieberman

"Is the Federal Government Doing Enough to Secure Chemical Facilities and Is More Authority Needed?"

June 15, 2005

Role of Local Emergency Planning Committees

Lieberman -- In order to adequately protect the American people from the potential consequences of an attack on chemical facilities, citizens in potentially affected areas must be fully aware of how to respond. In that respect, the role of Local Emergency Planning Committees (LEPC) and State Emergency Response Commissions, which are required by the Emergency Planning and Community Right to Know Act, takes on added significance in the event of a terrorist attack. At HSGAC's April 27th hearing, Chairman Carolyn Merritt of the U.S. Chemical Safety Hazard Investigation Board testified that numerous accident investigations conducted by the Board reveal serious gaps in how well emergency responders, as well as the public, are prepared for a major release which suggests that in some places LEPCs either don't exist or are not very effective.

Question: Has EPA conducted any assessments of the effectiveness of Local Emergency Planning Committees since 9/11? If not, why not?

Answer: EPA's last nationwide LEPC survey was conducted in 2000 and focused on the status of LEPC activities as required by the Emergency Planning and Community Right-to-Know Act (EPCRA) as well as LEPC activities relating to accident prevention and counter terrorism. EPA has not conducted any assessments of LEPC effectiveness since September 11, 2001 primarily because of Agency attention to other priorities. EPA currently has plans underway to conduct another survey in 2006. This assessment will focus on LEPC effectiveness with regard to EPCRA compliance and will also seek to identify new challenges in the area of prevention and homeland security.

Question: According to EPA officials, who briefed staff prior to the hearing, one of the major obstacles facing LEPCs across the country is that they lack funding. Many LEPCs are essentially volunteer organizations operating without any real resources. Do you support providing federal resources to buttress the work of LEPCs? If so, how much do you believe is needed for these committees?

Answer: Although EPA provides no funding for LEPCs, the Agency does provide non-financial support to LEPCs and State Emergency Response Commissions (SERCs), including development and distribution of free software tools and

guidance documents to aid LEPCs and SERCs with management of information and emergency planning and response, and ongoing technical assistance and exercise support to SERCs and LEPCs from EPA Regional offices. EPA also encourages SERCs and LEPCs to work within their states to integrate their activities with Homeland Security initiatives, creating possibilities for work with "all hazards results" funded by FEMA, the Department of Justice and now DHS. Historically, some active LEPCs are partially funded by State fee systems associated with EPCRA reports.

Question: Do you know if there are adequate evacuation plans in place for people near high-risk chemical plants? Who at the federal level is working to ensure that such plans are in place and that they are effective?

Answer: EPCRA requires LEPCs to prepare community emergency response plans. Those plans must identify facilities and transportation routes of extremely hazardous substances, describe emergency response procedures on and off-site, designate a community coordinator and facility coordinator(s) to implement the plan, outline emergency notification procedures, describe how to determine the probable affected area and population by releases, describe local emergency equipment and facilities and the persons responsible for them, outline evacuation plans, provide a training program for emergency responders, and provide methods and schedules for exercising emergency response plans. EPCRA places the responsibility for reviewing community response plans on State Emergency Response Commissions (SERCs), rather than any Federal department or agency.

Reducing Hazards via Process Design

Question: EPA previously indicated that reducing hazards via site or process design is preferable to adding on safety or security measures. For example, in a chemical security alert issued in February 2000, EPA wrote – "Facility and process design (including chemicals used) determine the need for safety equipment, site security, buffer zones, and mitigation planning. Eliminating or attenuating to the extent practicable any hazardous characteristic during facility or process design is generally preferable to simply adding on safety equipment or security measures." Is this still EPA's position?

Answer: Eliminating or reducing hazards during initial facility or process design, where feasible, will often provide for a higher level of facility safety or security. For example, if process design eliminates the need for a particular hazardous chemical, then the chemical is never used in the process, its hazards do not need to be managed or controlled, and it can not be accidentally or intentionally released to harm anyone on or near the facility. However, it is often not feasible to completely eliminate or adequately reduce hazards during process design; in such cases, the process design integrated with additional "layers of protection" using safety equipment and security measures are necessary to properly manage remaining risks and/or changing hazards.

Question: In a HSGAC hearing on April 27, Richard Falkenrath, former Deputy Assistant to the President for Homeland Security Advisor, testified in favor of what he called a market based approach to the issue of safer technologies. He testified that if the physical security requirements for companies where the consequences of an attack would be greatest are truly adequate, facility owners would consider changing processes or reducing stockpiles of hazardous chemicals without government mandating that they do so. Does EPA's experience with industry's response to existing safety regulations support Dr. Falkenrath's conclusion? Please provide some evidence to substantiate your response.

Answer: EPA has no evidence to support the conclusion that market forces alone are sufficient to ensure adequate safety or security at hazardous chemical facilities. While it is true that many chemical facilities have taken voluntary action to provide for their safety and security, EPA officials have also observed during facility visits and inspections that some high-hazard chemical facilities did not take sufficient voluntary actions. Therefore, the Agency believes that federal safety and security requirements are necessary to ensure high-risk chemical facilities implement appropriate safety and security measures.

