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HEARING ON H.R. 5533, THE CHEMICAL FACILITIES ACT OF 2008 AND H.R. 5577, THE CHEMICAL FACILITY ANTI-TERRORISM ACT OF 2008

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENT AND HAZARDOUS MATERIALS

OF THE

COMMITTEE ON ENERGY AND COMMERCE

HOUSE OF REPRESENTATIVES

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

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[1] Assistant Administrator Grumbles of the Environmental Protection Agency did not answer submitted questions for the record.

HEARING ON H.R. 5533, THE CHEMICAL FACILITIES ACT OF 2008 AND H.R. 5577, THE CHEMICAL FACILITY ANTI-TERRORISM ACT OF 2008

THURSDAY, JUNE 12, 2008

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT AND HAZARDOUS MATERIALS,
COMMITTEE ON ENERGY AND COMMERCE,
Washington, DC.

The subcommittee met, pursuant to call, at 10:04 a.m., in room 2322 of the Rayburn House Office Building, Hon. Hilda Solis (vice chairwoman) presiding.

Members present: Representatives Solis, Pallone, Capps, Butterfield, Barrow, Waxman, Green, Matsui, Shadegg, Stearns, Wilson, Pitts, Terry, Sullivan, Murphy, Barton [ex officio], and Hall.

Staff present: Dick Frandsen, Caroline Ahearn, Chris Treanor, Rachel Bleshman, Alex Haurek, David McCarthy, Jerry Couri, Peter Kielty, Garrett Golding, and Sara Decker.

OPENING STATEMENT OF HON. HILDA L. SOLIS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Ms. SOLIS. I would like to call today's hearing to order. The subcommittee will come to order. Today we have a hearing on H.R. 5533, The Chemical Facilities Act of 2008 and H.R. 5577, The Chemical Facility Anti-Terrorism Act of 2008. For purposes of making opening statements, the chairs and ranking members of the subcommittee and the full committee will each be recognized for 5 minutes. All other members of the subcommittee will be recognized for 3 minutes. Members may waive the right to make an opening statement and instead add those 3 minutes to their time for questions. Without objection, all members have 5 legislative days to submit opening statements for the record.

The chair would like to take a privilege moment to recognize Representative Doris Matsui from California, who is joining us today as a new member of the full committee. Welcome, Congresswoman Matsui. We are very pleased you are here with us.

I am pleased to chair this hearing today to discuss chemical facility security legislation, including H.R. 5533, The Chemical Facilities Act of 2008, and recognize myself for 5 minutes.

The terrorist attacks of September 11 brought to the forefront the risks posed to our infrastructure by intentional acts of vandalism and terrorism, both foreign and domestic. These events and others also raise serious questions about our Nation's preparedness to respond to future attacks. This preparedness includes our drinking water system. I am pleased to have a representative with us today from southern California, a region which is particularly vulnerable to any threat to our water system, given our lack of water resources. The risk to our communities from chemical facilities and drinking water facilities, which use dangerous chemicals, as you know, are many.

In addition to the damage to infrastructure, the economy and public health, such an incident would also seriously damage public confidence in our ability to secure our Nation. The risks we are discussing are widespread. Across our Nation, more than 7,000 chemical facilities may each pose risk to the health of 1,000 or more people. One hundred of these plants each risk one million people.

Unfortunately, existing regulations, which were enacted through the appropriations process rather than through regular order raise questions about our ability to protect communities from these threats. For example, the chemical facilities' antiterrorism standards rely solely on conventional parameter security. This guns-and-guards-only system actually prohibits the Federal Government from requiring consideration of safer, cost-effective technologies.

In many instances, these safer, cost-effective technologies could significantly reduce the risk not only to workers and the surrounding community, but also communities like those which I represent, which is home to the Alameda Corridor, one of the largest freight corridors in the country.

The American Association of Railroads also agrees with me. In a statement on February 27, 2008, they wrote "we can no longer continue to risk the lives of millions of Americans by using, transporting, and storing highly toxic chemicals when there are safer alternatives commercially available." They went on to state that if dangerous chemicals were replaced, millions of Americans who live in cities or towns near chemical plants or railroad tracks would be safer. And many manufacturing facilities and water treatment plants would no longer store large quantities of the very chemicals that make attractive targets for terrorists.

I am concerned that the existing system appears to be more of a paperwork exercise rather than a serious effort to ensure our facilities are secure as possible.

In addition to protecting our communities, we must also make sure that our workers are protected. Legislation should ensure that employees and their representatives are included in exercises to access vulnerabilities, the development of plant security programs, and the training for all relevant employees is required. Inspections should also be required.

In addition, we must protect our workers from the potential misuse of background checks and protect whistleblowers from retaliation. I believe there are two additional key components that we must consider.

First, I strongly believe that drinking water facilities should be under the jurisdiction of The Safe Drinking Water Act and the En-

vironmental Protection Agency. For our drinking water systems, security is not only a matter of protecting against terrorist acts but also about protecting us from contaminants. The unique needs of these facilities are something that the EPA is well versed in and, I believe, they should not be in the jurisdiction of the Department of Homeland Security.

Secondly, I believe that Federal legislation should not preempt state laws. In some instances, state laws and regulations may address unique situations by being more protective. And I believe we should preserve the rights of states to take such action.

Again I want to thank our witnesses for being here and joining us. I look forward to discussing further the components of chemical facility security legislation.

At this time, I would like to recognize the ranking member, Mr. Shadegg from Arizona, for opening statement of 5 minutes.

OPENING STATEMENT OF HON. JOHN B. SHADEGG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ARIZONA

Mr. SHADEGG. Thank you, Madam Chairwoman, and let me congratulate you on your first hearing as chairwoman of this committee. I look forward to working with you as we go forward, and I will not try to read my entire statement and would ask unanimous consent to insert it into the record.

Ms. SOLIS. Without objection.

Mr. SHADEGG. United States is fortunate to have a robust chemical industry. That industry employs over a million Americans and produces 21 percent of the world's chemicals. It invests almost $3 billion annually in research and development leading to further economic growth. Given that the products handled by this robust industry, the security of chemical plants is of utmost importance to our national security. I am happy to see that the security of chemical plants is being addressed both through industry standards and in various government programs.

As we will hear from the American Chemistry Council, chemical company are subject themselves to mandatory security regulations under the ACC's Responsible Care Program. Other companies outside of the ACC also have very robust and effective security programs. Legislatively, the Maritime Transportation Security Act requires vulnerability assessments and security plans for U.S. ports, often the location of a number of these chemical facilities.

The Public Health Security and Bioterrorism Preparedness and Response Act requires a similar program comprised of site vulnerability assessments and emergency response plans for community water systems serving more than 3,300 people.

Finally, Section 550 of the Department of Homeland Security Act of fiscal year 2007 has created a program within the department to regulate chemical facilities for security purposes. These regulations are just now being finalized. Notably, Section 550 exempted water facilities already covered by various EPA programs.

I believe this distinction is very appropriate, given the long tradition of EPA in regulating such facilities. It is also important to have one set of focused rules as opposed to overlapping guidelines instituted by various agencies. Given the vast amount of activity being conducted in regard to chemical plant security, both at the

industry level and at the government level, I have questions about whether there is a need to further legislate on this issue through H.R. 5577, The Chemical Facility Anti-Terrorism Act.

I am concerned that we are not allowing enough time for the current law to be implemented, given that the regulations were just in place and that we are now immediately contemplating new legislation on the basis of no lessons learned. I think it is important that we look at what we have learned through our current regulatory scheme before we move at least precipitously forward.

Clearly this is the committee with primary jurisdiction, and I hope that through this hearing which you are holding, and I commend you for doing so, and through the work of the committee, we can bring rationality and sensitivity to this process. It seems to be important for our Nation's economy that we not impose further burdens before we have even contemplated or calculated what burdens we have already imposed.

I think there are important issues to be raised about the current scheme and about the burdens that might be created by a new regulatory scheme. And I look forward to working with you on this legislation.

I am anxious to know if in fact the full committee plans to mark this legislation up and/or to proceed in regular order in processing it. And with that, I yield back. Thank you, Madam Chairman.

[The prepared statement of Mr. Shadegg follows:]

Statement of the Honorable John Shadegg
Ranking Member, House Energy and Commerce Subcommittee on Environment and Hazardous Materials
Hearing on Legislative Proposals H.R. 5577 and H.R. 5533
June 12, 2008

Thank you Chairwoman Solis for holding this important hearing.

The United States is fortunate to have a robust chemical industry.

The industry employs 1 million American citizens, produces 21% of the world's chemicals and invests almost $30 billion annually in research and development, leading to further economic growth.

In Arizona, the chemical industry has created 13,390 jobs and generated almost $2 billion for the state's economy.

Given the products handled by this robust industry, the security of chemical plants is of utmost importance to our overall national security.

I am happy to see that the security at chemical plants is being addressed through both industry standards and various other government regulations.

As we will hear from the American Chemistry Council, whose members manufacture approximately 90% of the basic industrial chemical production, chemical companies already subject themselves to mandatory security regulations under the ACC's Responsible Care program.

Other companies outside of the ACC that I have met with also have very robust and effective security programs.

Legislatively, the Maritime Transportation Security Act requires vulnerability assessments and security plans for U.S. ports, often the location of chemical facilities.

And, of great importance to this Subcommittee, the Public Health Security and Bioterrorism Preparedness and Response Act requires a similar program comprised of site vulnerability assessments and emergency response plans for community water systems serving more than 3,300 people.

Finally, although my list of government programs for chemical plant security is not complete, Section 550 of the Department of Homeland Security Appropriations Act of Fiscal Year 2007 has created a program within the Department o regulate chemical facilities for security purposes.

As I understand, these regulations are just being finalized.

Notably, Section 550 exempted water facilities already covered by various EPA programs.

I believe this distinction is very appropriate given the long tradition EPA has in regulating such facilities.

It is also important to have one set of focused rules as opposed to overlapping guidelines instituted by various agencies.

Given the vast amount of activity being conducted in regards to chemical plant security, both at the industry level and the government level, I question the need to further legislate this issue through H.R. 5577 - the Chemical Facility Anti-Terrorism Act.

While chemical plant security is very important to our overall national security, I find that H.R. 5577 is not just simply codifying programs that already exist, but is massively expanding the scope of these programs on the basis of NO LESSONS LEARNED.

This approach seems unnecessary, fiscally irresponsible, and incredibly inflexible.

In regards to the legislation, three factors are of particular concern to me:

1) I believe taking decisions on materials and processes used out of the hands of seasoned professionals and into the hands of government officials through the inherently safe technology provisions in H.R. 5577 are inappropriate and unnecessary.

Chemical experts and process engineers within the industry have more appropriate expertise in making those security decisions.

Furthermore, the chemical industry has its own incentives to remain inherently safe and I fail to see how the Federal government can effectively make such process decisions without doing harm to the very industry it is working to protect.

2) State pre-emption of Federal standards seems highly inappropriate.

The Constitution has charged the Federal government with national defense and I fail to see how chemical plant security is not a national security, if not national economic issue.

Finally, 3) it is unclear to me exactly what is a "covered chemical facility" under H.R. 5577.

Are farmers covered because they use a significant amount of fertilizer in their own processes? If H.R. 5577 were implemented, would DHS then tell farmers which fertilizers they could use?

Are gas stations covered? If H.R. 5577 were implemented, could the average American citizen unknowingly find themselves in the middle of a red team exercise as they fill up their tanks? (I would have a heart attack).

Clearly, as the Committee with Primary jurisdiction, we will be able to bring, I hope, some sanity and reality to this situation.

These are important issues and I look forward to both the testimony and the question and answer period as this Subcommittee reviews chemical plant security.

And, Madam Chairman, I look forward to reviewing this legislation under regular order.

While I understand you are serving in the interim, I wonder if you have had assurances from our Committee Chairman that this legislation will go under Regular Order, including to a mark-up at some point this year?

Thank you.

Ms. SOLIS. Thank you, Mr. Shadegg. Next I would like to recognize the gentlewoman from California, Mrs. Capps, for 3 minutes.

OPENING STATEMENT OF HON. LOIS CAPPS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mrs. CAPPS. Thank you, Madam Chairwoman. Today we will hear about the threat posed by toxic chemicals and the need to assure the security of those chemicals. Specifically, we will hear testimony on two bills that seek to provide essential protections to millions of workers and communities now living in the shadow of preventable chemical disasters.

Since 2001, we have had to reorder our priorities as a number of issues have taken on a new urgency. The security of toxic chemicals throughout the United States is a very high part of that list. The fact of whether there is a serious threat posed by toxic chemicals in communities throughout the country is no longer a question. Security experts list chemical plants as vulnerable and a deadly part of our Nation's infrastructure.

Across the country, there are more than 7,000 chemical facilities that each put 1,000 or more people at risk of serious injury or death in the event of a chemical release from that facility. One hundred of these plants put more than one million people at such risk. Our State of California is near the top of the list of States with facilities with extremely hazardous chemicals onsite. In fact, California has more than 150 facilities with over 100,000 pounds of extremely hazardous materials. Clearly the threat is real, and it requires immediate attention.

While we are in better shape than we were 2 years ago, Congress must act quickly to pass protective and comprehensive chemical security legislation. The temporary chemical security law enacted in 2006 and set to expire next year does little to eliminate existing safety and security gaps. For example, it exempts thousands of chemical facilities such as water treatment plants. It also prohibits the Homeland Security Department from requiring safer and more secure chemicals or technologies that can reduce or eliminate the effect of an attack.

Madam Chairwoman, we need to get ahead of these threats. I am hopeful that this committee can produce legislation that does four things at least: advances the use of safer and more secure chemicals in technologies where feasible, involves plant employees in developing security programs, allows state to set more protective security standards, and finally includes all categories of facilities such as water treatment plants.

Let me just say that I understand the value of chemicals in our society. We are not here today to question whether we need chemicals, but as a public health nurse, I am well aware of the fact that what we need to do is protect those chemicals, especially the very hazardous ones, and also the employees that handle them every day, from terrorist threats. We need to keep our eye on this ball.

Action is long overdue to address these preventable chemical disasters. All of us have a responsibility to make sure we do all we can to keep our country safe. So let us rise to the challenge and enact legislation to eliminate this threat. I yield back.

Ms. SOLIS. We thank the gentlewoman. Next I would like to recognize the gentlewoman from New Mexico, Congresswoman Wilson.

Ms. WILSON. I'll pass, Madam Chair.

Ms. SOLIS. She holds her time. Next member to be recognized, Mr. Barrow, the Congressman from Georgia is recognized for 3 minutes.

Mr. BARROW. I thank the Chair. I will not take the 3 minutes. I want to add my concerns to those that have been expressed here and share about those. And I also want to add to the mix that we take into account the special needs of the agriculture community, representing a largely rural district. We need to recognize that many of the chemicals that we are going to be dealing with and addressing in this legislation are going to be site-specific and field-specific, and we need to make sure that the interests of agriculture are taken into account.

Then I will yield back the balance of my time. Thank you.

Ms. SOLIS. I thank the gentleman. Next we would like to recognize the gentleman from Pennsylvania, Mr. Murphy.

Mr. MURPHY. I will defer.

Ms. SOLIS. OK, the Chair would like to make a unanimous consent request to include in the record at the appropriate location the following letters: a letter dated May 2008 from a coalition of environmental, public interest, and labor groups to members of Congress, a letter dated January 23, 2008 from the Association of Metropolitan Water Agencies to the chairman and ranking member of the Committee on Homeland Security, and third, a letter dated January 18, 2008 from the American Waterworks Association to the chairman of the Committee on Homeland Security. Is there any objection? Unanimous consent. OK, that is approved.

[The submitted material appears at the conclusion of the hearing.]

Ms. SOLIS. We will recognize our witnesses. This concludes our opening statements for members. I would like to welcome Mr. Ben Grumbles to our hearing today, the Assistant Administrator for the Office of Water at the Environmental Protection Agency. Mr. Grumbles, you have 5 minutes for your opening statement, and thank you for coming. We appreciate your presence.

STATEMENT OF BENJAMIN GRUMBLES, ASSISTANT ADMINISTRATOR, OFFICE OF WATER, U.S. ENVIRONMENTAL PROTECTION AGENCY

Mr. GRUMBLES. Thank you, Madam Chairwoman and all the members of the subcommittee. I am Ben Grumbles, assistant administrator for Water at EPA, and I would also like to acknowledge that while he is not here, Tom Dunn, the associate administrator for the Office of Homeland Security within EPA is also a very strong partner and part of this effort and this testimony. We have been working together very closely.

EPA has been working together very closely with Colonel Stephan and the Department of Homeland Security. So we welcome the opportunity to appear before you to discuss our efforts on water security, in particular chemical security for the water sector, and also to share with you the conclusion that we have shared and agree with the Department of Homeland Security that there is an

important gap in the framework for regulating the security of chemicals at water and wastewater facilities in the United States.

Water is life, and it is also America's greatest liquid asset. And so it is important for all of us to work together to ensure that it is clean, safe, and secure, and the infrastructure that supports it is sustainable. And a fundamental part of sustainability is security, not only at the water treatment plant but as part of the whole distribution system to get this precious asset to the homes and businesses in communities.

EPA has worked over the last several years to support the water sector in improving water security and preparedness, and the sector has taken their responsibility seriously. This country is safer than it was before or at the time of 9/11, but it is not safe enough. And so you have EPA and DHS appearing before you to say we want to work with you and with other committees to help to close this important gap when it comes to chemical security at water and wastewater treatment plants.

The emphasis of the agency, when it comes to water security, is prevention, detection, response, and recovery. And consistent with the Bioterrorism Act, using the authorities under the Bioterrorism Act but also the President's Homeland Security directives, EPA has moved out ahead and taken many steps to strengthen the security and sustainability of drinking water systems throughout the country.

I do want to mention that some of our priorities are on the prevention effort in addition to helping to close this gap on chemical security. On the prevention front, we want to work with Congress to continue to implement the Administration's water security initiative, which is a very important pilot program for developing a national model for contaminant warning systems, to use the five senses, a multidimensional approach so that water systems in cities throughout America can detect as early as possible the presence of chemical or biological or radiological warfare agents.

We also believe that initiative is important because it offers dual benefits. It also not only improves the security of water systems, it helps them to comply with EPA regulations and the statutory mandates that your committee is responsible for.

Madam Chair, with respect to chemical security, as you know, it is currently implemented through voluntary measures by drinking water and wastewater utilities. We recognize the complexities associated with balancing public health and security and recognize that the use of gaseous chlorine as a disinfectant is a decision for utilities and States after carefully considering Safe Drinking Water Act regulatory requirements, public health, the characteristics of their source water, weather patterns, and community and worker safety, in addition to other factors.

We recognize that important point of the need to balance public safety with public health and safe water. We have developed tools and training and technical assistance to help the utilities with DHS and with various coordinating sectors. We have been working with utilities in States and communities across the country to take important steps to better secure their systems, particularly as it relates to chemicals.

But we, Madam Chair, recognize that there is a need to do more. In February 2008, the Water Sector Coordinating Council and the Government Coordinating Council approved a suite of 22 voluntary performance measures related to security for the water sector. Three utility measures deal specifically with hazardous chemicals. The measure's reporting tool will be administered by a non-governmental third party, and an aggregate version of the security progress data will be provided to EPA once collected and analyzed. But we think more needs to be done, and that is why we joined with DHS, delighted to appear before you to help answer questions you may have and work with you together to strengthen the security of the water sector related to chemicals.

[The prepared statement of Mr. Grumbles follows:]

TESTIMONY OF

BENJAMIN H. GRUMBLES
ASSISTANT ADMINISTRATOR
FOR WATER
U.S. ENVIRONMENTAL PROTECTION AGENCY

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENT AND HAZARDOUS MATERIALS

COMMITTEE ON ENERGY AND COMMERCE

U.S. HOUSE OF REPRESENTATIVES

June 12, 2008

Introduction

Good morning, Madam Chairwoman and Members of the Subcommittee. I am Benjamin H. Grumbles, Assistant Administrator for Water at the United States Environmental Protection Agency. I welcome this opportunity to discuss EPA's role in water security and preparedness, our specific role in securing chemicals at drinking water treatment facilities, and our shared conclusion with the Department of Homeland Security that an important gap exists in the framework for regulating the security of chemicals at water and wastewater facilities in the U. S.

EPA has worked over the last several years to support the Water Sector in improving water security and preparedness and the sector has taken their charge seriously. EPA has been entrusted with important responsibilities for coordinating the protection of the Water Sector through Congressional authorization under the *Public Health Security and Bioterrorism Preparedness and Response Act of 2002* (the Bioterrorism Act), and through Presidential mandates under Homeland Security Presidential Directives (HSPD) 7, 9 and 10.

Promoting the security and preparedness of the Nation's water infrastructure is a major priority of the Agency in a post-9/11 and post-hurricane Katrina world. A loss of water service can seriously jeopardize the public health and economic vitality of a community. In working with the Water Sector we

have emphasized the need for prevention and detection measures to ensure that they can avoid incidents or quickly identify them if they occur. We have also emphasized the need to be prepared to respond to an incident and to recover quickly in order to protect public health and the local economy.

Implementation of Section 1433 of the Safe Drinking Water Act

Under Section 1433 of the Safe Drinking Water Act (amended by the Bioterrorism Act of 2002), each community water system providing drinking water to more than 3,300 persons must conduct a vulnerability assessment, certify its completion, and submit a copy of the assessment to EPA according to a specified schedule. Each vulnerability assessment is required to include a review of the use, storage, or handling of chemicals, as well as a review of pipes and constructed conveyances, physical barriers, water collection, pretreatment, treatment, storage and distribution facilities, electronic, computer or other automated systems which are utilized by the public water system, and the operation and maintenance of such system. In addition, each system must prepare or revise an emergency response plan that incorporates the findings of the vulnerability assessments and certify to EPA within six months of completing a vulnerability assessment that the system has completed such a plan.

Since 2003, EPA has received 100% of the vulnerability assessments and emergency response plan certifications from large and medium community water systems. Over 99% of small community water systems have submitted their vulnerability assessments and emergency response plan certifications.

Implementation of Sections 1434 & 1435 of the Safe Drinking Water Act

Our focus on prevention, detection, response, and recovery is largely guided by the language in Sections 1434 and 1435 of the Act. Section 1434 of the Act stipulates that EPA shall work collaboratively to review methods to prevent, detect, and respond to the intentional contamination of water systems,

including a review of equipment, early warning notification systems, awareness programs, distribution systems, treatment technologies and biomedical research. Section 1435 requires the review of methods by which the water system and all its parts could be intentionally disrupted or rendered ineffective or unsafe, including methods to interrupt physical infrastructure, computer infrastructure, and the treatment process.

The Safe Drinking Water Act places a premium on ensuring that research is carried out to support our security efforts. To support efforts required by the Act, EPA developed the *Water Security Research and Technical Support Action Plan* which responds to the research requirements under the Bioterrorism Act. It describes the research and technologies needed to better protect against drinking water supply, water treatment, finished water storage, and drinking water distribution system vulnerabilities. Over the past several years we have been implementing this plan, which was vetted with water stakeholders and reviewed by the National Academy of Science. Recently, one of the Agency's projects supporting efforts to promote contamination warning systems was one of six finalists for the 2008 Franz Edelman Award for Achievement in Operations Research which recognizes outstanding projects internationally that transform entire industries and positively impact people's lives.

Promoting Early Detection of Contamination

Sections 1434 and 1435 of the Safe Drinking Water Act and Homeland Security Presidential Directive 9 (HSPD-9) (which establishes a national policy to defend the agriculture and food system against terrorist attacks, major disasters, and other emergencies) recognize the importance of developing approaches to allow for the early detection of contamination so that communities can respond in a timely manner. EPA's Water Security Initiative and Water Laboratory Alliance programs support the development of water surveillance and monitoring systems to provide early detection of contamination.

The Water Security Initiative involves the design, deployment, testing and evaluation of contamination warning system pilots at drinking water utilities serving major metropolitan areas. The goal is to promote the voluntary national adoption of sustainable drinking water contamination warning systems. In addition to online water quality monitoring, warning system components include public health surveillance, distribution system sampling and analysis, enhanced security monitoring, and consumer complaint surveillance. When integrated in a monitoring and surveillance system, these components allow utilities to attain faster detection of a broader range of potential contaminants than a single-component system. In addition, these components were chosen specifically because of their long-term operational sustainability and their capacity to provide "dual-use" benefits to utilities, such as improved water quality management.

These pilots are critical to providing real world information on the design of contamination warning systems and the process for deploying monitoring and surveillance components. EPA has completed deployment of the first pilot and is in the process of establishing four additional full-scale contamination warning system pilots in selected public water systems throughout the nation.

The Water Lab Alliance provides a network of laboratories that can analyze contaminants that routine water laboratories generally lack the capability or capacity to handle, including chemical and biological warfare agents. Eleven Regional Laboratory Response Plans coordinate the national support of regional laboratories, state public health and environmental laboratories to analyze water samples when needed. The Water Lab Alliance is also a part of our Environmental Response Laboratory Network (ERLN) which includes analyses of all environmental matrices.

Promoting Active and Effective Security Programs in the Water Sector

In addition to meeting responsibilities outlined in the Safe Drinking Water Act, EPA has also been designated as the Sector Specific Agency responsible for infrastructure protection activities for the nation's drinking water and wastewater systems under HSPD 7, entitled *Critical Infrastructure Identification, Prioritization, and Protection* (December, 2003).

We have engaged in several activities to fulfill our responsibilities to support the Sector, including the development of a framework to define the *Features of an Active and Effective Protective Program* which was developed in 2005 and updated in 2008. These Features include organizational, operational, infrastructure, and external security and preparedness measures that can be voluntarily adopted and tailored by drinking water treatment facilities to respond to their greatest threats and vulnerabilities.

EPA developed the Water Contaminant Information Tool (WCIT) to help utilities plan for and respond to water contamination incidents. WCIT is a secure, on-line database that provides responders with information on fate, transport, and health effects of chemical, biological, and radiological contaminants of concern. WCIT can be used as a planning tool to support vulnerability assessments, emergency response plans, and site-specific response guidance, and as a response tool to help responders make appropriate response decisions.

We are also working with the Water Sector to promote Intrastate Mutual Aid and Assistance Agreements, formally known as Water and Wastewater Agency Response Networks (WARNs). These agreements include both public and private drinking water and wastewater utilities; and enhance response and recovery efforts after an incident by expediting the sharing of personnel and resources. They can play a particularly important role in helping water utilities to quickly recover after a natural disaster. The "utilities helping utilities" concept has been very well received by the Water Sector. Twenty five (25) states currently have active WARN programs and the number is increasing monthly.

Importance of Collaboration

Collaboration with the Water Sector has been critical to our success. Using the National Infrastructure Protection Plan's (NIPP) partnership framework, we established the Water Government Coordinating Council (GCC) to serve as a government counterpart to the self-governing Water Sector Coordinating Council (SCC). The Water GCC and SCC meet on a quarterly basis, but work together throughout the year, to create a coordinated national framework for Water Sector protection. Over the past 3 years, the Water GCC/SCC have worked together on the NIPP and the Sector-Specific Plan, consequence and vulnerability analysis, decontamination, threat and interdependency analysis, risk analysis, and Water Sector performance metrics.

EPA also supports the Water Information Sharing and Analysis Center (WaterISAC), which was originally recommended by Presidential Decision Directive 63 (PDD-63) in 1998 and additionally required under HSPD-7. The WaterISAC was established by the Association of Metropolitan Water Agencies and provides America's drinking water and wastewater systems with a source of information about water system security for early warning of potential threats.

Finally, collaboration has played a critical role in supporting training to prepare the Water Sector to respond to accidental or intentional contamination incidents. To that end, EPA has worked with national water organizations to provide training to several thousands of Water Sector water utility personnel in conducting vulnerability assessments, emergency response planning, and accessing and using the National Incident Management and Incident Command Systems to enable responders from a variety of jurisdictions and disciplines to work together effectively when responding to an emergency.

EPA's Role in Chemical Security for Drinking Water Utilities

Chemical security in the Water Sector is currently implemented through voluntary measures by drinking water and wastewater utilities. We recognize the complexities associated with balancing public health and security, and recognize that the use of gaseous chlorine as a disinfectant is a decision for utilities and states after carefully considering Safe Drinking Water Act regulatory requirements, public health, the characteristics of their source water, weather patterns, and community and worker safety, in addition to other factors.

Tools and Technical Assistance

EPA has worked closely with the Water Sector to study the risks associated with hazardous chemicals and develop tools, training and technical assistance to help utilities assess and mitigate those risks. A few examples of these activities accomplished within the past five years are as follows:

1. We provided funds to develop risk assessment tools consistent with Section 1435 of the Safe Drinking Water Act that address vulnerabilities including chemical storage and handling. Examples of the tools include:
    - The *Vulnerability Self Assessment Tool (VSAT™)* software to support water and wastewater utility vulnerability assessments using a qualitative risk assessment methodology.
    - The *Risk Assessment Methodology for Water Utilities (RAM-W)* to assist large water utilities and security professionals in assessing the risks from malevolent threats by balancing risk reduction measures.

- The Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems to help these systems complete vulnerability assessments required under the Bioterrorism Act of 2002.
- The Security Vulnerability Self-Assessment Guide for Very Small (<3,300) Systems is targeted for drinking water systems serving less than 3,300 people and is designed to help these systems assess their critical components and identify security measures that should be implemented.

2. The Bioterrorism Act of 2002 directed EPA to create a document to "provide baseline information to community water systems required to conduct vulnerability assessments regarding which kinds of terrorist attacks or other intentional acts are the probable threats to: (A) substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water; or (B) otherwise present significant public health concerns." The baseline threat document included suggestions for reviewing vulnerabilities related to the use, transfer and storage of chemicals, including gaseous chlorine and anhydrous ammonia. The document was completed in 2002 and shared with drinking water treatment facilities to assist in conducting their vulnerability assessments.
3. The National Association of Clean Water Agencies (NACWA) has worked with the Department of Homeland Security (DHS) and EPA to create a Chlorine Gas Decision Tool for Water and Wastewater Utilities. The Tool is designed to provide utilities with a user-friendly, but thorough, means of evaluating alternatives to chlorine gas disinfection.
4. We created a series of Security Product Guides on the web to assist treatment plant operators in reducing risks and providing protection against man-made and naturally occurring events. EPA's guides provide recommendations regarding physical security, such as the use of barriers, placement and security of aboveground equipment, selection of fencing materials, and the use of

visual surveillance monitoring systems, all of which can help to secure hazardous and toxic chemicals, such as chlorine gas, used by water utilities.

5. We funded a cooperative agreement with the American Society of Civil Engineers, the American Water Works Association, and the Water Environment Federation to develop Voluntary Physical Security Standards for drinking water and wastewater treatment facilities. Completed in December 2006, these voluntary standards address storage of hazardous or toxic chemicals, including chlorine and ammonia gas.

Risk Management Plans

The Clean Air Act Amendments of 1990 required EPA to publish regulations and guidance for chemical accident prevention at facilities using listed extremely hazardous substances, including chlorine. Our Risk Management Program Rule, which built upon existing industry codes and standards, was written to implement sections of these amendments. The rule requires facilities of all sizes that use certain flammable or toxic substances above specified threshold quantities to develop a Risk Management Program, which includes a hazard assessment, accident prevention program, and emergency response program.

The EPA Risk Management Program regulation (40 CFR Part 68), developed under the authority of the Clean Air Act, Section 112(r), states that utility processes containing more than 2,500 pounds of chlorine gas are required to implement an accident prevention program, conduct a hazard assessment, prepare and implement an emergency response plan, and submit a summary report known as a risk management plan (RMP) to EPA. The RMP must include an executive summary that provides a brief description of the facility's accidental release prevention and emergency response policies, the regulated substances handled at the facility, chemical-specific accident prevention steps, the 5-year accident history

of the facility, the facility's emergency response program, and planned changes to improve safety at the facility (see 40 CFR Part 68). Other chemicals that may be present at Water Sector utilities, including ammonia, sulfur dioxide, and chlorine dioxide, also trigger RMP regulatory requirements if they exceed certain threshold quantities.

Hazardous Chemical Measures

In February 2008, the Water Sector Coordinating Council and Government Coordinating Council approved a suite of 22 voluntary performance measures related to security for the Water Sector, including a series of measures for individual utility owners and operators. Three utility measures deal with hazardous chemicals. One measure asks utilities who use hazardous chemicals to identify the security practices they have in place to protect the public from their release or theft. The measures reporting tool will be administered by a non-governmental third party and an aggregate version of the security progress data will be provided to EPA once collected and analyzed. We expect to see data on security practices by the end of 2008. Collection of this data will inform EPA and the broader Water Sector of the progress being made across the water sector in chemical security to reduce risks.

H.R. 5577, 5533, and the CFATS Rule

The Department of Homeland Security and the Environmental Protection Agency believe that there is an important gap in the framework for regulating the security of chemicals at water and wastewater treatment facilities in the United States. The authority for regulating the chemical industry purposefully excludes from its coverage water and wastewater treatment facilities. We need to work with the Congress to close this gap in the chemical security authorities in order to secure chemicals of interest at these facilities and protect the communities they serve. Water and wastewater treatment facilities that are

determined to be high-risk due to the presence of chemicals of interest should be regulated for security in a manner that is consistent with the CFATS risk and performance-based framework while also recognizing the unique public health and environmental requirements and responsibilities of such facilities. DHS and EPA look forward to working with the committees to address this issue.

CONCLUSION

Over the past several years, we have made great progress in ensuring the security of our nation's drinking water and wastewater systems. We have produced a broad array of tools and assistance that the Water Sector is using to assess its vulnerabilities, reduce risk, and prepare for emergencies, including chemical theft and release. In developing these tools, we have worked effectively with our partners within the sector and also reached out to build new relationships beyond the sector to ensure that water utilities receive the information and support they need to be prepared to prevent, detect, respond and recover from intentional incidents and natural disasters.

With respect to chemical security, we look forward to working with our partners at DHS, members of the Committee and the Water Sector to develop an appropriate approach to safeguard the public from potential hazards posed by chlorine and other chemicals used at water and wastewater facilities.

Thank you again for the opportunity to testify about our role in water security. I will be happy to answer any questions you may have.

Ms. SOLIS. Thank you. Very good. I would like to next recognize our witness, Colonel Robert Stephan, Assistant Security for Infrastructure Protection at the Department of Homeland Security. You are recognized for 5 minutes for your opening statement.

STATEMENT OF COLONEL ROBERT B. STEPHAN, ASSISTANT SECRETARY FOR INFRASTRUCTURE PROTECTION, DEPARTMENT OF HOMELAND SECURITY

Colonel STEPHAN. Thank you, Madam Chairwoman, Ranking Member Shadegg, and other distinguished members of this subcommittee. It is a pleasure to appear before you today with my colleague, Assistant Administrator Grumbles from the EPA to address progress on implementing our chemical facility antiterrorism standards, more affectionately known to all of us as CFATS, as well as to provide you insight regarding a transition of existing regulatory authorities to a permanent authorization. This is key: moving from a temporary authorization to a permanent authorization before the sunset clause kicks in October 1, 2009 on the current CFATS authorization.

In terms of CFATS, we have made significant progress in the past few months including the receipt and review of approximately 32,000 facility base consequence analysis automated surveys, the initial identification of high-risk facilities within the chemical sector, and analysis to preliminarily tier these high-risk facilities. We will soon be notifying these facilities of their requirement to submit a security vulnerability assessment to the department. Once we have made these notifications, I would like to offer to come back to you and brief you and your staff on the specific of the chairing analysis.

As you know, Section 550 of the '07 DHS Appropriations Act directed the department to develop and implement a regulatory framework to address high-risk chemical facilities. The following core principles guided the development and implementation of this regulatory structure. Number one, securing high-risk chemical facilities is an immense undertaking that involves a national effort including all levels of government in the private sector. Number two, risk-based tiering will ensure that resources are appropriately deployed and implemented. Number three, reasonable, clear, equitable, and comprehensive performance standards will lead to enhanced security at our most high-risk facilities. And finally, recognition of the progress many companies have made in improving facility securities leverages those additional CFATS enhancements.

The final Appendix A to the CFATS rule published on November 20, 2007 after a public notice and comment period contains a list of chemicals of interest and their screening threshold quantities. The department includes chemicals based on the consequences associated with one or more of the following three security issues: release, toxic flammable or explosive chemicals that have the potential to create adverse consequences for human life, threat and diversion security issues, chemicals that have the potential at stolen or diverted offsite to be used and converted into weapons, and finally number three, sabotage contamination chemicals that have mixed with other readily available materials have the potential to create significant consequences to human health and life.

Implementing and executing this regulation requires the department to identify facilities that it considers high risk. We have developed a suite of tools to identify potentially high-risk facilities and provide methodologies facilities can use that are user friendly to conduct security vulnerability assessments and develop site security plans.

We have a suite of tools that involves user registration, consequence analysis, site security vulnerability assessments, and a site security of planning template. Through a top screen process of consequence analysis process, we initially identify facilities that have a significant potential of negative consequences and then can screen out those that need not proceed further in the regulatory framework.

If a facility is not screened out, DHS assigns the facility to a preliminary risk-based tier. Those facilities must then complete comprehensive vulnerability assessments and submit them for approval to the department. Results from this vulnerability assessment inform the department's termination of a final risk-based tier. After approval of these assessments, high-risk facilities are required to develop site security plans that address identified vulnerabilities according to 18 comprehensive performance-based standards and security issues represented by the facility. The higher the risk-based of the tier, the more robust the security measures and the more frequent and rigorous the inspection regime will be.

CFATS promulgates 18 again performance-based standards for compliance. These standards themselves are broad and designed to promote a great deal of flexibility in how a facility approaches meeting standards applicable to it. Although all high-risk facilities must comply with these performance standards, the measures necessary to meet these performance standards will vary across the tiers but will ultimately have to be approved in the security plan by the Secretary of Homeland Security.

Since the release of our rule in April of 2007 and its Appendix A, the department has taken significant steps to publicize the rule and make sure our security partners are aware of CFATS and its requirement through dedicated outreach program.

Additionally, the department intends to continue focusing efforts on fostering solid working relationships with State and local government officials and first responders in jurisdictions where these high-risk facilities can be found.

To meet the risk-based performance elements under CFATS, facilities will have to develop active, effective working relationships with local law enforcement and emergency responder officials in the areas of delaying and responding to potential attacks as well as a clear understanding of roles and responsibilities during an elevated threat situation.

We have gone through the regulatory program now for about a year and a half. We have a program that is reflected in our '08 budget and some additional requirements that we will bring online through our '09 budget. We will be glad to provide the committee examples or copies of those documents so that you would get a full measure of the specific programmatic activities we're putting in place over the course of the next year or two.

In terms of new legislation, DHS and EPA believe that there is an important gap in the framework for regulating the security of chemicals at water and wastewater facilities. The authority for regulating the chemical industry purposely excludes from its coverage water and wastewater treatment facilities. And I would like to get to this issue during the course of this hearing, and I thank you for your leadership in calling this important session together.

[The prepared statement of Colonel Stephan follows:]

TESTIMONY OF ROBERT B. STEPHAN

SUMMARY

Today's testimony will address progress on the implementation of the Department's authority over security at high-risk chemical facilities through the Chemical Facility Anti-Terrorism Standards (CFATS) program.

We have made significant progress in the past few months, including the receipt and review of approximately 30,000 facilities' Top-Screen questionnaires and analysis to preliminarily tier these high-risk facilities. We will soon be notifying those preliminarily tiered facilities of the Department's initial high-risk determination, and of their requirement to submit a Security Vulnerability Assessment to the Department.

The Department is collaborating extensively with the public, including members of the chemical sector and other interested groups, to actively work toward achieving our collective goals under the CFATS regulatory framework. In almost every case, industry has voluntarily done a tremendous amount to ensure the security and resiliency of its facilities and systems. As we implement the chemical facility security regulations, we will continue to work as partners with industry, States, and localities to get the job done.

The Department of Homeland Security and the Environmental Protection Agency believe that there is an important gap in the framework for regulating the security of chemicals at water and wastewater treatment facilities in the United States. Water and wastewater treatment facilities that are determined to be high-risk due to the presence of chemicals of interest should be regulated for security in a manner that is consistent with the CFATS risk- and performance-based framework while also recognizing the unique public health and environmental requirements and responsibilities of such facilities. The Department of Homeland Security and the Environmental Protection Agency look forward to working with the committees to address this issue.

We must focus our efforts on implementing a risk- and performance-based approach to regulation and, in parallel fashion, continue to pursue the voluntary programs that have already borne considerable fruit. In doing so, we look forward to collaborating with the Committee to ensure that the chemical security regulatory effort is sufficiently defined in order to achieve success in reducing risk throughout the chemical sector. In addition to our Federal Government partners, success is dependent upon continued cooperation with our industry and State and local government partners as we move toward a more secure future.

STATEMENT

Thank you, distinguished Members of the Subcommittee. It is a pleasure to appear before you today to address progress on the implementation of the Department's authority over security at high-risk chemical facilities through the Chemical Facility Anti-Terrorism Standards (CFATS) program, as well as provide insight regarding a transition of the existing regulatory program to a permanent authorization. In terms of CFATS, we have made significant progress in the past few months, including the receipt and review of approximately 30,000 facilities' Top-Screen questionnaires, initial identification of high-risk facilities, and analysis to preliminarily tier these high-risk facilities. We will soon be notifying those preliminarily tiered facilities of the Department's initial high-risk determination, and of their requirement to submit a Security Vulnerability Assessment to the Department.

CHEMICAL SECURITY REGULATIONS

Section 550 of the Fiscal Year 2007 Department of Homeland Security Appropriations Act directed the Department to develop and implement a regulatory framework to address the high level of security risk posed by certain chemical facilities. Consequently, the Department published an Interim Final Rule, known as the Chemical Facility Anti-Terrorism Standards (CFATS), on April 9, 2007. Specifically, Section 550(a) of the Act authorizes the Department to require high-risk chemical facilities to complete Security Vulnerability Assessments (SVAs), develop Site Security Plans (SSPs), and implement protective measures necessary to meet risk-based performance standards established by the Department of Homeland Security. Section 550 also exempts a number of facilities from coverage, including drinking water and waste water treatment facilities, as defined by Section 1401 of the Safe Water Drinking Act, Pub. L. No. 93-523, as amended, and by Section 212 of the Federal Water Pollution Control Act, Pub. L. No. 92-500, respectively.

The following core principles guided the development of this regulatory structure:

1)Securing high-risk chemical facilities is an immense undertaking that involves a national effort, including all levels of government and the private sector. Integrated and effective partnerships among all stakeholders - Federal, State, local, and private sector - are essential to securing our national critical infrastructures, including high-risk chemical facilities. Implementing this program means tackling a sophisticated and complex set of issues related to identifying and mitigating vulnerabilities and setting security goals. This requires a broad spectrum of input. By working closely with experts, such as New York and New Jersey State officials, members of industry, members of academia, and Federal government partners, we leveraged vital knowledge and insight to develop the regulation.

2)Risk-based tiering will ensure that resources are appropriately deployed. Not all facilities present the same level of risk, and the greatest level of scrutiny should be focused on those facilities that, if attacked, could endanger the greatest number of lives, have the greatest economic impact, or present other significant risks.

3)Reasonable, clear, and equitable performance standards will lead to enhanced security. The CFATS rule includes enforceable risk-based performance standards. Facilities have the flexibility to select among appropriate site-specific security measures that will effectively address risk, which leads to a Site Security Plan (SSP). The Department will analyze each facility's SSP, and, if it satisfies the CFATS performance standards, approve the SSP. If an SSP does not meet the CFATS performance standards, DHS will disapprove the plan and work with the facility, so that the facility can revise and resubmit an acceptable plan.

4)Recognition of the progress many companies have already made in improving facility security leverages those advancements. Many responsible companies have made significant capital investments in security since 9/11, and building on that progress in implementing the CFATS program will raise the overall security baseline of high-risk chemical facilities.

Appendix A: Chemicals of Interest List

The final Appendix A to the CFATS rule, published in the Federal Register on November 20, 2007, after a notice and comment period, contains a list of Chemicals of Interest and their Screening Threshold Quantities. Possession of one or more of these chemicals of interest at or above the applicable threshold quantity triggers a requirement for the facility to complete and submit an online consequence assessment, the Top-Screen. The data gathered through the Top-Screen inform the Department's initial determination of the facility's level of risk and the potential need for the facility to comply with the substantive requirements of the CFATS.

Appendix A lists 322 chemicals of interest, including common industrial chemicals such as chlorine, propane, and anhydrous ammonia, as well as specialty chemicals, such as arsine and phosphorus trichloride. The Department included chemicals based on the consequence associated with one or more of the following three security issues:

1)Release - toxic, flammable, or explosive chemicals that have the potential to create significant adverse consequences for human life or health if intentionally released or detonated;

2)Theft/Diversion - chemicals that have the potential, if stolen or diverted, to be used or converted into weapons; and

3)Sabotage/Contamination - chemicals that, if mixed with other readily available materials, have the potential to create significant adverse consequences for human life or health.

The Department established a Screening Threshold Quantity for each chemical based on its potential to create significant adverse consequences for human life or health, given the above three listed security issues.

CHEMICAL SECURITY ASSESSMENT TOOL

Implementation and execution of the CFATS regulation requires the Department to identify which facilities it considers high-risk. The Department developed the Chemical Security Assessment Tool (CSAT) to identify potentially high-risk facilities and to provide methodologies facilities can use to conduct SVAs and to develop SSPs. CSAT is a suite of online applications, including: user registration, the initial consequence-based screening tool (or Top-Screen), an SVA tool, and an SSP template. The Top-Screen builds on the voluntary assessment tool referred to as the Risk Analysis and Management for Critical Asset Protection (RAMCAP), which was developed with technical input from industry. Through the Top-Screen process, the Department can initially identify which facilities do or do not have a significant potential to be the source of negative consequences (that is, those that are or are not high-risk) and can then ″screen out″ those facilities across the country that are not high-risk.

The Department required facilities that possess a chemical of interest at or above the listed Screening Threshold Quantity to complete the Top-Screen within 60 calendar days of the publication of Appendix A (or within 60 calendar days of coming into possession of a chemical of interest at or above the applicable Screening Threshold Quantity after publication of Appendix A). As Appendix A was published on November 20, 2007, the due date for initial Top-Screen submissions was January 22, 2008. By that date, the Department had received 23,264 Top-Screen submissions from chemical facilities.

If a facility is not screened out during the Top-Screen process, the Department will assign the facility to a preliminary risk-based tier. Those facilities must then complete SVAs and submit them to the Department. Results from this SVA will inform the Department's determination of a facility's final tier assignment. This represents the next phase of the CFATS process.

After approval of their SVAs, these high-risk facilities will be required to develop Site Security Plans that address their identified vulnerabilities as well as the performance standards and the security issues presented by the facility. The higher the risk-based tier, the more robust the security measures and the more frequent and rigorous the inspections will be. Inspections will both validate the adequacy of a facility's Site Security Plan and verify the implementation of the plan's measures.

RISK-BASED PERFORMANCE STANDARDS

CFATS promulgated 18 risk-based performance standards for compliance. The standards themselves are broad and designed to promote a great deal of flexibility in how a facility approaches meeting standards applicable to it. Although all high-risk facilities must comply with the risk-based performance standards, the measures necessary to meet these standards will vary for the different tiers. For example, a Tier 1 facility with a release hazard security issue would be required to satisfy the performance standards for perimeter control, personnel access, cyber security, intrusion detection, and all other standards applicable to that security issue at a level appropriate for Tier 1 facilities.

How the facility chooses to meet the required performance standard in its Site Security Plan is at the facility's discretion. In the example of the Tier 1 facility with a release hazard security issue, the ″restrict area perimeter″ performance standard at the Tier 1 level may involve, for example, the facility establishing a clearly defined perimeter that cannot be breached by a wheeled vehicle. To meet the performance standard, the facility is able to consider a vast number of security measures and might ultimately choose to install cable anchored in concrete block along with movable bollards at all active gates. As long as the specific measures are sufficient to address the performance standard, the Department would approve the plan. Or, the facility might choose to ″landscape″ its perimeter with large boulders, steep berms, streams, or other obstacles that would thwart a wheeled vehicle. Again, as long as the proposed measures are sufficient, the Department would approve this plan.

OUTREACH EFFORTS AND PROGRAM IMPLEMENTATION

Since the release of CFATS in April of 2007, the Department has taken significant steps to publicize the rule and make sure that our security partners are aware of CFATS and its requirements. As part of a dedicated outreach program, the Department has presented at numerous security and chemical industry conferences, participated in a variety of other meetings of relevant security partners, issued several press releases regarding the regulations, published and distributed full copies of the regulations as well as various facts sheets summarizing critical aspects of the regu-

lations, and developed and regularly updated a DHS.gov Chemical Security website. We believe these efforts are having a definite impact, given the fact that as of today, approximately 30,000 facilities have submitted a completed Top-Screen to the Department via CSAT.

Partially stemming from the implementation issues surrounding the ammonium nitrate security-related provisions within the Fiscal Year 2008 Omnibus Appropriations Act, the Department granted an extension of the Top-Screen requirement to a category of agricultural operations possessing a chemical of interest for agricultural use. The Department has used this extension to engage agri-business distributors and end users in dialogue to narrow the CFATS program's focus on the truly high-risk operations. In mid-May, we held an event at Pennsylvania State University, bringing together agri-business stakeholders from the private and public sector for the purpose of clarifying the Department's understanding of the agri-business supply chain and the interactions between components of the chain. The Department will leverage this improved understanding to determine whether any modification of the Top-Screen requirements might be warranted. As a result of this research and dialogue, the Department will likely review its approach toward chemicals of interest used in agricultural operations.

Additionally, the Department intends to continue focusing efforts on fostering solid working relationships with State and local officials and first responders in jurisdictions with high-risk facilities. To meet the risk-based performance elements under CFATS, facilities are likely to develop active, effective working relationships with local officials in the areas of delaying and responding to potential attacks and a clear understanding of roles and responsibilities during an elevated threat situation.

PHASED APPROACH TO CFATS IMPLEMENTATION

For implementation of the CFATS program, the Department is using a phased approach to roll out the regulation at the facility level. In advance of the release of Appendix A, the Department began Phase 1 of CFATS implementation at certain facilities that the Department believed, based on available information, would likely be high-risk. Following initial outreach at the corporate level, the Department sent letters to approximately 90 facilities, informing them of their selection for participation in Phase 1, and advising those facilities of the requirement to submit a Top-Screen. The facilities were to complete the Top-Screen in advance of the release of Appendix A and were offered technical assistance from Department inspectors. The Department, after receiving the majority of Phase 1 Top-Screens, reviewed these submissions for initial high-risk determinations. A number of Phase 1 facilities initially determined to be high-risk received written notification from the Department in March 2008, informing them of the Department's determination and instructing these facilities of the requirement to complete a SVA for departmental review. The Department will offer technical assistance to those Phase 1 high-risk facilities as they conduct the SVA process, which will be due for those select Phase 1 facilities just a few weeks from today's hearing.

In addition to the above, publication of the final Appendix A initiated Phase 2, the full implementation of the CFATS program. Phase 2 covers all facilities that possess chemicals of interest at or above the listed Screening Threshold Quantities listed in Appendix A - the bulk of the facilities that submitted Top-Screens previously mentioned. Those facilities subsequently determined by the Department to be high-risk will soon receive preliminary tiering decisions and instructions on how, and by when, to complete SVAs. Upon receipt of a facility's SVA, the Department will review it for purposes of final high-risk and tiering determinations, and covered facilities will be required to develop SSPs. The Department will review those SSPs and conduct on-site facility inspections to ensure compliance with the submitted plan.

The chemical security regulatory program has embarked on a course to fulfill in fiscal year 2008 the following deliverables: •Review submitted SVAs for Phase 1 facilities for final tiering determinations, yielding the population of Phase 1 facilities subject to the substantive security requirements of the CFATS regulatory program;•Develop the CSAT SSP template for use by regulated facilities; •Begin enhancing the CSAT suite of applications, by identifying and developing requirements for CSAT version 2.0, which when completed will 1) provide chemical facilities with the ability to conduct "what if" analyses within the SVA based on risk assessments, 2) host a portal for a personnel surety capability, 3) maintain Top-Screen and SVA analytical capabilities, and 4) host a case management system for tracking CSAT usage; and•Begin engaging State and local officials and chemical facilities to plan, train, and exercise activities related to delay and response performance standards.

In addition, as the Subcommittee is aware, in February the Department submitted a fiscal year 2009 budget request that further details the chemical security regulatory program's requirements and objectives for future years, including additional inspector personnel to upgrade outreach, plan approval, inspection, and audit capabilities; further outfit the program's adjudications and appeals component; and further enhance CSAT by developing an economic modeling tool for the chemical sector, as well as accomplishing other important program objectives.

NEW LEGISLATION

The Department of Homeland Security and the Environmental Protection Agency believe thatthere is an important gap in the framework for regulating the security of chemicals at water and wastewater treatment facilities in the United States. The authority for regulating the chemical industry purposefully excludes from its coverage water and wastewater treatment facilities. We need to work with the Congress to close this gap in the chemical security authorities in order to secure chemicals of interest at these facilities and protect the communities they serve. Water and wastewater treatment facilities that are determined to be high-risk due to the presence of chemicals of interest should be regulated for security in a manner that is consistent with the CFATS risk- and performance-based framework while also recognizing the unique public health and environmental requirements and responsibilities of such facilities. The Department of Homeland Security and the Environmental Protection Agency look forward to working with the committees to address this issue.

CONCLUSION

The Department is collaborating extensively with the public, including members of the chemical sector and other interested groups, to actively work toward achieving our collective goals under the CFATS regulatory framework. In almost every case, industry has voluntarily done a tremendous amount to ensure the security and resiliency of its facilities and systems. As we implement the chemical facility security regulations, we will continue to work as partners with industry, States, and localities to get the job done. We must focus our efforts on implementing a risk- and performance-based approach to regulation and, in parallel fashion, continue to pursue the voluntary programs that have already borne considerable fruit. In doing so, we look forward to collaborating with the Committee to ensure that the chemical security regulatory effort is sufficiently defined in order to achieve success in reducing risk throughout the chemical sector. In addition to our Federal Government partners, success is dependent upon continued cooperation with our industry and State and local government partners as we move toward a more secure future.Thank you for holding this important hearing. I would be happy to respond to any questions you might have.

Ms. SOLIS. Thank you for being here. That concludes the opening statements of our witnesses for the first panel. The chair would now like to recognize herself for 5 minutes for questioning.

And I would like to begin with Mr. Grumbles from the EPA. You state in your testimony that you believe there are important gaps in the framework for regulating security of chemicals at drinking water treatment facilities, and I have some questions that I would like to ask you.

Does the government need authority to inspect the drinking water facilities or require the drinking water facilities to provide evidence that the vulnerabilities identified in the vulnerability assessments have been properly addressed?

Mr. GRUMBLES. Madam Chair, we are in intensive discussions, detailed discussions with DHS specifically on the mechanics of how we would want to work with you and other committees to close that important gap. And one of the questions is enforcement.

Ms. SOLIS. Can you answer yes or no?

Mr. GRUMBLES. We believe that it is important to have some oversight, some way to measure whether utilities that are high-risk utilities are meeting——

Ms. SOLIS. So that is a yes?

Mr. GRUMBLES [continuing]. CFATS framework.

Ms. SOLIS. So that is a yes?

Mr. GRUMBLES. It is a yes, but it is also recognition that we need to work together on roles of the various agencies and when an inspection would occur.

Ms. SOLIS. OK, secondly, does the government need specific authority to require the drinking water utilities take corrective security actions to address specific vulnerabilities, yes or no?

Mr. GRUMBLES. Well, the yes or no is we believe that it is important to follow for chemical security purposes a CFATS framework, and we are working with DHS on how to go about doing that.

Ms. SOLIS. Is that a yes then?

Mr. GRUMBLES. We think it is important to have authorities.

Ms. SOLIS. It is important, so I take that as a yes. Third question, your office at EPA has been in possession of water utility vulnerability assessments for the last 5 years. In what year and what month was the gap in the regulatory framework identified?

Mr. GRUMBLES. I want to get back to you when you talk about specific months or years, but this is important to describe to you the process as we have learned. When the Congress acted and specifically excluded the water and wastewater sector from chemical security regulation. We wanted to observe, along with DHS, what steps the utilities would be taking on their own initiative since it is not part of a regulatory effort. So as we have done that over the last several months, over the last year in fact——

Ms. SOLIS. But what specific month and year did this come to light?

Mr. GRUMBLES. Well, I would say that when—one very key part of it was when the utilities on their own effort conducted a survey recently, and that was just several months ago, early 2008. It was clear to us and others that——

Ms. SOLIS. Do you have a month?

Mr. GRUMBLES. I want to say February, but I am not sure if that is—no, we are not——

Ms. SOLIS. February of——

Mr. GRUMBLES. Madam Chair, we will get back to you on it, but the important point is that we have been learning over the last year trying to find what the utilities, this industry sector of water and wastewater have been doing. They have been working to survey their members, and we did get briefed on the results of that information. And that was earlier this year, and from that, we concluded some are doing a great job. Others we really don't know. There is an information gap——

Ms. SOLIS. Right.

Mr. GRUMBLES [continuing]. In what utilities are doing.

Ms. SOLIS. OK, I would like to ask Colonel Stephan a couple of questions if I might. On April 18, 2008, EPA officials advised staff that prior to that date no one from the Department of Homeland Security had reviewed the drinking water vulnerability assessments, which are held at EPA in the past 2½ years. Isn't it correct

that you only visited the EPA vault and reviewed assessments after you met with Energy and Commerce Committee staff in April of 2008?

Colonel STEPHAN. If that is a fact that if that is a performance measure that you would hold me accountable to in terms of how I am doing my job, I would say that I am very extensively and actively engaged across the water sector with the EPA and the utilities. And they will certainly attest to that fact. The way that HSPD 7 carves out the responsibilities between Mr. Grumbles and I is he basically focuses on things inside the facility fence line. Hence those vulnerability assessments come in to play in a big way. I focus on pieces of the puzzle outside the fence line.

Ms. SOLIS. My concern, however, is that for 2½ years there wasn't any review of the vulnerability. So how can this policy be responsible if you are just barely recognizing now that there has to be more attention paid here?

Colonel STEPHAN. Ma'am, there is a difference between reviewing vulnerability assessments that are now 3 to 5 years old and actively engaging with the water sector to determine from their own mouths what, in fact, the security posture of this water sector at large is. And I believe we have been actively engaged over the course of the last 3 years of my tenure with the water sector to do deep dives on vulnerability at the facility level.

Ms. SOLIS. OK, my time is up. I will now recognize the ranking member, Mr. Shadegg.

Mr. SHADEGG. Thank you, Madam Chairman, and I am struggling to get my hands around whether or not this is a gap in the legislative authority, which has been granted, or whether it is a failure of the agencies to use the powers they currently have.

And I haven't yet heard a clear explanation, at least not one that I understand of what the gap is. So, Mr. Grumbles, can you state for me what you consider or, Mr. Stephan, what you each consider the gap to be?

Mr. GRUMBLES. I will start. Just to get it out of the way at the beginning, I would say there is no bioterrorism act that applies to the wastewater sector. So the vulnerability assessments that drinking water utilities were required to do and had it done——

Mr. SHADEGG. Well, Section 550 of the Department of Homeland Security Appropriations Act of FY 2007 created a program within the department—I think that is the Department of Homeland Security—to regulate chemical facilities for security purposes. Is that not correct, Mr. Stephan?

Colonel STEPHAN. Yes, sir, but water and wastewater facilities were specifically exempted from that legislation.

Mr. SHADEGG. OK, and those are within the jurisdiction of EPA?

Mr. GRUMBLES. EPA, and the gap is that—one gap that we are very interested in working with Congress on is with respect to wastewater facilities because there are no requirements to do vulnerability assessments. Many have been doing that. I will set that aside. With respect to drinking water, we feel that with respect to chemical facilities, DHS and EPA believe that the gap, the exemption that was established, should be closed and that we all need to work together, not let jurisdictional, whether it is congressional or

agency, boundaries prevent us from working to ensure that chemical security is carried out at water and wastewater facilities.

There is also a recognition on EPA's part, that the vision of this committee and the Congress in 2002 in requiring vulnerability assessments has proven to be a very wise decision. Those vulnerability assessments that the drinking water utilities carried out have almost 100 percent compliance in terms of submitting them to EPA, and have been very useful to us. But those vulnerability assessments are 4 to 5 years old. There is not arequirement to update them; although, I think a lot of utilities do step forward and update and revise them to reflect new risk and concerns. But we think that is a potential gap as well.

Mr. SHADEGG. OK, so the gap, as I understand it, what you are talking to us about today is a gap with regard to the inspection of drinking water facilities, not chemical plants. And you would say that there is a program in place under the Public Health Security and Bioterrorism Preparedness Response Act addressing other locations, thus in the chemical plants themselves? And I guess to follow up on Ms. Solis's question, when did you—and maybe you answered this for her or not. I guess she asked you a specific day and month. I guess my question is when did you recognize that there was nothing covering drinking water facilities in your view?

Mr. GRUMBLES. Well, over the last year or so, we have been aggressively working with the water utility community to see what they are doing. It is very clear—DHS and EPA have been working very closely on this for a long time. And, Madam Chair, we have shared with them the basic conclusions, the risks and concerns that we have learned from as we have read vulnerability assessments.

But it is clear to us that one of the greatest risks is certain chemicals of concern such as chlorine or anhydrous ammonia. And so we have realized when we worked with the water sector early this year to hear about their survey results as to what members were doing, what the utilities were doing across the country.

We were not confident that all of them were doing what they could and should be doing. We were also not confident that the information was as robust a data set that we could rely on and that they could benefit and we could benefit by helping to close that gap that was created when Congress exempted the water sector from chemical security regulation under the CFATS framework.

Mr. SHADEGG. My concern is that CFATS having just gone into place and the regulations just having been implemented, as a matter of fact, I understand that they are not yet fully implemented for the two highest tiers of high risk by DHS. It seems to me H.R. 5577 goes way beyond the gap that you have identified. And I guess my concern is if this is a legislative hearing on H.R. 5577 and if we are looking at adopting that entire new regulatory scheme, is that necessary to deal with the issue of drinking water, which you have identified today in your testimony as a gap about which you are concerned. And I haven't heard any testimony on that point.

Mr. GRUMBLES. Well, what we are joined at the hip on and are saying to you is that we are focusing just on the water sector, water and wastewater sector. And we are saying for that sector as it relates to chemical security, there is a gap and that we believe

that there needs to be a framework consistent with the CFATS framework where both agencies are involved in it because water utilities are unique and they need to involve both perspectives, not just security but be able to take into account safety and public health and meeting safe drinking water act requirements. And so the message we are saying is that we need to work together with you to close that gap as it relates to water utilities and chemical security.

Mr. SHADEGG. I appreciate that. What I think I heard you say, which I agree with, is consistent with CFATS. So we are not going backward to the chemical industry and imposing a whole new set of rules before the existing rules are put in place. And I see, Mr. Stephan, you are agreeing with that.

Colonel STEPHAN. Yes, sir. We need to give time for CFATS to work to get it implemented. We are 1½ years into a 3-year sunseted program. Our main objective in all this is to remove that sunset clause and allow us to continue to push through a program that has yielded very successful results to this point and promises to continue to do so.

What I would not like to do, and I greatly respect Chairman Thompson, his staff. They have been very professional in all of this, but I think there are some significant unintended consequences as we have gone from our initial authorization of about a page and a half in our '07 Appropriations Act now to an 83-page document that introduces many, many complex factors into the mix to include potentially several different——

Ms. SOLIS. The time has expired.

Colonel STEPHAN. Thank you very much.

Ms. SOLIS. OK, we can come back if we need to for a second round if people have an interest there. I would like to now recognize the gentlewoman from California, Mrs. Capps.

Mrs. CAPPS. Thank you to the witnesses, and I have questions for each of you. And I know your answers will be succinct so I can get through them. Mr. Grumbles, under the Safe Drinking Water Act, states such as California can apply more stringent standards to protect the health or welfare of their citizens. Do you agree the same principle should apply here and states like California should be allowed to require more stringent security measures at drinking water facilities and chemical facilities if the State deems it necessary to protect the health and welfare of its citizens?

Mr. GRUMBLES. I think it is important to provide some necessary degree of flexibility to States to carry out their particular objectives, but I would say that there is also—there does need to be, Congresswoman, a recognition that if we are implementing a Federal program for chemical security, there needs to be a Federal framework that is put into place. And so there might be questions if there is an actual conflict.

Mrs. CAPPS. The question is is this a floor or a ceiling? Don't you think it is the State's responsibility if they have local knowledge and facts and circumstances to ensure that chemical and water facilities within its borders do not create security or public health risk for citizens living nearby?

Mr. GRUMBLES. I think it is a fair question, and a fair response is that there needs to be a balance that is recognized. I do want

to state though that there is a concern I would have, and I think I would turn to Colonel Stephan if there is a conflict or if there is something that would be inconsistent with the Federal framework that could be a problem.

Mrs. CAPPS. I guess my question to you, and I will turn to the Colonel, why would you challenge some state agency that wants to play a role or go beyond the minimum Federal standards the way other environmental and civil rights laws allow. This is exactly what H.R. 5533 tracks. But I do want to turn to the Colonel. Colonel Stephan, I wonder if you have read the two bills that are the subject of our subcommittee hearing today.

Colonel STEPHAN. Yes, ma'am, I have read them.

Mrs. CAPPS. And you understood this is a legislative hearing?

Colonel STEPHAN. Yes, ma'am.

Mrs. CAPPS. And I wondered why there aren't any specific comments in your testimony about the legislative provisions in either of these bills.

Colonel STEPHAN. Yes, ma'am, it is just we have just recently put together under the department's official signature a views letter that has gone to Chairman Thompson's committee that——

Mrs. CAPPS. So you do have views on the actual——

Colonel STEPHAN. We do have an official views letter that has been submitted to Chairman Thompson. We did not want to get ahead of that game in terms of providing our primary oversight committee our views first.

Mrs. CAPPS. Madam Chair, I would hope that we would at some point be privy to that kind of a letter too, and perhaps that is something that can come up later. I do want to give whatever remaining time I have to you to talk about the issue of Federal preemption.

Colonel STEPHAN. Yes, ma'am.

Mrs. CAPPS. I want to ask you what specific criteria would the department use to determine whether there is a direct conflict between the Federal law and regulations and those issued by a state with respect to security at chemical facilities.

Colonel STEPHAN. Yes, ma'am, and for the record, at this point in time, all the state—to the state and the county level, those jurisdictions across America that do have chemical regulations on the book, there is absolutely no conflict in terms of raw analysis between anything existing on the books right now. I think it is important that as we are going to implement a national program——

Mrs. CAPPS. Right.

Colonel STEPHAN [continuing]. That we have national consistency across states to the degree possible. But then there are some areas where we need to balance perhaps some additional tailoring. That is why we are building the security plans with not only the facilities but with state and local law enforcement and emergency responders——

Mrs. CAPPS. Right.

Colonel STEPHAN [continuing]. To make sure during the security plan building and development process we have rolled in their equities.

Mrs. CAPPS. So you do agree with that provision in H.R. 5533 that would indicate that the Federal laws and regulations would be a floor and not a ceiling?

Colonel STEPHAN. No, ma'am, I do not share that opinion, and here is the reason why. If the states would build something that you would term most likely more stringent, and for example, this particular state would require every facility to do things the same way and——

Mrs. CAPPS. Within that state?

Colonel STEPHAN. Within a state. And that information we publicize, I am afraid that we would develop a plan cookie cutter that you would deem more perhaps stringent than the Federal standards publicly accessible to lots of people to include terrorist planners and operational surveillance personnel. And in that particular context, I don't have a feeling of comfort. So I don't think we should take a look at the stringency. I think we should take a look at the balancing of the Federal prerogatives and the state prerogatives, and we should work it out between the states and the Federal Government without a piece of legislation coming in on top of that that says there is no balance; it is this way or the highway. I think that is very important. There has to be a balance, but we cannot let a security plan be developed according to a cookie cutter approach that is not properly protected——

Mrs. CAPPS. I guess——

Colonel STEPHAN [continuing]. And has the potential for release.

Mrs. CAPPS. Who is doing the cookie cutter, the Federal Government or the state?

Colonel STEPHAN. As a hypothetical example, for example, say the states want to have the security facilities or the chemical facilities build a security plan that says you must do the following 32 things to this standard, and that is publicly released. Now, an al-Qaeda operational planner has access to that information, and I think that is a very dangerous state of affairs.

Ms. SOLIS. Time has expired. I thank the gentlewoman for her questions. Next I would like to recognize the gentleman from Texas, Mr. Barton, for 5 minutes.

Mr. BARTON. Thank you, Madam Chairwoman. I want to give the subcommittee a little history lesson before I ask a question. Back in 2004, 2005, in that time period, there was a debate about whether we needed to establish a specific committee for Homeland Security. At that time, myself and now Chairman Dingell and numerous other chairmen and ranking members on both sides of the aisle did not feel that we needed to establish a specific committee.

But notwithstanding that, the former speaker, Speaker Hastert, decided that we needed a committee. So we established a Homeland Security committee. In the establishment of that committee as chairman of this committee, I was very adamant that we not lose jurisdiction, and we didn't.

The bills that were referred on this subject that is before us today in the prior Congress came to the Energy and Commerce Committee. They didn't go to the Homeland Security Committee.

The law that we are talking about today, this Section 550 of the Appropriation Act was negotiated between this committee and the Homeland Security Committee on a bipartisan basis and on bi-

cameral basis. Senator Byrd in the Senate had quite a bit of input, but the result was language, this Section 550 language in the 2007 fiscal appropriations law that is being implemented by the Homeland Security Department today. Everything in this Section 550 is within the jurisdiction of the Energy and Commerce Committee.

Now, in this Congress, the Homeland Security Committee, under the able leadership of Chairman Thompson, has introduced another bill and may have, being the crafty fellows that they are, put additional information and additional requirements in it, that does give it jurisdiction of the Homeland Security Committee.

At a minimum, members of this committee on both sides of the aisle ought to insist if we are going to supercede Section 550 that we at least take the Wynn bill as a starting point because it is jurisdictionally within the Committee of Energy and Commerce, and the Thompson bill is not. Now, I hope we can agree the aisle on that.

With regards to Section 550, it is not that long. If you actually read it, you can understand it. It was written at my direction, and being an engineer, I asked them to write it in language that engineers can understand. And you can understand it. It requires interim regulations on a risk-based basis to be put in place within 6 months of the date enactment of the law and that those interim regulations shall stay enforced until 3 years after the date of enactment unless superceded by specific legislation. Now, the key word in Section 550 is let us get on the stick and get it done. And then let us base it on risk so we don't micromanage. Now, the Thompson Bill, if you look at it, is an 80 some odd page micromanagement bill which, if you want to shut down the chemical industry in the United States of America, support the Thompson Bill because if we try to implement that approach, you are going to see chemical plants all over this country shut down and go to Asia and to a lesser extent probably the Caribbean and South America but certainly Asia and the Middle East.

I don't think that, given the state of our economy right now, that we need to be eliminating even more jobs. So that is really more of an opening statement, and I am almost out of time in questions, but I would ask members on both sides of the aisle if we need to do something different than Section 550 and we understood when we did 550 that later on there probably would be a permanent statutory bill. Let us at least do it in a way that we keep the chemical industry in the United States, and just from a parochial point of view, Madam Chairwoman, I hope we will agree to do it so that it is jurisdictionally within our committee.

My time has expired, so I want to thank the two witnesses for listening. But primarily my audience is members of the subcommittee. And with that, I yield back.

[The prepared statement of Mr. Barton follows:]

Opening Comments of Congressman Joe Barton
Ranking Member, Committee on Energy and Commerce
Legislative Hearing by Subcommittee on Environment and Hazardous Materials on Chemical Plant Security Legislation: H.R. 5533 and H.R. 5577
June 12, 2008

I want to thank the chair for yielding me this time to speak on today's hearing and the bills we are covering: H.R. 5533 introduced by our former colleague, Mr. Wynn, and H.R. 5577, introduced by Mr. Thompson from Mississippi. These bills provide us two very different ways of approaching chemical plant security that we should seriously dissect and amend if Congress is to pass any future legislation on this matter.

Before we even get to the bills that are before us, I think we need to hear from the first panel how the implementation of the existing chemical facility security law is progressing. Practically speaking, a call for new regulatory regimes is going to freeze progress and punish those people who tried to do the right thing by their communities and the law. With the amount of private and public sector investment -- including time, manpower, and resources -- that is occurring to comply with these rules; I think it is inappropriate for Congress to be changing the game midstream and with no lessons learned.

Some of the people who are advocating the Thompson bill, H.R. 5577, think our country and perhaps our world would be better off without chemical facilities. To paraphrase one proponent of H.R. 5577: the best way to avoid a risk is to have no risk. Having served as the Chairman of this great

Committee, and knowing the positive import of chemicals on jobs, commerce, and public health needs, I find this notion naïve. We should not be so afraid to be smart about how we do business that we force business into the willing arms of the Chinese, the Indians, or the Arab world.

This does not mean that I am opposed to chemical security legislation – these facilities should not be targets. Instead, I am opposed to duplicative, fractured, over-produced regulatory regimes that do little to promote both security and economic growth and instead service private interests on the American taxpayer's nickel. This is why I fundamentally oppose the Thompson bill. Let me list off a few of the issues in this legislation that trouble me:

First, the legislation thinks that the Department of Homeland Security needs to micromanage the economy. It does this by forcing chemical facilities to switch to alternative inputs or processes whether they are appropriate or necessary. Further, they force companies to trade one serious risk for another. This is not risk management, it is risk switching and it is dangerous.

Second, H.R. 5577 does a terrible job of outlining the "rules-of-the-road" for any potentially regulated entity. It does not define chemical, gives broad latitude to DHS to address any chemical substance, and lets DHS classify a facility's risks and responsibility based on whim and not statutory criteria. This is a regulators' fantasy, a trial lawyers' bonanza, and a plant manager's nightmare.

Third, H.R. 5577 continues legislative efforts to weaken information protection for the most sensitive and vulnerable parts of a chemical plant. If these installations are as big a threat as some allege, then they should have maximum security protection. This does not mean that they can hide environmental reporting data that is not sensitive and is required under other laws. It means that terrorists hire lawyers too and the courts should not be a conduit to vulnerability maps.

Fourth, I am concerned that H.R. 5577 seeks to discard the work of several voluntary initiatives led by different sectors of industry as well as a successful legal regime dealing with drinking water facilities, while at the same time selectively leave others alone. I fear the bill is trying to artificially create a gap requiring a major regulatory expansion, but achieving not much more in the way of protection. This Committee should not support DHS's inclusion of new responsibilities when it has not finished its core work and its drinking water the experience is thin.

Finally, H.R.5577, as well as the Wynn bill, gets it wrong, in my opinion on Federal pre-emption. While I typically think state prerogatives should be protected, in the interests of national security and interstate commerce – which it what this bill will primarily effect – we should not allow state or local laws to obstruct, pose obstacles to, or frustrate the purpose of our Federal chemical security law. These bills are an invitation to other government bodies to wreak havoc with a coordinated national system and fly in the face of strict pre-emption regimes for equally and robustly regulated sectors like aviation, nuclear, and hazardous material transportation.

Madame Chair, I believe it is appropriate that we are having this hearing because there are far more questions that these bills raise than they appropriately settle. As the Committee of primary jurisdiction for chemicals regulation, we know the impact of these kinds of regulations on the economy and jobs. We must act prudently and I would urge that we move with extreme caution in taking up either of these bills of the only threat will be the empty factories abandoned for foreign shores.

Ms. SOLIS. Thank you, Mr. Barton. Next I would like to recognize the gentleman from Texas, Congressman Green.

Mr. GREEN. Thank you, Madam Chairman. I thank you for holding this legislative hearing, and I would like unanimous consent for my statement to be placed in the record. Sorry I was detained earlier. But part of that, I have a letter on chemical facility background checks from the Industrial Safety Training Council, which is a facility in our district in Baytown, Texas. I would like unanimous consent to have that placed into the record with my statement.

Ms. SOLIS. Without objection.

[The submitted material appears at the conclusion of the hearing.]

Mr. GREEN. Madam Chair, I have a number of questions that will probably run out of time, but because the ranking member of the full committee raised the question. Colonel Stephan, you told Ms. Capps that you did not want to comment on the two bills that were the subject of this hearing because you wanted to respond to Chairman Thompson first. In effect, that is a refusal to address the topic at this hearing, and you have already responded to Chairman Thompson.

I have a letter that was sent on June the 3rd that requested your testimony to address provisions of these two legislative proposals. Did you receive this letter from June 3?

Colonel STEPHAN. Yes, sir, I did.

Mr. GREEN. You know, as you can tell, there is sensitivity bipartisanly on making sure that both the Energy and Commerce Committee and the Homeland Security Committee share jurisdiction. But we have the interest in some of the facilities. In fact, I would probably put the number in my district compared to anyone else in the country, probably many more than most people have because I have the Houston area and I have the Chemical Complex. Is there a reason why you weren't prepared to share what you sent to Chairman Thompson with us today outside of just wanting him to get the first bite at it?

Colonel STEPHAN. Sir, first of all, no disrespect intended of any of my actions to any of the distinguished members of this subcommittee. I did not have an official position approved by the leadership of my department until yesterday, so that is why you did not see any specific commentary on any provisions of either proposed sets of legislation in my written testimony. I certainly am available today and would be eager to answer any questions that you might have about either of the two pieces of proposed legislation before this committee today.

Mr. GREEN. Well, I would think in the future you might want to send—if two committees have jurisdiction and you respond to one chair, you probably ought to respond to the other chair and the ranking member just for courtesy because we are considering the bill today in our legislative hearing, and we would like to have the information that Homeland Security Committee obviously had.

Colonel STEPHAN. Sir, please accept my sincere apologies on behalf of the department.

Mr. GREEN. Like I said, Madam Chairman, I have a lot of questions, and I know you said we will have a second round. So I appreciate that.

Mr. Grumbles, the EPA testimony notes that EPA, DHS, and the National Association of Clean Water Agencies have developed a software program called the Chlorine Gas Decision Tool for Water and Wastewater Utilities, which estimates the monetary and nonmonetary costs and benefits of various water treatment technologies. A report from the Center for American Progress indicates that several hundred water utilities have switched from large-scale onsite storage of chlorine gas to safer alternatives. Has this chlorine gas decision tool encouraged utilities to pursue these safer alternatives?

Mr. GRUMBLES. Congressman, I think what it has encouraged utilities to do is to take a hard look at whatever technology they are choosing and to look for the most effective and efficient. And I can tell you that having visited many water and wastewater facilities across the country, there are instances where chlorine is the most effective and efficient method to meet Safe Drinking Water Act or Clean Water Act requirements. But I think that tool has been a good example of a voluntary technical assistance guide so that communities can be taking a hard look at whether or not to use chlorine or other certain chemicals.

Mr. GREEN. OK, this is for both Colonel Stephan and Mr. Grumbles. Has DHS and EPA developed any other decision tools for other chemical facilities besides water utilities to encourage them to adopt inherently safer technologies? And do you think it would be possible to come up with other tools for chemical sectors to promote the risk reduction? Is there any other tools other than that for other chemical facilities, or do you think there is anything on the horizon?

Colonel STEPHAN. Sir, in terms of the inherently safer technology piece, I am not sure I am able to answer that question, but we are developing with the EPA and updating actually a risk assessment methodology tool for use in the water and wastewater sectors in addition to automating and updating the vulnerability assessment methodology specific tool that the EPA developed several years ago. So that has been a collaborative effort. It does address consequences. It addresses threats and vulnerabilities as part of the overall risk assessment methodology.

Mr. GREEN. And as far as you know, DHS or EPA doesn't have any other of these similar plans for other parts of the chemical sector?

Mr. GRUMBLES. Well, other parts of the chemical sector, no, I can't speak to that. I can just reassure you that when it comes to chlorine and the water sector, where we are is to provide tools and information so that communities can choose the most effective means. And that doesn't necessarily mean moving away from chlorine, but it also helps them understand the risks if they are going to choose to use chlorine as to securing it, storing it safely, and taking into account other authorities we may have under other statutes.

Mr. GREEN. OK, thank you. Madam Chairman——

Ms. SOLIS. Time has expired.

Mr. GREEN [continuing]. I have exhausted my time. I appreciate the second round.

Ms. SOLIS. Thank you. Next we would like to recognize the gentlewoman from New Mexico for 8 minutes, Congressman Wilson.

Ms. WILSON. Thank you, Madam Chair. I wanted to ask both of you about research and development for what your agencies are doing with respect to investments and research and development for continuous monitoring of high hazard materials. Can you explain what you have in work on that?

Mr. GRUMBLES. Well, I will start, Congresswoman. We have, in Cincinnati, a lab that is devoted to Homeland Security research and development. And one of the highest priorities, one of the several priorities of that national laboratory program, is water security monitoring for purposes of actively and thoroughly monitoring chemicals, both the potential for biological or chemical warfare agents being introduced into a system.

We also have—our office of research and development has been involved with us in the review of vulnerability assessments of water facilities so that we can identify potential research gaps in all aspects of water security, whether it is prevention or detection or safer storage of chemicals at facilities.

And I can tell you that as we stand together with DHS and tell you today that there is an important gap in how the water sector and chemical security interact, we think it is very important to be touring facilities and gathering information from the utilities about how they are storing chemicals of interest, such as chlorine or anhydrous ammonia or others. But——

Ms. WILSON. I am not interested in your touring of facilities, Mr. Grumbles. I am interested in how much you are investing in R&D. What is your budget?

Mr. GRUMBLES. I am going to have to get back to you on the specific dollar amounts. I know that we had a $7 million budget investment from the office of research and development for the last couple years on——

Ms. WILSON. $7 million invested in?

Mr. GRUMBLES. Water infrastructure, R&D work related to water infrastructure, and I believe some of that included water security. But I am going to need——

Ms. WILSON. So it is $7 million?

Mr. GRUMBLES. Well, that is just one example. The administration and EPA have been putting a priority on water and Homeland Security over the last number of years, and an important part of that is the research and development budget. But if I could get back to you on the specific dollar amount.

Ms. WILSON. Yeah, I would hope that you find that that number is wrong because it is woefully inadequate.

Mr. GRUMBLES. Well, that was just one example of one activity. I can tell you right here that that is not the sum total amount. That was just one——

Ms. WILSON. Have you developed an R&D roadmap for the research and development of technologies for continuous monitoring of high hazards for water system?

Mr. GRUMBLES. I know we have a research roadmap. I don't know the extent to which it is—how much of it that is focused on

the continuous monitoring component that you are asking. I know that there is very much a research roadmap for security purposes when it comes to water, whether it is chemicals or biological or physical hardening or preventing physical intrusions.

Ms. WILSON. Colonel Stephan, what is DHS doing in this regard?

Colonel STEPHAN. What we have done is worked with EPA and actually all of our partners across the 18 critical infrastructure sectors. We have a requirements generation process in place now whereby the sectors, to include Federal agencies, state and local government reps and the private sector, introduce on an annual reporting basis now specific chemical, biological, radiological threat vector requirements to me that require some kind of S&T or R&D component. I take those every year.

They will be turned in to me this year on 1 July by each of the 18 critical infrastructure sectors. I will mine those for the chem/bio/rad pieces. We put them against our national risk profile, and then we turn the requirements after they have been validated and prioritized over to Admiral Jay Cohen, secretary for science and technology.

Ms. WILSON. Colonel Stephan, what is your budget for R&D?

Colonel STEPHAN. Ma'am, I don't have a budget in my office for research and development. I would have to get back to you with the science and technology folks to provide you a comprehensive breakdown.

Ms. WILSON. Thank you. I think this is a classic example of where our government tries to do the same things the same way and by more guards and guns and levy huge requirements, often bureaucratic requirements, for assessments, plans, and procedures.

And we are now almost 7 years after 9/11, and the fact that we still can't offer some low-cost meaningful technology for continuous monitoring of water systems, whether they be major municipal ones or small rural ones. And we continue to underinvest in R&D in this area. This is a perfect role for the Federal Government, and I don't see that EPA is doing anything different than you have ever done.

Mr. GRUMBLES. Well, I——

Ms. WILSON. I think we need——

Mr. GRUMBLES. Congresswoman, I would just say that one of the reasons that we see so much promise in the water security initiative is precisely because that five-city pilot program is going to provide very important information on cost-effective technologies for online monitoring and for monitoring potential contaminants in the distribution system and for finding more effective ways through science to get the word out to the communities as quickly as possible if there is a risk of some type to the water system.

So we need to do more, but we do recognize that science and technology is a key tool to getting where all of us want to get.

Ms. WILSON. Well, we are probably spending hundreds of millions of dollars on bureaucratic regulation and a pittance when it comes to real systems that water system operators can use to continuously monitor the quality of water so that you can detect that you have a problem before it makes somebody sick. And I would encourage you to start thinking in different ways.

Thank you, Madam Chair.

Ms. SOLIS. Thank you. Next we will recognize the gentleman from North Carolina, Mr. Butterfield, for 5 minutes.

Mr. BUTTERFIELD. Thank you very much, Madam Chairwoman. Just to open, let me ask unanimous consent that my written statement be included in the record.

Ms. SOLIS. Without objection.

[The prepared statement of Mr. Butterfield follows:]

PREPARED STATEMENT OF HON. G. K. BUTTERFIELD

The events of September 11th introduced us to a New America where our recognition of potential threats has expanded prodigiously. It is clear that in the wake of that tragedy, we must be vigilant in carrying out security measures to ensure the integrity of our chemical institutions. I look forward to today's hearing as an opportunity to discuss the legislative options available to secure the suddenly ubiquitous chemical threats throughout our country. Extending and amending authority to secure our chemical facilities beyond the sunset date through one of these two bills is absolutely necessary to ensure our chemical safety for the coming future.

Though both HR 5522 and HR 5577 accomplish the critical task of extending the sunsetting statute, I do not take lightly the substantive differences in the bills. Most notably, I am concerned with the new authority granted to the Department of Homeland Security in HR 5577 over public water systems, treatment works, and facilities currently regulated under the Maritime Transportation Security Act (MITSA). There is no doubt that the Chemical Facility Anti-Terrorism Standards (CFATS) is in need of reauthorization, but I am cautious to enact sweeping changes to the legislation when full implementation has not been allowed. Further, transferring authority of the currently exempted facilities has the potential to create duplicative regulatory measures on water utilities and ports already effectively regulated under the Environmental Protection Agency and Coast Guard.

I do applaud the strong and consistent framework of security that these two pieces of legislation provide. I look forward to weighing the merits of both, and I anticipate an excellent discussion that will shed light on where we go from here. I thank our distinguished witnesses for their testimony and I thank the subcommittee for holding this hearing.

Mr. BUTTERFIELD. Let me join all of my colleagues in thanking both of these gentlemen for their testimony today. It has been somewhat enlightening. There are still some things that have been unanswered, but let me start with the Assistant Administrator, Mr. Grumbles. Thank you very much for your testimony.

Mr. Grumbles, you have talked extensively about the obvious regulatory gaps, and I think we can all agree that they certainly do exist. Did the EPA consider submitting legislation through the administration to call attention to this problem?

Mr. GRUMBLES. We think the first step is to call attention to the problem and signal that we, DHS and EPA, are working together. And that is what the purpose is of our joint statement and testimony.

Mr. BUTTERFIELD. But was any recommendation regarding——

Mr. GRUMBLES. We are working——

Mr. BUTTERFIELD [continuing]. Legislation?

Mr. GRUMBLES. Congressman, we are in the midst of discussions about details of positions and whether legislation or principles or recommendations to Congress would be appropriate. I can tell you that as we are looking at the pending legislation that is before the Congress, one bill continues to exclude the water and wastewater sector. Another bill does not, and we believe it is important to find a way to close that gap, not continue to exclude the water and

wastewater sector from chemical security regulation and that we should be using a CFATS chemical facility antiterrorism standards framework, but that is going to need to have both a DHS perspective and an EPA perspective particularly recognizing, as this committee does, that it is more than just about security. But Congressman, we really do—we are rolling up our sleeves to work with you to have——

Mr. BUTTERFIELD. We are going to be shutting down in a few weeks. The 110th Congress is coming to a close in just a few weeks. Maybe the 111th Congress under a new administration might look at it differently.

Let me ask the other witness, Colonel Stephan. Thank you very much. I am told, Colonel, that DHS was expected to receive 50,000 chemical security assessment tool top screens by January of this year, but as of this date has only received 30,000. First of all, is that true or not true?

Colonel STEPHAN. Sir, the actual number received and processed, analyzed to date has been approximately 32,000.

Mr. BUTTERFIELD. All right, but to what do you attribute the shortfall? And do you expect to receive the remaining 20,000 in the coming months?

Colonel STEPHAN. Sir, there are a few factors to consider. One is the 50,000 was an estimate based upon a universe of uncertain data. So that was our best guesstimate at the time as we were developing the regulatory framework in terms of how many facilities initially would have to do the top screen assessment.

The other piece is that we have put the food and agricultural world, those users of chemicals that represent end-users, fertilizers, and pesticides, on hold over the first phase of this program so that we can do more detailed analysis based upon the initial consequence assessment data we received from importers, manufacturers, packagers, distributors, and retailers. Those folks have been incorporated broadly across our framework, but we want to make sure that this framework doesn't encompass every single farm in America. That is not the intent and purpose of this regulation.

Mr. BUTTERFIELD. Well, was this data incomplete? Was it incorrect or not just sufficient?

Colonel STEPHAN. Sir, for the food and ag piece, we wanted to make sure that we are not requiring every single farmer in America to go through a consequence analysis. So we are working the first data call with the supply chain above the agricultural end-users. We will put another data call out towards the end of the summer that is more surgically targeted on specific aspects of the agriculture end-user committee so we are not overly burdensome in terms of small family farms across America. That is not what this is all about.

Mr. BUTTERFIELD. Well, we missed it by a country mile. That is for sure. I yield back. Thank you.

Ms. SOLIS. Thank the gentleman. Next I would like to recognize the gentleman from Pennsylvania, Mr. Murphy, for 8 minutes.

Mr. MURPHY. Thank you very much, Madam Chair. Colonel, a couple years ago, there was a reporter in Pittsburgh. Carl Prine, I believe was his name. Wrote for a paper called "The Tribune Review" and he did an investigative study which subsequently was

part of, I believe, a CBS "60 Minutes" show. And in this, he just walked right into chemical plants. He actually went in and he asked people within the plant directions of how to get around. People didn't question him. In fact, they gave him directions. He asked about particular valves and pipes and what was in them. Never identified himself as a reporter. Never identified himself, I believe, as someone who just shouldn't have been there.

Now, since then, there are a couple things I wanted to ask because it was the concern that was aired at that time was that how easy it was for people to get into these plants along those lines. Have we solved that problem?

Colonel STEPHAN. Sir, I think we are in the process of solving that problem through the CFATS framework as it applies to chemical facilities that are identified as high risk. Absolutely at the end of this framework if someone can still do that to a high-risk chemical facility, we will have not have done our job.

Mr. MURPHY. I understand there have been significant positive gains though by chemical plants have taken a number of positive steps to secure their areas.

Colonel STEPHAN. Yes, sir, and actually many of them had secured their boundaries, their perimeters, their access control procedures prior to the CFATS regulation. This CFATS regulation helps us level the playing field and ensure more consistency across facilities representing this same level of risk across America.

Mr. MURPHY. Good. A second thing. You had mentioned before the cookie cutter approach which you were concerned about.

Colonel STEPHAN. Yes, sir.

Mr. MURPHY. That there could be a series of regulations that essentially al-Qaeda or someone else could look at that, and they would basically know from one plant to another exactly the same security procedures, although somewhat different in terms of location. What should we do instead? How much flexibility, and how should we set those standards to make sure that there is significant standards there and they can adapt to the site?

Colonel STEPHAN. Sir, under CFATS, we work with the facility to develop, through the consequence analysis, threat analysis, vulnerability analysis, and the 18 performance-based standards of risk profile at the individual facility level, and we are going to offer within the 18 performance-based standards a menu of individual options that the facility would choose from to put in place, which means in essence across the landscape of chemical facilities across America, every facility will have at least a slightly and perhaps greatly different security plan than the one next to it. And that complicates operational planning and surveillance tremendously vis-a-vis our terrorist adversaries. And I think that is one of the key strengths or core strengths of the CFATS program.

Mr. MURPHY. Would that include sufficient flexibility and yet sufficient standards for small plants to—as you mentioned before, you were concerned about farms, and aside from farms, but there are some rather smaller chemical sites. But there are also the massive ones as well.

Colonel STEPHAN. Yes, sir. For example, if you are a facility that represents a giant offsite chemical release, you have multiple chemicals of interest onsite, you are going to be required to have

a multi-layered perimeter defense and access control system, cyber controls and all of that. That would be radically different than the case of, for example, a college or a university that has a chemical of interest that is confined to one room on a giant campus. We are going to require specific access controls procedures, inventory controls procedures, and some kind of locking and warning system that wouldn't encompass the entire university but more so from a nodal security perspective.

So I think there is tremendous flexibility in the CFATS frameworks based upon your operational landscape and your risk landscape at the facility level.

Mr. MURPHY. Thank you. Another question that had come up in past hearings was a question about who has jurisdiction over the chemical facilities? Is it EPA, Homeland Security, state officials, local officials? Have we made progress in terms of defining how that jurisdiction works?

Colonel STEPHAN. Sir, I think one of the most complex parts of my job is figuring out who in fact does have jurisdiction based on security, safety, other frameworks and achieving that unity of effort between lots of people that do have legitimate rights to be on the premises to do different jobs all has to come together.

We have worked that out with EPA in terms of the chemical facility pieces of CFATS. We worked that out with agriculture with respect to the food and ag distribution and other facilities in that part of the framework, with the Department of Education with respect to colleges and universities, with HHS in terms of medical and public health facilities.

I think it is less a question of who has specific individual authority, but how do you blend capabilities, resources, and competing authorities together to get the job done. That is what we should be looking at.

Mr. MURPHY. Thank you. Also I know when we were working on these issues before, the chemical societies that said that they themselves had a number of high standards and that they are members who adhere to those standards or achieving those goals. Are those standards adequate?

Colonel STEPHAN. Sir, I believe in some cases they are. In some cases, they are not. In some cases, facilities, because of their individual level of risk, will have to up the ante, and that decision will be made through the CFATS process at the individual facility level.

Mr. MURPHY. OK, thank you. In another area too, part of the concern is chemicals that are being transported in and out of facilities——

Colonel STEPHAN. Right.

Mr. MURPHY [continuing]. By truck, by tanker car, by other vehicle. Where do we stand—well, first of all, is that within your jurisdiction to also be concerned about transporting those chemicals and as they enter and leave plants where they are just outside that perimeter?

Colonel STEPHAN. Yes, sir. It is not under my jurisdiction in my capacity as the implementer and enforcer of CFATS because my authority really ends at the fence line of the plant. But the TSA, the joint TSA DOT rule, will in fact govern the transportation of hazardous materials to include the chemicals of interest that are

on the CFATS hit parade. And it is the harmonization between the TSA DOT framework and my responsibilities as a CFATS implementer that is key so that we don't have a scene between the fixed storage and pieces and the transportation systems.

Mr. MURPHY. And you are working together in harmony on that so that—because what I heard you say as they enter the plant, they become under your jurisdiction.

Colonel STEPHAN. Yes, sir.

Mr. MURPHY. As they leave, they are going to someone else's jurisdiction?

Colonel STEPHAN. That is correct, sir.

Mr. MURPHY. But you are working together?

Colonel STEPHAN. And it is also important so that we don't make decisions on the plant where we displace the risk, for example, into a railroad car that is parked offsite for an undetermined amount of time with absolutely no security. The TSA DOT regulatory rule piece has to take that into account, and we have to sync the two different but complementary rules together. And that is a challenge, but we are working together with TSA and DOT to do that.

Mr. MURPHY. OK, and finally let me ask in terms of where we stand overall with risk assessment, because a couple years ago, it was frequently a concern that was raised that we were worried that terrorist groups, small and large, that hidden cells around this country that would likely attack a chemical plant because of the large scale death it would cause around the region. Where do we stand now in terms of our assessment? Do we think that they are high level targets remaining, or where do we—how do we look at that?

Colonel STEPHAN. Sir, in terms of that piece, within the CFATS framework, we have just done the consequence analysis across the United States, preliminarily tiered facilities into four categories. The next piece we will carefully examine the vulnerabilities of those facilities, and the final piece will end up in security plans. In terms of the threat piece of risk analysis, I think we have clear evidence, based upon reporting from the intelligence community, that attacking a chemical facility and causing mass casualties would achieve political objectives of terrorist organizations. We see active recruiting efforts on the part of terrorist organizations to bring chemical subject matter experts into their leadership structure, into their subject matter expert structure.

We see terrorist and insurgent organizations actually weaponizing things like chlorine in overseas battlefields, learning lessons that potentially could be applied here. So I think in terms, unfortunately, of the threat piece of the risk equation, the threat remains alive and well.

Mr. MURPHY. You describe things that overseas, but do we see that—when you talk about the recruiting, we suspect that or we know that recruiting is also taking place here in the United States?

Colonel STEPHAN. We expect that recruiting takes place inside and outside the United States at different levels, but I want to make also clear a point that we do not have at this point in time an operational threat screen that is credible or imminent against any individual chemical facility anywhere in the United States.

Mr. MURPHY. Thank you very much.

Ms. SOLIS. Thank you all. Time has expired. Next I would like to recognize the gentleman from New Jersey, Mr. Frank Pallone for 5 minutes.

Mr. PALLONE. Thank you, Madam Chairwoman, and I am going to try to get in three points if I could, one on jurisdiction, one on preemption, and one on safer technologies. I know they all have been discussed.

I was a little concerned, Colonel, and I know you sort of changed a little bit about your statement that, that you had responded primarily to the Homeland Security Committee because you saw them as the committee that you primarily were working with.

I don't want to put words in your mouth or even necessitate a response, but I definitely see this committee as having the primary jurisdiction over this issue. And I think that is the way the current law reads. And I wouldn't want to see that changed, not just because I am on this committee but also because I think that it makes sense since we look at chemical plants in a broader way than the Homeland Security Committee. And I wouldn't want the security issue to be such a prominent issue to predominate, if you will.

So that is one of the reasons why it is important for this committee to retain primary jurisdiction because we are looking at the chemical plant issue in a larger, broader view, and not just looking at it from a security point of view. So I just wanted you to understand where I am coming from in that respect. You don't necessarily have to respond.

I did want to ask questions about the preemption issue though because I may have misunderstood what both of you said. Both of these bills before us, it seems to me, are like the current law. And I know that my Senator Lautenberg from New Jersey put in a provision that essentially says that states are not preempted and that they can be more vigorous and more stringent when it comes to the chemical security issue.

I would want that retained. I would maybe perhaps even want it in even stronger language than the current law. But you seem to suggest that you were not happy with that. I mean do you have a problem with us continuing language like the Lautenberg language that says that the states are not preempted?

Colonel STEPHAN. Sir, I believe we have achieved three tiers of language here. In the current CFATS authorizing legislation, there is no mention of preemption. That preemption piece is mentioned in the implementing rule. In the center, Lautenberg introduced language, basically says that the states can do what they need to do except where there is an actual conflict with the Federal law.

I can abide by that and make things work within that general framework, but I think that the legislation proposed by this committee makes it fairly clear that in all cases state law trumps Federal law. Now lots of people that have gone to many more law classes than me would see that as a fundamental overturning of our system that was 200 years in terms of the relationship between Federal and state law.

But more importantly for me, I think it needs to be a balance. It needs to be a discussion between the Federal Government and

the state government so that we do the right thing and it isn't necessarily a case of either/or.

Mr. PALLONE. All right, well I want to get to my second question, but, Mr. Grumbles, would you agree with him or the way he said it which is that you have no problem with the Lautenberg language. You just are not happy going further with, I guess, the way he has seen the Wynn language? Is that your position?

Mr. GRUMBLES. Well, I think we don't have a formal position on this, Congressman, at EPA. But I feel comfortable with what Colonel Stephan is saying. I——

Mr. PALLONE. That's fine.

Mr. GRUMBLES. Yeah.

Mr. PALLONE. I want to move on to the safer technologies. Well, let me ask a similar question on the safer technologies provision. I mean would you have a problem with—again do you have a problem with us putting some language in this bill that becomes law that addresses safer technologies, either as a mandate that there have to be mandating that there be safer technologies or having some kind of incentivization I guess maybe is another way to put it. How do you feel about those two, either having the safer technology language in mandatory versus incentivized or something else?

Mr. GRUMBLES. Well, Congressman, I will start and just simply say that it is far more complicated than just security and what is the safest technology. From an EPA standpoint, compliance with Safe Drinking Water Act or other public safety or other important interests, I would have concerns, I think the EPA would have concerns——

Mr. PALLONE. Well, let me just ask you have a problem with safer technology language in the bill, either incentivize or mandatory? Yes or no or which?

Mr. GRUMBLES. I don't have a problem with ensuring that utilities take a hard look at what are the technologies. I don't think we need to get into micromanagement. The focus needs to be on results, both in terms of environmental results and public health and public safety. And when we start prescribing for utilities the precise way in which they get to meet Safe Drinking Water Act standards and requirements, I think it is going to lead to problems, complications. But I think it is important through research, through ensuring that every utility takes a hard look at what options they have, and public safety is a critically important part of that.

Ms. SOLIS. Time has expired. Thank you. Next I would like to recognize the gentleman from Florida, Mr. Stearns, for 5 minutes.

Mr. STEARNS. Thank you, Madam Chairwoman. I noticed the lights are on for videotaping, and there is no videotaping here. And we might want to just——

Ms. SOLIS. Could I explain why they are on?

Mr. STEARNS. Yeah, sure.

Ms. SOLIS. Because it is cold in here——

Mr. STEARNS. Cold.

Ms. SOLIS [continuing]. For some of us so——

Mr. STEARNS. OK, I would just think we could save energy.

Ms. SOLIS. Well, we wanted to shine the light on the right people.

Mr. STEARNS. OK, Colonel Stephan, H.R. 5577 really doesn't define the word chemical in the bill. And I guess the question I have for you is would you help us define what the word chemical means in this legislation to you or——

Colonel STEPHAN. I don't know what it means in the context of Mr. Thompson's committee. In the context of the CFATS framework, we have defined—it is up to the discretion of the secretary, of course, to define the chemicals and the secretary——

Mr. STEARNS. Shouldn't that be in the legislation, the definition of what it means?

Colonel STEPHAN. Sir, we are working—through the current CFATS framework, that also was not mentioned in terms of a definition of chemicals. We felt that it was—the secretary had the capability to define what a chemical of interest is. We have defined 322 of them in terms of the CFATS framework, along with corresponding threshold quantities of concern at the individual facility level. And I think that has been a good approach.

Mr. STEARNS. Do you think it is appropriate to have every person in a chemical facility made available to participate in a compliance inspection?

Colonel STEPHAN. Sir, every person in the chemical facility?

Mr. STEARNS. That is what the bill says. Every person in a chemical facility made available to participate in a compliance inspection. Do you think that is necessary?

Colonel STEPHAN. Sir, I think that chemical compliance inspections should involve some type of mixture of security personnel, operations personnel, management, supervisory personnel.

Mr. STEARNS. No, the question is should every person.

Colonel STEPHAN. Sir, I don't think we could possibly ever attain that goal.

Mr. STEARNS. You don't think every person is needed then?

Colonel STEPHAN. I don't think every person is needed——

Mr. STEARNS. OK.

Colonel STEPHAN [continuing]. To do a compliance inspection, no.

Mr. STEARNS. All right, Mr. Grumbles, the bill H.R. 5577 mandates red team exercises. When you look at these teams, they are going to be armed with guns, attacking chemical facilities that have hazardous and flammable materials. Perhaps is this necessary? I mean is it wise to have this type of thing when the possibility a shot may occur or there might be some kind of accident by a red team member? I mean what is your impression upon this?

Mr. GRUMBLES. Congressman, I just have to tell you I don't feel very qualified to offer a judgment on that in terms of red teams and chemical facilities. I can speak to water facilities but——

Mr. STEARNS. What do you think about for water facilities?

Mr. GRUMBLES. Well, I know that it is a full-time job to comply with Safe Drinking Water Act requirements and the many other requirements, worker safety requirements, an array of requirements that are for good reason imposed on water and wastewater utilities and that it is important to be able to balance security interests with public health and safety interests and be able to operate and maintain the day-to-day at the facilities. So I don't think intrusive practices sound like a good idea.

Mr. STEARNS. Colonel Stephan, the operative regulatory authority in the Toxic Substances Control Act allows regulations governing the "manufacture, processing, distribution, and commerce use or disposal of a chemical substance or mixture." Does the Department of Homeland Security have any responsibility for carrying out this Federal law?

Colonel STEPHAN. Sir, I am not at all in any way, shape, or form going to pretend that I have specific knowledge on that particular topic. We would have to get back with you on that. My authorities stem, in terms of the execution of my duties, from the chemical facility antiterrorism standards legislation.

Mr. STEARNS. You don't have any overlapping authority here?

Colonel STEPHAN. Sir, I would have to get back with you on that. I am not an expert on that other piece of——

Mr. STEARNS. Too tough a question to answer?

Colonel STEPHAN. Sir, I just don't know. I am being very honest with you. I do not know. I like tough questions, sir. I just would like to provide you the answers based upon my knowledge rather than guessing.

Mr. STEARNS. Now, this bill H.R. 5577 requires the Department of Homeland Security to assess the adverse effects to human health and the environment from a chemical incident. On what information would you use to do this? Have you used EPA data for risk management plans under the Clean Air Act to accomplish this kind of activity in the past?

Colonel STEPHAN. Yes, sir, in terms of implementing CFATS, we just went through a very complex consequence analysis piece. We used EPA data. We used data from the Department of Transportation and the Department of Commerce principally——

Ms. SOLIS. All time has expired.

Colonel STEPHAN [continuing]. And ATF.

Ms. SOLIS. I would like to next recognize the gentleman from California, Mr. Waxman, for 5 minutes.

Mr. WAXMAN. Thank you very much, Madam Chair. Colonel Stephan, I would like to ask you about the proper roles for the Environmental Protection Agency and the Department of Homeland Security in keeping our community safe. In January of 2006, the Government Accountability Office issued a report entitled "DHS is taking steps to enhance security at chemical facilities, but additional authority is needed." This report examined the roles of EPA and DHS in protecting chemical facilities from terrorist attacks. Are you aware the GAO issued this report?

Colonel STEPHAN. Yes, sir, generally I am aware. I can't recall all aspects of it at this time.

Mr. WAXMAN. Well, the GAO report noted that EPA had greater expertise than the Department of Homeland Security in the area of toxic chemical data sources, U.S. hazardous materials facilities, and process safety issues, among other things. Do you agree that EPA has greater expertise in these areas than DHS?

Colonel STEPHAN. Sir, I would agree that the Environmental Protection Agency has a wealth of data that the Department of Homeland Security does not own, and we have been collaborating and sharing data back and forth to support the CFATS implementation.

Mr. WAXMAN. OK, EPA has regulated chemical, drinking water, and water waste facilities for decades. In 1990, this committee vested EPA with significant authority in response to the catastrophes that took place at chemical facilities in Bhopal, India and in West Virginia.

EPA has led in the development of chemical inventories and risk management and response plans. The Department of Homeland Security did not even exist when EPA began to develop its expertise in chemical management and regulation. GAO recommended that DHS utilize EPA's superior expertise in managing chemical risks. GAO found that implementing inherently safer technologies, or IST, could lessen the consequences of a terrorist attack by reducing the chemical risk present at facilities.

Mr. Stephan, DHS disagreed with this recommendation. DHS stated that promoting inherently safer technology could shift risks rather than remove them. That is your position, isn't it, at DHS?

Colonel STEPHAN. Sir, that is part of DHS's position. Yes, sir.

Mr. WAXMAN. H.R. 5577 specifically addresses this concern raised by DHS. Section 2110 specifically provides that technologies to reduce the effects of a terrorist attack should only be implemented if they don't result in shifting risks to other areas. This is a common sense approach. Would DHS support the use of inherently safer technology as long as risks aren't shifted to other areas?

Colonel STEPHAN. Sir, I think the DHS position is that security and safety are apples and oranges in the context of an individual site security plan and that decisions regarding the implementation or adoption of IST related measures really need to be looked at from a systemic perspective.

And if you would put one of my inspectors responsible for recommending to the secretary of Homeland Security whether to approve or disapprove a plan based upon an IST measure, we are now in a very uncomfortable position of our inspector and our secretary making a decision to approve a measure and a plan that may have unintended consequences across states, across regions, across the economy. And those things need to be dealt with outside the individual site security planning framework of the CFATS.

Mr. WAXMAN. Well, many facilities have implemented this inherently safer approach. Here in the capital's backyard, the Blue Plains Wastewater Treatment plant switched from chlorine gas to bleach, lessening the risk to 1.7 million people that were in the plant's hazard zone. And I would like to ask unanimous consent that, for the record, a 2007 report from the Center for American Progress entitled "Toxic Trains and the Terrorist Threat" be made part of the record. And hope that the chair will put that to the committee.

This report documents the success of inherently safer technology and water facilities throughout the Nation. It shows that inherently safer technology can reduce risks, not just shift them to other areas.

It is an essential role of government to improve the security at our Nation's chemical plants and water facilities. Security is more than just guns, gates, and guards. And all facilities should at least assess their options and choose feasible, cost-effective alternatives that make our citizens more secure. At the highest-risk facilities,

agencies should be willing to prescribe, not just consider, safer technologies when they protect human health and make our Nation less vulnerable to terrorist attacks.

Madam Chair, that completes my questions.

Ms. SOLIS. Yes, and without objection, we will accept that report. Thank you.

Mr. WAXMAN. Thank you very much.

Ms. SOLIS. Thank you very much. We do have time for one more question from our member from Nebraska, Mr. Terry, for 5 minutes.

Mr. TERRY. I appreciate letting me ask the one last question. Just in the last week, I have had our co-ops, and this is for the Colonel because we are not going to—my question isn't about the water. Co-ops who handle fertilizer or propane distribution or propane distributors and our farm bureau who are all very concerned about these bills and how it will affect their day-to-day operations.

A typical farm in the spring is going to possess fertilizer, propane, anhydrous ammonia. How do you see these bills affecting our farmers?

Colonel STEPHAN. Sir, we want to minimize the impact on ordinary Americans to include farmers that don't really represent a high level of security risk. That is the bottom line in terms of the CFATS legislation and the implementing regulation. As a result of our sharing your concerns in terms of the potential hundreds of thousands, perhaps millions of people impact the way the legislation and the rule were originally written. We have kind of put the brakes on going down to the end-user level with respect to requirements of this particular regulation until, over the course of this summer, we can work through the U.S. Department of Agriculture down to their county-based arms of that agency. We recently had about a month ago at Penn State University a big conference of state level food and ag associations and government agencies to help us crystallize our thoughts a little better in this area. And before we take the next move with respect to the agricultural world, have it a lot more targeted in terms of really getting at the big things, the big holders and end-users that represent potentially a serious or significant risk to public health and safety in the area around the facility, whatever it might be, but to not impose a burden on your average family farmer in America, sir. That is not the intent of this regulation.

Mr. TERRY. There is concern that the bills may require otherwise, but I do appreciate your knowledge and perspective.

Colonel STEPHAN. Yes, sir.

Mr. TERRY. With that, I will yield back.

Ms. SOLIS. Very good. Mr. Shadegg is recognized.

Mr. SHADEGG. Madam Chairwoman, I have two letters which have been shown to the majority staff, which I would like unanimous consent to include in the record.

Ms. SOLIS. Without objection, those two letters will be included in the record.

[The submitted material appears at the conclusion of the hearing.]

Mr. SHADEGG. Thank you very much.

Ms. SOLIS. Thank you. At this point, we have no more questions from our committee members. We have a series of votes going on. So we will return 10 minutes after we conclude all of our six, I believe six votes that we have. So we will come back 10 minutes after the last vote.

And thank you for being here, our first panel, and we appreciate your responses. And hopefully you will be able to get back to members that had additional questions——

Colonel STEPHAN. Thank you, ma'am.

Ms. SOLIS. Thank you very much. OK, so we are in recess.

[Recess.]

Ms. SOLIS. OK, we are going to reconvene our hearing. I would like to welcome our panelists here. This is our second panel. Thank you for all being here, and I first would like to welcome Brad Coffey, the water treatment section manager at the Metropolitan Water District of Southern California, and invite you to provide us with your testimony for 5 minutes. Thank you.

STATEMENT OF BRAD COFFEY, WATER TREATMENT SECTION MANAGER, METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Mr. COFFEY. Good afternoon, Madam Chairwoman and members of the committee. Madam Chair, also congratulations on your new leadership role on this committee. My name is Brad Coffey, and I manage drinking water treatment for Metropolitan Water District of Southern California.

Metropolitan's five treatment plants, some of the largest in the Nation, purify up to 2.6 billion gallons per day for 18 million people in Southern California. These water treatment plants rely on liquefied chlorine gas to disinfect the water and to maintain essential protection to the consumer's tap.

Today I am here on behalf of the Association of Metropolitan Water Agencies, or AMWA, which represents large publicly-owned drinking water utilities. In my testimony today, I will explain why local water professionals must continue to choose the best disinfection methods.

After 9/11, Metropolitan systematically improved security procedures at its water treatment plants where chlorine is stored. In 2003, Metropolitan submitted to EPA a vulnerability assessment identifying further areas for improvement. Since then, we increased chemical safeguards in several ways, such as developing strict delivery protocols and protecting chlorine facilities within a multi-layered security system. In 2006, Metropolitan completed its most recent study evaluating alternatives to chlorine gas disinfection, and we ultimately concluded that chlorine gas remains our most reliable and effective choice. Other alternatives may inadvertently reduce supply chain reliability, discharge excessive salt to receiving waters, increase the presence of other regulated compounds such as bromate, chlorate or perchlorate, increase local truck traffic carrying hazardous substances, or reshuffle rail deliveries of liquefied chlorine gas to less secure facilities.

Metropolitan and other large drinking water systems are committed to securing chlorine to the highest standards, but the two proposals before the committee today approach this goal very dif-

ferently. H.R. 5533 continues the 2002 Bioterrorism Act's current regulation of drinking water systems. In contrast, H.R. 5577 subjects water utilities to potentially contradictory requirements.

Most problematic with H.R. 5577 is the authorization to force the replacement of critical water disinfecting chemicals. The broad promotion of alternative processes referred to as inherently safer technologies, or IST, fails to recognize the delicate balance used to evaluate potential treatment alternatives while ensuring the delivery of clean and safe drinking water to millions of consumers.

The chart shown here and also attached to my written testimony shows examples of the potential consequences of a mandated IST transition, in this case, replacing gaseous chlorine with bleach for primary drinking water treatment. If MWD were forced to switch, it would result in the delivery of 70 tanker trucks of bleach per week to our largest treatment plant to replace the delivery of a single rail car of liquefied chlorine gas.

Additionally, MWD would need to store the equivalent volume of 280 5,000-gallon tanker trucks of bleach to maintain the same 30-day backup supply currently achieved by four secured rail cars. Is transporting 70 trailers of hazardous chemical through neighborhoods every week and keeping more than one million gallons of bleach on hand at the plant inherently safer than securing four chlorine rail cars?

Likewise, if Metropolitan were to produce dilute bleach on site, again shown in this chart, the processes would require vast amounts of salt, softened water, electricity, backup electrical generators, and diesel fuel to provide equivalent supply chain reliability. These decisions are best made by local water utility experts and demonstrate why any Federal agency must not be given the broad power to mandate local treatment methods.

Despite these reservations, large utilities are committed to protecting vital chemical inventories and routinely replace gaseous chlorine when feasible. Metropolitan Water District, for example, has voluntarily reduced the number of chlorine gas facilities from 17 to 6. One logical approach to this issue is advocated by the Long Beach California Water Department.

In testimony before the Homeland Security Committee in February, Long Beach cautioned against imposing a broad IST mandate but instead proposed that the Federal Government help utilities adopt alternatives when feasible. Long Beach further suggested the Federal grants could encourage the consideration and implementation of alternative treatment methods on a strictly voluntary basis. AMWA endorses this approach.

Effective legislation could also fund enhanced vulnerability assessments which would then meet a defined risk-based standard. Such a plan would help water professionals change treatment methods in circumstances where doing so is found to be the best option, thereby promoting true comprehensive security.

I thank the committee for holding this important hearing today. I would be happy to answer any questions that you may have.

[The prepared statement of Mr. Coffey follows:]

Testimony of Brad Coffey
Water Treatment Manager
Metropolitan Water District of Southern California

On Behalf of the
Association of Metropolitan Water Agencies

Before the
U.S. House of Representatives
Committee on Energy and Commerce
Subcommittee on Environment and Hazardous Materials

Hearing on
H.R. 5533, the "Chemical Facilities Act of 2008"
and
H.R. 5577, the "Chemical Facility Anti-Terrorism Act of 2008"

June 12, 2008

Summary of Major Points of the Testimony of Brad Coffey
June 12, 2008

- Local drinking water utility experts are best equipped to choose the most effective treatment methods and chemicals to disinfect drinking water supplies and protect public health.

- Since the passage of the Public Health Protection and Bioterrorism Preparedness and Response Act of 2002, drinking water utilities serving more than 3,300 customers have prepared vulnerability assessments and emergency response plans to identify and address any weaknesses in their security standards.

- The Metropolitan Water District of Southern California has thoroughly evaluated alternatives to its use of gaseous chlorine as a primary disinfectant, but has determined that the substance remains its best treatment option. The utility has also spent millions of dollars to upgrade the physical security of its chlorine supplies.

- A federally mandated transition from chlorine gas to an "inherently safer technology" would be infeasible for Metropolitan and many other drinking water systems, and would result in risk tradeoffs that could threaten public health. For this reason, the Department of Homeland Security, the Environmental Protection Agency, or any other federal agency must not be given the broad power to override local water disinfection choices.

- When evaluating potential "IST" measures, cost is not the primary consideration for drinking water utilities. Instead, local feasibility issues such as increased truck transport of chemicals, absence of chemical storage space at treatment facilities, increased saline discharges, supply chain concerns, and the disposal of new manufacturing byproducts such as hydrogen must all be considered.

- Some drinking water systems have evaluated their treatment options and successfully transitioned to a gaseous chlorine alternative. The government should encourage utilities to choose the most effective treatment option by offering grant assistance to help utilities update vulnerability assessments, enhance system security, or adopt new treatment technologies when feasible.

- Current law relating to drinking water systems' vulnerability assessments is sufficient, but if Congress decides to impose new updating and reporting requirements on utilities, it must not impose duplicative and contradictory multi-agency requirements. It also must not impose broad "IST" mandates over water systems, and should include robust information protection provisions to ensure that critical utility security information is not made public.

Good morning Mr. Chairman, Ranking Member Shadegg, and distinguished Members of the Committee. My name is Brad Coffey, and I am currently the Water Treatment Manager at the Metropolitan Water District of Southern California ("Metropolitan"), where I oversee the operation and maintenance of five water treatment plants with a total capacity of 2.6 billion gallons per day. Four of the five plants are among the 10 largest in the nation and because of their size have unique and needs and challenges with regard to treatment drinking water supplies and protecting public health.

Metropolitan is a consortium of 26 cities and water districts that provide drinking water to nearly 18 million people over a service area of 5,200 square miles encompassing parts of Los Angeles, Orange, San Diego, Riverside, San Bernardino and Ventura Counties. Metropolitan's five water treatment plants rely on liquefied chlorine gas to disinfect their source water, using approximately 9,000 tons of the chemical per year. Approximately half of this liquefied chlorine is delivered directly to treatment plants by rail, and the remainder is transloaded from railcars to truck trailers for delivery.

Today I am here on behalf of the Association of Metropolitan Water Agencies, or "AMWA," which is an organization representing the largest publicly owned drinking water providers in the United States. AMWA's members provide clean and safe drinking water to more than 127 million Americans from Alaska to Puerto Rico. In my testimony today, I will explain the rigorous review process through which Metropolitan has identified its most effective source water treatment methods, the robust security measures that have been put in place at our plants, and how drinking water utilities and the federal government can work together to ensure the protection of the nation's drinking water supplies and necessary treatment chemicals.

Metropolitan's Security Evaluation and Enhancements

Since 9/11, Metropolitan Water District has been systematically evaluating and improving security systems and procedures at its water treatment plants and chemical unloading facilities where chlorine is stored. In 2003, as required by the Public Health Protection and Bioterrorism Preparedness and Response Act, Metropolitan completed a vulnerability assessment that identified further areas for improvement. Since then, we have upgraded our chemical safeguards in several ways, including:

- Developing chemical delivery security protocols for all chemicals;
- Increasing the presence of on-site security guards;
- Investing approximately $120 million to implement stronger chlorine containment methods at all facilities;
- Ensuring that its chlorine facilities are within a multi-layered system of physical barriers with 24-hour guard patrols, camera observation, and electronic access controls; and
- Reducing the number of facilities that hold chlorine gas from 17 to 6.

In addition, in 2006 Metropolitan completed its most recent study evaluating potential alternatives to the utility's use of chlorine gas, such as on-site production of dilute hypochlorite solution and the purchase of commercial sodium hypochlorite. However, we ultimately concluded that chlorine gas remains our most reliable and effective water treatment choice.

Alternate Treatment Review: On-Site Generation or Commercial Hypochlorite

Currently Metropolitan uses liquefied chlorine gas for disinfection of its drinking water supplies. Using the Joseph Jensen plant as an example, I will provide a review of

two alternative strategies to the current practice of using liquefied chlorine gas: (1) onsite generation of dilute hypochlorite (bleach); and, (2) commercial delivery of industrial-strength hypochlorite.

The Joseph Jensen plant is the second largest plant in the country with a design capacity of 750 million gallons per day. For this review, it is assumed that the plant is operating at 615 million gallons per day, less than its design capacity but well within normal flows.

The first alternative strategy, on-site generation of dilute hypochlorite, would require a three-fold increase of either trailer or railcar deliveries to provide salt – the major raw material – for hypochlorite production. Unlike dry chlorine gas, manufacturing or purchasing bleach unavoidably adds other co-occurring constituents including salt, bromate, chlorate and perchlorate.

With on-site hypochlorite generation, most of the salt used ends up as a waste and results in significant increases in saline discharges from the plant. With salinity discharge limits established for many regional basins, the disposal of salt could be problematic and impact compliance for downstream users. Furthermore, the on-site generation of chlorine raises separate concerns about the generation and safe disposal of hydrogen gas as a chlorine generation byproduct. And, is it unlikely there would be sufficient space at each treatment plant (e.g., Jensen) to construct new chlorine generation facilities which would require vast amounts of softened water, electricity, backup electrical generators, and diesel fuel to provide reliability equivalent to our current practice of storing liquefied chlorine gas for 30 days (see attached chart). Finally, because of the complexity of the systems needed to support dilute bleach production, it is

unclear that on-site generation would be as reliable as the current process.

The second alternative is the commercial delivery of industrial strength hypochlorite. If this option were chosen, it would require a tremendous increase in the number of truck deliveries to replace current chlorine supplies. For example at the Jensen plant, approximately 70 five-thousand gallon tanker truck deliveries of 5.25 percent sodium hypochlorite solution, roughly enough to disinfect one week's worth of water supplies at the plant during peak usage, would be required to replace one 90-ton liquefied chlorine gas railcar delivery (see attached chart).

In addition, the use of commercial hypochlorite by Metropolitan may not reduce the number of railcar deliveries of chlorine gas to the Southern California region because chlorine gas is required for the production of hypochlorite solutions. Since hypochlorite solutions readily decay, especially at elevated summertime temperatures, these solutions are generally produced locally to minimize shipping time and distance. As a result, chlorine railcar deliveries to commercial production and conversion facilities in Southern California would continue. Finally, there are no assurances that secure chlorine gas containment at these local commercial manufacturing sites would be provided to the same degree as those at Metropolitan's treatment plants. These factors led us to determine that such a conversion would do little to actually increase the regional security of treatment chemicals.

Cost Considerations

While not the main factor behind Metropolitan's choice of chlorine gas, it should be noted that our 2006 study found that the costs for all alternatives would be greater than the costs incurred by Metropolitan's current chlorine security program. Metropolitan's

capital cost for its current program to provide upgraded chlorine containment structures at its five water treatment plants and its chemical unloading facility is estimated at approximately $120 million. In comparison, the initial capital cost to generate dilute hypochlorite at each treatment plant was estimated to be 44 percent higher in the 2006 study. Annual operating costs for all alternatives were found to be at least twice as expensive as the $3 million per year expenditure. Again, these increased cost projections were not our primary concern as we evaluated treatment alternatives, but in light of the uncertainty about the viability and consequences of alternative treatments, and considering the robust security enhancements we have already put in place, Metropolitan is confident with the decision to continue using chlorine gas as a primary disinfectant.

Current Legislative Proposals

Let me first clearly state that our organization and other large water systems are committed to securing chlorine and other necessary chemical supplies to the highest standards. In light of our experience with protecting chlorine supplies and evaluating alternate treatment technologies, Metropolitan and other AMWA member utilities welcome the opportunity to offer constructive feedback on the chemical security legislation now making its way through the House. H.R. 5533 (the "Chemical Facilities Act"), as proposed by Rep. Wynn, would not negatively impact the operations of drinking water facilities. However, H.R. 5577 (the "Chemical Facility Anti-Terrorism Act") as approved by the House Homeland Security Committee in March could significantly undermine the ability of Metropolitan and other drinking water utilities around the nation to operate on the basis of expertise and knowledge of our region's source water characteristics. Moreover, the overall public health relies on our undisputed

ability to choose the optimal drinking water disinfection method. As the Energy and Commerce Committee begins its consideration of these proposals, it is our hope that these adverse impacts on drinking water supply activities will be addressed.

As the Committee is aware, the Public Health Protection and Bioterrorism Preparedness and Response Act of 2002 required all drinking water utilities serving at least 3,300 customers to prepare vulnerability assessments and emergency response plans to identify and address weaknesses in their security standards, under the guidance of EPA. In light of this requirement and subsequent voluntary measures taken by drinking water utilities (such as security upgrades, increased training, and chemical reduction and substitution when feasible), in 2006 Congress exempted drinking water systems from duplicative regulation through the Department of Homeland Security's Chemical Facility Anti-Terrorism Standards, or "CFATS." H.R. 5533 in its current form would avoid duplicative and potentially contradictory federal regulation over drinking water facilities by continuing this exemption.

There has been substantial discussion about proposals to reverse the exemption. It is AMWA's position, reflected in H.R. 5533, that existing federal laws pertaining to the security of drinking water systems are sufficient. We are open to discussing proposals that would require the approval of vulnerability assessments and security plans based on a defined risk-based standard, a standard that does not interfere with the abilities of local utilities to properly disinfect their source water supplies.

In our review of H.R. 5577, we have identified several concerns about the authority, granted in Section 2110 ("Methods to Reduce the Consequences of a Terrorist Attack"), allowing DHS to force community water systems across the country to replace

their use of critical water disinfectant chemicals with alternate substances. The blanket promotion of these alternates, commonly referred to as "inherently safer technologies," or "IST," does not recognize the complex process that many water utilities, including Metropolitan, undertook to evaluate potential treatment alternatives in the overall effort to choose the best treatment method to protect public health while delivering clean and safe drinking water to millions of customers.

As I stated earlier, Metropolitan's own evaluation of alternative treatments to gaseous chlorine found, among other obstacles, that it would take approximately 70 five-thousand gallon tanker truck deliveries of sodium hypochlorite solution to treat as much drinking water as is currently disinfected by one railcar delivery of chlorine gas. We do not believe that trucking 70 deliveries of sodium hypochlorite through the streets of Los Angeles on a weekly basis is "inherently safer" than Metropolitan's current security-intensive procedures that receive one rail shipment of chlorine over that same period of time. H.R. 5577, as currently written, would allow federal officials to make these critical decisions on behalf of local water utility professionals. The consequences of this proposal could impose impractical changes on water systems that would not only bring new security challenges, but also public health risks and cost escalations to be borne by local ratepayers. This is why AMWA firmly believes that DHS, EPA, or any other federal agency must not be given the broad power override local drinking water experts.

We are also concerned about sections of H.R. 5577 that would allow DHS to declare a drinking water treatment plant to be a national security threat, and then order the facility to cease operations. We do not believe that the Department is the best authority to make a decision to shut down a community's local drinking water plant. If a

local water utility does shut down, for example, basic fire protection and sanitation services are immediately suspended, thereby leading to a significantly increased public health risk or necessary evacuation of the community. AMWA recommends that this federal shutdown authority over local water facilities be completely removed from the legislation.

The Committee must also strongly protect the critical security information contained within vulnerability assessments and response plans completed by drinking water systems. The Public Health Security and Bioterrorism Preparedness and Response Act of 2002 prohibited the disclosure of the contents of vulnerability assessments and emergency response plans under the Freedom of Information Act. The law also strictly limited access to the assessments to specific individuals identified by EPA, even while allowing the appropriate sharing of information with appropriate local officials. H.R. 5533 in its current form would sustain these protections for information submitted by water systems, but H.R. 5577 may broaden the scope of individuals who may access information within the documents. In crafting new legislation, the information protection provisions formulated by the Committee should mirror those of the 2002 law as much as possible.

AMWA also urges the Committee to carefully evaluate claims that all drinking water utilities can easily change from gaseous chlorine to other treatment technologies with little or no consequences. When viewed in the context of local experience and circumstances, it becomes apparent that broad "IST" mandates are not workable or wise for many of the country's drinking water utilities.

In particular, some groups have claimed that water treatment chemicals should be

held only in small batches, and that "just-in-time" technology could be used to minimize the storage time of these necessary chemicals. Unfortunately, keeping only small batches of critical water treatment chemicals on hand is not an option for drinking water utilities that must protect against any unforeseen supply chain disruptions that could impact the planned delivery schedules of necessary chemical components. For example, Metropolitan generally keeps 30 days worth of chlorine on hand so that an unexpected supply chain interruption (such as a large earthquake) will not compromise drinking water service in Southern California. Therefore, it is simply not feasible to keep only small amounts of these substances on hand and trust the health of millions of our customers to the belief that delivery schedules will always operate as expected.

Practical considerations related to the need to keep several weeks worth of treatment chemicals on hand also demonstrate the problems with "inherently safer technology" mandates. To reiterate, a single 90-ton railcar of liquefied chlorine gas is sufficient to disinfect about one week's worth of drinking water at Metropolitan's largest treatment plant, so securing four of these railcars within our facility ensures that we have enough on hand to disinfect drinking water for 30 days in the event of a delivery disruption. However, if Metropolitan were forced to transition to 5.25 percent sodium hypochlorite, we would need to keep the equivalent of more than 280 five-thousand gallon tanker trucks of the substance at our plant to maintain this same 30 day emergency supply during peak usage. It is much easier to protect four railcars than 280 tanker trucks, not to mention the fact that this sodium hypochlorite would have to be continuously rotated to ensure that the solution does not break down during periods of high temperatures in Southern California.

Groups advocating in support of "IST" mandates also frequently present the issue as simply a matter of cost, especially when targeting utilities that have determined that gaseous chlorine remains their best treatment option. There are important feasibility concerns beyond cost, such as increased truck transport of chemicals, absence of space at treatment facilities on which to store necessary quantities of alternate substances, saline discharges in excess of existing limits into regional basins, supply chain concerns, and the fate of byproducts such as hydrogen gas, bromate, chlorate, and perchlorate all exceeded cost as critical factors influencing Metropolitan's decision. These same feasibility and public health issues have been considered by many other water utilities around the country when choosing the most effective disinfection method, making clear that cost is not the primary motivation.

Practical and Effective Water System Security

AMWA and its member utilities are committed to ensuring the protection of critical chemical inventories located at water treatment plants. One logical approach was advocated by the Long Beach Water Department (an AMWA member and a Metropolitan member agency) in testimony before the Homeland Security Committee in February.

Long Beach is working to end its own use of gaseous chlorine, but the utility cautioned against the imposition of any broad federal "IST" mandate on water utilities. Specifically, their testimony stated:

> [N]umerous local considerations and other critical site specific factors must be considered, on a strict case-by-case basis, to determine feasibility of integrating any of these alternative technologies [into the operations of drinking water systems.] ... Any consideration of alternative technologies must include assurances that maintain reliability of water systems, as well as the flexibility needed to enable water treatment operators to adhere to strict Federal and State water quality standards.

As a means to promote the adoption of alternative treatments when feasible, while still maintaining local choice of water treatment method, Long Beach suggested that the legislation include a federal grant program "to encourage the consideration and implementation of alternative disinfection treatment methods [by water systems], on a voluntary basis." This is an approach endorsed by AMWA.

AMWA fully supports water utilities, such as Long Beach, that have conducted a careful evaluation and assessment and have chosen to replace their use of gaseous chlorine with an alternate water treatment method. Metropolitan, too, has reduced its number of facilities that hold chlorine gas from 17 to 6. This proactive approach to security demonstrates that local utility managers are serious about identifying and implementing measures that will best protect public health and facility security in a cost-effective and feasible manner. Therefore, to help utilities enact security enhancements that best fit their needs, any chemical facility security legislation passed by this Committee should include grant funds that would assist utilities in financing critical security upgrades, up to and including the voluntary adoption of alternate water treatment methods. Such a plan would help local water utility professionals convert treatment methods in circumstances where doing so is found to be the best option.

Similarly, the association believes that Congress should also respect the expertise of utilities, such as Metropolitan, that have considered the alternatives and opted to continue disinfecting water supplies with chlorine gas. Just because some utilities in the U.S. have been able to feasibly adopt an alternate water treatment method does not mean that these same alternatives are workable for each and every utility in the country. Factors that must be considered, on a case-by-case basis, include not only cost, but also

climate, location, ambient water quality, available technology, and new security consequences. These considerations must be analyzed at the local level, as Metropolitan has done, with the benefit of the years of expertise held by local water utility managers.

It is our understanding that all large drinking water utilities across the country have complied with the 2002 Bioterrorism Act's mandate to complete facility vulnerability assessments. However, any federal guidelines relating to the future updating and reporting of these plans must ensure that the ultimate choice of water treatment method remains with the local utility, and the protection of the information within the vulnerability assessments is guaranteed. AMWA is available to work with the Committee to help craft these requirements effectively.

I thank the Committee for holding this important hearing today. I would be happy to respond to any questions you may have.

Drinking Water Treatment Chlorine Equivalents

One Week's Chlorine Needs for a Large Treatment Plant

Current Practice: Chlorine Gas

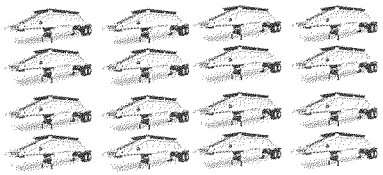
One 90-ton railcar

Alternatives presented for one week's chlorine supply for a large water treatment plant operating at 615 million gallons per day under typical conditions.

Alternative: Delivered Bleach (5.25%)

Seventy 5,000 gallon trailers

Alternative: On-Site Generated Bleach



Sixteen 20-ton salt trailers

2.7 million gal. softened water

2.4 megawatts electricity

24,000 gallons diesel fuel

Attachment to Congressional testimony of Metropolitan Water District of Southern California/Association of Metropolitan Water Agencies

Ms. SOLIS. Thank you very much for your testimony. I would next like to welcome Mr. Crowley for being here. He is a senior fellow and director of Homeland Security at the Center for American Progress. Thank you, and you can begin your statement.

STATEMENT OF P.J. CROWLEY, SENIOR FELLOW AND DIRECTOR OF HOMELAND SECURITY, THE CENTER FOR AMERICAN PROGRESS

Mr. CROWLEY. Madam Chairwoman, thank you very much and members of the subcommittee. I am P.J. Crowley, senior fellow at the Center for American Progress. And at CAP, we appreciate the endorsement of our ongoing reports on chemical security. I also represent a broad coalition of organizations that have come together to support permanent, comprehensive, and effective chemical security legislation.

Let me cut right to the bottom line. I perhaps represent a security perspective in this panel. If there are five things that the executive and legislative branches can do over the next 16 months to make our country as safe from terrorism as it can be, strengthening chemical security is on the list.

Chemical facilities and their supply chains fit the existing targeting strategy of al-Qaeda. Insurgents in Iraq have made multiple attempts to convert chlorine gas tanker trucks into improvised weapons. This is no longer a theoretical risk. Industrial chemicals are now part of the terrorist playbook. Business as usual is no longer acceptable. Our Homeland Security policy goal should be to reduce the terrorists' ability to exploit chemicals as a weapon to the maximum extent possible.

As was discussed in detail in the first panel, the CFATS standards improved the physical security of the status quo, but they expire in 2009, and they are not comprehensive. Drinking water facilities are specifically exempted from stronger security standards. And the CFATS regulations can be improved. As a country, we must do better faster.

H.R. 5577 establishes a more effective security standard. While it is not perfect, it is a good benchmark for drinking water facilities. Importantly, it requires chemical facilities to evaluate alternative methods that can be employed to reduce the consequences of a terrorist attack. For drinking water facilities, this commonly involves a shift to liquid bleach, although not necessarily in all cases.

The legislation focuses not just on chemical facilities, but the entire chemical supply chain. Why is this important? For example, the Metropolitan Water District of southern California can improve fencing, access controls, and conduct background checks of its employees as mandated by CFATS. But this does not fully protect the residents of the 32nd congressional district, Madam Chairwoman, if chlorine gas is transported through your district to the filtration plant in Grenada Hills.

The bill, as we will hear in a moment, also gives an important role to employees and provides employee protections and proper training. Now, some believe that the Federal Government will seek to impose one-size-fits-all solutions on water facilities in the process even making our drinking water unsafe.

In my judgment, not so. The facility operator is free to evaluate a range of options and any action considered must reduce risk to the facility, must be performance based, technology feasible, and cost effective. His should be the loudest voice in this discussion, but he has to recognize the impact that his decisions at his facilities have on the security of the state and the region and the country.

Another concern involves which agency will regulate water treatment facilities. There is no single right answer, but we would encourage a regulatory framework that requires extensive collaboration between EPA and DHS such that it avoids regulatory redundancy, ensures equal enforcement for chemical facilities, government accountability, and allows States to set more protective security standards.

Stronger security standards for drinking water facilities will involve additional costs. Our research at the Center for American Progress suggests that these costs are manageable, particularly taking into account potential savings such as reduced requirements for security guards, protective equipment, emergency planning, insurance costs, and so forth. In fact, 87 percent of those responding to our survey 2 years ago said that they switched to safer chemicals and processes for $1 million or less.

But given the uncertain budget picture that many cities and States are facing, the Federal Government must be prepared to provide substantial funds to support any legislation. The EPA as well as DHS must also have sufficient personnel to do effective oversight.

In conclusion, this is too important an issue to fall victim to interagency or intercommittee rivalries. What we need is a security system, not security silos. What we need is action this year.

Thank you again for the opportunity to testify. I look forward to your questions.

[The prepared statement of Mr. Crowley follows:]

TESTIMONY OF PHILIP J. CROWLEY

MAJOR POINTS

-Chemical security is a significant homeland security vulnerability. Chemical facilities and supply chains fit al Qaeda's existing targeting strategy. Iraqi insurgents have made multiple attempts to convert chlorine gas tanker trucks into improvised weapons. Our policy goal should be to reduce the terrorists' ability to exploit industrial chemicals to the maximum extent possible.

-The Chemical Facility Anti-Terrorism Standards or CFATS improves the physical security of the status quo, but is not the right long-term solution. CFATS is an interim measure that expires in 2009 and is not comprehensive. It explicitly exempted drinking water facilities from stronger chemical security standards. The existing CFATS program can certainly be improved.

-H.R. 5577 establishes a more effective security standard and is a good benchmark for drinking water facilities. It establishes risk tiers, mandates the development of formal security plans and improves the physical security of these operations. Importantly, it requires chemical facilities to evaluate alternative methods to reduce the consequences of a terrorist attack; gives employees at chemical plants an important role; and allows states to set higher security standards. The facility operator is free to evaluate a range of possible actions and chose the one that is safest and most secure. Any action considered must reduce risk to the facility, its employees and surrounding community; must be performance-based and technically feasible; and must be cost effective.

-Any regulatory framework should require extensive collaboration between EPA and DHS such that it avoids regulatory redundancy or gaps in supply chain secu-

rity; and ensures equal enforcement for chemical facilities, accountability for government and protection for existing chemical safety programs.

-This is too important an issue to fall victim to inter-agency or inter-committee rivalries. We need action this year. Given the uncertain budget picture that many cities and states are facing, the federal government must be prepared to provide substantial funds to support this legislation. Any federal funding for conversion to safer and more secure chemicals and processes should be dedicated to publicly owned water treatment facilities.

Madam Chairwoman, members of the Energy and Commerce Subcommittee on Environment and Hazardous Materials.

I am P.J. Crowley, a Senior Fellow and Director of the Homeland Security Program at the Center for American Progress. I am grateful for the opportunity to discuss one of the most significant homeland security vulnerabilities we face, but thankfully one for which there is a clear course of action that can make a real difference. I am here today also representing a diverse coalition of public interest, labor and environmental organizations that have come together in support of permanent, comprehensive and effective chemical security legislation.

Let me cut right to the bottom line. If there are five things that the executive and legislative branches can do over the next 16 months to make our country as safe from terrorism as it can be, chemical security is on the list. (For the record, in my view, we also need to pay more attention to air cargo security, invest in intelligence capabilities of local police, strengthen the international non-proliferation regime and improve oversight of biological research programs).

Across the country, more than 7,000 chemical facilities each put 1,000 or more people at risk of serious injury or death in the event of a poison gas release, due to a terrorist attack on the facility or its chemical supply chain. Approximately 100 of these plants each put more than one million people at risk. These facilities and their supply chains fit the existing targeting strategy of a network like al Qaeda, which seeks to carry out a spectacular attack intended to impact as many people as possible, inflict broad economic loss on our society and attract national and global attention. Industrial chemicals are a means to achieve those ends.

I commend the committee for this hearing, which I take as an indication that Congress is rightfully concerned about chemical security. The issue is not whether to take action, but exactly what should be done. Congress does need to act because, despite interim steps undertaken over the past two years, the risk is going up. This may seem counter-intuitive. We have, thankfully, gone seven years without a major attack here in the United States. Our borders are more secure. Law enforcement is more alert. But the threat is evolving. It is imperative that we stay ahead of it, using every opportunity to improve security.

Iraq has been a laboratory for the recruitment and training of a new generation of terrorists well-schooled in urban warfare. While their weapon of choice remains a conventional bomb, they have experimented in a variety of ways with chemical weapons. One tactic involves multiple attempts to convert chlorine gas tanker trucks into improvised weapons. While they have not yet been effective, these incidents demonstrate how insurgents will attempt to employ whatever hazardous material is available to them.

In light of this, our homeland security policy goal should be to reduce the terrorists' ability to exploit industrial chemicals as a weapon to the maximum extent possible. To be sure, the risk will never be reduced to zero. In almost every element of daily life, we rely upon chemicals and chemical processes to help us maintain our standard of living. But this should never be used as justification to do nothing to eliminate unnecessary risks or do as little as possible.

Chemical security today is a mixed picture. We are in better shape than we were two years ago. Constructive action is being taken both at the federal and state levels. New Jersey, for example, has taken meaningful steps above and beyond what has been mandated nationally. The private sector, which was reluctant to acknowledge the risk four years ago, now recognizes that voluntary and fragmentary efforts have fallen short. Responsible players understand that some kind of regulation is not only necessary, but a desirable means of creating a secure, competitive and level playing field.

There is still resistance, however, from interests that ultimately believe either that they are not at serious risk or are already doing enough; that this is not really about security, despite the experience of 9/11; or that government regulation is an unacceptable intrusion into the marketplace, whether it is functioning well or not. You have undoubtedly heard some of these views in the run-up to this hearing.

Let's recall the significant admonition that the 9/11 Commission emphasized in its outstanding bipartisan report almost four years ago. Whether or not the attacks of September 11 could have been prevented, which is unknowable, we were handi-

capped by a ″failure of imagination.″ We knew about Osama bin Laden and al Qaeda. We understood that terrorists were focused on passenger aviation. Our security system worked as it was designed that day. However, it was not adequate to deter adversaries who were more capable than we thought and who used tactics that we had not anticipated.

What does this mean to chemical security? We have strategic-level intelligence that industrial chemicals are now part of the terrorist playbook. The fact that they have yet to perfect this weapon of significant effect only means that we have some time to act, but we must do so with a sense of urgency. Business as usual is no longer acceptable.

Congress passed a 740-word interim chemical security law in 2006 that has been translated into the Chemical Facility Anti-Terrorism Standards or CFATS, which the federal government is now applying to specific high-risk facilities around the country. CFATS improves the physical security of the status quo, but is not the right long-term solution. It has a number of shortcomings. Let me mention a couple.

First, CFATS is an interim measure that expires in 2009. The House of Representatives has the opportunity to demonstrate strong bipartisan leadership on this issue by passing permanent legislation this year. This can go a long way towards ensuring enactment before October of next year.

Second, CFATS is not comprehensive. Relevant to this hearing, the 2006 interim law explicitly exempted drinking water facilities, many of which use chlorine gas in their existing operations, from stronger chemical security standards. According to the EPA, the catastrophic release of chlorine gas from ubiquitous 90-ton rail cars used as storage vessels will put communities at risk up to 20 miles away. I recognize that there are security provisions contained in the Safe Water Drinking Act, such as requirements for vulnerability assessments and an emergency response plan, but not a comprehensive security plan. We believe that there should be a consistent set of national standards that apply to all chemical facilities, manufacturers, packagers and users. This includes drinking water facilities, as well as wastewater facilities which fall under the jurisdiction of another committee.

The existing CFATS program can certainly be improved. For example, the interim statute relies on conventional perimeter security and actually prohibits the federal government from requiring consideration of safer cost-effective technologies even if they will eliminate catastrophic risks. This leaves us less safe than we should be - and less safe than we think we are.

For example, the Metropolitan Water District of Southern California can improve fencing, access controls and conduct background checks of its employees as mandated by CFATS. That does not fully protect the residents of California's 32nd Congressional District, which has freight rail lines over which chlorine gas may be transported from a chlorine producer to the filtration plant in nearby Granada Hills.

Every day, chemical producers and users transfer considerable risk from their operations to the freight railroads. A 90-ton rail car in the middle of a major city is an inviting terrorist target without adequate defenses. The current guidance from the Department of Homeland Security is to keep track of hazardous materials and keep them moving. That may be a reasonable short-term answer, but it is not a long-term security solution. We need to attack this challenge both nationally and systemically. This is not happening today.

We need to do better - faster.

Chemical security legislation before this Committee, H.R. 5577, establishes a more effective and achievable security standard for chemical facilities. While it is not perfect, it is also a good benchmark to apply to drinking water facilities. It establishes risk tiers, mandates the development of formal security plans and improves the physical security of these operations. Importantly, it requires chemical facilities to evaluate alternative methods that can be employed to reduce the consequences of a terrorist attack. Such methods can involve substitution of less hazardous materials that cannot be exploited by terrorists. In the context of drinking water facilities, this commonly involves a shift from the use of chlorine gas to liquid bleach, which can be generated on site. More than 160 large U.S. drinking water systems serving 100,000 or more people already use liquid bleach. More broadly, other substitutes for chlorine gas include ozone gas or ultraviolet radiation. Such conversions can be done rapidly, the best example being Washington, D.C.'s Blue Plains wastewater treatment plant just 90 days after the 9/11 attacks.

The legislation takes a holistic approach to chemical security by charging the federal government to oversee security not just of chemical facilities, but the entire chemical supply chain, from point of manufacture through transportation to final use. Even as we strengthen physical plant security, the highest point of risk can be an acutely hazardous substance in an unguarded 90-ton rail car on a freight rail line that flows through a major city. Two such lines run through this city, our na-

tion's capital. CSXT is currently observing a voluntary moratorium regarding the transportation of hazardous materials on the Capitol Hill line through the District of Columbia, even as it battles the city in court for the right to do so.

At the same time, it is important to point out that the Association of American Railroads (AAR) is a significant proponent of permanent chemical security regulation that would reduce the amount of hazardous material transported around the country. In a February 27th statement, the AAR said, ″It's time for the big chemical companies to do their part to help protect America. They should stop manufacturing dangerous chemicals when safer substitutes are available. And if they won't do it, Congress should do it for them in the Chemical Facility Anti-Terrorism Act of 2008.″ We have focused on supply chains in other areas, maritime security being an excellent example. We should take the same approach with chemical security.

H.R. 5577 gives employees at chemical plants an important role in developing vulnerability assessments and security plans, since they may be in the best position to know how risk can best be reduced. It also provides important worker protections and promotes proper training. For example, it ensures that background checks are applied properly and that they cannot be used to retaliate against employees for doing their jobs. It also allows states to set higher security standards as New Jersey has done. Section 2104 of H.R. 5533 also contains very strong and appropriate language that preserves states authority to do more if appropriate.

Earlier, I mentioned that there is resistance to chemical security regulation, particularly as it applies to drinking water facilities. Let me address a couple areas of concern.

First, some believe that the federal government will seek to impose one-size-fits-all solutions on water facilities, in the process even making our drinking water unsafe. H.R. 5577 does the opposite. Specific security concerns are identified. The facility operator is free to evaluate a range of possible actions and chose the one that is safest and most secure. Criteria are clearly spelled out in the proposed legislation. Any action considered must reduce risk to the facility, its employees and surrounding community; must be performance-based and technically feasible; and must be cost effective. At one location, the answer may be better physical security for an existing operation. At another, it may be a more transformative ″best practice.″

I have traveled extensively around the country and talked with a wide range of federal, state, local and private sector security experts. The current system is not promoting transformative ″best practices″ in a systematic way. At the Center for American Progress, we have documented in multiple research reports hundreds of examples of plant conversions to proven and cost-effective alternatives. The issue really is not about imposing solutions. Viable solutions already exist. The real issue is how to create a security system and set of incentives that accelerates the pace of change.

Assuming that Congress strengthens security requirements for drinking water facilities, a second concern involves which agency will regulate them. The Environmental Protection Agency has the most mature relationship with drinking water facilities. The Department of Homeland Security is responsible for the existing CFATS regulatory process. This question is a matter of discussion between DHS and EPA as well as relevant committees here in Congress.

The coalition that I represent does not have a set position. In fact, there is no single right answer, but we would encourage a resolution that results in a regulatory framework that requires extensive collaboration between EPA and DHS such that it avoids regulatory redundancy or gaps in supply chain security; ensures equal enforcement for chemical facilities, accountability for government and protection for existing chemical safety programs under other laws; and allows states to set more protective security standards. Regardless of the agency of jurisdiction, what is needed is a security system that requires facilities in all risk tiers to identify opportunities to reduce the consequences of an attack through the use of safer and more secure chemicals or operations, and requires the highest risk tier to use safer and more secure chemicals where feasible and cost effective without shifting catastrophic risk to other facilities. A security system will be most effective if it includes employees in vulnerability assessment, security plan development and required inspections, trains them properly and protects them against the misuse of background checks and retaliation.

This is too important an issue to fall victim to inter-agency or inter-committee rivalries. You know better than I do how challenging the legislative calendar is in this election year. A delay this year will place greater pressure on a new administration and new Congress in 2009. What we need is action this year.

One final comment on resources. We used to joke at the Pentagon that if we keep doing more with less, eventually we will be able to do everything with nothing. It is a good one-liner, but improved chemical security is not free.

If you apply the stronger national standards outlined in H.R. 5577 to drinking water facilities as we recommend, whether regulated by EPA or DHS, there will be additional costs involved. Our research at the Center for American Progress suggests that these costs are manageable, particularly taking into account potential savings (reduced requirements for security guards, protective equipment, emergency planning, insurance costs and so forth). In fact, 87 percent of those responding to our survey said they switched to safer chemicals or processes for $1 million or less. But there clearly will be some capital expenditures associated with physical security improvements, chemical substitution and other process changes. Given the uncertain budget picture that many cities and states are facing, the federal government must be prepared to provide substantial funds to support this legislation. We therefore recommend that any federal funding for conversion to safer and more secure chemicals and processes be dedicated to publicly owned water treatment facilities.

And for cities, states and the private sector, as we ask them to adopt stronger standards, they have every right to expect the federal government to be a competent and full partner. The EPA, as well as DHS, must have the personnel and support to do what needs to be done. Right now, in both agencies, we have thousands of facilities across the country overseen literally by a few dozen people. We are in the process of adding 92,000 troops to the Army and Marine Corps to enable us to fight the so-called war on terror more effectively. Well, other agencies of government also have important security responsibilities as well. They need more ″troops″ to protect the American people.

Within the private sector, I would like to see the emergence of certified third-party security auditors to routinely evaluate private sector compliance with national chemical security standards. This too is envisioned under H.R. 5577. These third-party auditors would not be contractors performing a governmental function, but much like financial auditors, they would work with and for chemical operators, including drinking water facilities, to ensure facilities were meeting requirements in accordance with security plans required under this legislation. They should have demonstrated competence in physical security and also methods to reduce the consequences of a terrorist attack.

Thank you again for the opportunity to testify. I look forward to your questions.

Ms. SOLIS. Thank you very much, Mr. Crowley. Next I would like to recognize our speaker Mr. Marty Durbin, who is the managing director of the Federal affairs at the American Chemistry Council. Welcome, and you may present your testimony.

STATEMENT OF MARTY DURBIN, MANAGING DIRECTOR OF FEDERAL AFFAIRS, THE AMERICAN CHEMISTRY COUNCIL

Mr. DURBIN. Thank you, Madam Chairwoman, Congressman Green. I am Marty Durbin with American Chemistry Council, and I appreciate the opportunity to be here today and speak on this important topic.

ACC represents about 140 leading U.S. chemical manufacturers responsible for approximately 90 percent of basic industrial chemical production here in the U.S. The industry overall employs nearly one million people in America, produces 21 percent of the world's chemicals, and is the largest private industry investor in research and development. Our members make products that are critical to many aspects of American life including keeping our drinking water safe, supporting agriculture, and spurring medical innovations that prevent and treat disease.

I am pleased to note this September will mark the 100th anniversary of the use of chlorine to treat drinking water, a step hailed by "Life" magazine as the greatest public health achievement of the 20th century. While Mr. Pallone is still here, I would point out that was in Jersey City, New Jersey.

Security has long been a priority for ACC members and the broader chemical sector. In fact, in 2001, our members adopted a

mandatory security program that I hope many of you have heard of called Responsible Care Security Code. That code has won praise from Congress, from DHS, and the media and served as a model for State and local programs in Maryland, New York, and New Jersey.

It is also important to note that many non-ACC members have also taken aggressive action to enhance security at their facilities through their own industry programs. Now, DHS and chemical facilities are acting to implement the Chemical Facility Antiterrorism Standards, or CFATS. And although ACC members have already invested more than $6 billion, the DHS rules leave little doubt that more action will be required. In fact, DHS anticipates that more than $8 billion will be required to implement CFATS over the first 8 years of the program.

So while DHS has gotten off to a solid start, there is a crucial role for Congress. We think implementation of CFATS requires a significant increase in staffing resources. While DHS staff has demonstrated outstanding commitment and effort to date, we would urge Congress to provide the agency with the necessary resources to handle the workload and to assure that chemical facility security is properly implemented in a timely manner. We all benefit from this program's success.

We understand the program will need to be reauthorized, and we support making the program permanent. But we do believe Congress should allow the program to be fully implemented before making significant substantive changes.

Some have questioned whether Congress should have included other categories of facilities in the regulatory program. To be clear, ACC did not seek or support any carveouts for our facilities or our products or anyone else's. Rather we believe that any facilities Congress decides to include should be subject to the same comprehensive risk-based security requirements developed through CFATS.

Now with H.R. 5577, I believe the Homeland Security Committee took an important first step to provide a permanent framework for security regulations. We were pleased to see that the final bill did reflect many security measures already being implemented under CFATS and appreciate the efforts that were made to minimize duplication by facilities that have already acted or will be acting further under the program itself.

However, we do remain concerned that the bill would grant DHS authority to override chemical engineers, process safety experts, and industry security officials when it comes to chemical process changes. In our view, CFATS takes the right approach by helping facilities identify potential security enhancements through the vulnerability assessment, including methods to reduce consequences or inherently safer approaches.

The rules then encourage implementation of whatever appropriate security enhancements are required by providing an opportunity to move your facility to a lower-risk tier, thereby potentially reducing your regulatory requirements.

Any notion that companies will automatically avoid making such changes to their processes should be dismissed. It simply is not the case. Frankly we have the greatest interest in the safety of our employees, our facilities, and the communities in which we operate. In

fact, I am proud to say that ACC member companies have achieved an employee safety record more than four times safer than the average of the U.S. manufacturing sector. That is not just coincidence. That is commitment.

Now, turning to H.R. 5533, we believe that it provides permanence, predictability, and consistency to the current CFATS program. However, we do have concerns with the bill's approach to Federal preemption, an issue that was discussed quite a bit on the first panel. Again we believe that DHS struck a necessary and reasonable balance on possible preemption of State and local laws by following precedent set by existing national security laws for aviation, rail, and port security. And we simply see no compelling reason to treat the security of critical chemical facilities differently.

Our first priority should be to enhance security at sites nationwide as soon as practical. CFATS is helping meet this goal. Give DHS and the industry enough time to implement the current program, and then determine what gaps remain. Congress will have the assurance that nationwide security of chemical facilities will have been significantly upgraded during the process. The crucial partnership between our industry and the Federal Government requires each of us to do our part.

ACC and its member companies are committed to safeguarding their facilities, and we will continue to work with Congress and DHS in that spirit. Thank you.

[The prepared statement of Mr. Durbin follows:]

STATEMENT OF MARTY DURBIN

Madame Chairwoman, Ranking Member Shadegg, and Members of the Committee, my name is Marty Durbin, and I am the Managing Director of Federal Affairs for the American Chemistry Council (ACC). Thank you for this opportunity to speak today on behalf of the Council's members on the important subject of security in the business of chemistry, a critical sector of America's infrastructure.

My testimony today will highlight several key points:

1.The chemical industry, a crucial part of the nation's infrastructure, is essential to America's economy and security. Through our extended value chain of customers and intermediary chemical users, we are deeply integrated into American life.

2.Security has long been a top priority for our industry. Following 9/11, our members initiated ACC's mandatory Responsible Care Security Coder to enhance security at their facilities.

3.Since passage of chemical security legislation in 2006 - legislation ACC strongly supported - the Department of Homeland Security (DHS) has moved swiftly to set meaningful, risk-based standards, and along with our industry partners, ACC members are working hard to implement the new regulatory requirements.

4.Both Congress and DHS have a crucial role in ensuring security - in particular, we ask Congress to ensure that DHS has the resources required to do its job in all aspects of national security.

5.Provide ACC's view on pending chemical security legislation.

1. AMERICAN CHEMISTRY IS ESSENTIAL

ACC represents 140 leading companies in the U.S. chemical manufacturing responsible for approximately 90 percent of basic industrial chemical production. This sector of our economy employs nearly one million people in America, produces 21 percent of the world's chemicals, and is the largest private industry investor in research and development at $27 billion annually. Not surprisingly, we generate nearly 10 percent of all U.S. patents.

ACC member companies manufacture essential products critical to homeland security and everyday items that keep the economy moving. Over 96% of all manufactured goods are directly touched by the business of chemistry. Our members provide the chemistry that is used to produce life saving medications and medical devices,

body armor used by our military and law enforcement officers, de-icing fluids for airplanes, energy saving solar panels, and so much more.

In addition, our members make products that are critical to many aspects of American life, including keeping our drinking water safe, supporting agriculture, and spurring medical innovations that prevent and treat disease. I am pleased to note that September will mark the 100th anniversary of the use of chlorine to treat drinking water - a step hailed by Life magazine as ″the greatest public health achievement of the 20th Century.″ Harvard University research suggests that, in the early 20th century, drinking water filtration and chlorination reduced typhoid fever death rates by more than 90 percent and childhood mortality by more than 50 percent in major U.S. cities.

Because of the long list of benefits chemicals provide to society, DHS identified the chemical sector as a part of the nation's critical infrastructure, a national asset that needs to be protected from terrorism.

It is important to remember that the members of ACC do not represent the entire universe of facilities that use or store chemicals. Rather, our members provide chemicals that are used as raw materials or in processes that are vital for auto companies, farms, pharmaceutical and medical device manufacturers, electric utility companies, laboratories, and many others.

2.Security And Safety Are The Top Priorities for ACC Members

Security has long been a priority for ACC members and the chemical sector. In 2001, our members agreed to adopt an aggressive security program that became the Responsible Carer Security Code. It is part of the overall Responsible Care initiative which is ACC's signature program of ethical principles and management systems designed to continuously improve our members' safety, health and environmental performance - as well as their security performance.

Implementation of Responsible Care is mandatory for all members of the American Chemistry Council, as well as for Responsible Care Partner companies, who represent chemical transporters, distributors, warehouses, logistics planners and others along the supply/value chain. In developing the Security Code, we consulted closely with first responders and government agencies at all levels.

The Security Code requires member companies to: •Prioritize their sites by degree of risk, sorting them into four tiers. •Thoroughly assess vulnerabilities, using rigorous methodologies developed by Sandia National Labs and the Center for Chemical Process Safety (CCPS), a program of the American Institute of Chemical Engineers (AIChE). •Implement security enhancements commensurate with risks, taking into account inherently safer approaches, engineering and administrative controls, and other security, prevention and mitigation measures. •Verify the implementation of these physical security measures, using third parties that are credible with the local community, such as first responders or law enforcement officials.

ACC members are required to conduct an annual review of their security implementation activities and report their status to ACC. In addition, all ACC members are required to obtain certification to the ACC approved management system framework, RCMS® or RC 14001® (RC14001 includes the entirety of ISO 14001). Both systems require an assessment of security risks; implementation of protective measures at facilities; and evaluation and protection of products throughout a company's value chain. Certification to the management system is conducted by independent third party auditors who are credentialed by the Board of Environmental Health and Safety Auditor Certification (BEAC) or RABQSA International.

The Security Code also covers the crucial area of cyber security, to protect our highly automated operations from being attacked electronically. Here again, the efforts of ACC members provide a model to other industries employing similar automated systems.

The Code has won praise from Congress, senior DHS officials, and the media. Its risk-based provisions served as model for state and local programs in Maryland, New Jersey and New York. And, it is important to note that many non-ACC members have taken aggressive action to enhance security at their facilities through similar industry programs.

3.DHS Is Moving Aggressively and Chemical Facilities Are Moving Quickly to Comply.

After six years of debate, Congress enacted Section 550 of the FY07 DHS Appropriations Act,[1] the law that authorized the new Chemical Facility Anti-terrorism Standards (CFATS).[2] Under a spotlight of public scrutiny and Congressional oversight, DHS and chemical facilities are acting swiftly to implement this groundbreaking program.

While this program shares elements with the programs established by several states, the CFATS program is, by far, more comprehensive and demanding. So, although ACC member company facilities have already invested more than $6 billion to enhance security through the ACC Responsible Care® Security Code, the DHS rules leave little doubt that more action will be required at facilities that are deemed high risk. In fact, DHS anticipates more than $8 billion will be needed to implement CFATS over the first eight years of the program.

DHS has successfully issued comprehensive security regulations that have required more than 50,000 facilities nationwide to complete a risk-based screening assessment, known as ″Top-Screen″. Through informed decisions based upon Top-Screen, DHS will now prioritize thousands of facilities that will have to comply with chemical security standards under CFATS.

Throughout 2008, these priority facilities will be required to assess their vulnerabilities, develop site security plans and minimize and implement layered security measures. DHS will inspect regulated facilities and evaluate security enhancements against stringent performance based standards. Fines and facility shutdowns will await those who do not comply.

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[1] Pub. L. No. 109-295, §550 (2006).

[2] 6 C.F.R. Part 27, 72 Fed. Reg. 17688 (April 9, 2007), 65396 (Nov. 20, 2007).

4.What The Chemical Sector Needs From Congress and DHS

While DHS has gotten off to a solid start, there is a crucial role for Congress. For example:

Provide Adequate Funding to Support Full Implementation of the CFATS Requirements

While CFATS requires considerable action from chemical facilities in a short period of time, it also will place enormous burdens on DHS to implement the rules. DHS personnel will be required to conduct reviews of site-specific vulnerability information and site security plans, and to make site visits at each regulated facility. This will include assessing how each facility has addressed the applicable risk-based performance standards for facilities in its risk tier - a complex, site-specific, judgmental task.

We think implementation of CFATS requirements necessitates a significant increase of staffing resources. While DHS staff has demonstrated outstanding commitment and effort to date, we urge Congress to provide the agency with the necessary resources to handle the workload and to ensure that chemical facility security is properly implemented in a timely manner.

Allow DHS Enough Time to Do the Job Congress Has Given It

Within weeks, thousands of facilities will receive letters outlining their specific requirements for completing vulnerability assessments and setting a schedule for completion of these assessments. Facilities will draft site-specific security plans. The plans will outline security enhancements to be implemented based on 19 stringent performance metrics. Plans for the highest risk sites are due later this year and remaining plans should be submitted to DHS before the end of next year. Thus, the rules provide a clear path for completion of requirements on an aggressive timetable, including inspections and a review process that requires sites to revisit their situation and assess whether any changes to their security plans are required.

In our view, therefore, while we understand the program will need to be reauthorized, and support making the program permanent, we believe Congress should allow the program to be fully implemented before making any significant, substantive changes.

5.ACC Comments on Pending Legislation

ACC supports a risk-based program applied even-handedly across the board. We know some have questioned whether Congress should have included other categories of facilities in the regulatory program. Let me be clear, ACC did not seek or support any carve-outs under CFATS for our facilities or our products, or anyone else's. Rather, we believe that any facilities Congress decides to include should be subject to the same comprehensive, risk-based security requirements developed through CFATS.

With HR 5577, Chairman Thompson and his Homeland Security Committee took an important first step to provide a permanent framework for chemical facility security regulations. ACC clearly supports that goal. We're pleased to see the bill reflect many of the security measures that will be implemented under CFATS, and we appreciate the efforts made to minimize duplication of effort by facilities that have already acted or will take further action under the program.

However, we remain concerned regarding a provision in the bill that would grant DHS authority to override chemical engineers, process safety experts and industry security officials when it comes to decisions regarding changes to chemical processes. In our view, CFATS takes the right approach by helping facilities identify potential security enhancements - including ″methods to reduce consequences″ or ″inherently safer″ approaches - through the vulnerability assessment. The rules then encourage implementation of appropriate security enhancements by providing an opportunity to move your facility to a lower-risk tier, thereby potentially reducing your regulatory requirements. Importantly, this allows decisions regarding chemical processes in the hands of safety, security, and engineering experts at the facility.

Any notion that companies will automatically avoid making such changes should be dismissed. We have the greatest interest in the safety of our employees, our facilities, and the communities in which we operate. In fact, I'm proud to say ACC member companies achieved an employee safety record more than four times safer than the average of the U.S. manufacturing sector. So, being innovative in our operations is not only good for safety and security, it's good for business.

Congress, therefore, should not abandon a strategy to enhance security that employs performance-based security standards by pursuing provisions that try to mandate innovation. The current approach allows DHS to unleash the ingenuity, expertise and resources of the chemical sector while allowing DHS to focus on enforcing security standards based on a multitude of specific terrorist threat scenarios.

Turning to HR 5533, we believe it provides permanence, predictability and consistency to the current CFATS program. However, we do have concerns regarding the approach the bill takes in regard to federal preemption.

DHS, in furtherance of its mission to ensure security to the homeland, has struck a necessary and reasonable balance on possible preemption of state and local laws by following precedent set by existing national security laws for aviation, rail and port security. In fact, Congress continued to support this level of federal protection on national security issues through legislation enacted last year addressing rail security. There is no compelling reason to treat the security of critical chemical facilities differently, and lessen the predictability and consistency of the CFATS program.

IN CONCLUSION

At the direction of Congress, DHS acted quickly and has developed a comprehensive, stringent regulatory program to protect our nation's chemical facilities. Congress can ensure the program continues and thrives.

I hope Members will agree that our first priority should be to enhance security at sites nationwide as soon as practicable. CFATS is meeting this priority. Give DHS and the industry enough time to implement the current program and then determine what gaps remain. Congress will have the assurance that nationwide, the security at chemical facilities will have been significantly upgraded during the process. Members will also have the benefit of seeing what works in the program and what needs to be enhanced.

The crucial partnership between our industry and the federal government requires each of us to do our part. ACC and its member companies are our committed to safeguarding America's chemical facilities, and will continue to work with Congress and DHS in that spirit.

ACC TESTIMONY

SUMMARY

•The chemical industry is a critical part of our nation's infrastructure, essential to the national economy and security.

•Security has long been a priority for the chemical industry, and ACC members initiated a mandatory security program for its members immediately following September 11, 2001. The Responsible Care Security Code has been used as a model for security programs at all levels of government, and ACC members have invested more than $6 billion further enhancing security at more than 2000 facilities since 9/11.

•Since passage of legislation in 2006 establishing the Chemical Facility Anti-Terrorism Standards (CFATS) - legislation strongly supported by ACC - DHS has moved swiftly to set stringent, risk-based security standards. Industry is working hard and DHS is making significant progress toward implementing the new regulatory requirements.

•Congress should make CFATS permanent. Prior to Congress making significant, substantive changes to CFATS, however, ACC believes Congress should give DHS both the time and resources necessary to complete the job it was given.

•HR 5577 took an important first step to provide a permanent framework for chemical facility security, but we remain concerned over a provision that allows DHS to override chemical engineers, process safety experts and security professionals regarding changes to chemical processes.

•HR 5533 provides permanence, predictability and consistency to the CFATS program, but we are concerned about its approach to preemption. We believe legislation should follow the precedent set by existing national security laws for aviation, rail and port security.

Ms. SOLIS. Thank you very much for your testimony. Our last speaker is Dr. Andrea Kidd Taylor. Welcome. She is the assistant professor at Morgan State University's School of Community Health and Policy. You may begin your testimony.

STATEMENT OF ANDREA KIDD TAYLOR, DRPH, MSPH, ASSISTANT PROFESSOR, MORGAN STATE UNIVERSITY, SCHOOL OF COMMUNITY HEALTH AND POLICY

Ms. TAYLOR. Thank you. Madam Chairwoman Solis and Congressman Green, thank you for hearing my testimony today regarding the proposed legislative bills H.R. 5533 and H.R. 5577. As was mentioned, I am a professor at Morgan State University in Baltimore, Maryland. Prior to my current position, I was a political appointee and the labor representative on the U.S. Chemical Safety and Hazard Investigation Board, a board patterned after the National Transportation and Safety Board to conduct chemical accident investigations at fixed facilities.

Before my board appointment, I worked for almost 10 years with the United Auto Workers health and safety department in Detroit, Michigan conducting in-plant health and safety investigations and evaluating industrial hygiene data at facilities represented by the UAW and locations throughout the United States. I am here today on behalf of labor to urge you to support this chemical plant security legislation and also to highlight areas in the bill that need additional language to further protect workers and the broader community.

As a member of the CSB, I had an opportunity to tour several chemical facilities and communities where chemical accidents occurred around the country. In the course of conducting our investigations and reviewing and submitting our investigation reports, I was made keenly aware of just how vulnerable many of our facilities were to a terrorist attack and how workers and communities surrounding these facilities were also not aware of how vulnerable they were if a major chemical disaster occurred.

Enacting legislation that comprehensively covers chemical facility security and provides for collaboration between EPA and DHS will assist in providing the necessary protections for millions of workers and communities now living in the shadow of preventable disasters.

Chemical plant vulnerability and plant security are very important issues for labor. If there is a terrorist attack on a chemical facility, workers at the facility will be the most vulnerable and the first ones to suffer the most adverse consequences. In any chemical facility security bill that is passed by Congress, the following areas should be addressed and emphasized.

Reduce the consequences of an attack through the use of more secure technologies and less hazardous chemicals. Secondly, involve workers and/or their representatives in all aspects of the plant's chemical security program, including conducting plant vulnerability assessments and developing plant security and emergency response plans. Allow States to set more protective security standards. Protect workers against the misuse of background checks and the information collected and allow adequate redress. Ensure whistleblower protections against retaliation. And lastly provide employees with adequate and comprehensive training.

Congress should consider any legislation that will replace dangerous chemicals with more secure alternatives. Substituting more secure alternatives for hazardous substances where technically and economically feasible and comparable risk is not shifted is the best way to protect workers, their families and their communities. By switching to more secure technologies, the facilities are no longer potential terrorist threats or targets.

Workers and their representatives should be involved in all aspects of their facility's chemical security program. All the workers and their representatives know the workplace and its vulnerabilities best. The inclusion of workers in assessing their facility's vulnerabilities and developing a response plan should be required.

Federal legislation should not preempt successful State laws. Any chemical plant security legislation adopted by the States should be just as effective as the Federal law. But it should not be preempted if the State regulations are stronger and more protective.

If background checks of employees are necessary, an adequate redress process should be available to employees in case of faulty information, limited access to background check information and disqualifying criteria related to terrorist activity. For example, a prior conviction for a nonviolent drug offense committed outside of the workplace should not be considered relevant to a terrorism background check.

Once a chemical plant security plan is adopted and implemented, employers should be required to provide mandatory employee training, and the training should be conducted annually.

And with that, I leave it for questions afterwards. Thank you very much.

[The prepared statement of Ms. Kidd Taylor follows:]

TESTIMONY OF DR. ANDREA KIDD TAYLOR

SUMMARY

Congress should consider any legislation that will replace dangerous chemicals with more secure alternatives. Substituting more secure alternatives for hazardous substances, where technically and economically feasible and comparable risks are not shifted, is the best way to protect workers, their families, and their communities. By switching to more secure technologies, the facilities are no longer potential terrorist targets.

Workers and their representatives should be involved in all aspects of their facility's chemical security program. Hourly workers and their representatives know the workplace and its vulnerabilities best. The inclusion of workers in assessing their facility's vulnerabilities and developing a response plan should be required.

Federal legislation should not pre-empt successful state laws. Any chemical plant security legislation adopted by the states should be just as effective as the federal law; but it should not be pre-empted if the state regulations are stronger and more protective.

If background checks of employees are necessary, an adequate redress process must be available to employees, in case of faulty information, limited access to background check information and disqualifying criteria related to terrorist activity (For example, a prior conviction for a non-violent drug offense committed outside of the workplace should not be considered relevant to a terrorism background check).

Once a chemical plant security plan is adopted and implemented, employers should be required to provide mandatory employee training; and the training should be conducted annually.

TESTIMONY

Madam Chairwoman Solis, Ranking Member Shadegg and members of the Subcommittee on Environment and Hazardous Materials, thank-you for hearing my testimony today regarding the proposed legislative bills - H.R. 5533, the ″Chemical Facilities Act of 2008″, and H.R. 5577, the ″Chemical Facility Anti-Terrorism Act of 2008″. I am an assistant professor at Morgan State University's School of Community Health and Policy in Baltimore, Maryland. Prior to my current position, I was a political appointee and the labor representative on the U.S. Chemical Safety and Hazard Investigation Board (CSB), a board patterned after the National Transportation and Safety Board (NTSB) to conduct chemical accidents at fixed facilities. Before my board appointment, I worked for almost 10 years with the United Auto Workers (UAW) Health and Safety Department in Detroit, Michigan, conducting in-plant health and safety investigations and evaluating industrial hygiene data at facilities represented by the UAW in locations throughout the United States.

I am here today on behalf of labor to urge you to support this chemical plant security legislation and also to highlight areas in the bill that need additional language to further protect workers and the broader community. As a member of the CSB, I had an opportunity to tour several chemical facilities and communities where chemical accidents occurred around the country. In the course of conducting our investigations, and reviewing and submitting our investigation reports, I was made keenly aware of just how vulnerable many of our facilities were to a terrorist attack, and how workers and communities surrounding these facilities were also not aware of how vulnerable they were if a major chemical disaster occurred. Enacting legislation that comprehensively covers chemical facility security and provides for collaboration between EPA and DHS will assist in providing the necessary protections for millions of workers and communities now living in the shadow of preventable disasters.

Chemical plant vulnerability and plant security are very important issues for labor. If there is a terrorist attack on a chemical facility, workers at the facility will be the most vulnerable and the first ones to suffer the most adverse consequences. In any chemical facility security bill that is passed by Congress, the following areas should be addressed and emphasized:

1.Reduce the consequences of an attack through the use of more secure technologies and less hazardous chemicals.

2.Involve workers and/or their representatives in all aspects of the plant's chemical security program, including conducting plant vulnerability assessments and developing plant security and emergency response plans.

3.Allow states to set more protective security standards.

4.Protect workers against the misuse of background checks and the information collected, and allow adequate redress.

5.Ensure whistleblower protections against retaliation.

6.Provide employees with adequate and comprehensive training.

Congress should consider any legislation that will replace dangerous chemicals with more secure alternatives. Substituting more secure alternatives for hazardous substances, where technically and economically feasible and comparable risks are not shifted, is the best way to protect workers, their families, and their communities. By switching to more secure technologies, the facilities are no longer potential terrorist targets.

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Federal legislation should not pre-empt successful state laws. Any chemical plant security legislation adopted by the states should be just as effective as the federal

law; but it should not be pre-empted if the state regulations are stronger and more protective.

If background checks of employees are necessary, an adequate redress process must be available to employees, in case of faulty information, limited access to background check information and disqualifying criteria related to terrorist activity (For example, a prior conviction for a non-violent drug offense committed outside of the workplace should not be considered relevant to a terrorism background check).

Once a chemical plant security plan is adopted and implemented, employers should be required to provide mandatory employee training; and the training should be conducted annually.

Ms. SOLIS. Thank you very much. With that then, that concludes our panel presentations, and we will just go right into questioning here. I wanted to ask Mr. P.J. Crowley if you support the State's ability to have stricter laws to safeguard the security of chemical facilities to protect communities.

Mr. CROWLEY. I do, and I think Congresswoman Capps, I believe, said it right this morning. The real question is whether the issue of preemption establishes a floor or a ceiling. I think it should be a floor, and particularly in a State like New Jersey which has as significant a chemical challenge as any State in the union, they will know best how—that there may be some things that apply in a situation like New Jersey which may not apply in a situation like Iowa.

Yeah, and as some of your members have said, there are some agricultural interests that exist in some of the rural States and probably would not necessarily rise to the security level as a State like New Jersey. So yes, I think that you should have a combination. The Federal Government should establish minimum standards, but then, State to State there may be other things that can be done.

Ms. SOLIS. Could I ask the same question of each of the panelists and a yes or no? So, Mr. Coffey, what is your opinion on this?

Mr. COFFEY. Similar to many of the Safe Drinking Water Act provisions, the States do have the ability to regulate more stringently. We believe that there are some benefits for that. There are also complications.

Ms. SOLIS. OK, but you are in general supportive. And, Mr. Durbin?

Mr. DURBIN. In general, Madam Chairwoman. We believe that States should not be going further than the Federal standards. And as we have seen the precedent for aviation security and nuclear security, rail security, that you really do need to have a clear Federal preemption.

I would say, however, and add that in some ways there is a bit of a false argument here. I don't think it is an either/or, a floor or a ceiling. There is no question that States and localities have an important role to play, and we have to find that balance. This has to be a partnership across——

Ms. SOLIS. And, Dr. Taylor, you concur?

Ms. TAYLOR. Yes, ma'am.

Ms. SOLIS. OK, Mr. Coffey, I wanted to ask you when were the drinking water utilities first informed of the regulatory gap that was described to us earlier by the EPA, Mr. Grumbles, this morning?

Mr. COFFEY. Thank you. The WaterISAC, which is the Water Information and Sharing Analysis Center, is the water sector's main operational arm of learning about security threats. If EPA believed that there was a regulatory gap regards to drinking water security, their specific concerns could have been forwarded to the WaterISAC membership.

EPA informed the water sector about a regulatory gap yesterday afternoon, as part of a conference call of the Water Sector Coordinating Council. We believe that the WaterISAC has an effective partnership with EPA, and we would hope to work together on security as much as possible.

Ms. SOLIS. Do you think that is adequate? You were just—I mean that is surprising to me that you were notified so late.

Mr. COFFEY. We have a very close working relationship with EPA, and we would expect moving forward that information would be shared with WaterISAC in as timely manner as possible.

Ms. SOLIS. Right, and do you also receive any other notifications for meetings on other regulatory gap instances or circumstances that may have come up in the past? Was there any other notification given to you?

Mr. COFFEY. I am not aware of any, but I will research that and be able to answer more fully.

Ms. SOLIS. OK, also I wanted to ask Mr. Marty Durbin, according to your testimony, all the site security plans we talked about will not be submitted to the Department of Homeland Security until the end of 2009, but you want Congress to wait until the program is fully implemented before making any substantive changes. Are you really advocating that Congress wait 3 months after the program expires in October 2009?

Mr. DURBIN. No, ma'am, and I should clarify that. Again the regulatory program is in place now. It is in progress. We expect to have the highest risk-tier facilities with their vulnerability assessments and plans in by the end of this year if I understand their timetable correctly.

My only point again it is not that the Congress shouldn't be looking at changes that are necessary or again as we discussed what other facilities might be in here. Our simple point is that we think there is—the program is fundamentally strong. The risk-based program, the performance-based standards, and it obviously has taken a lot of effort to get it to where it is today. Frankly, it has been a very accelerated regulatory process if you judge it against others that have been out there.

So more, even waiting until the end of this year to see what comes through the first set of plans——

Ms. SOLIS. OK, I understand what you are saying, but I am a little concerned because it seems a bit contradictory that we are not getting the appropriate information to the facilities, and those individuals that are providing safety and protection for even our water. I mean so I have some concerns, and I know members of the panel do too.

Dr. Taylor, if I could just ask you very quickly. Can you please just be specific about why workers should be involved in vulnerability assessments? We have heard earlier from some of our members here that that seemed to be somewhat—it could be a burden

if workers were somehow having to know about all security plans, vulnerability assessments. Can you please just give me an idea?

Ms. TAYLOR. Well, I am talking largely about similar to when I worked with the United Auto Workers in the health and safety department and joint health and safety committees. Both management and workers are involved in conducting health and safety investigations at facilities, and this would be very similar in the case of conducting plant vulnerability assessments.

Many of the workers do know more about the facilities than some of the persons who would come around as the employer looking at the sites. So working together to determine the vulnerability, getting a complete assessment is very important.

Ms. SOLIS. But it wouldn't be—how can I say—a burden, an overburden to be able to——

Ms. TAYLOR. No, it would not be——

Ms. SOLIS [continuing]. Provide that information to employees?

Ms. TAYLOR. No, it would not.

Ms. SOLIS. OK, very good. My time is up. I will turn to the ranking member, Mr. Shadegg, from Arizona.

Mr. SHADEGG. Thank you, Madam Chairman, and let me begin by apologizing for my absence earlier. We thought there was another member that was going to cover and had agreed to cover and didn't show. So I apologize for not having—and I apologize to the witnesses for not having been able to be here for your testimony.

Mr. Coffey, I would like to begin with you and take a look at this issue of liquefied chlorine. There has been an argument made that by changing to just-in-time delivery of liquefied chlorine over the railway system that that would in fact make plants such as yours safer. And yet I think, as I understand it, you disagree or your company disagrees with that and uses a different policy. Am I correct on that?

Mr. COFFEY. Yes, sir, that is correct, and let me explain. In Southern California, there is approximately 100,000 tons of chlorine brought into the region each year. Of that, Metropolitan Water District uses approximately 9,000 tons. In southern California, virtually all chlorine enters as liquefied chlorine gas on the rails. If we switch to delivered bleach, the chlorine gas inventory would simply shift from our facility to another facility, which would then remanufacture the liquefied chlorine gas as bleach.

And importantly, bleach strength decays over time, and as such, the rail shipments of chlorine and the manufacturing of the bleach need to be in close proximity to the end-user.

I also testified that approximately 70 bleach trailers would be required to replace one chlorine gas trailer. So there are potentially balancing risks which we would have to consider. Furthermore, there are problems with just-in-time delivery and manufacture of chlorine. During Hurricane Katrina, we saw significant nationwide disruptions of the polymer supply to drinking water plants. We kept 2 weeks of supply of polymer at our plant, and though we were able to compensate for its supply outage, we had to significantly ration its use.

We frankly think it would be infeasible if not irresponsible for us to keep only minimum supplies of these critical chemicals on hand

at our facilities. And that is why liquefied chlorine gas at this current time remains the best option for Metropolitan Water District.

Mr. SHADEGG. I appreciate that information. Mr. Durbin, there has been a lot of discussion here today about local standards, State and local standards and whether or not States should be able to set a standard stricter or more stringent than Federal standards. There was some testimony by DHS this morning indicating that they were concerned about standards being set at the State and local level more stringent than the Federal level.

Do you believe that there is any risk that a State would set a standard that might impinge upon the ability of the Federal Government to ensure at least the security of facilities? And can you give me an example of that? And if so, is the way to resolve that by saying more stringent that but not in a matter which would hinder security requirements established by the Federal Government or other similar language?

Mr. DURBIN. Well, again I do think that is kind of the essence of the argument here is making sure that we don't have regulations being set at the State or local level that are going to either impinge or conflict with the framework set by the Federal Government. Again we are talking about Homeland Security. We are talking about national, coordinated programs for security just as we have with aviation and nuclear and what have you that I have mentioned.

So again I think what is important is that we strike the balance. We make sure that we understand the important role that the State and local government has to play in the overall Homeland Security, but we do believe that you clearly have to have a clear sense of the Federal Government is going to set the standard, and anything the State can do, it can supplement, it can complement, it can go further in some ways but if it's going to be in direct conflict with the Federal regulation or somehow keep us from being able to meet the regulation at the Federal level, that is where we have got to be careful not going that direction.

Mr. SHADEGG. I guess the issue in my mind derives from national security because I voted for the creation of the Department of Homeland Security. I view it as a matter of national security, and I am a States rights guy. But I do think that the Federal Government has the first obligation for national security. And so while I am happy to defer to States, I would be interested in preserving national security concerns.

Now, Dr. Taylor, I think your point is well taken that all employees should have the ability to participate in safety teams and making recommendations. They often know best what could be done in a safer manner. I don't know if this is what Chairwoman Solis was referring to, but there was a statement this morning about H.R. 5577 having contained language which said that they must have security inspections with every single employee present. And I am not certain if the bill says that, but I think the practical question was that is not a reality. They should be consulted. You probably can't get them all there at any single point in time.

Ms. TAYLOR. And I agree to that. And I actually looked back at the language, and I didn't understand the question from this morning.

Mr. SHADEGG. I am not sure that the language——

Ms. TAYLOR. I didn't see that that was there.

Mr. SHADEGG [continuing]. Correct myself. So thank you very much.

Ms. SOLIS. OK, very good. OK, next we will recognize the gentleman from Texas, Mr. Gene Green.

Mr. GREEN. Thank you, Madam Chair. Ms. Taylor, I will follow up with you. On the previous chemical safety hazard board, did you have the opportunity to visit any of the plants in the Houston area?

Ms. TAYLOR. I did not, but I was there for one of our reports that we released afterwards, yes.

Mr. GREEN. OK, in your opinion, does the Homeland Security bill adequately involve the employees of chemical facilities and the development of risk assessment and site security plans?

Ms. TAYLOR. Well, it says that you can have an employee or employee representative as appropriate. And I think the problem with the language is as appropriate——

Mr. GREEN. As appropriate.

Ms. TAYLOR [continuing]. And making that decision the employer's decision versus having in the language that an employee or employee representative be involved in the——

Mr. GREEN. I know when I organized plants, in fact all of my refineries are actually now steel workers, they have—there is a cooperative effort in a joint management labor agreement. And I would probably think most of the chemical facilities—and I will ask Mr. Durbin in a minute—but I have no problem with that——

Ms. TAYLOR. Yes.

Mr. GREEN. You know, because I think that is something that should be in the final drafting of the legislation that will come out of this committee. Mr. Durbin, is that something that is pretty standard in the chemical industry where they have a collective bargaining agreement or not?

Mr. DURBIN. Well, to my understanding it is. I mean I think the position our members have taken is that our employees are the first line of defense. And absolutely, we want to make sure the right people are involved at the beginning in the vulnerability assessment. And as was discussed also, you certainly have to make sure that the employees on site are appropriately trained and are well informed on the security plan that is in place.

Mr. GREEN. OK, in your testimony you indicate that the American Chemistry Council members take inherent safer approaches into account when analyzing chemical security risks. Is that the formal policy or direction within the chemistry council, or is it a reflection of individuals plants or——

Mr. DURBIN. No, it is a requirement. It is part of the Responsible Care security code, which is a mandatory program for all of our members. It covers environmental health safety and now security. It was already in the underlying process safety code of Responsible Care. We included it and made clear that it was part of the security code as well. So as you implement security enhancements commensurate with risks, you are supposed to take into account inherently safer approaches, engineering, and administrative controls, and other security and preventive measures as well.

Mr. GREEN. Well, I have been involved in the port of Houston, and we have—most of our chemical plants actually have port access. So they come under the maritime safety and security act, and we have worked through that on a partnership over the last year. In fact, tomorrow, I am going to get my twick card so I don't have to be escorted whenever I want to go to a dock at the port of Houston since 60 percent of our dock space is actually privately owned and mostly petro chemical.

And I have been pleased with what has happened. Your testimony that your association did not seek an exemption of any of your facilities from the more recent chemical security program. My concern is we may have answering to two bosses. And they are both Federal, and if we added State, we will get to that in a second. But I want to make sure there is no conflict between what has already been done in the Maritime Security, Safety and Security Act, and both what has been done with EPA and Homeland Security.

Mr. DURBIN. I will tell you. The biggest concern for our member companies—again, some of our facilities are covered by the Maritime Transportation Security Act. Others are now covered by CFATS and obviously whatever comes on beyond that. Our plea, if you will, is that if we are going to take MTSA facilities and have them now covered under CFATS, let us just make sure we remove them from the MTSA so we don't have two bosses.

Again, we are more than happy—our member companies are more than happy to say if there is more we need to be doing, we will do it. But let us make sure we don't have two bosses.

Mr. GREEN. OK, and I guess that is my concern is that because frankly the water side is the issue. And some many of our plants, both refineries and chemical plants, have access to the water and the Coast Guard responsibility, and that is how we come under. And we have been 3 years into that now, and I wouldn't want to lose the success we have had with it.

Should there be an exemption if you are under a choice of one or the other? Should a company that, for example, some of my chemicals plants are on the channel. Should they be able to pick which one they want, or should we give priority to the maritime safety?

Mr. DURBIN. Well, again just speaking for our member companies, they believe that if—again we all would assume that we were going to all be in the chemical facility antiterrorism standards. And some are under MTSA. The feedback I have gotten from the members is that they are happy with MTSA, but if it turns out they are going to have to now comply with or do more, comply more with CFATS, let us just make it very clear that they are no longer under MTSA.

So I don't have a clear answer for you as far as, should they be allowed to choose one or the other. But I just want to make sure it is consistent.

Mr. GREEN. And this is for all our panelists. Having watched what has happened in the port of Houston between the government, our local government, we have a government-managed port. We don't lease out our port except we lease out dock space, but it is actually managed by a subdivision of our county government and

watch the success between the Federal agencies and the local agencies, I would be a little concerned to add something over it because I see what is happening in the hardening of the landside as well as the waterside. So that is my concern.

Mr. Crowley—and, Madam Chairman, I think I am over time. So but I appreciate it, and if you want to do a second round, I just have a couple more questions.

Ms. SOLIS. We do have votes coming up, and I really want to thank the panelists for being here and being so patient with us with our schedule being what it is today. But all members will have an opportunity to submit further questions to the panelists so that we can get those responses back, and I just want to thank everyone for coming. And I just remind members again they can submit any questions to the committee clerk by electronic form within the next 10 days, and the clerk will notify your offices of those procedures.

So just lastly before we do close, I just want to draw your attention to an incident that occurred in California. There was a theft of chlorine tanks, and this was something that actually created a lot of concern amongst members of Congress, so much so that a letter was generated by Mr. Markey, Benny Thompson, Jim Langovin, myself, to Mr. Michael Chertoff to ask him how did this happen and if we could get any more information regarding it.

Obviously these are safety issues of great concern to our community, and oftentimes people will call their member of Congress when they hear about something so important and critical to the safety of our community. These are things that obviously we know we need to do a better job at regulating. So I just want to thank the panelists for your input, your concerns, and we will continue this discussion.

So with that, I move—yes, gentleman from Texas.

Mr. GREEN. Because of the some of the processes we have are inherently dangerous, just a comment. A mother of eight lost her life yesterday on a plant in our district, and I talked with the family this morning. And even the job safety issues are very serious, and so it is something that we take very serious, those of us who, I know, represent it because we do hear from those folks in our community. And those of us who live and work around it still are impacted. So thank you.

Ms. SOLIS. OK, very good. So with that, this panel is concluded, and without objection, we are officially adjourned. Thank you very much.

[Whereupon, at 2:00 p.m., the subcommittee was adjourned.]

[Material submitted for inclusion in the record follows:]

May 8, 2008

The Honorable John Dingell, Chairman
Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable Joe Barton, Ranking Member
Energy and Commerce Committee
2322A Rayburn House Office Building
Washington, DC 20515

Dear Chairman Dingell and Representative Barton:

As the Committee on Energy and Commerce considers legislation to ensure the security of chemical facilities, the undersigned agri-business community would like to highlight several issues that we look forward to working with you on as legislation moves through the Committee process.

We believe homeland security and the protection of America's food supply is a top priority. The nation's agricultural industry continues to take pro-active steps to properly secure crops and livestock as well as critical crop input materials such as fertilizer and pesticides throughout the distribution chain from the threat of potential terrorists. Our organizations and members are working closely with U.S. Department of Homeland Security (DHS) officials in order to establish appropriate standards and ensure compliance with the Chemical Facility Anti-Terrorism Standards (CFATS) regulations.

We are concerned that the "Chemical Facility Anti-Terrorism Security Act of 2008" (H.R. 5577) would cause disruptions to the current partnership that exists between DHS and the private sector. We believe the proposed legislation would increase regulatory burdens on U.S. agriculture at a time of record high fuel, transportation and crop input costs. We believe that H.R. 5533, as introduced by Rep. Al Wynn (D-MD), is the appropriate legislative response to this issue and the proper mechanism to address the issue. Our key areas of concern include:

Inherently Safer Technology (IST): Inherently safer technology is an engineering concept used to better design worker safety protections at manufacturing facilities. We are concerned that this concept is being inappropriately applied in H.R. 5577. IST is not a security-based concept and we believe an important distinction must be made between safety and security. DHS recently testified that IST requirements do not impact the security of a chemical facility. In addition, DHS stated that they do not have the expertise to evaluate IST options for each sector regulated. Furthermore, where appropriate, IST is already incorporated into the federal Occupational Safety and Health Administration's Process Safety Management (PSM) program. The requirements within

the chemical site security bill go beyond what is required under PSM and are duplicative and burdensome for facilities which currently comply with PSM.

In the report associated with H.R. 5577, the Committee recognized the unique issues associated with IST and the agricultural sector. The Committee explicitly stated in its report, "It is not the intention of the Committee to promote or discourage the use of any particular chemical in agriculture through the provisions in this section." We fully support this language and would urge the Committee on Energy and Commerce to include similar text in the legislation.

If an IST mandate is put in place for the nation's agricultural industry, such a mandate could jeopardize the availability of lower-cost sources of plant nutrient products or certain agricultural pesticides used by farmers and ranchers. U.S. farmers and ranchers are already faced with increased operating costs due to record high fuel, fertilizer and transportation prices.

Information Protection: A facility's information should be treated as classified material and should not be released to the general public. Any breach in the confidentiality of industry security information could result in business owners withholding security details, increasing the terrorism risk. Section 2108 of H.R. 5577 weakens certain information protection provisions and potentially exposes sensitive vulnerability information to the public domain.

Federal Preemption: The agribusiness and commercial distribution/manufacturing sector is particularly concerned that Congress intends to encourage the creation of a patchwork of conflicting rules. The DHS CFATS regulations should pre-empt inconsistent state and local chemical security laws and rules by preempting state or local requirements only if 1) there is an actual conflict between the two or 2) the state or local program "frustrates the purpose" of the federal program. Neither of these problems appears to be occurring with the way existing state programs are being implemented. Thus, Congress does not need to act to "save" any current programs.

Third-Party Lawsuits: We believe that DHS should be the sole responsible agency for determining when and how to enforce federal chemical security regulations. State, localities or third party litigants should not have the ability to bring suit to enforce any of the DHS chemical security provisions.

Red Team Exercises: The agribusiness and commercial distribution/manufacturing sector believes that red team exercises are dangerous and inappropriate in the manufacturing environment. Exercises and drills should be conducted in conjunction with facility employees as well as local first responders. We are concerned about the impact at a local facility if DHS agents attempt to storm the gates in a manufacturing environment. A lack of advance planning and coordination with this type of exercise could jeopardize the safety of both the facility employees and DHS agents.

STATEMENT OF HON. JOHN D. DINGELL

Today's hearing before the Subcommittee on Environment and Hazardous Materials on legislation to enhance the security of our Nation's chemical facilities seeks to address a serious and significant matter relating to the health and safety of our communities. The Committee on Energy and Commerce has broad experience, expertise, and jurisdiction in matters dealing with security of chemicals and chemical plants and the dangerous consequences that could result from a release of chemicals such as chlorine or ammonia. Other chemicals like ammonium nitrate and nitric acid, which can be used in making explosives, also present serious security risks and warrant special attention.

Almost 10 years ago, this Committee required the Attorney General to review and evaluate the state of chemical facility security, including the security of transportation of regulated substances. Unfortunately, the Attorney General failed to complete the final evaluation and report that was due in June 2002.

Following the September 11, 2001, attack on the World Trade Center and the Pentagon, the Committee on Energy and Commerce authored a set of amendments to the Safe Drinking Water Act to address security issues at community drinking water systems. These amendments required approximately 8,400 community water systems to prepare vulnerability assessments and emergency response plans. The Environmental Protection Agency (EPA) has unique expertise with water security as the President has recognized in making the agency the lead Federal agency for protecting critical infrastructure relating to water security. I see no reason to change this assignment of responsibilities.

With respect to security at chemical facilities, however, the Administration, in the five years after the attacks of 9/11, failed to submit legislative proposals to the Congress. Efforts by EPA to use authorities of the Clean Air Act to address security at chemical facilities were derailed within the Administration.

The Department of Homeland Security's current legislative authority comes from a provision inserted in the 2006 Department of Homeland Security Appropriations Act (PL 109-295). Because the House leadership at the time followed an irregular and unwise process of circumventing the jurisdictional Committees of the Congress, the expertise and experience of many Members of this Subcommittee and the full Committee on Energy and Commerce were lost.

The current authority of the Department of Homeland Security, however, sunsets in October 2009, so further action by Congress will be necessary. I ask that all Members of the Subcommittee closely scrutinize the program being implemented by the Department of Homeland Security and diligently work to fashion effective and protective chemical security legislation.

I thank the gentle lady from California for chairing this important hearing.

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January 18, 2008

Advocacy
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The Honorable Bennie G. Thompson
Chair
House Committee on Homeland Security
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Thompson,

The American Water Works Association is strongly committed to ensuring that the nation's water infrastructure is protected against threats to homeland security. We in the water community take homeland security and the safety of our own communities very seriously. However, having reviewed the chemical security legislation being developed by the House Homeland Security Committee, we believe the bill unnecessarily duplicates existing federal programs and other protections in the water sector. We strongly urge you to affirmatively exclude water utilities from the DHS program, as we are excluded under current law.

Including the water sector in this legislation is unnecessary because that duplicates numerous existing federal, state, and local requirements. It would undoubtedly raise water and sewer bills throughout your district and around the country, without delivering commensurate protection or value to our communities. Moreover, as written, the bill could adversely impact the treatment and delivery of safe drinking water in many communities.

We believe Congress's 2006 decision to exclude the water sector from the chemical security bill was justified and appropriate. Among other things:

- Water utilities are not "chemical facilities" in the general meaning of that term.
- Water utilities operate in the public interest and provide an essential service, not a product.
- Water utilities are generally instrumentalities of local government and are subject to extensive economic and other regulation by politically accountable local officials.
- Water utilities use certain chemicals only because they are necessary for water or wastewater disinfection, in order to provide vital public health and environmental benefits.
- Water utilities maintain only such volumes of hazardous chemicals on-site as may be necessary to ensure that they can meet their public health and environmental protection obligations, with some assurance that they can continue to operate in the face of a supply interruption.

- Water utilities are already subject to extensive regulation under the Safe Drinking Water Act, the Clean Water Act, the Clean Air Act, the Emergency Planning and Community Right to Know Act, the Public Health Protection and Bioterrorism Preparedness and Response Act, OSHA standards, and various state and local regulations, to ensure the safe management of hazardous chemicals.
- Water utilities are subject to the Clean Air Act's Risk Management Program and are required to maintain offsite emergency response plans for a chemical release from natural disaster, terrorism, or other causes.
- All water systems serving more than 3,300 people have been required to prepare Vulnerability Assessments and Emergency Response plans, and to submit the Vulnerability Assessments to EPA. Most water systems undertake periodic reassessments and have made security improvements to address any vulnerabilities identified. And
- The water sector has undertaken extensive training and technical assistance efforts on homeland security, has worked with DHS to organize the Water Sector Coordinating Council, has organized and operates a WaterISAC (information sharing and analysis center), and is developing standards for physical security upgrades using the American National Standards Institute (ANSI) standards development process.

Finally, several provisions in the current bill are completely unworkable for water utilities. For example, allowing a federal official to order the use of different treatment chemicals or changes in water treatment processes could create serious unintended public health consequences. Drinking water treatment decisions, including the choice of disinfectant, are made in consideration of important local factors including source water chemistry, and must remain a local decision. In addition, giving a federal official the authority to order the cessation of water or sewer service in any community is unworkable, and the fines and penalties in the bill are completely inappropriate for agencies of local government.

For these and other reasons, we urge you to ensure that water and wastewater utilities are affirmatively excluded from the chemical security bill. If you have specific concerns about homeland security and the water sector, we would be happy to discuss them with you and to consider addressing them outside the bill as now written.

Thank you for your considering our views. We look forward to working with you to remedy these and other concerns.

Sincerely,

Nilaksh Kothari

Nilaksh Kothari
President

January 23, 2008

The Honorable Bennie Thompson
Chairman
Committee on Homeland Security
U.S. House of Representatives
Washington, DC 20515

The Honorable Peter King
Ranking Member
Committee on Homeland Security
U.S. House of Representatives
Washington, DC 20515

Dear Representatives:

As the Homeland Security Committee begins its consideration of the "Chemical Facility Anti-Terrorism Act of 2008," the Association of Metropolitan Water Agencies (AMWA) welcomes the opportunity to offer its input on this important legislation.

As the representatives of public drinking water agencies that supply water to 127 million Americans, AMWA urges the Committee to recognize the expertise and responsibility of local water supply professionals to make determinations on how to best protect public health and water quality in their communities.

We believe that the security of drinking water facilities should not be addressed in the context of this draft legislation. Public water treatment plants are fundamentally different from for-profit chemical manufacturing facilities that the bill primarily seeks to regulate. Water systems do not manufacture chemicals, but use them in the treatment process because they are necessary to meet the water quality requirements of the Safe Drinking Water Act and the Clean Water Act. This ensures that the water is safe for their customers to drink.

AMWA also has serious concerns about provisions in the bill that would allow DHS to direct a public water facility to abandon its chosen water treatment methods. Local water professionals and community leaders, who are familiar with their region's unique climate, geography, and source water quality are best suited to determine appropriate water treatment processes.

Because our members' storage and use of treatment chemicals is heavily regulated at the federal level by EPA and at the state and local levels, it would be problematic for DHS to impose additional and possibly contradictory rules on water plants. As experienced by other countries, the unintended consequences of being denied access to primary treatment chemicals for water can result in widespread death and disease from cholera and other serious health threats.

Another section of the draft bill would allow DHS to shut down a public water facility for noncompliance with a federal chemical security rule. I can think of almost no reason for a drinking water system that is delivering safe water to be shut down, even temporarily. Clearly, such a provision is impractical, as it would have a devastating effect on public and environmental health and local emergency

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Houston Public Utilities Division

Charles M. Murray
Fairfax Water

Chuck Clarke
Seattle Public Utilities

Diane VanDe Hei
Executive Director

preparedness, not to mention public confidence in their water.

Finally, you should be aware that public water utility managers have taken the lead in assessing and securing their facilities over the past few years. For example:

- All large drinking water systems have prepared, conducted, and submitted vulnerability assessments to EPA. Utilities have also prepared emergency response plans and regularly update these documents as part of a continuing reassessment of their facilities' vulnerabilities and security.
- The water sector has undertaken extensive training and technical assistance efforts on homeland security, has worked with DHS to organize the Water Sector Coordinating Council, has organized and operates the WaterISAC Water Security Network, and is developing standards for physical security upgrades using the American National Standards Institute (ANSI) standards development process.
- Water utilities comply with the Clean Air Act's Risk Management Program and are required to maintain emergency response plans for natural disasters and terrorism incidents.
- Public water systems are subject to extensive regulation under the Safe Drinking Water Act, the Clean Water Act, the Clean Air Act, the Emergency Planning and Community Right to Know Act, the Public Health Protection and Bioterrorism Preparedness and Response Act, OSHA standards, and various state and local regulations, to ensure the safe management of hazardous chemicals.

Given these ongoing security efforts and the clear differences between public drinking water facilities and for-profit chemical manufacturing plants, I do not believe it practical to cover each under the same regulatory scheme. Therefore, I ask that you maintain protections in existing law that prevent the federal government from interfering with local choice in water treatment methods.

Thank you for your consideration, and I look forward to working with you on this important issue.

Sincerely,

Diane VanDe Hei
Executive Director

cc: Committee Members

May 2008

Advocates for Environmental Human Rights – American Nurses Association – Arizona Advocacy Network – Arizona Consumers Council – Calhoun County (TX) Resource Watch – Chemical Weapons Working Group – Clean Water Action – Colorado ACORN – Commonweal – Communications Workers of America – Connecticut Coalition for Environmental Justice – Environment America – Environmental Health Fund – Families Against Cancer And Toxics – Farmworker Association of Florida – Front Range Economic Strategy Center – Greenpeace – Healthy Building Network – Healthy Child Healthy World – INFORM International Chemical Workers Union Council/UFCW – International Union, UAW – Kentucky Environmental Foundation – New Jersey Work Environment Council – OMB Watch – Oregon Toxics Alliance -- Pennsylvania Clean Air Council – Pennsylvania Parent Teacher Association – Physicians For Social Responsibility – Rocky Mountain Sierra Club – Sciencecorps – Sierra Club – Sustainable Arizona – The Ecology Center – U.S. Public Interest Research Group – United Steelworkers – Washington Toxics Coalition

Support Strong Chemical Plant Safety and Security Legislation

Dear Representative:

We write to urge you to support long-overdue chemical plant security legislation that includes safer technologies as the most effective way to reduce chemical threats. Since 2001, Congress has been unable to pass a chemical security bill despite repeated attempts. With security experts listing chemical plants as a vulnerable and deadly part of our nation's infrastructure, the implications of this delay are ominous.

Across the country, there are more than 7,000 chemical facilities that each put 1,000 or more people at risk of serious injury or death in the event of a chemical release from the facility. One hundred of these plants each put more than one million people at such risk.

In 2006, the House Homeland Security Committee passed a strong bipartisan bill. Regrettably, the chemical industry derailed this effort in favor of a much weaker temporary program set to expire in 2009. With less than two years to go, Congress must act quickly to pass a protective and comprehensive bill.

But the chemical industry is working hard to ensure that the interim regulations become the "final word" on chemical security. If they succeed the country will remain vulnerable to one of the few threats that can – in most circumstances -- be quantitatively reduced with safer and more secure technologies.

The interim chemical security law enacted in 2006 does little to eliminate these risks. It prohibits the Department of Homeland Security from requiring safer more secure chemicals or processes that can eliminate or dramatically reduce the consequence of an attack. It also exempts thousands of chemical facilities such as water treatment facilities.

Congress should pass, and the President should sign, a chemical security bill that dramatically enhances security by:

1) Reducing the consequence of an attack through the use of safer more secure chemicals and processes where feasible

2) Involving plant employees including hourly workers and their representatives in developing plant security programs
3) Ensuring that both chemical companies and government are accountable to enforce the law
4) Allowing states to set more protective security standards
5) Including all categories of facilities such as water treatment plants.

Enacting a comprehensive law will provide essential protections to millions of workers and communities now living in the shadow of preventable disasters.

Any legislation that Congress considers should replace dangerous toxics with safer alternatives where feasible and set a floor, not a ceiling, for stronger state chemical security laws. A recent National Academy of Sciences study found that "the most desirable solution to preventing chemical releases is to reduce or eliminate the hazard where possible, not to control it." This means the best way to make chemical plants safe is where feasible to eliminate the toxic chemicals that are the source of the danger by switching to safer technologies.

Fortunately, many safer alternatives are readily available. Hundreds of water treatment plants, power plants, and manufacturers have already switched to safer technologies and eliminated toxic exposure threats from these facilities to an estimated 38 million Americans. Most chemical manufacturing facilities have not adopted available safer technologies, and we need a chemical security bill that addresses these remaining chemical threats.

A deliberate or accidental release of toxic chemicals could have grave consequences, and action is long overdue to address these preventable chemical disasters. We urge you to support chemical plant safety and security legislation that uses American ingenuity to substitute available safer alternatives for toxic chemicals where feasible and prevents preemption of state chemical security laws.

Nathalie Walker & Monique Harden
Advocates for Environmental Human Rights

Holly Carpenter, BSN, RN
American Nurses Association

Linda Brown
Arizona Advocacy Network

Phyllis Rowe
Arizona Consumers Council

Diane Wilson
Calhoun County (TX) Resource Watch

Craig Williams
Chemical Weapons Working Group

Lynn Thorpe
Clean Water Action

Charlotte Brody
Commonweal

David LeGrande
Communication Workers of America

Mark A. Mitchell M.D., MPH
Connecticut Coalition for Environmental Justice

Christy Leavitt
Environment America

Judith Robinson
Environmental Health Fund

Terry Nordbrook
Families Against Cancer and Toxics

Rachel Running
FRESC (Front Range Economic Strategy Center)

Rick Hind
Greenpeace

Bill Walsh
Healthy Building Network

Christopher Gavigan
Healthy Child Healthy World

Carol Westinghouse
INFORM, Inc.

John Morawetz
International Chemical Workers Union Council/UFCW

Alan Reuther
International Union, UAW

Elizabeth Crowe
Kentucky Environmental Foundation

Rick Engler
New Jersey Work Environment Council

Sean Moulton
OMB Watch

Lisa Arkin
Oregon Toxics Alliance

Katie Edwards
Pennsylvania Clean Air Council

Keira Daily
Pennsylvania PTA

Kristen Welker-Hood
Physicians for Social Responsibility

Kathleen Burns, Ph.D
Sciencecorps

Ed Hopkins
Sierra Club

John Neville
Sustainable Arizona

Mike Shriberg
The Ecology Center

Elizabeth Hitchcock
U.S. Public Interest Research Group

Holly Hart
United Steelworkers

Laura Hart, MD
Washington Physicians for Social Responsibility

Laurie Valeriano
Washington Toxics Coalition

Inclusion of MTSA Regulated Facilities: The Maritime Transportation Security Act (MTSA) of 2002 is designed to protect our nation's ports and requires port facilities, including chemical facilities, to conduct vulnerability assessments and develop security plans. These facilities, which are regulated by the US Coast Guard currently, were exempted by statute from the CFATS regulation. To continue to maintain this successful program and avoid re-regulation and duplication, it is necessary to maintain the MTSA exemption.

Expansion beyond High-Risk Facilities: The current DHS CFATS regulations cover high-risk chemical facilities. H.R. 5577 appears to expand the regulations to cover all chemical facilities, including those in low risk categories such as most agricultural businesses and most farms and ranches. We are concerned that this expansion will needlessly divert DHS time, manpower and financial resources away from the primary objective of protecting high-risk facilities. Most agricultural businesses operate in rural communities and present a low security risk.

We support efforts in Congress to permanently authorize the DHS CFATS regulations. However, any legislation considered by the House Committee on Energy and Commerce, or on the House floor, needs to take into account the regulatory and economic impact on American agriculture and the consumer for whom we provide essential food, fiber and bioenergy.

We look forward to working with the Committee in a cooperative manner as the Chairman moves this measure forward. Thank you for your consideration of our concerns and unique perspectives shared in American agriculture.

Sincerely,

American Farm Bureau Federation
Agricultural Retailers Association
CropLife America
Chemical Producers and Distributors Association
National Agricultural Aviation Association
National Council of Farmer Cooperatives
The Fertilizer Institute

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June 12, 2008

The Honorable Hilda Solis
Vice-Chair, Subcommittee on Environment and Hazardous Materials Hearing
House Energy and Commerce Committee
1414 Longworth House Office Building
Washington, DC 20515

The Honorable John Shadegg
Ranking Member, Subcommittee on Environment and Hazardous Materials Hearing
House Energy and Commerce Committee
306 Cannon House Office Building
Washington, D.C. 20515

Dear Vice-Chair Solis and Ranking Member Shadegg,

This is a Statement of Views submitted by the Industrial Safety Training Council (ISTC) regarding: H.R. 5533, the Chemical Facilities Act of 2008 and H.R. 5577, the Chemical Facility Anti-Terrorism Act of 2008.

The ISTC is a 501(c)3 not-for-profit training and educational organization located in Southeast Texas. The ISTC and thirteen other safety councils, located throughout Texas, the Gulf Coast, and in several other states, comprise the Safety Council Security Consortium (SCSC). The ISTC, working with the SCSC, operates an established, highly successful and comprehensive identification verification and background screening process for contractor employees, as well as facility employees, working at over 100 chemical and refining facilities. The ISTC also provides safety training and site specific job safety orientations for facility workers.

The ISTC supports the goals of the chemical facility security legislation before the Subcommittee. The ISTC urges the Subcommittee to add language to make explicit that:

- A chemical facility that is also a regulated facility under the Maritime Transportation Security Act must comply with the Chemical Facility Anti-Terrorism Regulations (CFAT) for personnel surety purposes;

- Private sector entities are eligible for designation as Alternative Security Programs (ASPs) to perform personnel surety functions at chemical facilities;

- A comprehensive, robust and reliable background check is required, reaching local, state and federal criminal history records and including regular and frequent updates, a federal terrorist watch list check and an immigration status check; and

- Strong and comprehensive privacy and security protections must be met to protect the rights of facility and contractor employees.

Each of our recommendations reflects the personnel surety principles set forth in Section 550 of the Chemical Facility Act of 2006, which required DHS to promulgate regulations "establishing risk-based performance standards for security of chemical facilities." Pub. L. 109-295, sec. 550. On April 2, 2007, DHS adopted a regulatory approach in CFAT which increases the level of security as the level of risk increases. This risk-based, tiered approach to personnel surety reflects the unique working environment in chemical and refining facilities.

Thank you for your consideration of these recommendations. The ISTC and the SCSC look forward to working with Congress on these critical issues.

Sincerely,

Russell Melancon Jr., CAE
President & CEO
Industrial Safety Training Council
324 Hwy 69
Nederland, TX 77627

cc: Committee Members

June 10, 2008

Dear Subcommittee Vice Chair Solis and Ranking Member Shadegg,

We represent American agriculture, food processing, energy, forest products, chemistry, medicine, manufacturing, transportation, building materials and other businesses and local city services that make up our national infrastructure. Protecting our communities and complying with federal security standards is a top priority to us.

We are concerned that the "Chemical Facility Anti-Terrorism Security Act" (S. 5577) would cause disruptions of new federal security standards in the short term, and weaken infrastructure protection and economic stability in the long term.

The Department of Homeland Security (DHS) began enforcement of landmark new chemical security standards in January 2008. Companies in thousands of communities are just beginning to comply with these significant new requirements while continuing to provide essential products and services for our daily lives. Our industries and DHS are investing time, training and other resources to adapt to comprehensive security standards. However, this bill would detract from compliance efforts and, in some cases, impede progress that is underway. We believe that counter-productive, mid-stream adjustments to the current law would undermine security at facilities all around the country.

Our primary concern is that the bill goes beyond requiring security protections based on risk by creating a mandate to change products and processes to a government-selected "safest" technology. Congressional testimony found that this would possibly increase risk and weaken the businesses that the bill intends to protect. Such a standard is not measurable and would likely lead to confusion and prohibitive legal liability. The bill would also weaken protections for sensitive security information and create overlapping and conflicting security requirements.

Making extensive changes now is also premature. The DHS security regulations being implemented are improving security at thousands of facilities that provide the food, water, energy, pharmaceuticals and other chemical manufacturing that are essential for our national security and economic vitality. Rushing approval of this bill would significantly disrupt the recently implemented chemical security standards and create economic uncertainty in many communities. We urge you to reconsider this approach. While we would support straightforward legislation to remove the sunset date and make the chemical security regulations permanent, we strongly urge Congress to refrain from overhauling the program at least until it has been given a fair chance to be implemented and evaluated.

Thank you for your consideration of our views.

Sincerely,

Agricultural Retailers Association
American Farm Bureau Federation
American Forest & Paper Association
American Frozen Food Institute
American Petroleum Institute
Beer Institute
Calorie Control Council
Chemical Producers & Distributors Assn
Consumer Specialty Products Assn
Croplife America
Edison Electric Institute
Environmental Technology Council
Independent Liquid Terminals Assn
Institute of Makers of Explosives
Int'l Assn of Refrigerated Warehouses
International Food Additives Council
Int'l Institute of Ammonia Refrigeration
Interstate Natural Gas Assn of America
Midwest Food Processors Association
National Agricultural Aviation Assn
National Assn of Chemical Distributors
National Association of Manufacturers
National Assn of Truck Stop Operators
Nat'l Council of Farmer Cooperatives
National Cotton Council of America
National Mining Association
National Oilseed Processors Assn
National Paint and Coatings Assn
Nat'l Petrochemical & Refiners Assn
National Propane Gas Association
Petroleum Equipment Suppliers Assn
Petroleum Marketers Assn of America
The Carpet and Rug Institute
The Fertilizer Institute
U.S. Chamber of Commerce
USA Rice Federation

Chris Stearns M.C.

Environmental and Hazardous Materials Subcommittee Hearing on

"The Chemical Facilities Act"

400 words

Thank you Mr. Chairman, I am pleased to be here today to take part in this all too important hearing regarding the safety of our nations chemical industry. In this post 9/11 world it is an unfortunate reality that those that wish to do this country harm are becoming increasingly more creative. Evidence of this creativity, was the foiled plot by Muslim extremists to plant explosives in jet fuel arteries at John F. Kennedy International Airport, triggering massive casualties and economic havoc. It is apparent that terrorists are turning their attention to potential targets that may not appear to be mainstream but inflict the greatest harm and most severe civilian casualties.

I was pleased to have voted in favor of Department of Homeland Security Appropriations Act in the 109th Congress, which

established section 550, statutory authority for the Department of Homeland Security to regulate security at select chemical facilities. I believe that this was a necessary step in protecting highly dangerous chemical facilities against attack.

Implementation of these new security standards recently began in January of this year. Companies in thousands of communities are just beginning to invest, time, capital, and manpower, to comply with these newly implemented security standards. However, the legislation before us today seeks to expand these security measures and change the rules of the game just as it has started. Making changes now is premature, the Department of Homeland Security regulations being implemented are drastically improving security at our nations chemical facilities.

Like many on this committee, I have concerns with not only the timing of this expansive legislation, but also certain provisions contained within the bill. Certain provisions may weaken

information protection and and allow State and local authorities to adopt or enforce statutes, regulations, or rules, on top of federal law. Adoption of these provisions may further complicate and impede the private sector from compliance with newly mandated measures at chemical installations.

I am encouraged that laws and regulations are now in place to manage and secure the safety of chemical facilities across this nation. I am interested to see the results of these new regulations that went into effect at the beginning of this year. Before this legislative body attempts to blindly expand and complicate compliance of these new safety measures we should give pause and evaluate the newly implemented federal standards under section 550.

STATEMENT OF HON. JOHN SULLIVAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

Mr. Chairman,

Thank you for holding this legislative hearing to consider two bills, H.R. 5577, the Chemical Facility Anti-Terrorism Act of 2008 and H.R. 5533, the Chemical Facilities Security Act of 2008.

I am pleased that you called this hearing because the House Energy and Commerce Committee has clear and exclusive jurisdiction over the Safe Drinking Water Act, the Clean Air Act and chemical regulation in general. It is important that this committee assert its primary jurisdiction on these issues.

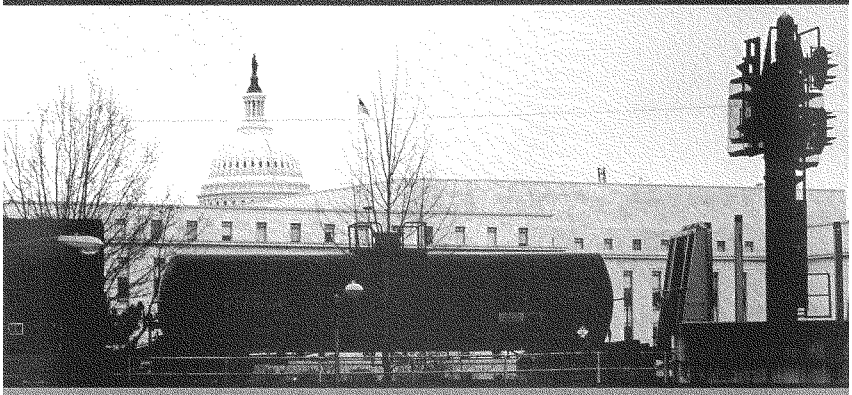
As a strong advocate for federal chemical security regulations in the wake of 9/11, I know the Department of Homeland Security is applying a risk-based approach toward prioritizing chemical facilities in order to help thwart an attack, and lower the attractiveness of these sites and essential products as potential terror targets.

However, I have concerns that H.R. 5577 and H.R. 5533 will allow state or local chemical security laws to obstruct or supersede federal chemical security laws. It is critical to have uniform, national chemical security standards to avoid a patchwork of potentially conflicting requirements. This may lead to a competitive disadvantage to companies on a state-by-state basis and lead to uneven security efforts. It is important to know that robustly regulated sectors like aviation, nuclear, and hazardous material transportation have strict federal pre-emption regimes in place.

I look forward to the testimony by our witnesses today and I yield back the balance of my time.

Center for American Progress

Toxic Trains and the Terrorist Threat



How Water Utilities Can Get Chlorine Gas Off the Rails and Out of American Communities

Paul Orum

Progressive Ideas for a Strong, Just, and Free America

TOXIC TRAINS AND THE TERRORIST THREAT

How Water Utilities Can Get Chlorine Gas Off the Rails and Out of American Communities

By Paul Orum

Reece Rushing, Project Manager
Director of Regulatory and Information Policy,
Center for American Progress

April 2007

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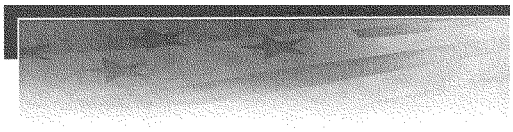


Executive Summary

Each year, thousands of tons of highly toxic chlorine gas travel by rail in the United States to drinking water and wastewater treatment facilities and other industries. These massive railcars traverse some 300,000 miles of freight railways, passing through almost all major American cities and towns. A rupture of one of these railcars could release a dense, lethal plume for miles downwind, potentially killing or injuring thousands of people.

The Department of Homeland Security and numerous security experts have repeatedly warned that terrorists could use industrial chemicals as improvised weapons of mass destruction—and indeed, terrorists recently attacked and blew up several trucks carrying chlorine in Iraq. In this respect, railcars of chlorine gas represent a distinct national security vulnerability. Yet Congress and the Bush administration have not acted to eliminate unnecessary uses of chlorine gas railcars even where undeniably affordable and practical alternatives exist.

To examine this vulnerability and encourage action, the Center for American Progress surveyed water utilities that still receive chlorine gas by rail, as well as utilities that since 1999 have eliminated chlorine railcars by switching to a less hazardous disinfectant. Our major findings are shown in the box on page 3.

Just 37 drinking water and wastewater treatment facilities still receive chlorine gas by rail. More than 25 million Americans live in harm's way near these facilities,[1] while millions more live in cities and towns along the rail delivery routes.

The good news is this vulnerability can be removed. Since 1999, some 25 water utilities that formerly received chlorine gas by rail have switched to safer and more secure water treatment options, such as liquid bleach or ultraviolet light. These alternative treatment options eliminate the danger of a catastrophic toxic gas cloud. As a result, more than 26 million Americans who live near these facilities are safer and more secure.

These conversions also remove the threat to communities along rail delivery routes. Railroads, by their nature, are wide open and largely insecure, providing easy access to railcars—as evidenced by the graffiti that frequently marks them (see photo on page 15). This makes it practically impossible to provide security commensurate with the risk presented by railcars of chlorine gas.

The only way to truly protect communities is to get unnecessary toxic cargoes off the tracks. Converting to safer alternatives for water treatment does that.

There continues to be some progress in this direction. At least six water utilities that now use chlorine-gas railcars are in the process of converting operations. Nonetheless, many others contacted by this survey have no plans to change.

Cost was a frequently cited reason for not converting. But the survey found such conversions are affordable even at large facilities, costing no more than $1.50 per person served each year—or the price of a bag of potato chips—and often much less. Put another way, a single day's expenditures on the war in Iraq could cover construction costs of converting the remaining U.S. water utilities off chlorine gas railcars. Cost is not a sufficient justification to continue to jeopardize American communities with massive railcars of chlorine gas.

State and local governments may provide incentives for water utilities to switch from chlorine gas. But communities along the rails have little or no local control over toxic trains that pass by homes, workplaces, and schools. The plant conversions identified in this report are positive, but without a national strategy, these communities will be much less secure than they should be.

Washington, D.C., for example, quickly converted its sewage treatment plant from chlorine gas railcars to liquid bleach in the aftermath of the Sept. 11, 2001, terrorist attacks. But hazardous chemicals, including chlorine gas, are still being transported by rail through the District just a few city blocks from the U.S. Capitol building—an intended target on 9/11.

In response, the city government sought to reroute toxic trains around the city. The Bush administration, however, has backed a lawsuit to block local control, arguing that local governments lack legal authority to protect citizens by rerouting trains.

The story is the same in other cities that have converted water utilities from chlorine-gas railcars, such as Cleveland and Indianapolis. Despite converting, these cities are still at risk from chlorine-gas railcars headed to other cities that have not converted, such as Minneapolis and Nashville.

A comprehensive solution can only come from the federal level. In fact, judges in the ongoing litigation over rerouting in Washington, D.C., have encouraged the Bush administration to develop a national strategy to address the security and safety dangers involved in the manufacture, use, and transportation of chlorine gas and other hazardous chemicals. Unfortunately, the administration and Congress have largely ignored this advice.

After years of inaction, and under growing public pressure, temporary and cosmetic chemical security legislation was enacted in October 2006 requiring the Department of Homeland Security to promulgate chemical-plant security regulations by April 4, 2007. But the legislation exempts water utilities, does not address transportation security concerns, and neglects safer and more secure technologies. Thus, among other shortcomings, DHS's new regulations will do nothing to address the risk posed to tens of millions of Americans by unnecessary rail shipments of chlorine gas to water utilities.

To address this danger and other chemical hazards, Congress must create meaningful national incentives. Among other actions, federal security standards should:

- Require chemical facilities to review and use available, cost-effective technologies that significantly reduce or eliminate serious emergency chemical release hazards;
- Target assistance to help water utilities convert from chlorine gas, including facilities that discontinued chlorine gas after Sept. 11, 2001;
- Give the Department of Homeland Security full authority to safeguard chemical infrastructure and the public, with appropriate roles for other governmental agencies; and
- Require chemical facilities to account for transportation risks—including the possibility of a catastrophic chemical release—in developing security assessments and plans.

Taking these actions would remove unnecessary toxic cargoes from the nation's railways and communities. The danger is immense and the solutions are clear. What we need now is action.

Major Findings

The Center for American Progress surveyed 62 water facilities that receive chlorine gas by rail or previously received chlorine gas by rail. These facilities treat an average of five billion gallons of drinking water and four billion gallons of wastewater each day, and serve more than 45 million people in two dozen states and the District of Columbia.[2] The survey identified facilities that have eliminated chlorine gas railcars, but also found others that have no plans to do so. Major survey findings include:

- **Only 24 drinking water and 13 wastewater facilities still use *rail shipments* of chlorine gas.** These facilities are found in California, Florida, Kansas, Kentucky, Louisiana, Michigan, Minnesota, Missouri, Nebraska, South Carolina, Tennessee, Texas, Utah, and Virginia. These facilities endanger more than 25 million Americans who live nearby, and millions more near railways that deliver the chlorine gas.
- **At least six drinking water and 19 wastewater facilities have eliminated *rail shipments* of chlorine gas since 1999 by switching to a less hazardous disinfectant.** These facilities are found in California, the District of Columbia, Florida, Georgia, Indiana, Kentucky, Louisiana, Maryland, Michigan, Minnesota, New Jersey, New York, Ohio, Oregon, Pennsylvania, and Washington. Some 26 million people in nearby communities and millions more along rail delivery routes are no longer threatened by chlorine gas from these facilities. Additional water utilities eliminated chlorine gas rail shipments prior to 1999.[3]
- **Of facilities that still receive *rail shipments* of chlorine gas, at least four drinking water and two wastewater plants have definite plans to convert from chlorine gas to a safer, more secure disinfectant.** These facilities are found in Colorado, Florida, Kentucky, Louisiana, South Carolina, and Virginia. By converting, they will remove the threat to more than five million people living nearby, and millions more along their rail delivery routes. Several more such facilities are planning to convert within a few years, and others are evaluating alternatives.[4]
- **Chlorine gas rail shipments travel long distances through populated areas.** Some 16 chlorine production sites sell chlorine by rail to the merchant market. The profusion of freight rail lines precludes identifying specific routes between producers and water utilities. The locations of producers and chlorine-gas-using water utilities, however, make clear that rail shipments often cover hundreds or even thousands of miles.
- **General cost estimates provided by 20 water facilities indicate that switching from chlorine gas to a safer, more secure disinfectant is affordable.** Conversions at these facilities cost no more than $1.50 per person served each year—or the price of a bag of potato chips—and often cost much less. A single day's expenditures on the war in Iraq could easily have paid to convert these 20 facilities off chlorine gas.

Dangerous State of Play

Chemical Railcars Pose Serious Hazards

Exposure to chlorine gas can severely burn the eyes, skin, and lungs, and can be fatal. When released from a railcar, compressed chlorine expands rapidly into a ground-hugging poison gas cloud. A single ruptured railcar of chlorine gas can release a dense, lethal plume from 14 miles to 25 miles downwind in worst-case conditions.[5] In large urban areas, thousands of people could be killed or seriously injured in these conditions.

The Department of Homeland Security estimates that a major chlorine railcar spill could kill 17,500 people.[6] A Naval research lab likewise found that such a spill could quickly cause 100,000 serious injuries or deaths under a scenario involving large holiday crowds.[7]

This risk is especially worrisome given the vulnerability of railcars. A RAND Corp. database of worldwide terrorist incidents recorded over 250 attacks against rail targets from 1995 to 2005.[8] Insurgents in Iraq have recently targeted trucks carrying chlorine gas with several deliberate attacks.[9]

The graffiti on many railcars attests to their vulnerability. A survey of rail workers reported widespread lax security at rail yards.[10] Investigative news reports repeatedly show easy access to chemical facilities and rail cargoes.[11] A *Pittsburgh Tribune* reporter recently found so little security he could leave his business card on dozens of railcars and locations.[12]

Railcars may travel or sit near schools, hospitals, homes, and downtowns with only nominal security, if any. The railroad carrier may simply park the chlorine railcar outside the water utility fence on an unpredictable schedule, leaving it for the facility to retrieve. Rail security regulations are minimal, yet because federal rules preempt state and local requirements, chemical railcars passing through communities are largely exempt from local control.

Major chlorine rail spills are infrequent but can be deadly. Chlorine rail spills killed eight people in Youngstown, Fla., in 1978; 17 people in Montanas, Mexico in 1981; three people near San Antonio, Texas in 2004; and nine people in Graniteville, S.C., in 2005. Since 1990, the National Response Center has recorded over 160 mostly-minor spill reports involving railroads and chlorine, or more than one every six weeks.[13]

Such spills reveal the overall vulnerability of the system. But a calculated terrorist rupture of a single chlorine-gas-filled railcar could have far worse consequences, potentially poisoning an entire community.

New Interim Chemical Security Rules Won't Fix the Problem

Many federal agencies and others have warned that terrorists could use chemical facilities as pre-positioned weapons of mass destruction.[14] Yet there are almost no federal chemical security requirements. Congress enacted temporary legislation in October 2006 that requires the Department of Homeland Security to promulgate interim, stopgap chemical security requirements by April 4, 2007.[15]

But this new law is seen as an incomplete measure that will ultimately be replaced by comprehensive legislation. It has significant shortcomings that leave millions of Americans vulnerable. In particular, the new regulations:

"We are happy not to have the chlorine gas there. In the end it was a no-brainer to switch."

Bill McKeon, Chief Wastewater, Philadelphia Water Department, Philadelphia, Pa.

- Exempt drinking water and wastewater plants and other types of facilities;
- Do not require facilities to address the dangers, security costs, and potential liabilities of transporting extremely hazardous materials to or from their facilities; and
- Ignore cost-effective safer technologies that are the most effective way to reduce the attractiveness of chemical facilities as terrorist targets.

These regulations are too focused on physical security at facilities and do not do enough to emphasize supply chain security. Better fencing, lighting, and access controls are important, but insufficient—particularly if the delivery of hazardous materials to or from a facility travels by rail through a major urban center.

In 2006, the Transportation Security Administration released draft voluntary action items for securing rail transportation of toxic inhalation materials such as chlorine gas. Yet the voluntary recommendations lack enforcement, are vague on key elements (such as protecting railcars in transit), and are silent on feasible opportunities to take hazardous cargoes off the rails.

The Bioterrorism Act of 2002 provided substantial federal funding to drinking water facilities to conduct vulnerability assessments, but did not require these facilities to reduce any hazards or otherwise improve security. Similarly, there are no significant federal security standards for wastewater plants.

Homeland Security Presidential Directive 7 designated the U.S. Environmental Protection Agency as the lead agency to oversee security at drinking water and wastewater facilities.[17] The EPA could require preventive security at water utilities under the general duty clause of the Clean Air Act. The Bush administration, however, blocked a specific proposal developed by EPA and the then Office of Homeland Security (now DHS) to use this authority to establish federal chemical security standards.[18]

Less Hazardous Alternatives Are Available

In 2006 the National Research Council reported that "the most desirable solution to preventing chemical releases is to reduce or eliminate the hazard where possible," including by modifying processes or replacing hazardous materials with less hazardous substitutes.[19] Two years ago, the Center for American Progress recommended an action plan for safeguarding hazardous chemical facilities using these techniques,[20] and one year ago released survey findings that documented some 284 facilities across diverse industries that had switched to less acutely hazardous options.[21]

The Association of American Railroads supports development of less hazardous products and technologies as substitutes for highly hazardous materials. In congressional testimony, the association explained that chlorine gas and other "toxic inhalation hazard," or TIH, chemicals comprise just 0.3 percent of all rail shipments, but railroads face potentially ruinous liability from hauling these chemicals (which they are required to carry). For this reason, the railroads "strongly support efforts aimed at finding and utilizing 'inherently safer technologies' as substitutes for hazardous materials, especially TIH" that are shipped by rail.[22]

Roughly two-thirds of large U.S. wastewater utilities already use a disinfectant chemical other than chlorine gas, or

plan to stop using chlorine gas.[23] At least 160 large U.S. public drinking water systems already use liquid bleach.[24] In last year's survey, the Center for American Progress identified more than 200 drinking water or wastewater facilities that had eliminated chlorine gas since 1999—a sample of similar changes at many water utilities nationwide.[25] Most of these water facilities switched to liquid bleach, while others use ultraviolet light.

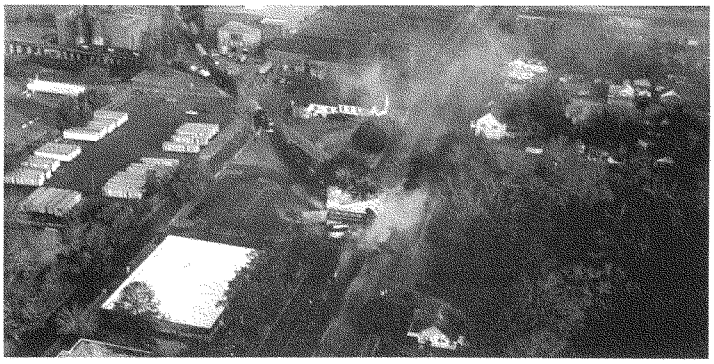
Last year's report noted that approximately 1,700 drinking water plants and 1,150 wastewater facilities report extremely hazardous substances, primarily chlorine gas, under EPA's Risk Management Planning program. This year's survey report focuses on just those water utilities that recently have received chlorine gas by rail.

Utilities that eliminate chlorine gas may replace other hazardous chemicals. Some wastewater facilities remove chlorine from effluent by using anhydrous sulfur dioxide, a dangerous toxic gas. These facilities frequently replace anhydrous sulfur dioxide with less hazardous sodium bisulfite. Similarly, some drinking water facilities replace anhydrous ammonia, a toxic gas, with aqueous ammonia, a less hazardous alternative.

Replacement Chemicals Can Be More Safely Produced

Water utilities can buy concentrated bleach in bulk as sodium hypochlorite, or generate dilute bleach on-site from salt and electricity. Recent high prices for chlorine make on-site generation increasingly attractive even for larger water utilities. Several facilities surveyed in this report are considering or adopting on-site bleach, while others are considering or adopting ultraviolet light. Both options eliminate bulk transportation of extremely hazardous substances and greatly reduce overall transportation needs.

In our survey for this report, we found many utilities that eliminated chlorine gas now buy bulk sodium hypochlorite bleach. One argument against converting water utilities to bleach is that it simply shifts the danger to bleach manufacturing facilities,



A freight train derailed on Jan. 6, 2005, in Graniteville, S.C., rupturing a railcar of chlorine gas. The leaking gas visible in the photo above killed nine people, sent 500 to the hospital with breathing problems, and caused more than 5,000 to evacuate for several days. (U.S. EPA)

which typically make hypochlorite from bulk rail shipments of chlorine gas. Producers, however, can manufacture hypochlorite using "just-in-time" technology, in which chlorine gas is created and promptly used only in small amounts, eliminating the danger of a catastrophic gas release.

This process is used in Asia, Australia, Europe, and a few U.S. locations.[26] Further industrial-scale production is under development in the United States.[27] Currently, some 94 manufacturers across the country produce sodium hypochlorite for use in industrial or household products.[28] Full conversion to producing hypochlorite without bulk chlorine gas would eliminate thousands of rail shipments each year and take millions of Americans out of harms way.

"We are very glad the chlorine gas is gone. It's an achievement. It used to be our number one employee concern."

Ray Flasco, Water Supply Division Manager, Akron Water Supply Plant, Kent, Ohio

Producing hypochlorite bleach from bulk chlorine gas is currently marginally cheaper than using safer and more secure methods—but only insofar as companies do not pay the full costs of security and liability insurance for a potential catastrophic chlorine release. Requiring producers that use bulk chlorine gas to internalize these costs would immediately make large-scale production using safer and more secure methods cost-competitive.

Major Survey Findings

Few Water Utilities Still Use Chlorine Gas Railcars

Only 24 drinking water and 13 wastewater facilities still use *rail shipments* of chlorine gas. Yet because of these few facilities, thousands of tons of deadly chlorine gas pass through major American cities. Some 25 million Americans live within range of a worst-case toxic gas release around these facilities, and millions more live along rail delivery routes. Among these 37 facilities are:

- St. Paul Regional Water Services-McCarron, Maplewood, Minn., 1.3 million people at risk
- Kansas City, Missouri Water Treatment Plant, 720,000 people at risk
- Omohundro Water Treatment Plant, Nashville, Tenn., 973,663 people at risk
- East Bank Wastewater Treatment Plant, New Orleans, La., 726,185 people at risk*
- Central Regional Wastewater System, Grand Prairie (Dallas), Texas, 3.9 million people at risk

For a complete list see Appendix A on page 16 and the map on page 11.

Many Water Utilities Have Switched to Safer, More Secure Alternatives

At least six drinking water and 19 wastewater facilities have eliminated *rail shipments* of chlorine gas by switching to a less hazardous disinfectant since 1999. As a result, more than 26 million people no longer live within range of a chlorine gas release from these facilities, and additional millions are no longer in danger from rail shipments to these facilities. Among these 25 facilities are:

- Wyandotte Wastewater Treatment Facility, Wyandotte, Mich., 1.1 million people no longer at risk
- Baldwin Water Treatment Plant, Cleveland, Ohio, 1.4 million people no longer at risk

* Population before hurricane Katrina. Facility intends to convert to liquid bleach but lacks dedicated funding amid extensive post-Katrina needs.

- Metropolitan Wastewater Treatment Plant, St. Paul, Minn., 520,000 people no longer at risk
- Joint Water Pollution Control Plant, Carson, Calif. (Los Angeles County), 210,000 people no longer at risk
- White River Water Treatment Plant, Indianapolis, Ind., 968,579 people no longer at risk

For a complete list see Appendix B on page 18 and the map on page 11. Additional water utilities eliminated chlorine gas rail shipments prior to 1999.[29]

Some Additional Water Utilities Are Eliminating Chlorine Gas

Of the 37 water facilities that still use chlorine railcars, at least four drinking water and two wastewater plants are currently converting to a safer, more secure disinfectant with at least partial construction planned by 2008. Completing these conversions will cut chemical hazards for five million people who live nearby and many others along freight railways. Facilities with well-developed plans to convert include:

- Metro Wastewater Reclamation District, Denver, Colo., 925,000 people at risk
- City of Richmond Water Purification Plant, Richmond, Va., 704,630 people at risk
- Carrollton Water Purification Plant, New Orleans, La., 892,320 people at risk**

Several other facilities may convert within a few years, and others are evaluating alternatives. Two other facilities (in Stockton and San Jose, Calif.) occasionally use liquid bleach as an available backup, but are evaluating more serviceable long-term solutions such as ultraviolet light.

** Population before hurricane Katrina.

Chlorine Gas Railcars Travel Over Long Distances

Each year, approximately 45,000 shipments of chlorine gas travel by rail in the United States. These shipments may travel over more than 300,000 miles of freight railways across the country.[30] Rail lines pass through almost all major American cities and towns.

The 16 chlorine production sites listed in Appendix C reportedly sell chlorine by rail to water utilities through the merchant market. Usually, a distributor company moves the chlorine gas from the original manufacturer to the water utility. These rail shipments may travel long distances—hundreds or even thousands of miles—passing through densely populated cities and towns. There is no legal requirement to use the closest supplier or the safest route.

The large water utilities covered by this report account for only a small portion of the chlorine on the rails—but are by their nature located in or near large cities or towns. Producers also ship to chlorine packaging locations and sodium hypochlorite bleach production facilities. Additional destinations include PVC plastics producers, some paper mills, and chemical manufacturers. Roughly two-thirds of chlorine is never shipped, but rather is used on-site in chemical manufacturing or is moved by pipeline to nearby facilities. For this very reason, chemical manufacturers may co-locate to avoid shipping chlorine gas.[31]

The profusion of freight rail lines precludes identifying specific routes between producers and water utilities. However, the map on page 11 illustrates the long distances that rail shipments must travel between manufacturers and the few water utilities that still receive chlorine gas by rail.

"As a plant operator it's a weight off your shoulders if you don't have that risk of chlorine gas."

Nick Frankos, Plant Manager, Back River Wastewater Plant, Baltimore, Md.

Utilities Cited a Number of Reasons for Switching

Personnel at water facilities that eliminated chlorine gas were generally relieved to be rid of it and considered the change an achievement. Reasons and advantages for switching included: improving safety and security; meeting discharge requirements; reducing liability exposure; cutting costs of preventive maintenance, training, emergency planning, and regulatory compliance; mitigating on-site security costs associated with chlorine gas; and previous experience with chlorine leaks.

"Maintenance cost... priceless! No special training or emergency repair kits to keep on hand. We do all our repairs in-house where chlorine required an outside contractor. The Fire Department loves us. No more emergency drills and training."

John Garvin, Operation and Maintenance Manager, Regional Water Resource Agency, Owensboro, Ky.

Most surveyed facilities that have not converted are evaluating disinfectant options. These facilities cited as potential obstacles: costs of capital and replacement chemicals; the large size of the utility and needed chemical volumes; storage space and shelf life of liquid bleach; requirements to maintain backup disinfection capability; and the need for reliable information on alternatives.

Some facilities also noted investments in chlorine-gas security, such as containment buildings, sensors, and scrubbers. Such sunk costs may create a disincentive to further change yet do nothing to protect incoming rail shipments.

Conversion Costs Are Manageable

Twenty facilities provided general information on the construction and operating costs of converting off chlorine gas railcars. Switching these facilities to a safer, more secure disinfectant is affordable, costing no more than $1.50 per year per person served—the price of a bag of potato chips—even without accounting for important cost savings. Many facilities are spending well less than that amount. Examples are described in the box on pages 12–13.

Cost figures varied widely depending on facilities' specific circumstances and the information available to respondents. Some facilities, for example, needed to upgrade aging infrastructure; others did not. While many respondents were able to estimate construction and chemical costs, most found it difficult to compile information on *avoided* costs from readily available sources. Some facilities, however, identified important savings in preventive maintenance, emergency planning, employee training, regulatory compliance, future site security, or other factors.

Facilities using chlorine gas face new demands to upgrade physical security to protect against a possible terrorist attack. Current practices include at best such meager physical security measures as better fences, vehicle gates, lights, employee identification, and cameras. Some facilities may also have enclosures and gas scrubbers that attempt to contain an emergency release. Converting from chlorine gas mitigates these costs while providing superior protection to employees and surrounding populations.

After all, there is little reason to believe that current security practices would be able to withstand a well-executed attack by an armed intruder. Nor does enhanced physical security do anything to protect railcars in transit to the facility.

The Government Accountability Office is currently conducting a review of costs associated with conversion of water utilities to less hazardous chemicals. This GAO report is expected in spring 2007.

Unnecessary Rail Shipments of Chlorine Gas Endanger Millions

Shown are 37 water utilities that still receive chlorine gas by rail. Distributors ship railcars of chlorine gas from 16 manufacturers to these utilities—frequently over long distances and through densely populated areas. Also shown are 25 water utilities that since 1999 have eliminated railcar shipments of chlorine gas by converting to safer, more secure alternatives for water treatment. Millions of people along railroads are no longer endangered by chlorine gas shipments to these utilities. Of utilities that still receive chlorine gas by rail, at least six more have firm plans to convert from chlorine gas within two years.

To explore an interactive version of this map in more detail, visit:
http://www.americanprogress.org/issues/2007/04/chemical_security_report.html

Conversion Costs at Specific Facilities

These 20 water utilities were able to convert from chlorine gas railcars to effective alternatives at a reasonable cost.[11] A single day's expenditures on the war in Iraq could have easily paid for all these conversions.

- **The Metropolitan Wastewater Treatment Plant in St. Paul, Minn.,** switched from chlorine gas railcars to liquid bleach in late 2005. The aging plant required upgrades that were projected to cost about the same whether staying with chlorine gas or switching to liquid bleach. Actual construction cost $7.8 million, and chemical costs increased $85,000 per year. Annual operating costs of preventive maintenance, energy, and emergency preparedness decreased about $65,000, while in-plant security decreased an estimated $35,000. The entire metropolitan wastewater system serves about 2.4 million people; annual conversion costs, including otherwise necessary construction, are about 20 cents per person served.

- **The Columbia Boulevard Wastewater Treatment Plant in Portland, Ore.,** switched from chlorine gas railcars to liquid bleach in 2005. Construction cost $4.4 million, and increased chemical costs are more than offset by operating savings anticipated from reduced need for maintenance, electric power, training, labor, and emergency planning. The facility serves some 550,000 people, who will benefit from the offset of operating costs in the long term.

- **The Akron Water Supply Plant in Kent, Ohio,** switched from chlorine gas railcars to liquid bleach in 2004. Construction cost about $1.1 million (or one-fourth the cost of a new chemical building) and operating costs increased about $65,000 per year, primarily to cover chemicals. The facility, however, avoided over $1.2 million in construction costs by eliminating chlorine gas. By switching, the facility avoided constructing a containment building to enclose railcars ($308,000), installing an emergency gas scrubber ($598,000), and upgrading certain process equipment such as a chlorine gas evaporator ($369,000). Even without considering avoided costs, the facility's 280,000 customers pay only approximately 50 cents more each year.

- **The Edward P. Decher Secondary Wastewater Plant in Elizabeth, N.J.,** switched from chlorine gas to liquid bleach in 2003. Construction upgrades cost $750,000 and chemical costs increased $291,000 from 2002 to 2004, while maintenance and training costs decreased an estimated $70,000 per year. The facility serves about 500,000 people; annual conversion costs are about 55 cents per person served.

- **The South Treatment Plant in Renton, Wash.,** switched from chlorine gas to liquid bleach in 2003. Construction cost $2.4 million, and chemical costs increased about $350,000 per year. The entire wastewater system serves about 1.4 million people; without accounting for any operating savings, annual conversion costs are less than 40 cents per person served.

- **The Western Lake Superior Sanitary District in Duluth, Minn.,** switched from chlorine gas to liquid bleach in 2006. Construction cost $1.6 million. Operating costs initially remained about the same, with increased chemical costs offset by decreased demurrage charges that resulted from keeping a chlorine railcar on-site. A newly revised discharge permit will likely lengthen the disinfection season and increase chemical costs in the future. The facility serves 110,000 people; annual conversion costs are thus far about a dollar per person served.

- **Crescent Hill Water Treatment Plant in Louisville, Ky.,** is building an on-site generating facility for bleach disinfectant at an estimated capital cost of roughly $10 million. Accounting for depreciation, the facility estimates the cost of switching over from chlorine gas at about $500,000 annually. The entire water system serves about 850,000 people; estimated annual conversion costs are about 60 cents per person served.

- **The City of Richmond Water Purification Plant in Richmond, Va.,** is switching from chlorine gas railcars to liquid bleach in early 2007. Construction cost $11 million for a new building, about one-third directly linked to storage of liquid bleach. Chemical costs are anticipated to increase $450,000 per year. The facility serves about 500,000 people;

without accounting for any operating savings, annual conversion costs are about $1.50 per person served.

- **Blue Plains Sewage Treatment Plant in Washington, D.C.,** switched from chlorine gas railcars to liquid bleach immediately after September 11, 2001. According to the plant's chief engineer at the time, the change adds about 25 cents per month to the average household customer's utility bill.[22]

- **The Nottingham and Baldwin drinking water treatment plants in Cleveland, Ohio** completed conversion from chlorine gas to liquid bleach in late 2002 and 2005, respectively. Construction cost an estimated $2,475,000 for both plants, and chemical costs increased about $208,000 per year. The Cleveland division of water serves some 1.5 million people; without accounting for any operating savings, annual conversion costs are less than 25 cents per person served.

- **The Buckman Water Reclamation Facility in Jacksonville, Fla.,** switched from chlorine gas railcars to ultraviolet light in 2001. Construction cost $6 million, including about $1 million for unrelated upgrades. Electricity costs increased about $150,000 per year over the previous cost of chlorine gas, but only if not considering recent dramatic chlorine price increases. The entire wastewater system serves about 575,000 people; annual conversion costs are about 80 cents per person served.

- **The Wyandotte Wastewater Treatment Facility in Wyandotte, Mich.,** switched from chlorine gas railcars to ultraviolet light in 2000. Construction cost $8 million, and operating costs increased from about $320,000 to $350,000 each year. The wastewater system serves about 415,000 people; annual conversion costs are about $1.30 per person served.

- **The Mill Creek Wastewater Treatment Plant in Cincinnati, Ohio,** switched from chlorine gas railcars to liquid bleach in 2001. Constructing a temporary conversion cost less than $40,000; planned permanent construction is projected to cost less than $3 million. Chemical costs increased about $290,000 per year. The entire metropolitan sewer district serves about 800,000 people; without accounting for any operating savings, annual conversion costs are about 60 cents per person served.

- **The City of Philadelphia** converted its Northeast, Southeast, and Southwest water pollution control plants from chlorine gas to liquid bleach. Capital costs for conversion were $5.9 million for all three plants, and chemical costs increased about $275,000 per year. After converting to liquid bleach, these facilities jointly save roughly $75,000 each year in reduced labor and risk management planning costs. The entire wastewater system serves about 2.2 million people; annual conversion costs are about 25 cents per person served.

- **Samuel S. Baxter Water Treatment Plant in Philadelphia, Pa.,** converted to liquid bleach in 2005. Construction costs were about $2 million, and chemical costs increased about $670,000 in 2006. Estimated savings on labor and emergency planning are at least $25,000 per year. The entire drinking water system serves about 1.6 million people; annual conversion costs are less than 50 cents per person served.

- **The Middlesex County Utilities Authority wastewater plant in Sayreville, N.J.,** switched from chlorine gas railcars to liquid bleach in 2001. Construction cost $1.3 million, and chemical costs increased from 2002 to 2006 about $1.5 million, as chlorine prices more than tripled. The wastewater system serves some 800,000 people. Discounting two-thirds of increased chemical costs for price change, and not accounting for any operating savings, annual conversion costs are still less than a dollar per person served.

- **The Back River Wastewater Treatment Facility in Baltimore, Md.,** switched from chlorine gas railcars to liquid bleach in 2004. Construction cost $2.6 million, and chemical costs increased from 2003 to 2008 about $2.4 million, during which time chlorine prices more than doubled. For this and other reasons the facility is planning further conversion to generating bleach on-site. The entire wastewater system serves 1.3 million people. Discounting one-half of increased chemical costs for price change, and not accounting for any operating savings, annual conversion costs are still less than a dollar per person served.

Conclusion and Recommendations

More than five years after 9/11 and despite many credible warnings, the U.S. government has yet to enact policies that seriously reduce unnecessary chemical hazards. The Center for American Progress surveyed water utilities that still use chlorine gas railcars to examine systematic shortcomings in current federal chemical security policies, and to encourage Congress to enact policies that swiftly and efficiently remove unnecessary chemical hazards.

The survey shows that many large water utilities have converted from chlorine gas railcars to safer and more secure alternatives. These conversions remove terrorist targets at the facilities and on the rails, and make millions of Americans safer and more secure. Facility operators are relieved when the gas is gone and often proud of helping to bring about the change.

The roughly three dozen water utilities that still receive chlorine gas railcars can also convert to safer alternatives, but many are not acting. At the same time, recently enacted interim chemical security legislation exempts water utilities, neglects transportation hazards, and ignores safer technologies. Millions of Americans remain unnecessarily at risk from a catastrophic chemical release.

To address this threat, Congress, the administration, and industry must make chemical security an urgent national priority, with the goal of transitioning to safer, more secure technologies. Specifically:

- Water utilities that still use railcars of chlorine gas or anhydrous sulfur dioxide should shift to safer and more secure treatment alternatives.
- Congress should require chemical facilities to review and use available, cost-effective technologies that significantly reduce or eliminate serious emergency chemical release hazards.
- Congress should target grants, loans, and other incentives to help water utilities convert from chlorine gas, including facilities that discontinued chlorine gas after September 11, 2001. Such assistance should not cover containment buildings and other physical security measures that are inherently incapable of protecting chlorine gas railcars at water utilities and in transit.

- The Department of Homeland Security should go back to Congress for full authority to safeguard chemical infrastructure and the public, with appropriate roles for other governmental agencies.

- Congress should require chemical facilities to account for transportation risks—including the possibility of a catastrophic chemical release—in developing security alternatives, assessments, and plans.

- Congress should require chemical facilities to involve appropriate employees when developing security alternatives, assessments, and plans.

- The Department of Homeland Security should develop methodologies to account for the impact of safer, more secure technologies on facility security, including the costs, avoided costs, and feasibility of alternatives.

- Manufacturers of liquid bleach should adopt production methods that do not require bulk transportation or storage of chlorine gas. Congress should require these facilities to carry sufficient liability insurance to cover a catastrophic chemical release.

These policy recommendations are reasonable and obtainable. They would impose only insignificant burdens on consumers, while delivering measurable improvements in safety and security. Indeed, many water utilities have already abandoned chlorine gas at affordable cost with effective results. Congress and the Department of Homeland Security have the responsibility to compel the swift conversion of the remaining water utilities that still receive chlorine gas by rail. The reasons to do so are self-evident in this report. Congress and DHS need only act.

A graffiti-covered rail tanker passes within blocks of the National Mall in Washington, D.C. (Jim Dougherty/Sierra Club)

Appendix A

WATER UTILITIES USING CHLORINE GAS RAILCARS

FACILITY NAME	CITY	STATE	FACILITY TYPE	APPROXIMATE FACILITY SIZE—MILLION GALLONS PER DAY (MGD)	CONVERSION STATUS	VULNERABILITY ZONE POPULATION*
Joseph Jensen Filtration Plant	Granada Hills	CA	Drinking water plant	750 MGD	Evaluating alternatives; no active plans to convert	1,700,000
F. E. Weymouth Water Treatment Plant	La Verne	CA	Drinking water plant	520 MGD	Evaluating alternatives; no active plans to convert	304,873
Los Angeles Aqueduct Filtration Plant	Sylmar	CA	Drinking water plant	600 MGD	Have looked at alternatives; no change forecast	290,000
Sacramento Regional Wastewater Treatment Plant	Elk Grove	CA	Wastewater plant	165 MGD	No apparent plans to convert	18,000**
San Jose/Santa Clara Water Poilution Control Plant	San Jose	CA	Wastewater plant	115 MGD	Evaluating alternatives including ultraviolet light; liquid bleach is available backup	245,000
City of Stockton Tertiary Treatment Plant	Stockton	CA	Wastewater plant	35 MGD	Occasionally using liquid bleach as backup; considering other alternatives including ultraviolet light	430,200
Metro Wastewater Reclamation District	Denver	CO	Wastewater plant	160 MGD	Switching to liquid bleach by end of 2007	925,000
Fiveash Water Treatment Plant	Fort Lauderdale	FL	Drinking water plant	70 MGD	Switching to generating bleach on-site or other alternative by about 2008	1,526,000
John E. Preston Water Treatment Plant	Hialeah	FL	Drinking water plant	86 MGD	Developing plans to convert, possibly to on-site bleach; conversion likely within a few years	1,893,169
Alexander Orr Water Treatment Plant	Miami	FL	Drinking water plant	175 MGD	Developing plans to convert, possibly to on-site bleach; conversion likely within a few years	1,643,691
Hillsborough River Water Treatment Plant-Tampa, FL	Tampa	FL	Drinking water plant	85 MGD	Alternatives under consideration; conversion not imminent or planned	508,760
City of Tampa-Howard F. Curren AWTP	Tampa	FL	Wastewater plant	96 MGD	Has studied feasibility; no specific plans to convert	1,042,000
Topeka Water Treatment Plant	Topeka	KS	Drinking water plant	22 MGD	No plans to convert	173,925
Crescent Hill Water Treatment Plant	Louisville	KY	Drinking water plant	100 MGD	Switching to generating bleach on-site by about 2008–2009	675,100
Carrollton Water Purification Plant	New Orleans	LA	Drinking water plant	120 MGD	Switching to liquid bleach, likely in 2007	892,320
East Bank Wastewater Treatment Plant	New Orleans	LA	Wastewater plant	108 MGD (pre-Katrina)	Planning to convert eventually; timeline uncertain given major capital needs post-Katrina	726,185
Detroit WWTP-Chlorination/ Dechlorination Facility	Detroit	MI	Wastewater plant	700 MGD	No plans to convert	2,100,000

* Vulnerability zone figures, submitted by facilities to EPA, indicate residential populations within range of a worst-case toxic chemical release. These figures are not forecasts of potential casualties.
** This figure most likely significantly understates the facility's vulnerability zone population.

Appendix A, continued

WATER UTILITIES USING CHLORINE GAS RAILCARS, CONTINUED

FACILITY NAME	CITY	STATE	FACILITY TYPE	APPROXIMATE FACILITY SIZE—MILLION GALLONS PER DAY (MGD)	CONVERSION STATUS	VULNERABILITY ZONE POPULATION*
St. Paul Regional Water Services-McCarron	Maplewood	MN	Drinking water plant	50 MGD	No plans to convert	1,300,000
Fridley Filter Plant	Minneapolis	MN	Drinking water plant	85 MGD	No plans to convert	337,000
Kansas City, Missouri Water Treatment Plant	Kansas City	MO	Drinking water plant	115 MGD	No plans to convert	720,000
Florence Water Treatment Plant	Omaha	NE	Drinking water plant	64 MGD	No plans to convert	390,000
North Charleston Sewer District WWTP Herbert Site	Charleston	SC	Wastewater plant	17 MGD	Switching to ultraviolet light, expected completion about summer 2007	365,213
Omohundro Water Treatment Plant	Nashville	TN	Drinking water plant	90 MGD	Evaluating options; no finalized plan to convert	973,663
Central Wastewater Treatment Plant	Nashville	TN	Wastewater plant	288 MGD	Evaluating options; no finalized plan to convert	965,468
O.N. Stevens Water Treatment Plant	Corpus Christi	TX	Drinking water plant	80 MGD	No plans to convert	360,000
Elm Fork Water Treatment Plant	Carrollton	TX	Drinking water plant	330 MGD	Evaluating alternatives; no specific plan to convert	790,000
Bachman Water Treatment Plant	Dallas	TX	Drinking water plant	150 MGD	Evaluating alternatives; no specific plan to convert	2,000,000
Eastside Water Treatment Plant	Sunnyvale	TX	Drinking water plant	440 MGD	Evaluating alternatives; no specific plan to convert	1,800,000
NTMWD Regional Water Treatment Plant	Wylie	TX	Drinking water plant	265 MGD	No plans to convert; evaluating options	137,517
Central Wastewater Treatment Plant	Dallas	TX	Wastewater plant	120 MGD	No plans to convert; preliminary cost analysis of alternatives	930,000
Central Regional Wastewater System	Grand Prairie	TX	Wastewater plant	150 MGD	No plans to convert	3,931,692
Rolling Hills Water Treatment Plant	Fort Worth	TX	Drinking water plant	100 MGD	Under review; investigating on-site generation of bleach	428,447
East Water Purification Plant	Houston	TX	Drinking water plant	225 MGD	No plans to convert; alternatives evaluation ongoing	1,300,000
Central Valley Water Reclamation Facility	Salt Lake City	UT	Wastewater plant	56 MGD	Evaluating options as part of facility upgrade	1,334,000
Hopewell Water Treatment Plant	Hopewell	VA	Drinking water plant	10 MGD	Currently under review; no apparent plans to convert	91,000
City of Richmond Water Purification Plant	Richmond	VA	Drinking water plant	132 MGD	Switching to liquid bleach; completing conversion early 2007	704,630
City of Richmond Wastewater Treatment Plant	Richmond	VA	Wastewater plant	60 MGD	Evaluating and testing alternatives; no clear timeline to convert	722,769

* Vulnerability zone figures, submitted by facilities to EPA, indicate residential populations within range of a worst-case toxic chemical release. These figures are not forecasts of potential casualties.

Appendix B

WATER UTILITIES NO LONGER USING CHLORINE GAS RAILCARS*

FACILITY NAME	CITY	STATE	FACILITY TYPE	APPROXIMATE FACILITY SIZE—MILLION GALLONS PER DAY (MGD)	CONVERSION STATUS	CONVERSION YEAR	FORMER VULNERABILITY ZONE POPULATION**
Joint Water Pollution Control Plant	Carson	CA	Wastewater plant	330 MGD	Switched to liquid bleach	2004	210,000
Blue Plains Wastewater Treatment Plant	Washington	DC	Wastewater plant	370 MGD	Switched to liquid bleach	2001	1,700,000
Buckman Water Reclamation Facility	Jacksonville	FL	Wastewater plant	41 MGD	Switched to ultraviolet light	2001	360,000
R. M. Clayton WRC	Atlanta	GA	Wastewater plant	80 MGD	Switched to ultraviolet light	2000	1,151,993
Fall Creek Water Treatment Plant	Indianapolis	IN	Drinking water plant	20 MGD	Switched to liquid bleach	2000	771,633
White River Water Treatment Plant	Indianapolis	IN	Drinking water plant	70 MGD	Switched to liquid bleach	2003	968,579
Water Pollution Control Plant	Fort Wayne	IN	Wastewater plant	50 MGD	Switched to liquid bleach	2006	330,000
Waste Water Treatment Plant, West	Owensboro	KY	Wastewater plant	8 MGD	Switched to liquid bleach	2001	90,000
Jefferson Parish East Bank WWTP	Harahan	LA	Wastewater plant	40 MGD (pre-Katrina)	Switched to liquid bleach	2003	790,000
Back River Wastewater Treatment Facility	Baltimore	MD	Wastewater plant	150 MGD	Switched to liquid bleach	2004	1,470,000
Wyandotte Wastewater Treatment Facility	Wyandotte	MI	Wastewater plant	45 MGD	Switched to ultraviolet light	2000	1,100,000
Metropolitan Wastewater Treatment Plant	St. Paul	MN	Wastewater plant	222 MGD	Switched to liquid bleach	2005	520,000
Western Lake Superior Sanitary District	Duluth	MN	Wastewater plant	43 MGD	Switched to liquid bleach	2006	128,293
Middlesex County Utilities Authority	Sayreville	NJ	Wastewater plant	120 MGD	Switched to liquid bleach	2001	10,740,000
Edward P. Decher Secondary Wastewater Trmt. Plant	Elizabeth	NJ	Wastewater plant	65 MGD	Switched to liquid bleach	2003	50,000
City of Niagara Falls Wastewater Treatment Plant	Niagara Falls	NY	Wastewater plant	32 MGD	Switched to liquid bleach	2003	1,100,000
Mill Creek WWTP	Cincinnati	OH	Wastewater plant	130 MGD	Switched to liquid bleach	2001	860,000
Nottingham Water Treatment Plant	Cleveland	OH	Drinking water plant	70 MGD	Switched to liquid bleach	2002	1,100,000
Baldwin Water Treatment Plant	Cleveland	OH	Drinking water plant	60 MGD	Switched to liquid bleach	2005	1,400,000
Akron Water Supply Plant	Kent	OH	Drinking water plant	38 MGD	Switched to liquid bleach	2004	411,356
Columbia Boulevard Wastewater Treatment Plant	Portland	OR	Wastewater plant	70 MGD	Switched to liquid bleach	2005	157,500
Southeast Water Pollution Control Plant	Philadelphia	PA	Wastewater plant	90 MGD	Switched to liquid bleach	2002	1,182,741
Northeast Water Pollution Control Plant	Philadelphia	PA	Wastewater plant	190 MGD	Switched to liquid bleach	2003	1,575,971
Samuel S. Baxter Water Treatment Plant	Philadelphia	PA	Drinking water plant	165 MGD	Switched to liquid bleach	2005	787,271
South Treatment Plant	Renton	WA	Wastewater plant	80 MGD	Switched to liquid bleach	2003	650,000

* Facility converted since 1999 and fully eliminated chlorine gas.
** Vulnerability zone figures, submitted by facilities to EPA, indicate residential populations within range of a worst-case toxic chemical release. These figures are not forecasts of potential casualties.

Appendix C

PRODUCERS OF CHLORINE GAS SHIPPED BY RAIL TO WATER UTILITIES

FACILITY NAME	CITY	STATE	FACILITY TYPE	VULNERABILITY ZONE POPULATION*
Olin Corp. McIntosh, Alabama Plant	McIntosh	AL	Chlorine producer	42,750
Occidental Chemical Corporation, Mobile Plant	Mobile	AL	Chlorine producer	334,000
Occidental Chemical Corp., Muscle Shoals Facility	Muscle Shoals	AL	Chlorine producer	115,282
Olin Corporation Augusta, Georgia Plant	Augusta	GA	Chlorine producer	440,000
Occidental Chemical (formerly Vulcan Chemicals)	Wichita	KS	Chlorine producer	500,831
Occidental Chemical Corporation Convent Plant	Convent	LA	Chlorine producer	250,000
Occidental Chemical (formerly Vulcan Chemicals)	Geismar	LA	Chlorine producer	490,000
Occidental Chemical Taft Plant	Hahnville	LA	Chlorine producer	830,000
Pioneer Americas LLC	St. Gabriel	LA	Chlorine producer	408,000
Pioneer Americas LLC	Henderson	NV	Chlorine producer	1,100,000
Olin Corporation-Niagara Falls, New York Plant	Niagara Falls	NY	Chlorine producer	998,200
Occidental Chemical Corporation-Niagara Plant	Niagara Falls	NY	Chlorine producer	1,100,000
Olin Chlor-Alkali, Charleston Plant	Charleston	TN	Chlorine producer	258,000
Occidental Chemical Corporation Ingleside Plant	Gregory	TX	Chlorine producer	362,031
Oxy Vinyls, LP-Battleground Chlor-Alkali Plant	La Porte	TX	Chlorine producer	2,300,000
PPG Industries, Inc., Natrium	New Martinsville	WV	Chlorine producer	97,585

* Vulnerability zone figures, submitted by facilities to EPA, indicate residential populations within range of a worst-case toxic chemical release. These figures are not forecasts of potential casualties.

Appendix D: Methodology

After the Center for American Progress released survey findings last year that documented 284 facilities in diverse industries that have switched to less acutely hazardous chemicals or processes, we decided to conduct a follow-up survey of water utilities that receive rail shipments of chlorine gas. We undertook this survey for four primary reasons. First, 90-ton railcars of chlorine gas pose a distinct danger of a major chemical release. Second, large water utilities are typically located near major cities and thus endanger large numbers of people. Third, rail shipments of chlorine gas travel many miles through populated areas, putting even more people at risk. And finally, there are clear, readily available alternatives to chlorine gas, which means this vulnerability can be quickly addressed.

This survey shows where progress has been made, drawing attention to successful, cost-effective plant conversions, and where we still have security vulnerabilities, giving particular attention to rail vulnerabilities, which are too frequently left out of the chemical-security conversation.

The survey included drinking water or wastewater facilities that reported railcar amounts of chlorine gas under EPA's Risk Management Planning, or RMP, program at some time since the program began in June 1999. Several water utilities that discontinued chlorine gas railcars prior to 1999 were also surveyed. The survey consisted of telephone interviews and in some cases follow-up email communication.

For water utilities that still report chlorine gas in railcar amounts, the survey used unstructured questions about the facility's timeline and plans, if any, to convert to a safer and more secure disinfectant, as well as about facility size, population served, and potential obstacles to conversion. For facilities that had already switched or where conversion is underway, the survey also covered conversion costs. In some cases facility size and population figures are from facility Websites or EPA's Clean Watersheds Needs Survey.[34]

This survey report uses publicly available rail maps and population density figures to illustrate transportation concerns in shipping chlorine gas from manufacturing sites through distributors to water utilities. Chlorine production sites were identified through industry publications and EPA regulatory analysis documents covering the chlorine industry.[35] Given the complexity and variability of suppliers and railways, the survey report does not link suppliers, distributors, and water utilities over specific rail routes.

Acknowledgments

Paul Orum wrote this survey report and interviewed personnel at the facilities it covers. Mr. Orum previously authored "Preventing Toxic Terrorism: How Some Chemical Facilities are Removing Danger to American Communities," published by the Center for American Progress in April 2006. He is the former director of the Working Group on Community Right-to-Know and currently works as an independent consultant on chemical safety and security issues.

Reece Rushing, director of regulatory and information policy at the Center for American Progress, provided editorial oversight and assisted in preparing the report. P.J. Crowley, senior fellow and director of national defense and homeland security at the Center for American Progress, also provided input and guidance on the report.

The photo on the cover is courtesy of Jim Dougherty/Sierra Club. The author and the Center for American Progress also thank Carol Andress of Environmental Defense for providing helpful comments, and greatly appreciate the cooperation of survey respondents at water utilities across the country.

Endnotes

1 Summary population at risk figures used in this report factor in overlapping vulnerability zones.

2 Summary water treatment figures used in this report factor in overlapping service areas.

3 The survey did not attempt to identify facilities that converted from chlorine gas railcars to a less hazardous disinfectant prior to 1999, but noted several wastewater facilities that had done so—the Southwest Wastewater plant in Philadelphia, Pa., and the Southerly and Westerly plants in Cleveland, Ohio. In addition, the Dalecarlia water plant in Washington, D.C. eliminated chlorine gas railcars in the 1980s and is planning long-term conversion to a less hazardous disinfectant. The survey identified three additional facilities that eliminated rail shipments of chlorine gas since 1999, but that still use smaller containers while planning long-term conversion to a safer and more secure disinfectant—the 23rd Avenue wastewater plant in Phoenix, Ariz., and the Crown water plant and Morgan water plant in Cleveland, Ohio. Other water utilities in Wheeling, W.V., Erie, Pa., and St. Louis, Mo., eliminated chlorine railcars since 1999, but have no current plans to fully convert to a less hazardous disinfectant.

4 Two additional wastewater facilities, in San Jose and Stockton, Calif., occasionally use less hazardous liquid bleach as a backup disinfectant.

5 These dispersion distances are found in RMP*Comp, developed by the Computer Aided Management of Emergency Operations (CAMEO) team of the National Oceanic and Atmospheric Administration and the U.S. Environmental Protection Agency. The Chlorine Institute, Pamphlet 74, "Estimating the Area Affected by a Chlorine Release" (1998) states that a chlorine gas plume from a railcar can remain at 14.8 miles "immediately dangerous to life or health." This is the level from which a healthy person must escape within 30 minutes or risk irreversible harm or death.

6 Homeland Security Council and Department of Homeland Security, National Planning Scenario 8: Chemical Attack—Chlorine Tank Explosion (2005).

7 U.S. Naval Research Laboratory, Testimony of Dr. Jay Boris before the City Council of the District of Columbia, October 6, 2003.

8 U.S. Government Accountability Office, GAO-05-851, Passenger Rail Security: Enhanced Federal Leadership Needed to Prioritize and Guide Security Efforts (September 2005).

9 "Militants Using Chemical Bombs in Iraq," *The New York Times*, February 21, 2007.

10 International Brotherhood of Teamsters, High Alert: Workers Warn of Security Gaps on Nation's Railroads (Fall 2005).

11 Working Group on Community Right-to-Know, Chemical Plant Security Breaches in the News (February 2007).

12 "Terror on the Tracks," *Pittsburgh Tribune*, January 14, 2007.

13 The National Response Center is the federal point of contact for reporting oil and chemical spills. NRC does not verify spill reports, which may range from very small to large.

14 These entities include the Department of Homeland Security, Department of Justice, Government Accountability Office, Environmental Protection Agency, Agency for Toxic Substances and Disease Registry, Army Surgeon General, and Naval Research Laboratory, Brookings Institution, Rand Corporation, PACE International Union, Center for Strategic and International Studies, and numerous investigative news reports.

15 Department of Homeland Security Appropriations Act, 2007, Section 550.

16 Transportation Security Administration, Recommended Security Action Items for the Rail Transportation of Toxic Inhalation Hazard Materials (March 30, 2006).

17 Homeland Security Presidential Directive/HSPD 7, Critical Infrastructure Identification, Prioritization, and Protection (December 17, 2003).

18 "Philip Perry and the Politics of Chemical Security," Art Levine, *Washington Monthly*, March 2007.

19 National Research Council, National Academy of Sciences, Terrorism and the Chemical Infrastructure: Protecting People and Reducing Vulnerabilities (May 2006).

20 Linda Greer for the Center for American Progress, New Strategies to Protect America: Securing Our Nation's Chemical Facilities (April 6, 2005).

21 Paul Orum for the Center for American Progress, Preventing Toxic Terrorism: How Some Chemical Facilities are Removing Danger to American Communities (April 24, 2006).

22 Edward R. Hamberger, Association of American Railroads, Statement before the U.S. House of Representatives Committee on Transportation and Infrastructure, Subcommittee on Railroads (June 13, 2006).

23 U.S. Government Accountability Office, GAO-06-390, Securing Wastewater Facilities: Utilities Have Made Important Upgrades but Further Improvements to Key System Components May be Limited by Costs and Other Constraints (March 2006).

24 Reported disinfection treatments for public water systems serving more than 100,000 people. U.S. Environmental Protection Agency, Safe Drinking Water Information System (January 2007).

25 Paul Orum for the Center for American Progress, Preventing Toxic Terrorism: How Some Chemical Facilities are Removing Danger to American Communities (April 24, 2006).

26 U.S. producers that can manufacture industrial sodium hypochlorite without bulk transportation or storage of chlorine gas include Odyssey Manufacturing (Tampa, Fla.), BleachTech (Seville, Ohio), and Kuehne Chemical (Delaware City, Del.). A leading manufacturer of equipment to produce sodium hypochlorite without bulk chlorine gas is Powell Fabrication and Manufacturing, marketed as UniChlor Technology.

27 KIK Custom Products, letter to the Honorable Ed Markey, Member of Congress (July 26, 2006).

28 Chlorine Institute, Pamphlet 10, North American Chlor-Alkali Industry Plants and Production Data Report 2005 (August 2006).

29 The survey did not attempt to identify facilities that converted prior to 1999, but noted three additional wastewater facilities that had done so. These facilities are the Southwest Wastewater plant in Philadelphia, Pa., and the Southerly and Westerly plants in Cleveland, Ohio. In addition, the Dalecarlia water plant in Washington, D.C. eliminated chlorine gas railcars in the 1980s and is planning long-term conversion to a less hazardous disinfectant.

30 Bill Johnstone for the Center for American Progress, New Strategies to Protect America: Terrorism and Mass Transit After London and Madrid (August 10, 2005).

31 "Akzo Takes Chlorine off the Rails; Relocating Output Addresses Transportation Concerns," Ian Young, *Chemical Week*, November 22, 2006.

32 Conversion cost information was not available or incomplete from other facilities covered by the survey.

33 Environmental Defense, Eliminating Hometown Hazards (2003).

34 Population served and facility flow information from EPA's Clean Watersheds Needs Survey is found at http://cfpub.epa.gov/cwns/populationP.cfm.

35 U.S. Environmental Protection Agency, Economic Analysis of Air Pollution Regulations: Chlorine Industry (August 2000), and Chlorine Institute, Pamphlet 10, North American Chlor-Alkali Industry Plants and Production Data Report 2005 (August 2006).

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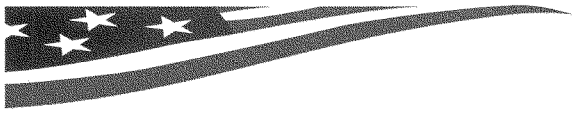

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December 2, 2008

The Honorable Benjamin Grumbles
Assistant Administrator
Office of Water
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator Grumbles:

Thank you for appearing before the Subcommittee on Environment and Hazardous Materials at the June 12, 2008, hearing entitled, "Legislative Hearing on H.R. 5533, the Chemical Facilities Act of 2008, and H.R. 5577, the Chemical Facility Anti-Terrorism Act of 2008". We appreciate the time and effort you gave as a witness before the subcommittee.

Under the Rules of the Committee on Energy and Commerce, the hearing record remains open to permit Members to submit additional questions to the witnesses. Attached are questions from subcommittee Members for inclusion in the record. In preparing your answers to these questions, please include the text of the questions along with your response.

To facilitate the printing of the hearing record, your responses to these questions should be received by no later than the close of business on **Tuesday, December 16, 2008**. Your written responses should be delivered to 2322-B Rayburn House Office Building to the attention of Rachel Bleshman. An electronic version of your response should also be sent by e-mail to Ms. Bleshman at **rachel.bleshman@mail.house.gov**. Please send your response in a single Word formatted document.

Thank you for your prompt attention to this request. If you need additional information or have other questions, please contact Rachel Bleshman with the Committee staff at (202) 225-2927.

Sincerely,

JOHN D. DINGELL
CHAIRMAN

Attachment

cc: The Honorable Joe Barton, Ranking Member
Committee on Energy and Commerce

The Honorable Gene Green, Chairman
Subcommittee on Environment and Hazardous Materials

The Honorable John Shadegg, Ranking Member
Subcommittee on Environment and Hazardous Materials

The Honorable John D. Dingell

1. You testified that "an important gap exists in the framework for regulating the security of chemicals at water and waste water facilities in the U.S." When you where asked the specific year and month when you identified the "gap" you testified it was "several months ago, early 2008" and "I want to say February, but I am not sure..."

   Please identify the specific month and year when you identified the regulatory "gap" at water and waste water facilities. Further, please describe the specific facts and circumstances that led you to the conclusion that there is a regulatory "gap" for drinking water utilities?

2. If you determined there was a regulatory "gap" "several months ago, early 2008" with respect to drinking water utilities, why didn't you inform the Committee of jurisdiction, the Committee on Energy and Commerce, of the "gap" so that it might be addressed?

3. You testified that "collaboration with the Water Sector has been critical to our success." However, Mr. Coffey, who was a witness on behalf of the Association of Metropolitan Water Agencies, testified that "EPA informed the water sector about a regulatory gap yesterday afternoon."

   Is it correct that the Environmental Protection Agency (EPA) informed the water sector about a regulatory "gap" for the first time on Wednesday afternoon, June 11, 2008? If not, please explain when and how the water sector was first notified.

4. If there is close collaboration with the drinking water industry and you knew of the regulatory gap several months ago, why wasn't the water sector informed earlier?

5. What did EPA and/or the Department of Homeland Security officials tell the water industry during the phone call on Wednesday afternoon of June 11, 2008, as to the specific nature of the regulatory gap?

6. At one point in your testimony you stated that over the last year EPA has been trying to find out what water and waste water utilities are doing and that there is "an information gap."

   Please describe what specific information is lacking that comprises the "information gap" for drinking water utilities?

7. EPA has had vulnerability assessments performed by drinking water utilities for approximately five years. What analysis has EPA conducted of these vulnerability assessments? Has EPA undertaken follow up actions at specific drinking water utilities to insure that necessary corrective actions have been undertaken?

8. Does EPA believe that the imminent and substantial authority of Section 1431 of the Safe Drinking Water Act, authorizes or allows EPA to issue an order or commence a

The Honorable John D. Dingell (continued)

civil action to require corrective actions to be undertaken at drinking water utilities to correct a vulnerability to a threatened or potential terrorist attack that has been identified in a vulnerability assessment? If so, has EPA issued any such order or undertaken a civil action under Section 1431 in response to any of the vulnerability assessments submitted to EPA pursuant to Section 1433 of the Safe Drinking Water Act? If not, why not?

9. Does the Government need authority to require dinking water utilities to update vulnerability assessments that were first performed pursuant to Section 1433(a) of the Safe Drinking Water Act?

   If so, do you recommend that authority to require updated vulnerability assessments at drinking water utilities be provided to the Government?

10. Does the Government have specific authority to require drinking water utilities to provide evidence that the vulnerabilities identified in the vulnerability assessments have been properly addressed? If not, do you support providing the Government with such authority?

11. How have the vulnerability assessments conducted by drinking water utilities been useful to EPA?

12. Does the Government have specific authority to require drinking water utilities take corrective security actions to address specific vulnerabilities of a community water system to a terrorist attack or other intentional act intended to substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water? If so, do you support providing the Government with such authority?

13. Do you believe drinking water utilities are doing what they could and should be doing to evaluate "inherently safer technologies"? Please provide the basis for your answer.

14. What percentage of drinking water utilities have evaluated alternatives to the use of gaseous chlorine as a primary disinfectant? Please provide the basis for your response.

15. Please provide the date when Assistant Secretary Robert B. Stephan was granted designated access to EPA's vault of vulnerability assessments?

The Honorable Joe Barton

1. Could you please describe for me some of the success stories of EPA's water security program?

2. Has EPA had any technical problems operating the drinking water security program?

3. Under the Safe Drinking Water Act, EPA has implemented several initiatives to secure drinking water facilities. Your testimony suggests the Agency has had success working with industry, states, and stakeholders and achieved almost 100% compliance with voluntary standards. Considering these successes, wouldn't it be sufficient to simply require drinking water utilities to perform again the requirements of Title IV of the Public Health Security and Bioterrorism Preparedness and Response Act?

4. HR 5577 includes employee representatives in the process. I understand these union officials and owner/operators sometimes have an adversarial relationship. Is it in the best interest of the national security to bring that relationship in to a process designed to protect the American people (and thus far seems to have met with great success)? What expertise do union officials have that isn't currently being considered?

5. EPA has a "fruit salad" of statutory authority regarding chemicals; what is the benefit gained to public health by bringing in DHS? After Katrina, DHS outsourced its public health responsibilities to EPA. What's to be gained by assigning additional public health responsibilities to DHS? Won't DHS just outsource these to EPA too? Wouldn't it be easier to leave these responsibilities at EPA?

6. You mention that there is a "gap" at water facilities, but then mention several initiatives that EPA is working on to help further protect the water sector. Could you please clarify for us that drinking water facilities have a legal regime for security that they have had to comply with while waste water facilities have not? How much of this "gap" is solely attributable to waste water facilities?

7. In response to Mr. Shadegg, you mention that EPA noticed that a gap was "created when Congress exempted the water sector from chemical security regulation under the CFATS framework." Is it not true that other law, specifically Title IV of the Public Health Security and Bioterrorism Preparedness and Response Act -- and administered by EPA, covers "chemical, biological, or radiological contaminants" in community water systems and source water for those systems?

8. When you mention that you would like to see drinking and waste water facilities regulated under a "CFATS-like" regime, do you mean CFATS as it is currently constituted or some future version of CFATS, including as proposed in H.R. 5577?

ROBERT B. STEPHAN, RESPONSES TO SUBMITTED QUESTIONS FROM MR. DINGELL

Question: Please explain why the commonly used fertilizer ammonium nitrate, which was used in the 1995 Oklahoma City terrorist bombing, is regulated under the Chemical Facility Anti-Terrorism Standards (CFATS) at a chemical plant, but the same standards do not apply when stored in bulk quantities on a farm. What standards, if any, are in place to prevent the theft of bulk quantities ammonium nitrate from farms?

Answer: Barring certain Congressional exemptions for water and wastewater treatment facilities, facilities regulated under the Maritime Transportation Security Act, facilities regulated by the Nuclear Regulatory Commission, or facilities owned or operated by the Department of Defense or Department of Energy, a facility is regulated under the Chemical Facility Anti-Terrorism Standards (CFATS) if it is determined to be high-risk. That determination is generally based on the possession of any chemical of interest, including ammonium nitrate (AN), at or above the applicable screening threshold quantity (STQ) specified in Appendix A to CFATS, regardless of what type of facility it is. Accordingly, a farm that is initially determined to be high-risk based on its possession of significant quantities of fertilizer-grade AN in excess of the applicable threshold quantity (2,000 lbs) would be regulated under CFATS.

In December 2007, however, the Department of Homeland Security (DHS) provided an indefinite extension of the CFATS requirements for agricultural production facilities such as farms, to submit the specific information (i.e., Top-Screens) that DHS typically uses to initially determine whether a facility is high-risk. That extension is intended to give DHS enough time to gather additional information and conduct research to determine whether or not farms should continue to be covered under CFATS in the same manner as other facilities. There are a variety of reasons why careful consideration is being given to the inclusion of agricultural production facilities in the CFATS program.

As stated in the preamble to Appendix A, ″DHS believes that terrorists are interested in maximizing death and injuries from an attack and are, therefore, less interested in attacking facilities in rural areas or other areas with low population densities.″ 72 Fed. Reg. 65407 (Nov. 20, 2007). Accordingly, farms, which are predominantly located in rural areas or other areas with low population densities, are generally less likely to be targeted by terrorists and, thus, may pose lower risks than chemical manufacturers, storage facilities, or distributors of AN. Thus, the STQs and STQ counting rules for AN and certain other agricultural chemicals of interest were intended to limit the applicability of the Top-Screen requirement to farms. Subsequently, however, DHS learned that the Top-Screen requirement could apply to many more farms and other agricultural facilities than originally intended.

Additionally, in December 2007, Congress passed Section 563 of the Consolidated Appropriations Act of 2008, the Secure Handling of Ammonium Nitrate Act, Pub. L. 110-161 (Section 563), which authorizes and requires the Department to regulate the sale and transfer of AN. Among other things, Section 563 requires DHS to promulgate regulations for the registration of AN facilities and purchasers, many of which also are or would be covered by the CFATS Top-Screen reporting requirement for possession of AN as a chemical of interest. See 72 Fed. Reg. 65407, 65410 (Nov. 20, 2007). Because Section 563 and the activities required under that mandate will likely cover many farmers and other agricultural production facilities that use or possess AN, DHS is reviewing its approach to regulating facilities possessing AN under the CFATS regulatory regime to avoid unnecessary duplication or inconsistency. On October 29, the Department issued an Advance Notice of Proposed Rulemaking (ANPRM) to inform the process of writing the AN regulation. The public comment period for the ANPRM closed on December 29, 2008.

Question: Please explain why chemicals like potassium nitrate and sodium nitrate, are on the CFATS Appendix A list of chemicals of concern while calcium ammonium nitrate, which is an explosive chemical that has reportedly been used by the Irish Republican Army to make bombs, is not on the list.

Answer: Potassium nitrate (KN), sodium nitrate (SN), and ammonium nitrate (AN) all are on the Department of Homeland Security's (DHS's) list of Chemicals of Interest in Appendix A to the Chemical Facility Anti-Terrorism Standards regulations because of their potential and historical use as improvised explosive device (IED) precursor chemicals. Although AN has a longer and more extensive history of such use than KN and SN, both KN and SN are of such a chemical composition as to constitute a reasonably effective filler for an explosive device (see 72 Fed. Reg.

65408 [Nov. 20, 2007], as demonstrated by the fact that they are the primary components of various grades of gunpowder and pyrotechnics.

Calcium ammonium nitrate (CAN) contains material (calcium) that would not contribute to an explosive reaction. While CAN can be employed in the construction of an IED, it is generally believed that the explosive impact of an IED made with CAN is relatively less than that of comparable IEDs made with KN, SN or AN and, thus, that CAN typically is less attractive to terrorists than those other nitrates, especially given the widespread availability of AN, KN, and SN. Although CAN is not currently listed in Appendix A, DHS has the authority to amend Appendix A in the future to include CAN, or any other chemical, in Appendix A if circumstances and available information warrant.

Question: How many facilities owned by Federal agencies have been designated for each of the four tiers?

Answer: The Department has not yet made final tiering designations, so it is not possible to provide a definitive number per tier at this time. Preliminary tiering designations, as well as the number of facilities preliminarily tiered, are subject to change. The final numbers will be available in the future, and we will be happy to provide them at that time. In addition, pursuant to the authorizing legislation (section 550 of the 2007 DHS Appropriations Act) and the implementation regulation (6 CFR 27.110(b)), the rule does not apply to facilities ″owned or operated by the Department of Defense or the Department of Energy.″

Question: Does the Department of Homeland Security (DHS) support the application of CFATS for covered chemicals at all Federal facilities? If not, please explain why not.

Answer: The Department supports the application of the Chemical Facility Anti-Terrorism Standards at all federally owned facilities that are determined to be high-risk and are not expressly exempted by the legislation, such as DoD and DOE facilities. Simply because a facility is owned by the Federal Government does not necessarily mean that the security risks associated with the facility's possession of certain chemicals attractive to terrorists have been adequately addressed. The Department is considering working through the Interagency Security Committee to conduct a preliminary assessment of holdings of chemicals of interest at Federal facilities to better inform next steps in this area.

Question: What specific criteria would the DHS use to determine whether there is a direct conflict between the Federal law and regulations and those issued by a state with respect to security at chemical facilities?

Answer: As explained in the preamble to the Chemical Facility Anti-Terrorism Standards (CFATS) interim final rule of April 9, 2007, CFATS is not intended to preempt existing State health, safety, and environmental regulations (see 72 Fed. Reg. 17727, Nov. 20, 2007). Future State or local security laws or regulations may be preempted, however, if they conflict with CFATS, as described in §27.405(a) of the CFATS regulations. That section lays out well-established, general standards for ″conflict preemption,″ consistent with Federal case law (i.e., a State law would be preempted if it ″conflicts with, hinders, poses an obstacle to or frustrates the purposes of [CFATS] or any approval, disapproval or order issued there under.″ This provision is consistent with Section 534 of the Omnibus Appropriations Act for FY 2008, which amended the statutory authority for CFATS (Section 550 of the Department of Homeland Security [DHS] Appropriations Act of 2007) to allow any State to adopt more stringent security requirements for chemical facilities ″unless there is an actual conflict between Section 550 and the law of that state.″

Determining whether or not a direct conflict exists which warrants preemption of a specific State law or regulation under those standards, however, requires analysis of the future, factual context in which those State laws or regulations would be applied (see 72 Fed. Reg. 17727, Nov. 20, 2007). Thus, without any factual context it is premature for DHS to speculate on what specific criteria DHS would use to determine whether a direct conflict would exist between CFATS and some future, specific State law or regulation. If such a potential conflict actually arises in the future, CFATS §27.405 provides a process for States and chemical facilities to solicit the Department's opinion on preemption in a concrete, particularized setting. Of course, whether a conflict actually exists and preemption occurs is a legal matter that the appropriate courts may decide, and any opinion offered by DHS under §27.405 would be based on relevant case law.

Question: The DHS expected to receive 50,000 Top Screens, but received approximately 32,000. Are there thousands of facilities that should have submitted Top Screens but failed to do so? If so, how many compliance actions has DHS taken against these facilities that failed to submit Top Screens?

Answer: The Department believes that, for a variety of reasons, there are facilities that should have completed a Top-Screen and have not yet done so. Although at this time the Department does not have a firm estimate of how many facilities fall within this category, it believes that many are smaller facilities, such as batch operators, distributors and retailers, and single-chemical operations. The Department further believes there are several potential reasons why facilities may not have completed a Top-Screen, including:

•Lack of awareness of the Chemical Facility Anti-Terrorism Standards (CFATS) regulatory program;
•Misunderstanding of the CFATS rules and exemptions;
•Internal corporate lack of communication; and
•Willful disregard of CFATS.

The Department is mounting a multi-track effort by working with other Federal agencies, States and territories to identify facilities that it believes should have submitted a Top-Screen but have yet to do so, and will begin contacting such facilities in the near future. Although no compliance actions have been taken to date, the Department intends to pursue such actions for those facilities that continue to willfully disregard their CFATS obligations after being contacted by the Department regarding their failure to submit a Top-Screen.

Question: As of November 1, 2008, how many site security plans for (a) Tier I facilities and (b) Tier II facilities have been approved by DHS?

Answer: The Chemical Facility Anti-Terrorism Standards do not require any facility to submit a Site Security Plan (SSP) for approval until after the facility has been finally determined to be high-risk based on the Department's review of the facility's Security Vulnerability Assessment (SVA). As of November 1, 2008, the Department had received SVAs from 169 facilities preliminarily determined to be Tier 1 facilities and 541 SVAs from facilities preliminarily determined to be Tier 2 facilities. To date, DHS has received SVAs from all facilities preliminarily determined to be Tier 1 and has issued a new due date to preliminary Tier 2 facilities that missed the original submission deadline. Those SVAs already submitted are currently being reviewed, and the Department intends to issue final tiering letters for Tier 1 facilities in January 2009 and Tier 2 facilities in March 2009. Facilities will have 120 days from the date of those letters to complete and submit to the Department their SSPs.

Question: As of November 1, 2008, how many facilities have been inspected to ensure compliance with their site security plans?

Answer: As explained above, the Department will begin notifying facilities of their final placement within risk tiers and due dates for Site Security Plans beginning in January 2009. Thus, inspections to determine compliance with such plans have not yet occurred. The Department expects to begin inspections of covered facilities beginning on or about September 2009.

Question: In a January 2006 report, the General Accountability Office (GAO), recognizing the expertise of the Environmental Protection Agency (EPA) in studying chemical risks, issued a report recommending that the Secretary of DHS jointly study with EPA whether chemical facilities' efforts to reduce vulnerabilities would benefit from the use of technologies that substitute safer chemicals and processes, referred to as ″inherently safer technologies″. Has DHS completed the study recommended by GAO? If not, please explain why not.

Answer: The Department's Science & Technology Directorate's Chemical Security Analysis Center is currently working closely with the Environmental Protection Agency, other Federal departments and agencies, and the chemical industry on this study as a result of recommendations from both the Government Accountability Office and the National Academy of Sciences. The next step in the study is an expert panel roundtable discussion scheduled for January 15, 2009, in Houston, Texas, which your staff is welcome to attend. The study is expected to be completed in the summer of 2009.

Question: If a tanker truck of chlorine or anhydrous ammonia visits a natural gas well site or an electric generating site for the purpose of cleaning the facility or servicing the well site, does the site become a chemical facility that is subject to CFATS? Does the duration of the time period with respect to how long the tank trucker is on site make a difference in whether the site is considered a chemical facility for purpose of CFATS? Does it make a difference whether the mobile tanker truck is parked inside the fence line of the facility or outside the fence line of the facility in a determination that a facility is subject to the CFATS' regulations?

Answer: Whether or not a facility is subject to the CFATS depends on a variety of factors. Generally, there is no minimum time requirement that a chemical of interest must be on-site before a facility possessing the chemical must count that

chemical in determining whether or not to complete a Top-Screen. As stated in the preamble to Appendix A, the Department of Homeland Security has not established a ″holding-time″ threshold for chemicals. If terrorists have a reason to know that an attractive chemical is present at a facility, the duration of its presence is largely irrelevant. As a result, a facility must submit and complete a Top-Screen if it possesses chemicals of interest in a quantity that at any time meets the Screening Threshold Quantity (see 72 Fed. Reg. 65418, Nov. 20, 2007).

As to making a determination regarding the chemical of interest contained in the subject parked tanker truck based on its location, whether it is parked just inside or outside of the fence line of the facility is not determinative in this case. As stated in the preamble to the CFATS Interim Final Rule, facility assets include any items or structures (such as buildings, vehicles, laboratories, or test facilities) located on an area owned, operated, or used by the facility. Such assets may exist inside or outside of perimeter structures (see 72 Fed. Reg. 17699, April 9, 2007).

Question: Please describe the security regulations, if any, which apply to tanker trucks of regulated chemicals such as chlorine and anhydrous ammonia?

Answer: Tanker trucks containing chemicals of interest (COI) under CFATS may be subject to various security requirements depending on whether they are located at a chemical facility regulated under CFATS, as well as other circumstances. For example, if the tanker truck is used to store COI at a CFATS-covered facility or used to move COI within a CFATS-covered facility, the Department expects that the truck's security will be addressed as part of the facility's overall Site Security Plan.

Although there are no prescriptive requirements regarding tanker truck security at a covered facility, many of the risk-based performance standards (RBPSs) that covered facilities' Site Security Plans must satisfy may involve measures addressing tanker trucks entering and leaving the facility with chemicals of interest and other hazardous materials. For example, measures to comply with RBPS 5 (Shipping, Receipt, and Storage) may include vehicle identification and entry authorization; measures related to RBPS 3 (Screen and Control Access) may include screening and inspections of tanker trucks upon ingress and egress; measures to comply with RBPS 6 (Theft and Diversion) and RBPS 7 (Sabotage) may include the employment of tamper-evident devices on vehicle valves and other appurtenances; and measures related to RBPS 12 (Personnel Surety) may include the conduct of background checks on truck drivers who have unescorted access to restricted areas of a facility.

Question: In response to a question about how you would define the word ″chemical″, your response indicated that DHS has the ability to define what a ″chemical of interest″ is. Since H.R. 5577 has not defined the word ″chemical″ or the phrase ″chemical of interest,″ what guidance does the Secretary use in determination of that definition?

Answer: ″Chemical of interest″ (COI) is defined in 6 CFR §27.105 as ″a chemical listed in Appendix A to part 27 [CFATS].″ The COI list in Appendix A is used to help the Department initially identify facilities that potentially present high levels of security risk, since chemical facilities possessing threshold quantities of these chemicals are typically more likely than facilities possessing none of these chemicals to present ″a high risk of significant adverse consequences for human life or health, national security and/or critical economic assets if subjected to terrorist attack, compromise, infiltration, or exploration″ (6 CFR §27.105). As explained in detail in the preamble to the final Appendix A rulemaking, the COI list was developed using a variety of sources, such as lists of hazardous substances regulated by the Environmental Protection Agency, chemical weapons and their precursors regulated under the Chemical Weapons Convention, and explosives precursors identified by the Federal Bureau of Investigation. See, e.g., 72 Fed. Reg. 65396-65408 (Nov. 20, 2007).

Question: On September 30, 2004, this Subcommittee had a hearing on assessing our nation's drinking water security. As I understand it, DHS never even returned phone calls concerning its interest in participating in this hearing. Why do you now have this sudden conversion to suggest that things are so bad?

Answer: Although we cannot speculate on the subject of phone calls made in 2004, we can confidently state that our position regarding the exemptions from CFATS provided by Congress for water and wastewater treatment facilities is not a sudden conversion. It has been the position of the Department since the inception of CFATS that these exemptions represent a security gap.

Question: Can you guarantee that CFATS will be fully implemented for all tiers before its required sunset under Section 550? When does DHS expect that CFATS will be fully implemented for all tiers?

Answer: The Department of Homeland Security cannot guarantee that the Chemical Facility Anti-Terrorism Standards will be fully implemented for all tiers before

the sunset date delineated under Section 550. Security vulnerability assessments for facilities in all four tiers are due prior to the end of calendar year 2008, and Tier 1 facilities will begin developing site security plans in early 2009. Facilities will have 120 days from notification of their final tiering determination to complete and submit their site security plans.

Question: If you are able to fully implement CFATS for all of its tiers before the sunset date, will you have time to learn anything meaningful about the program's strengths and weaknesses by that sunset date?

Answer: Over the past two years, the Department of Homeland Security has learned much about the strengths and weaknesses of various aspects of Section 550 and CFATS, and is doing its best to incorporate these lessons while continuing to implement CFATS. An example is the extension of the Top-Screen filing requirement granted to agricultural production facilities. We have also worked extensively with representatives of various affected industries to assist their facilities in complying with CFATS. For example, DHS recently afforded gasoline storage facilities the opportunity to correct technical errors we observed in their Top-Screen submissions.

Question: I have heard that DHS has been trying to accumulate information on drinking water facilities. Since your Department is struggling to get the CFATS regulations implemented before the program expires, why are you siphoning resources away from these mandatory efforts to play in an area where you are not the lead? Can this kind of distracted discipline be expected if you handled drinking water facilities?

Answer: Pursuant to its role in leading the coordinated effort to enhance the protection of the critical infrastructure and key resources of the United States as articulated in Homeland Security Presidential Directive 7 (HSPD-7), the Department of Homeland Security in coordination with the Environmental Protection Agency has been assisting the Water Sector with developing three risk and/or vulnerability assessment tools for the sector that are to be used by various facilities based upon the population size served. The resources to develop these tools do not come from appropriations for CFATS implementation, as they support part of the voluntary sector partnership framework established under the National Infrastructure Protection Plan and the Water Sector's Sector Specific Plan.

DHS and the Environmental Protection Agency have taken the position that water and wastewater treatment facilities, as exempted from CFATS, do represent a security gap, stating in testimony on June 12, 2008, before the House Committee on Energy and Commerce, Subcommittee on Environment and Hazardous Materials:

The Department of Homeland Security and the Environmental Protection Agency believe that there is an important gap in the framework for regulating the security of chemicals in the United States. The authority for regulating the chemical industry purposefully excludes from its coverage water and wastewater treatment facilities. We need to work with the Congress to close this gap in the chemical security authorities in order to secure chemicals of interest at these facilities and protect the communities they serve. Water and wastewater treatment facilities that are determined to be high-risk due to the presence of chemicals of interest should be regulated for security in a manner that is consistent with the CFATS risk and performance-based framework while also recognizing the unique public health and environmental requirements and responsibilities of such facilities. The Department of Homeland Security and the Environmental Protection Agency look forward to working with the committees to address this issue.

Should the statutory exemption be repealed or otherwise eliminated, DHS believes that it would likely find that many drinking water facilities hold chemicals of interest at or above screening threshold quantities under CFATS. Each of these facilities would be required under CFATS to submit a Top-Screen to begin the process of determining whether it is considered to be high-risk. Water and wastewater treatment facilities ultimately regulated under CFATS as high-risk facilities would then likely represent a subset of all such facilities (as is the case with other industry sectors' facilities under CFATS).

Question: How often has DHS had to rely on EPA for or used the information it has gathered under Title I11 of the Superfund Amendments and Reauthorization Act for emergency planning and response activities? Do you find this information useful?

Answer: A range of antecedent work done by the Environmental Protection Agency (EPA) has been used by the Department of Homeland Security (DHS) for several aspects of the CFATS regulation, including, but not limited to:

•Employing the Risk Management Plan calculation (RMP Calc) tool as part of the Top-Screen process;

•Adopting many of the Superfund Amendments and Reauthorization Act (SARA) III chemicals, mixture rules, concentrations, and threshold quantities as ″Chemicals of Interest,″ especially in the release hazard area; and

•Adopting many other EPA definitions and phraseology throughout the CFATS rule so as to avoid the need to re-define certain terms already commonly understood by the regulated community.

It should be pointed out that DHS also adopted a good deal of language from regulations, rules, and guidance issued by other agencies, including, but not limited to, the Department of Transportation, Department of Energy, Department of Commerce, and Drug Enforcement Administration.

Question: H.R. 5577 requires DHS to inspect site security plans for ″release mitigation″ efforts. Isn't this activity something that EPA does -as in the instances with Hurricane Katrina-as opposed to DHS?

Answer: As part of the existing CFATS regulation, the Department of Homeland Security will evaluate elements of a covered (high-risk) facility's security plan that involve preventing, containing, mitigating, and recovering from an intentional release of a toxic, flammable, or explosive material. DHS' requirements in this area would be premised on intentional releases of chemicals of interest. The Environmental Protection Agency's efforts focus on different mandates: accidental release mitigation and mitigation at environmentally significant facilities. EPA's efforts are undertaken pursuant to its environment and safety-focused authorities, resources, and expertise. It is important to note that there is a critically important difference between security and safety. Security and safety are related and overlap in certain areas, but they are not the same concept. Should a release occur, DHS and EPA coordinate and apply their respective expertise to release mitigation.

Question: EPA already has emergency authority provided to it to help respond to a public health crises posed by a compromised drinking water facility, including the provision of alternate sources of drinking water. Since you do not have this authority and H.R. 5577 does not give it to you, why should Congress dilute EPA's response in favor of a less holistic response by DHS?

Answer: Prior to and since the enactment of CFATS, the Environmental Protection Agency (EPA) has and continues to have regulatory authority under various statutes over safety and security (SDWA, Sections 1433-1435) at drinking water facilities, as well as a lead role in emergency responses to releases and other incidents at chemical and other types of regulated facilities. Nevertheless, Congress gave the Department authority to regulate security at high-risk chemical facilities, which includes facilities within a number of sectors and sub-sectors designated under HSPD-7 and the National Infrastructure Protection Plan, for example, Water, Chemical, and Educational Facilities.. The enactment of CFATS did not dilute EPA's responsibilities regarding chemical facilities, but rather gave the Federal Government a more comprehensive role in ensuring adequate response and security levels at those facilities. In fact, the CFATS regulations expressly provide that the rules are not intended to displace or hinder any requirements administered by EPA and other Federal agencies. See 6 CFR ◆ 27.405(a)(1); 72 Fed. Reg. 17718-17719.

Question: While some advocate special language for IST, it seems those types of issues are examined by a facility when appropriate under the current vulnerability assessment/site safety plan format. Doesn't that seem to be the best approach?

Answer: The Department of Homeland Security's authority to regulate security at high-risk chemical facilities is specifically non-prescriptive - that is, DHS cannot approve or reject a covered facility's Site Security Plan (SSP) based on the presence or absence of any specific security measure. See 6 CFR ◆ 27.245(a)(2). Rather, facilities have the opportunity and flexibility to use a wide variety of measures in their SSPs to satisfy CFATS' risk-based performance standards. Of course, as your question suggests, facilities may choose to consider appropriate Inherently Safer Technology (IST) solutions when developing measures to reduce security risks and comply with CFATS. Two important considerations in this area are whether the measure is economically viable for a particular facility (and the assumption is that a facility will make that decision for itself), and whether the measure really does reduce risk or would merely transfer the risk elsewhere. DHS is aware that some facilities are considering or have already adopted IST measures that appear to be appropriate for the facility in reducing risk (note that such measures are not required by CFATS), as well as measures which would not significantly reduce security risk or would transfer risk elsewhere.

Question: Do you think non-convicted drug addicts or alcoholics should be allowed to continue working in high-risk facilities?

Answer: The Department does not believe it is within its purview to comment on the employment matters of private corporations; however, all high-risk chemical facilities will be required to implement a comprehensive personnel surety program pursuant to the Risk-Based Performance Standard 12 of the Chemical Facility Anti-Terrorism Standards. Such a program will include, at a minimum, measures to conduct background checks on all employees, contractors, and unescorted visitors with access to critical or restricted areas at a facility.

Question: Does DHS have enough personnel to process the entirety of the paperwork that H.R. 5577 will require?

Answer: Whether or not the Department will have sufficient personnel to handle the paperwork required if H.R. 5577 is enacted depends on both the structure of the regulations and the level of funding provided by Congress to the Department to implement the regulations. As both of these details are currently unknown, it is not possible to definitively answer this question at this time.

Question: The legal authorities that created the entire CFATS program in 2006 - section 550, were introduced as H.R. 6348 in the 109th Congress. A very similar bill, H.R. 5533, was introduced in the 110th Congress. In each case, the House Parliamentarian gave exclusive jurisdiction over this legislation to one House committee. Could you please tell me which one House committee was awarded jurisdiction by the Parliamentarian over these bills which created the entire statutory authority for the CFATS program?

Answer: The statutory authority that authorized and directed the Department to promulgate regulations to establish the Chemical Facility Anti-Terrorism Standards program is Section 550 of the Homeland Security Appropriations Act of 2007 (Pub. Law 109-295). This legislation was originally introduced in the House of Representatives as H.R. 5441 and was referred to the House Committee on Appropriations. Section 550 was included during discussions between House and Senate conferees.

H.R. 6348 and H.R. 5533 were both introduced by Members of the House Energy and Commerce Committee. The former was introduced by Rep. Joe Barton, Ranking Member of the House Energy and Commerce Committee, while the latter was introduced by former Rep. Albert Wynn, the previous Chairman of the Energy and Commerce Committee's Environment and Hazardous Materials Subcommittee. Rep. Wynn has since left the House of Representatives. Both H.R. 6348 and H.R. 5533 were referred to the House Energy and Commerce Committee.

The authority to determine bill referral rests solely with the legislative branch.

BRAD COFFEY, RESPONSES TO QUESTIONS SUBMITTED BY MR. DINGELL

1.Many supporters of inherently safer technologies - renamed under H.R. 5577 as ″Methods to Reduce the Consequence of a Terrorist Attack″ - claim that their opponents are only concerned about not having to spend money to make upgrades. If the federal government pledged to cover every cent of the cost for water systems to adopt an IST conversion mandated by the federal government, would you support including an IST mandate in the bill?

There are many reasons beyond cost that influence an individual water system's ability to adopt alternate water treatment and disinfection methods. For some water systems, it is simply impossible to adopt a different treatment method without incurring new and unacceptable public health risks or security vulnerability shifts. No amount of federal funding can change this fact.

Because of the complexity of factors, water treatment methods are best chosen by experts familiar with their source water characteristics and facility security issues. This local choice must be maintained to protect public health and facility security. For some water systems, the decision of whether or not to switch has less to do with cost than feasibility and the shifting of risk, as Metropolitan's (MWD's) experience demonstrates (e.g., 70 tanker truck deliveries of bleach per week would replace one liquefied chlorine gas railcar at our largest treatment plant; virtually all bulk chlorine would continue to be shipped to Southern California by rail, etc.).

Additionally, the U.S. Conference of Mayors, in a June 2008 resolution stated that broadly forcing water utilities to adopt inherently safer technologies would ″place an extreme regulatory burden on city-run water utilities, including the potential for contradictory regulatory directives from EPA regarding drinking water safety and public health and the Department of Homeland Security regarding chemical safety.″

We would support a voluntary grant program with federal funds available to utilities that conduct IST feasibility assessments and decide that an alternate substance

best meets their security and water disinfection needs. We cannot support legislation that eliminates local choice and imposes mandated treatment changes on utilities, even if the government promises to cover all financial costs.

2.In its present form, H.R. 5577 would not allow DHS to force a water system (or any chemical facility) to adopt IST unless DHS determines that the IST methods ″can feasibly be incorporated into the operation of the facility″ and ″would not significantly impair the ability of the facility to continue operating.″ Do these provisions allay any of your concerns about infeasible mandates?

H.R. 5577 does not address how DHS, EPA, or any other federal entity would gain the depth of knowledge and expertise necessary determine whether certain IST approaches are feasible at each and every drinking water utility in the United States. A careful consideration of the source water, local climate, earthquake or hurricane risk, available land, and other factors unique to each drinking water plant must be considered as part of a risk/reward evaluation to determine the feasibility of changing drinking water treatment chemicals. It is unclear how the federal government would be able to accurately make these determinations for each drinking water plant in the United States, and trusting the government to make these choices without complete knowledge of these factors may lead to new public health threats.

As an example, the EPA does not mandate specific water treatment technologies to control drinking water contaminants of primary health concern. Instead, the EPA specifies a ″best available technology″(BAT) which the agency believes to represent a technology, treatment technique, or other means feasible for purposes of meeting the maximum contaminant level. In deference to specific source water qualities, utility expertise, or other factors, the EPA does not require the utility to install the BAT, but allows the local utility to choose the most robust, cost-effective method to control the risk.

A more sensible and analogous approach to IST is to establish site security standards and then trust the judgment of local water utility professionals to choose between established security upgrades or water treatment process changes. Experience has shown that some will determine that alternative processes such as on-site bleach production are feasible and work to implement it, like Long Beach (California) Water Department. Others, like MWD, will determine that it is not feasible but still implement necessary security upgrades. Making this determination on a case-by-case basis, at the local level, will best ensure the security of all treatment chemicals and public health at water facilities across the country, and be most effective at reducing overall risk.

3.The Center for American Progress claims that all water systems should be able to end their use of chlorine gas for a cost of ″no more than $1.50 per person served each year.″ Is Metropolitan's choice to continue its use of chlorine gas at some plants simply a matter of cost, or are there other factors that must be taken into account?

There are several considerations beyond cost that contributed to MWD's ultimate decision against completely eliminating the use of chlorine gas at all of our treatment plants. In all honesty, the decision would be much easier to make if cost was the only factor to be considered.

In MWD's case, important feasibility concerns beyond cost, such as increased risk associated with truck transport of chemicals, absence of space at treatment facilities on which to store necessary quantities of bleach, saline discharges in excess of existing limits into regional basins, supply chain concerns, and the creation of new byproducts such as hydrogen gas, chlorate, bromate, and perchlorate all exceeded cost as critical factors influencing our decision. And while we were able to estimate that the capital cost to switch from our current process of securing and containing liquefied chlorine would exceed $150 million, this number does not reflect these other concerns that, in our opinion, do not make conversion a worthwhile tradeoff and raises other concerns that would have to be addressed.

Nevertheless, MWD understands the fact that other drinking water utilities, such as Long Beach and the utilities listed in the Center for American Progress report may have their own unique circumstances that make the conversion away from chlorine gas feasible. We, too, have increased our security by reducing the number of facilities storing chlorine gas from 17 to 6. We would just ask Congress to recognize that some utilities, such as MWD, must consider other factors that may result in gaseous chlorine remaining the best treatment method. In fact, the careful evaluations that have been completed by so many water systems actually demonstrate that local utility managers can be trusted to choose the best water treatment method, and will not hesitate to adopt alternatives to gaseous chlorine when it delivers a real security and public health enhancement.

4.The Congressional Budget Office, in its cost estimate of H.R. 5577, as approved by the Homeland Security Committee, could not determine the exact costs on locally owned chemical facilities because of the uncertainty of future IST requirements, stated ″based on information from DHS and representatives of public entities,″ that ″additional costs for public entities would not be significant.″

Is it your opinion that it is accurate for CBO to broadly determine that the financial impact of IST mandates on water systems across the country would be insignificant in each and every case? Or, is it possible that the actual conversion costs may be insignificant for some utilities, significant for others, and irrelevant for other utilities because of unique, local factors that may make IST conversions infeasible?

Again, it is important to stress that cost is not the top consideration for MWD and many other water systems when evaluating potential treatment alternatives. However, MWD agrees that it is impossible to accurately estimate the true financial impact of an IST mandate on the country's water systems, because H.R. 5577 as written places virtually no limits on the extent of federal power to interfere with local drinking water treatment decisions.

For example, under H.R. 5577 as it currently stands, DHS could declare every drinking water treatment in the United States to be a ″high-risk chemical facility,″ and force a review of methods to reduce one aspect of risk. DHS could then unilaterally find all of these conversions to be ″feasible,″ and require all drinking water systems to begin adopting new treatment methods, regardless of other factors. Under this scenario, the total costs would exceed $150 million for MWD alone, while at the same time bringing about new public health risks for which utilities would have to try to compensate.

In reality, the feasibility and cost of adopting alternate treatment technologies will vary greatly from utility to utility and facility to facility. For this reason, MWD and AMWA believe it is best to trust local water utility experts with these important technical decisions.

5.I am very concerned about protection of sensitive information. Title IV of the Public Health Security and Bioterrorism Preparedness and Response Act has quite stringent requirements on the sharing of vulnerability information. Is your utility or AMWA satisfied with this regime and have you had any problems as a result of this regime?

At MWD, our vulnerability assessment is currently locked up and any approved employee, officer, or Director must sign it in and out-and not make any copies-when reviewing the document. The current law and MWD's procedures have been very successful at preventing the public release of this critical information over the past six years. We can live with this kind of protection and find it prudent to keep it in place. We have not experienced any significant difficulties or problems as a result of the information protection requirements of the 2002 law.

6.Clearly, you think the Safe Drinking Water Act provisions get it right on these information protection issues. Why do you think it is not advisable to weaken this kind of protection regime?

The United States has vast experience in protecting national security information based on how much damage would result if it fell into the wrong hands, so there are protocols for protecting confidential, secret, and top secret material. If any material is exposed, there are often ways to retrieve it, or change something about it, or otherwise return it to a protected environment.

Unfortunately, as stewards of critical infrastructure, MWD does not have this luxury. Our infrastructure cannot be relocated or concealed if sensitive information about it is compromised. Moreover, if any sensitive information about our infrastructure made its way to the Internet, we have the problem of having this information exposed indefinitely.

Our emergency response plans also contain enough information to educate an adversary about where we have the least redundancy, and are therefore weakest. Additionally, these plans contain personal and confidential contact information for our managers, crews, and sources of mutual aid. Employees give us this information with the expectation that we will honor their privacy, and we must honor this commitment.

Another challenge MWD faces is that any given detail of our process is probably difficult to characterize as sensitive by itself. But once combined with other information, the details give a knowledgeable adversary what it takes to infer vulnerabilities. This kind of exposure, in effect, gives away a blueprint or roadmap about how to sabotage the infrastructure that supports an important region and a regional economy. Under the circumstances, without reasonable information protection we would always be trying to squeeze toothpaste back into the tube. It never really works completely.

7.In the interest of ensuring a fresh understanding of a drinking water utility's vulnerabilities, would you support a renewal of just the Title IV requirements concerning vulnerability assessments and emergency response plans for drinking water protection?

In 2003 MWD and other large drinking water utilities complied with the Bioterrorism Act's requirement to complete a vulnerability assessment. We then used this assessment to guide $20 million of security upgrade -out of our own pocket-and to prioritize where to start implementing access controls and surveillance cameras. As a result, we now have made security planning an integral part of our capital improvement process, and every facility expansion or modification. We no longer need a vulnerability assessment to inspire or trigger this process.

While we believe that the 2002 law has delivered value, there is a point of diminishing returns in requiring completely new vulnerability assessments for their own sake. A more reasonable approach would be to:

•Ask utilities to periodically review their most recent vulnerability assessment; and,

•Update it as needed, or perhaps at least once every five years.

In addition, the federal government should offer funding assistance to public utilities that have independently determined that they can adopt an alternate water treatment technology, but are prevented from doing so only because of fiscal constraints. This policy would maintain the important concept of local choice of water treatment method, but also promote the use of alternate substances where doing so is feasible.

P.J. Crowley, Responses to Submitted Questions

Questions Submitted by Hon. John D. Dingell

In your prepared testimony, you state that ″given the uncertain budget picture that many cities and states are facing, the federal government must be prepared to provide substantial funds to support this legislation. We therefore recommend that any federal funding for conversion to safer and more secure chemicals and processes be dedicated to publicly owned treatment facilities. Please specify the amount of funding that must be provided annually for each of the next five fiscal years to support your position with respect to H.R. 5577.

•As I am sure you are hearing from governors, mayors and city managers across the country, the fiscal crisis will make it very difficult for communities faced with difficult choices involving education, healthcare and other basic services to locate discretionary funds to convert, for example, water facilities to more secure alternatives. At the same time, our analysis at the Center for American Progress is that many of these conversions can be done for $1 million per facility or less. Frequently, conversions from chlorine gas to other forms of disinfection are combined with other capital expenditures or process changes.

•H.R. 5577 authorizes $225 million over three years. S. 2855 in 2006 envisioned $125 million over five years. I think this is a good starting point. The final amount depends to some extent on the terms, particularly whether there is a matching grant requirement. Certainly this type of infrastructure investment would offer a meaningful return, safer and more secure communities across the country.

Do you believe that the Department of Homeland Security (DHS) has sufficient personnel in terms of numbers and expertise to effectively implement and oversee the current Chemical Facility Anti-Terrorism Standards (CFATS) program?

•DHS is doing an effective job of implementing CFATS. It developed draft standards, listened to public and private concerns during the rule-making process, adapted reasonably well to address those concerns and worked through the Top Screen evaluation process. It is now determining prospective tiers for those facilities that pose higher levels of risk and will be reviewing security plans in the coming months.

•It has been authorized roughly 223 chemical security inspectors and is in the process of hiring and training additional staff to be able to conduct initial compliance inspections. Since CFATS as it currently exists involves primarily physical security measures - gates, guards, lighting, standoff distances and so forth - I believe that DHS personnel have the requisite expertise. The size of the staff depends on the number of facilities regulated and the frequency of site visits. Those determinations are still being made. I do have concerns that, if several thousand chemical facilities are subject to CFATS, the anticipated size of the chemical security staff will

only allow annual site visits to a percentage of facilities being regulated. I would like to see sufficient staff to enable one or more annual site visits to all facilities being regulated.

•If new legislation is passed by Congress along the lines of H.R. 5577, it will increase both the number of facilities involved and the scope of federal regulation. If water facilities are subject to CFATS - which I support - DHS inspectors on balance do not have sufficient expertise, which is why in my testimony I suggested an approach through which DHS and EPA collaborate closely, taking advantage of the expertise of each to ensure that CFATS standards are uniformly implemented across the different elements of the chemical/water sectors.

What additional full-time equivalents and what additional expertise will DHS need to implement the provisions of H.R. 5577?

•I do not envision that DHS would be solely responsible for implementation of H.R. 5577. This must be an interagency effort that combines the resources of the Department of Homeland Security, Environmental Protection Agency, other federal agencies as appropriate and state and local authorities, particularly if certain provisions of H.R. 5577 become law. For example, I believe strongly in the framework advanced in H.R. 5577 that would require chemical facilities to evaluate more secure alternative operations and processes that would reduce risk to our society. If this applies to water facilities - and I believe it should - there will need to be technical personnel involved in that discussion. What can and should be done that is both safe and secure. So, the first potential benefit of H.R. 5577 is expanding who is involved in the process so that facility by facility and community by community and state by state we can reduce our vulnerability to terrorism and other dangers.

•Assuming that several thousand facilities are subject to CFATS regulation, I would suggest that a cadre of at least 500 chemical security inspectors would be warranted. This will require an FTE increase for both the Department of Homeland Security and Environmental Protection Agency.

QUESTIONS SUBMITTED BY HON. JOE BARTON

Mr. Crowley, you mentioned constructive work underway at the Federal level on chemical security. Does that include both CFATS and the Environmental Protection Agency's work under the Safe Drinking Water Act?

•Yes, but what we need to do now is to take what has been done in a stove-piped fashion and build an integrated security system for the long-term. The Safe Water Drinking Act forced community water systems to look at security in a different way in light of 9/11. It required some assessments and planning, but little in the way of concrete action. Some took decisive steps, others did not. CFATS provides binding security standards for facilities that are judged to be high risk, but that does not include drinking water facilities. We should look at chemical security in terms of a supply chain. Everyone linked to a supply chain should be subject to consistent standards. That is not the case today. If there are consistent standards from one end of the supply chain to another, it will facilitate effective collaboration and better solutions across governments and different industrial sectors.

If CFATS is ″constructive work″, do you see value in giving it a chance to get up and fully running - i.e. ″field testing″ before we jump to another regime?

•I do not see H.R. 5577 as ″another regime″ as much as renewing and building upon the work that has been done over the past two year and that continues today. You are quite right that the first phase of CFATS will not be done - in terms of rulemaking, assessment, tiering, security planning and certification for another year or more. But revised rulemaking on a follow-on CFATS would coincide with the end of this process, which provides plenty of opportunity to incorporate lessons learned into CFATS II. To me, the greater danger is losing momentum if CFATS expires.

Do you agree that EPA is better suited to understanding safe drinking water practices and safety standards than DHS?

•The issue really is not EPA vs. DHS, but how to leverage the expertise that DHS has regarding critical infrastructure protection, the experience it has gained through implementation of the CFATS process and integrate that with the technical knowledge and established relationship that EPA has with drinking water facilities across the country. That is why, in my testimony, I called for a collaborative relationship between DHS and EPA. I believe that this can be achieved through planning, coordination and relationship-building that has already been accomplished at the federal level. If Congress passes H.R. 5577, DHS and EPA will be able to determine how to make it work effectively.

What mistakes has EPA made in carrying out its security duties for safe drinking water since 2002? Please be specific.

•The Safe Water Drinking Act required community water systems above a certain size to conduct a vulnerability assessment, submit a copy to EPA, develop an emergency response plan and certify to EPA that such a plan had been completed. It is unclear to me that EPA has done much more than collect the assessments and certifications.

Could you please shed some light on your organization? You mentioned that it is comprised of labor, environmental, and public interest organizations. Which ones? Please name them and explain how much each contributes to your organization's budget. If you don't know the exact figures, provide an estimate and supply accurate details for the record.

•The views I expressed in June represented a consensus within a coalition of organizations that are interested in the issue of chemical security. The Center for American Progress is not a member of this coalition. I was asked by committee staff to present my best security judgment on behalf of this group. It is an ad hoc alliance of independent groups. Regarding the coalition, there is no formal structure, budget or fundraising.

You recognize the ″mature″ relationship EPA has with drinking water facilities. Why, in the interest of national security, would you not want the agency with the most experts and established framework overseeing these strategic assets?

•EPA should play an integral role in chemical security. With respect to drinking water facilities, EPA does have the established relationship and the most experts. My desire is to leverage that. The Department of Homeland Security has overall responsibility for the National Infrastructure Protection Plan. Homeland Security Presidential Directive-7 identifies 18 critical infrastructure sectors and outlines shared responsibility between DHS and other federal agencies, including EPA. It establishes sector security councils that enable just the kind of collaborative relationship across the interagency that is needed. H.R. 5577 provides a much improved security standard that should be applied to chemical and drinking water facilities.

H.R. 5577 exempts transportation of hazardous materials - otherwise regulated by the Department of Transportation - from CFATS. Do you see this exemption as creating a ″gap″ in the supply chain security?

•H.R. 5577 suggests a ″holistic approach″ that involves securing ″the supply chain of such chemicals.″ I completely agree with this approach, which means focusing on chemical manufacturers, repackagers, users and transporters in a systemic way. A weakness of the existing CFATS framework is that chemical security stops at the fence line. There is a rail rule involving TIH chemicals, but it really involves protecting the status quo.

•I think the Department of Homeland Security through its Infrastructure Protection Directorate must have sufficient authority to highlight a particular combination of circumstances as representing an unacceptable security risk - let's say the transportation of HAZMAT through the District of Columbia in close proximity to the United States Capitol. This places a lethal weapon next to a 9/11 target. DHS should not dictate a solution, but by highlighting the danger, DHS and/or EPA (depending on the compound and its usage) should be able to help the chemical user or manufacturer evaluate chemical alternatives that would remove the HAZMAT from the rail system entirely. If that is not possible, then TSA working with DOT can look at rerouting alternatives that at least lessens the overall risk to the country. The key is not just focusing on physical plant security in isolation, as is now the case, but looking across the entire supply chain and including the transportation of HAZMAT as an important risk factor.

•If H.R. 5577 does not enable this kind of dynamic to take place, then I agree there is a potential security gap.

MARTY DURBIN, RESPONSES TO QUESTIONS FROM THE HOUSE COMMITTEE ON ENERGY AND COMMERCE

Question 1

New CFATS (Chemical Facility Anti-Terrorism Standards) security requirements were only finished by DHS in January of 2008, and both the government and communities have already spent time and training and physical investments in complying. Shouldn't Congress wait until the legislation has gone into full affect and then revisit the issue to properly determine the success of the program and possible areas of improvement?

ACC believes DHS has developed and is currently implementing a robust and comprehensive program that will drive security enhancements at high-risk chemical

facilities nationwide. Significant resources have already been committed by both the government and the industry to fulfill their obligations under this new program. Comprehensive changes to the program at this point would undermine the progress already being made and effectively halt implementation, as DHS would need to retool the regulatory requirements to meet new statutory obligations. Congress should provide DHS with the necessary resources to complete implementation while evaluating potential gaps and determining whether additional measures are needed.

Question 2

On page 5 of your testimony you mention that in addition to ACC, many non-ACC members have taken aggressive action to enhance security at their facilities through similar industry programs. While I understand you do not speak for anyone other than ACC, to the best of your knowledge, could confirm that other industry groups have programs that have resulted in significant efforts post 9-11?

ACC members have already invested over $6 billion enhancing security at more than 2,000 facilities since 2001. Our Responsible Care Security Coder served as the platform to drive this performance and in fact, served as a model for the regulatory programs in the three states that currently have implemented mandatory security measures - New Jersey, New York and Maryland. A report on chemical security, issued by the GAO in March 2003 outlines steps taken by other trade associations to develop security programs as well to assist their members in upgrading security. While we can't comment on the specifics of their programs, we are aware that in addition to ACC's program, efforts to enhance security are being implemented in other parts of the chemical industry.

Question 3

Do you believe that states and local governments should be able to hinder, pose obstacles to, or frustrate the purpose of a national chemical security regime? If not, do you support language that explicitly says that in law?

ACC believes that CFATS is a comprehensive Federal security program and it best provides consistency, predictability and uniformity throughout the regulated community. Congress set such a precedent in existing national security laws for aviation, nuclear, rail and port security, and we believe the security of critical chemical facilities should not be treated differently.

We understand and acknowledge the critical role state and local governments play in providing comprehensive homeland security. It is counterproductive, however, to allow requirements at the state and local level to duplicate or conflict with the Federal requirements.

Questions 4, 5, 6, 7, 9

We have heard testimony urging the replacement of dangerous chemicals with less dangerous chemicals to reduce the appeal of certain facilities to terrorists. Are all chemicals, in all their applications and uses, easily replaced with something less dangerous? In other words, if a chemical facility replaces a chemical with a less dangerous chemical, does the market for the first just go away, or are we just shifting the point of supply to another neighborhood?

Do safety and security sometimes conflict? For example, more fire escape exits would help a building's safety, but doing so would allow more access points for criminals or terrorists to break into the facility.

Isn't it standard business operation for industry experts to thoroughly evaluate the hazards of all chemicals, and if possible and feasible, switch to more secure and safer alternatives? Why should we have government create bureaucracy for something the private sector already does?

The most essential chemicals are needed for our public health, food and water supply, energy, and national defense. Wouldn't the mandate for different processes put crucial chemicals at a risk of elimination and possibly affecting the nation's health, energy, and national security?

What would be the practical effects of permitting DHS to overrule chemical and manufacturing specialists' manufacturing decisions?

ACC member companies manufacture essential products critical to homeland security and everyday items that keep the economy moving. More than 96% of all manufactured goods are directly touched by the business of chemistry. Our members provide the chemistry that is used to produce life saving medications and medical devices, body armor used by our military and law enforcement officers, deicing fluids for airplanes, energy saving solar panels, and so much more.

In addition, our members are critical to many aspects of American life, including keeping our drinking water safe, supporting agriculture, and spurring medical innovations to prevent and treat disease. This year marks the 100th anniversary of the

use of chlorine to treat drinking water - a step hailed as ″the greatest public health achievement of 20th Century.″

It is an oversimplification to suggest that facilities can regularly and easily replace essential chemicals with substitutes. A key component of risk management is to avoid shifting risk, or reducing one risk and increasing another. Safety and security experts at facilities must consider these factors when developing security plans. Implementation of ″Inherently Safer Technology,″ the term often applied to the action of replacing one chemical for another ″safer″ chemical, is actually much more complex than simply substituting one chemical for another. The actions chemical facilities take to enhance the inherent safety of their chemical processes involves minimization of hazardous chemicals; moderation of certain process conditions; simplification of certain conditions to reduce errors and where feasible, substitution. The chemical industry created this engineering science and has applied it to protect plant workers and their surrounding facilities for decades.

Any notion that companies will automatically avoid making such changes should be dismissed. Our member companies have the greatest interest in the safety of their employees, their facilities, and the communities in which they operate. In fact, I'm proud to say ACC member companies achieved an employee safety record more than four times safer than the average of the U.S. manufacturing sector. Being innovative in our operations is not only good for safety and security, it's good for business.

While the government must ensure that facilities meet their regulatory obligations, no single security measure is the only right one and determining the right approach involves full consideration of potential risk tradeoffs and unintended consequences. ACC believes process safety experts at chemical facilities - working in conjunction with security experts - are in the best position to weigh all options and decide on the best approach that will maximize safety and security.

As currently crafted, CFATS accomplishes this objective by establishing stringent performance metrics across 18 categories of activities (perimeter protection, cyber security, theft/diversion, personnel surety etc.), but leaving the specific measures on how best to achieve the standard to the individual facility. For example, protecting against theft and diversion of a chemical, a facility will have a range of options to secure the product that could include physical security (locked storage, inventory controls, restricted access, know your customer programs) or process changes (relocating the chemical to a more secure location, reducing usage and onsite storage, consolidating inventory to avoid multiple locations or smaller quantities etc.). The facility evaluates their vulnerabilities based upon the DHS methodology and then selects the approach that works best - and then the DHS inspectors confirm that the site has adequately secured the chemical of concern.

Question 8

Should all employees be aware of all aspects of a chemical security plan? Is it more beneficial to have a ″tell all″ to employees policy or to limit this sensitive information on a need-to-know basis? What role do you think collective bargaining, as opposed to federal mandate, should have in setting these policies?

CFATS requires sophisticated employee training and drills programs designed to make every employee part of the security solution for a facility. Security awareness training, joint exercises with local law enforcement and emergency responders and a defined schedule for developing and implementing these programs on a regular basis is all required under CFATS.

That said, employees that are well trained to spot and report suspicious behavior and know what to do in an emergency situation don't need access to the details of the facility site security plan. Under CFATS, employees would be given detailed information that helps them complete their job and raise security awareness (i.e. workers will have standard operating procedures for executing their responsibilities), but the management and implementation of the totality of the plan, including more robust and sensitive security measures, would be limited to those security professionals with a need to know. ″Need to know″ is the appropriate standard to use when determining which employees have access to specific aspects of a security plan.

Question 10

What changes have your members made to improve security under CFATS? How much have they spent to upgrade and improve security? What will the effect be on security if new legislation requires changes before CFATS is fully implemented?

ACC members are proud that their commitment to risk-based security enhancements under the Responsible Care Security Code (RCSC) are reflected in both state and federal chemical security efforts. Through RCSC, we prioritized the risk at over

2000 sites; assessed vulnerabilities using nationally recognized methodologies (Center for Chemical Process Safety, Sandia National Laboratory) and implemented security enhancements to reduce any identified vulnerabilities. We've invested over $6.2 billion dollars since 9/11 implementing these measures - which include physical security (gates, guards, monitoring systems, access cards/restrictions etc) cyber security management (at the facility and corporate wide level), supply chain security (inventory control, know your customer programs) and process changes that have combined to significantly enhance our security. As mentioned, the three state programs in place were modeled after the ACC Responsible Care Security Code, and the US Coast Guard's Maritime Transportation Security Act officially recognizes the Security Code as meeting their regulatory requirements.

Question 11

How much do you anticipate it will cost to comply with H.R. 5577 before CFATS has been fully implemented?

We recognize that while the more than $6 billion dollars invested on the Responsible Care Security Code provides ACC members with a significant head start towards meeting the Federal CFATS requirements, we'll be investing more, as DHS estimates more than $8 billion will be spent to implement CFATS. Many of our members have already committed significant resources in the first year of implementation of this rule.

Question 12

What benefits do you see in the CFATS program implementing the 2006 federal legislation that your industry could not accomplish with ACC's Responsible Care Security Code?

While we believe our program is the gold standard for security, the DHS program provides a comprehensive approach that makes all high risk facilities nationwide implement measures like those that our members have been implementing. An assortment of facilities, from major chemical manufacturers to chemical storage facilities/warehouses to university labs have been deemed high risk and required to implement security measures in accordance with CFATS. Ensuring that everyone posing high risk takes the appropriate security measures will reduce the risk of a successful terror attack against this critical infrastructure sector. Lastly, the DHS enforcement provisions of fines and facility shut-downs for non-compliance provide the public with a strong assurance that implementation of these security requirements is being taken seriously.

Question 13

Has the chemical industry's support for, and compliance with, both the Responsible Care standards and CFATS been consistent?

To date, we believe that meeting the two requirements has worked well. While CFATS is focused on facility security, and not all ACC member facilities are covered by CFATS, the Responsible Care Security Code requires action from all of our member sites and addresses supply chain/transportation security as well as facility security. Companies will continue to implement the Responsible Care program at all sites, regardless of the presence or absence of CFATS requirements.

Question 14

Has DHS shown sensitivity to economic pressures facing your industry from foreign competition and rising energy costs, on top of homeland security expenses?

The structure of the CFATS program provides companies with the site specific capability to tailor security enhancements to meet local conditions. While controlling costs is necessary to succeed in a globally competitive industry, companies have already invested significant resources to meet CFATS. Business decisions to meet the CFATS requirements are being made right now to achieve regulatory compliance, so significant changes in CFATS that would require duplication of effort or revisiting decisions already made would certainly add costs.

Question 15

We worry about jobs in America, particularly in your sector. What do you see as the future prospect for U.S. jobs in your industry, taking into account energy costs, government regulatory compliance costs, and opportunities to locate offshore? To what extent do chemical security budgets play into decisions on growing, shrinking, or closing US chemical operations?

The industry is facing an extremely tough near-term outlook as the recession continues. Along with many other uses, our products are essential to the housing and automotive markets, two areas of the economy receiving intense focus right now with severe declines in home values, housing starts, auto sales etc. This has a direct impact on chemical operations. ACC members are reporting significant slowdowns in sales and plants are being idled and workers being placed on furloughs or worse. Keeping costs controlled is more critical than ever. More now than ever, facility op-

erators need regulations that are sympathetic to the challenges they face when it comes to their operations. Our members have demonstrated that providing for the security of their facilities, products, and communities is a responsibility and a cost of doing business, but we believe CFATS is providing facility owners with appropriate flexibility to meet necessary security obligations.

Question 16

As lessons are learned in the chemical industry, do you see opportunities for cost control as a product of more efficient technologies and security designs, and better practices?

Sharing best practices about chemical facility security does help manage costs. ACC developed the Responsible Care Security Code and thousands of pages of accompanying guidance almost 6 years ago. We shared this information with anyone that would use it in both industry and government with the express goal of raising the security bar at all chemical facilities. We stand by the program and the tools we developed to implement the program. As companies continue to evaluate their security posture and work to stay a step ahead of those that would harm us, these innovative tools are shared through best practices.

Question 17

How do chemical security programs in other countries, particularly out top chemical industry competitors, compare with the U.S CFATS program?

To our knowledge, the United States is the only country to have implemented specific security regulations for chemical facilities. Chemicals management programs, environmental, health and safety programs are in place, or under development in many parts of the world and elements of these programs can contribute to security, though that isn't always the primary regulatory driver.

The ACC Responsible Care Security Code is unique to our country as well. Responsible Care's award winning health, safety, environmental and product stewardship practices are now being implemented in over 50 nations, but none have adopted the Security Code. ACC members are proud of their efforts to secure their facilities here in the US. Recognizing the potential competitiveness challenges with companies that don't take action, many ACC members are implementing security worldwide at their sites following the Responsible Care Security Code, even absent mandatory security programs.

Question 18

Does DHS share intelligence with appropriate security officials regarding overseas terrorist incidents to help them analyze their own vulnerability to such actions?

DHS provides classified briefings, and other information sharing opportunities with facility security personnel with the emphasis on ensuring relevant intelligence is being shared with those who need to know to protect critical assets across all critical infrastructures.

ANDREA KIDD TAYLOR, DRPH, MSPH, RESPONSES TO QUESTIONS FROM HON. JOE BARTON

The Honorable Joe Barton

1. You advocate employee training once a chemical security plan is adopted. We all agree with that. Do you have specific examples of chemical facilities that have chemical security plans where employees do not receive the training needed to carry out the portion of the plan they are responsible for? Is this an endemic problem that factories have plans but employees don't know how to carry them out? Please be specific.

2. You urge our panel to allow states to set more protective security standards. Do you believe that States should be permitted to impose standards that hinder, conflict with, pose obstacles to, or frustrate the purpose of, standards developed by DHS for chemical facilities? If so, please give examples so that we can understand your precise point of view on this.

3. You question whether background checks of employees are necessary. In the absence of background checks, wouldn't it be easy to compromise the security of an otherwise secured, high-risk chemical facility from the "inside"?

4. You go on to say that an outside drug conviction should not be relevant to a background check. Are you suggesting that all other things being equal between two job applicants, one applicant's prior narcotic conviction should be ignored in the hiring process? What about a history of alcohol abuse – which is not illegal, but could compromise the decision-making processes of someone in a high risk chemical facility?

5. You testify that any chemical facility security bill should require the involvement of employees or their representatives in all aspects of a plant's chemical security program. As you know, H.R. 5577 requires the involvement of an "employee representative" even if that person does not physically work in that facility. Is it not a security risk in and of itself to have more people involved in the planning process and aware of each and every sensitive aspect of a sensitive security program? Specifically, don't you agree that the more people there are, the greater the chance for leaks, and thus the greater the chance for someone with nefarious intentions to exploit any potential weaknesses?

6. There was talk at the hearing about the number of employees that are allowed, in H.R. 5577, to go on a compliance inspection or verification of a chemical facility. H.R. 5577 creates a new Section 2104(c)(2)(B) that allows "employees...to be present during the inspection or verification for the purpose of providing assistance when and where it is appropriate."

   This section does not provide a limiter on the number of employees. Do you think it makes sense to add some kind of limiter on the number of people attending these sessions (perhaps, only those who have something to contribute)? In the absence of a limit, is it conceivable that this provision could be used as a tool by workers to slow down facility operations during a contentious labor negotiation?

The Honorable Joe Barton (continued)

7. You testified these bills must ensure whistleblower protections for industry employees. Has there been evidence of abuse against whistleblowers that is not adequately addressed by State laws?

8. What effect do you see the provisions in H.R. 5577 having on existing collective bargaining agreements (CBA), especially in areas where conflicts occur between the existing CBA and the law? What about future CBAs?

9. You mentioned that you appear today on behalf of labor, yet you identify yourself as a college professor. Do you receive compensation or grants, directly or indirectly, from any organized labor organizations? Does your school? Which ones?

1. In my previous position as a member of the US Chemical Safety and Hazard Investigation Board (CSB), many of the chemical accidents occurred at chemical facilities that are now identified by the Department of Homeland Security and the GAO as potential targets for terrorist attacks. In several investigative reports produced during and after my tenure on the CSB, inadequate training of employees in emergency response or lack of training have been cited as contributing causes of the chemical explosions and worker asphyxiations that occurred, many resulting in death or serious injuries of the workers involved. These chemical facilities include oil refineries and paper mills and all of the reports are available as public information on the CSB website, www.csb.gov. Georgia Pacific, Naheola Mill in Penington, Alabama (2 deaths, 8 injuries), Valero Energy Corporation Refinery in Delaware City, DE (2 deaths), and the Tosco Avon Refinery in Martinez, California (4 deaths, 1 critical injury), are names of some of the chemical facilities where problems with worker training are identified.

In a 2004 survey study of workers from the Paper, Allied-Industrial, Chemical and Energy Workers International Union (PACE), representing 125 chemical facilities (includes oil refineries, paper mills, chemical plants) around the country, 1/3 of the respondents reported that no employees at their sites received training about preventing or responding to a catastrophic events caused by a terrorist attack. Seventy-four percent (74%) of the respondents reported that additional worker training is needed at the majority of the sites.[1]

Additionally, a number of unions have asked their members about the site plans of the facilities where they work and they have often found significant deficiencies. In many cases, basic understanding of hazardous chemicals and limitations of protective equipment are lacking. Although some companies do an excellent job in providing employee training, to ensure uniform training for all facilities, particularly at high risk facilities, the training provisions need to be strengthened.

2. Just as state OSHA regulations can be more protective than federal OSHA laws, stronger state laws should be permitted. We agree that state law should not hinder or be in ″conflict″ with federal standards. However, we do not believe that language should be put in the bill that would be an open invitation for reckless lawyers to block stronger state programs that meet the needs of the states that enact them to protect their citizens from terrorism.

3. As a public health professional and in my work experience in occupational and environmental health, I always prefer the simplest and most direct method of protection. If highly hazardous technologies are replaced by safer ones, there will be nothing inside to be compromised and a costly investigation of numerous employees will be entirely unnecessary. Where such substitution is not feasible, limited background checks may be useful in some cases. The mandate of federal background checks should be limited in scope and narrowly tailored to meet very specific needs. Many chemical facilities currently perform adequate background checks with little need for additional federal mandates.

4. This bill is about terrorist attacks on chemical facilities. It is not about employment law, which is the jurisdiction of another committee. There is no reason to believe that alcohol or drug users are more likely to be terrorists than non-users. They are less likely to be effective terrorists than non-users. To the extent that this bill addresses background checks, it should limit itself to those aspects of background checks that are relevant to terrorism. Additionally, drug convictions are currently taken seriously in evaluating current job applicants. Employers can well evaluate each situation; and there is no need for a federal mandate that would exclude individuals from employment. Current federal regulations in other industries that exclude people from employment for drug convictions is not the appropriate model.

5. The suggestion that union representatives are a security risk is highly offensive, especially considering the number of union members who have served their country honorably, even to the point of making the ultimate sacrifice. As a former employee of the International Union's UAW Health and Safety Department with expertise in industrial hygiene and occupational health and safety policy, local unions sometimes requested that I serve as the union representative on OSHA investigations and walk-arounds at their plants. If company managers, such as the corporate director of security or the corporate safety engineer who may have relevant expertise but who work offsite are given the authority to be involved in all aspects of the chemical security program at their corporation's facility, then their union counterparts should not be excluded and should be given the same authority. This is considered a worker's right to representation in the workplace.

6.Based on my experiences, it is always and everywhere appropriate for at least one employee and one employee representative to be present during every part of the inspection and verification. In addition, it is clearly not the intent of the bill to create a right to pull so many employees off their assigned tasks simultaneously

as to hinder facility operations. Moreover, the inspector can't do the job properly if the facility is not operating in a typical fashion. If the knowledge of a large number of different employees would make a valuable contribution to the inspection, employees could be pulled off their assigned tasks one or two at a time, until everyone who had valuable knowledge had the opportunity to contribute. No additional language is necessary to prevent abuse.

7. Labor strongly believes that whistleblower protection is important to ensure the free exchange of information. Given the recent enactment of existing rules, I am not aware of an instance of abuse of CFATS whistleblowers; but it is too early to expect CFATS violations to be reported and discriminatory actions to be taken. Since this is not expected to be a common occurrence and since there is a need for similar protections in other areas, it is not expected that this will be a burdensome provision for CFATS facilities.

8. To my knowledge, most CBAs are silent on chemical security; so this bill should have very little impact on existing CBAs. H.R. 5577 should have little conflict with CBA. Conflicts between current CFATS regulations and CBAs have been expressed as concerns; but 5577 largely resolves these potential problems. As a result of these provisions, it is possible that some future CBAs may specify how these rights are to be exercised, for example they may state, by job title, which employees and/or employee representatives have a right to accompany an inspection or participate in developing a vulnerability assessment or a security plan. They might even include the limits on the number of employees, something more appropriately done at the individual facility level, rather than by government taking a one size fits all approach.

9. Given my experience and expertise in occupational and environmental health and safety and formerly working with the United Auto Workers Health and Safety Department for ten years, and also formerly representing labor's perspective as a presidential appointee on the US Chemical Hazard and Safety and Investigation Board, I was asked to review and provide testimony on H.R. 5577. Occasionally, I work as an adjunct professor and teach an industrial hygiene course to students pursuing a bachelors' degree at the George Meany Center's National Labor College in Silver Spring, Maryland; and I am compensated for my time and services. I do not receive any additional compensation or grants from any organized labor organizations, nor, to my knowledge, does Morgan State University.

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[1] Lippin T, McQuiston T, Bradley-Bull K, Burns-Johnson T, Cook L, Gill M, Howard D, Seymour T, Stephens D, and Williams B. Chemical Plants Remain Vulnerable to Terrorists: A Call to Action. Environmental Health Perspectives doi:10.1289/ehp.8762 Online 27 April 2006.

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