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**Before the**
**Committee on Energy and Commerce**
**Subcommittee on Environment and the Economy**
**U.S. House of Representatives**

# The Chemical Facilities Anti-terrorism Standards (CFATS) Program: A Progress Update

**Testimony of:**
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## Department of Homeland Security Regulations Leave Millions of People at Risk

## Requirements for Safer Chemical Processes Will Eliminate the Catastrophic Consequences of an Attack, Accident or Natural Disaster

**March 14, 2013**

**Introduction:**

Mr. Chairman, thank you for the opportunity to testify today. My name is Rick Hind. I am the Legislative Director of Greenpeace and I have worked on this issue for more than a decade. I commend you for holding this hearing. I hope we can find ways to make sure our children do not inherit the catastrophic threats we face today.

**Summary:**

1) There are often many voices not at the table in Washington when important issues are discussed. In this case, it's the safety of more than 100 million Americans who live and work in "vulnerability zones." I prefaced my testimony with some wise words from a few them.
2) The catastrophic hazards we face are unimaginable and have not diminished but instead have grown.
3) The statute that authorizes the Department of Homeland Security's (DHS) Chemical Facilities Anti-Terrorism Standards (CFATS) was not designed to protect those who work in or live near high risk chemical facilities and it should be overhauled.
4) Cost-effective safer chemical processes are available for most high risk chemical processes and they should be required where ever feasible.
5) These hazards can be compounded by new threats such as cyber attacks while the old ones linger and even grow.

I look forward to answering your questions.

**Preface: Some of The Voices You Should Invite to the Next Hearing:**

*"Should there be a successful terrorist attack on a chemical facility, the first question policy makers will be asked is this: 'Why, when you've known for more than ten years that America's chemical facilities were vulnerable to terrorist attack, did you consistently fail to take the steps needed to reduce that vulnerability and save lives?'*
*"Members of Congress need to think long and hard about how they'd answer that question if they continue to avoid taking the sensible steps required to make these facilities safer and less vulnerable to acts of terrorism."*
**-- Bob Bostock, Special Assistant to the Administrator (EPA) for Homeland Security (2001-2003)**

*"According to the 9/11 Commission, urgent warnings were ignored before the September 11th attacks. In addition, the Commission concluded that our government's first failure was a 'failure of imagination.' My husband was a victim of that failure.*
*"Yet today we continue to lack the imagination to prevent another tragedy. While we are all aware of the vulnerability and catastrophic hazards posed by our nation's highest risk chemical plants, we also know much more about the many safer chemical processes that can eliminate a plant's attractiveness as terrorist target.*
*"The fact that special interest lobby groups and allied politicians want to stand in the way of requirements to prevent such a disaster is unthinkable. I fear that when we suffer a catastrophic failure or attack at one of these facilities, those same elected officials will finally learn that the loss of human life is not worth the campaign dollars of moneyed special interests. Of course, by then, it will be too late."*
**-- Kristen Breitweiser, 9/11 widow**

*"In the event of a catastrophic chemical release in a major U.S. city, first responders would likely face the same fate as thousands of workers and community residents who would quickly be overcome by poison gas before they had a chance to evacuate. In addition, our emergency room capacity to treat thousands of poison gas victims on such a mass scale would be overwhelmed. Preventing such a disaster is the only effective means of treatment."*
**-- Peter Orris, MD, MPH Professor and Chief of Service, Occupational and Environmental Medicine University of Illinois Hospital and Health Science System**

*"Our members work in many of these facilities. We know how vulnerable they are, not just to terrorist attack, but to plain old accidents caused by any number of system failures."*
**-- Michael J. Wright, Director of Health, Safety and Environment United Steelworkers**

*"Early in my career as a Fire Fighter, I responded to an accident at a chemical plant. As the workers were evacuating, we were going into the plant, unsure of what dangers we would encounter and unsure of our own survival. The risks to both fire fighters and plant employees have increased as a result of more chemical plants in urban areas and the threat of terrorism. These risks can be reduced using safer alternatives and safer chemical processes that can prevent catastrophic events and save lives.*
*"New regulations are needed to require the use of safer and more secure alternatives where ever they are feasible to lower the risk to first responders, plant employees, and residents in the surrounding communities."*
**--Fire Captain Ed Schlegel, Ret. County of Los Angeles Fire Department**

*"There are 473 chemical plants in the U.S. that each put 100,000 or more Americans at risk of a Bhopal-like disaster. In addition, several thousand other plants also use and store poison gases such as chlorine and anhydrous ammonia on their property. Too many of these facilities are in lower-income neighborhoods and communities of color. The families in these communities have already waited too long for the federal government to make these neighborhoods safe from the dangers posed by these plants.*
*"The government needs to stop pointing fingers and take responsibility to eliminate the risks these facilities pose and prevent an avoidable chemical disaster."*
**-- Stephen Lester, Science Director Center for Health, Environment & Justice Falls Church, VA**

*"How many lives must be lost before we have a policy that fully protects our communities and workers?"*
**-- Richard Moore of Los Jardines Institute (The Gardens Institute), and former chair of the EPA's National Environmental Justice Advisory Council**

*"Sheltering in place does not protect the health and well being of residents and communities. Requiring the use of safer alternatives will provide communities real protection from needless catastrophic hazards."*
**-- Michele Roberts, Environmental Justice Health Alliance**

*"Regrettably, our world is becoming more dangerous and risky, and policymakers can ill-afford to ignore the potential of risk prevention as another element of mainstream mandatory regulation. Clearly, the risk prevention paradigm raises significant design and implementation issues that require careful attention and reasonable resolution. Yet,*

*these issues are not unlike those faced by existing risk management programs and, thus, justify caution rather than rejection of this valuable regulatory approach."*
**– Timothy F. Malloy University of California, Los Angeles Law School**

**Conventional Security Will Not Protect Millions At Risk:**

The September 11th terrorist attacks successfully used our own infrastructure against us with tragic results. They also demonstrated that tight perimeter security, such as at the case of the Pentagon, is incapable of preventing such attacks. Should a chemical plant be targeted, a truck bomb, a small plane, helicopter or a high powered rifle could render our current reliance on fence-line security useless.

The vulnerability of U.S. chemical plants to terrorism, natural disasters or serious accidents such as the 1984 disaster in Bhopal, India are now a given. The potential magnitude of these risks far surpasses the 9/11 attacks. Once a large release of a poison gas such as chlorine has occurred it can remain dangerous 14 miles down wind in an urban area (20 miles in a rural area) and immediately put the lives of thousands of people at risk. A November 2012 Congressional Research Service (CRS) analysis of Environmental Protection Agency (EPA) data identified 89 chemical facilities that each put 1,000,000 or more Americans at risk.

The nature of these risks meets any definition of a weapon of mass destruction. The manner in which people could be killed and injured is terrifying. Poison gases such as chlorine can literally melt the lungs of its victims causing them to drown in their own lung fluid (pulmonary edema). Survivors could be left with crippling life long disorders.

Following the 9/11 attacks it was reported that 9/11 ringleader, Mohamed Atta, visited a Tennessee chemical plant asking lots of questions (December 16, 2001 Washington

Post). In 2007 at least five successful terrorist attacks in Iraq used relatively small (150 pound) cylinders of chlorine gas to kill dozens of people. As a result the Department of Homeland Security (DHS) began briefing local bomb squads and chemical plants across the country. In April 2007 USA Today reported on the thefts of 150 pound cylinders of chlorine gas occurred in California prompting questions by members of Congress to the DHS about their response to these thefts.

U.S. chemical facilities were never designed to defend against terrorist attacks and predicting where the next attack will take place is a fool's errand. No one predicted that Timothy McVeigh would attack the Federal Building in Oklahoma City in 1995, killing 168 innocent people.

Industry leaders readily acknowledged this. In 2007 duPont Chairman Charles O. Holliday Jr. told the media that he worries most about a computer system failure or a security breach at one of the company's chemical plants around the world. "I feel very comfortable that we've taken all the reasonable steps, but obviously if someone wants to fly an airplane into a plant, it's very hard to guard against it," said Holliday.

Security experts such as Stephen Flynn, Senior Fellow in National Security Studies at the Council on Foreign Relations warned in his 2007 book, The Edge of Disaster:

> "...While attacks on the electric grid, oil and gas facilities, major ports, and the food-supply system have the potential to create the greatest cascading economic effects, it is chemical facilities near urban population centers that have the potential to inflict the greatest casualties…In most cases, chemical plants that threaten nearby populations can switch to less dangerous substances. This practice is known as 'inherently safer technology,' or IST…Without a strong mandate from the federal government, it's unrealistic to think they ever will. Yet voluntary compliance is the premise of the legislation Congress passed last fall [2006]; the new rules rest on the assumption that companies will now suddenly begin taking steps they have so far refused to contemplate."

**A Successful Attack Would be Catastrophic:**

--- In July, 2004, the Homeland Security Council estimated that an attack on a single chlorine facility could kill 17,500 people, severely injure an additional 10,000 and result in 100,000 hospitalizations and 70,000 evacuations.

--- In January, 2004, the U.S. Naval Research Laboratory testified before the Washington, D.C. City Council warning that 100,000 people could be killed or injured in the first 30 minutes of a catastrophic release of a tank car of chlorine or similar chemical within blocks of Capitol Hill. They further estimated that people could “die at rate of 100 per second.”

--- In June, 2003 FBI specialist on weapons of mass destruction, Troy Morgan, in a speech at a chemical industry conference warned, “You’ve heard about sarin and other chemical weapons in the news. But it’s far easier to attack a rail car full of toxic industrial chemicals than it is to compromise the security of a military base and obtain these materials.”

**Current DHS Rules (CFATS) are Fatally Flawed:**

The best that can be said for the DHS’s chemical security regulations known as "Chemical Facilities Anti-Terrorism Standards" (CFATS) is that they represent an official recognition of the widespread vulnerability of U.S. chemical plants to terrorism. Unfortunately the 744-word “rider” (Section 550) to the Homeland Security Appropriations Act 2007 was designed to authorize “interim” regulations that were expected to expire on October 4, 2009 but have since been given a series of short-term extensions.

The DHS rules finalized on November 20, 2007 fail to provide any authority to truly prevent chemical disasters whether triggered by terrorism, natural disasters or industrial accidents. As a result they leave one of our country's most vulnerable sectors of infrastructure inherently hazardous to millions of Americans living down wind of these facilities. That said, we applaud the hard work and dedication of DHS employees who have attempted to secure these facilities through conventional means with limited authority and huge gaps in the scope of the program. Without complaining about it they have inherited a fatally flawed statute which they endeavor to implement.

To the DHS's and EPA's credit they have repeatedly asked Congress for prevention authority. http://www.dhs.gov/ynews/testimony/testimony_1301517368947.shtm
In November of 2009 the House passed permanent, comprehensive legislation (H.R. 2868) that also included the DHS and EPA recommendations on prevention and eliminating security gaps but it never became law. If enacted H.R. 2868 would have seamlessly continued CFATS while addressing the major flaws in the underlying statute, giving the public confidence that they would be spared preventable disasters.

Specifically, the underlying statute (Section 550) which authorized CFATS:

- **Bars the DHS from requiring any "particular security measure," including safer chemical processes, what Senator Lieberman (I-CT) called, *"the only foolproof way to defeat a terrorist determined to strike a chemical facility."* It therefore fails to reduce the consequences of an attack at any of approximately 4,000 "high risk" chemical facilities now in the program:** H.R. 2868 conditionally required safer chemical processes. (Section 2111)
- **Exempts thousands of the 12,361 chemical facilities in the EPA's chemical disaster program, including an estimated 2,400 U.S. drinking water & waste treatment plants, and hundreds of chemical facilities located on navigable water ways including a majority of the U.S.'s 150 refineries:** H.R. 2868 covered all of these facilities. (Section 2103)
- **Fails to require deadlines for the completion of vulnerability assessment and facility security plans, or deadlines to notify facilities of a disapproval of security**

**plans:** H.R. 2868 set deadlines for completion of vulnerability assessments and security plans. (Section 2103)

- **Fails to authorize unannounced inspections or increased inspectors:** H.R. 2868 authorized unannounced inspections and added at least 100 new inspectors.(Section 2104)

- **Fails to require annual progress reports to Congress on the numbers of security plans approved & disapproved, numbers of compliance orders and penalties issued, etc:** H.R. 2868 required annual progress reports to Congress on security plans approved & disapproved, compliance orders, and penalties issued. (Section 2119)

- **Fails to provide for citizen enforcement suits or petitions of the government to ensure implementation of required programs, or protection for whistleblowers:** H.R. 2868 provided for citizen enforcement suits, petitions and whistleblower protections. (2116, 2117 & Sections 2108)

- **Fails to provide funding to convert publicly owned water treatment systems or private chemical facilities to safer chemical processes:** H.R. 2868 provided grants for the conversion to safer processes at publicly owned water treatment plants and privately owned facilities. (Section 1433). An in independent analysis of H.R. 2868 showed that 8,000 jobs would have been created, benefiting publicly owned water systems and the chemical industry sectors the most: http://www.misi-net.com/publications.html

- **Fails to require meaningful involvement of plant employees in developing security plans:** H.R. 2868 provided participation in the development of security plans. (Sections 2103 & 2115).

Complaints about the DHS CFATS program have centered around the slow pace of approving site security plans (SSPs) and the general lack of transparency of the DHS in too many aspects of the program. Again, H.R. 2868 would have put the DHS on a schedule and made them and the industry more accountable through unannounced inspections, reports to Congress, citizen enforcement suits and petitions, etc.

A faster pace in the CFATS program envisioned in H.R. 2868 would also have coincided with a faster pass in reducing hazards and the consequences of a successful attack. The rush to approve SSPs in today's CFATS program, however, does not necessarily build public confidence. When passengers face a flight delay of an airliner, they are frustrated but they also don't want the flight rushed onto the runway at the expense of safety.

The adoption of Alternative Security Plans (ASPs) developed by the chemical industry lobbying organizations is also not comforting to people living within vulnerability zones. They have too often "sheltered in place" or been assured that strange odors, flares, fires or even explosions "released no harmful levels" of dangerous substances (U.S. refineries have reported an average of 45 fires per year since 2008). We are unaware of any ASPs that require disaster prevention measures such as safer chemical processes.

Conspicuously absent from oversight hearings on CFATS are questions about prevention and why the DHS has not issued a 19th Risk Based Performance Standard to formally encourage high risk facilities to evaluate safer more secure chemical processes or "methods to reduce the consequences" of an attack. This idea was raised by Senator Lieberman (I-CT) in his formal comments on the CFATS rules in 2007.

Greenpeace has also asked the DHS, for more information on the facilities that have legitimately left the CFATS program because they no longer use or store chemicals of interest (COI). This is very good news but without giving away confidential business information, concrete examples would be more useful to other high risk facilities which may also want to reduce their liability, save on conventional security costs and have fewer regulatory obligations. It is not, however, useful to keep secret those facilities that are no longer in CFATS because they are no longer considered high risk.

Currently the DHS has only approximately 35 facilities in the two highest risk Tiers (1 and 2) that are considered "release" category facilities out of a total of about 579 facilities in those two risk tiers. This may be a symptom of how many high risk facilities are exempt from CFATS. Meanwhile in the EPA's RMP program there are 473 facilities

that each put 100,000 or more people at risk. If CFATS were a comprehensive program all of those facilities would be in risk Tiers 1 or 2.

Some of the highest risk facilities in the country are even more loosely regulated under other statutes such as the Maritime Transportation Security Act (MTSA), Clean Water Act and Safe Drinking Water Act. None of these statutes has any prevention requirement and the MTSA has also been the industry lobby's model for ASPs. Some of the highest risk chemical facilities in the country are exempt from CFATS because they are located on a navigable waterway and therefore regulated by the Coast Guard under MTSA.

We also have serious concerns about the Chemical Sector Critical Infrastructure Partnership Advisory Council (CIPAC) that operates autonomously and provides far too much access and opportunity for influence by the regulated industry over its regulator both in the development of rules and their implementation. For more details, see the November 25, 2010 Washington Post story on CIPAC:

http://www.washingtonpost.com/wp-dyn/content/article/2010/11/24/AR2010112407022.html

The only non-governmental members of the Chemical Sector CIPAC are chemical industry lobbying organizations or chemical companies. Although the DHS operates several committees under the Federal Advisory Committee Act (FACA), but the CIPAC is exempt from FACA regulations and most of its activity is done behind closed doors. Even the names of the individuals representing the trade associations are kept secret. The secrecy is rationalized as necessary to encourage candor by the industry. Rather than receiving "candid" comments from industry lobby groups who have led efforts to kill prevention policies, the DHS should seek out candid input from all stakeholders.

Currently no residents living near or rank and file employees working in high risk plants, including community organizations or unions, technical experts from academia or any nonprofit organizations that do not represent the industry are allowed to participate in CIPAC. The Washington Post reported on this in 2010:

http://www.washingtonpost.com/wp-dyn/content/article/2010/11/24/AR2010112407022.html

CIPAC's budget is more than $1 million a year and its charter expires March 16, 2014. Secretary Napolitano has authority to terminate the council at anytime or allow its charter to expire and create a FACA council that represents all stakeholders.

The CIPAC's influence is magnified by the DHS's limited authority and scope. One DHS staffer working on CFATS confessed to us a few years ago that they had never seen so much industry presence in other government agencies before and didn't feel comfortable with it. We have seen this first hand at annual public meetings of the Chemical Sector CIPAC. The DHS officials almost appear obsequious in their posture to the industry representatives. When prevention was discussed there were audible snickers in the audience.

The legislation (Section 550) which authorized CFATS was never intended to be a comprehensive statute. Senator Susan Collins (R-ME), chair of the Senate Homeland Security and Governmental Affairs Committee addressed this in her February 7, 2007 comments to the DHS:

> ***"In drafting Section 550, the intent of Congress was clear and unambiguous – this statutory provision provides the Department strong, interim authority for up to three years until permanent, comprehensive authority can be enacted…***
> ***"Section 550 was a streamline version of chemical security legislation; it was not the comprehensive authorizing legislation that Congress intended to be the final authority on this matter…***

***"The Department does not have broad discretion to regulate beyond the interim three-year period without a comprehensive authorization from Congress. Any contrary interpretation of the 'sunset' provision is plainly wrong."***

**Since 2009 the Number of High Risk Chemical Plants Has Grown:**

A November 16, 2012 CRS update of the number of high-risk chemical facilities in the EPA's chemical disaster or Risk Management Program (RMP) shows a growing number of chemical facilities that each put thousands of people at risk of a catastrophic chemical release. https://www.documentcloud.org/documents/557127-crs-rmp-update-11-16-12.html

In 2012, there were 12,440 EPA facilities nationwide that possessed thresholds quantities of ultra-hazardous chemicals requiring reports to the EPA of their "worst case" disaster scenarios. This was an increase of 79 facilities over the CRS's 2011 update on this EPA program. https://www.documentcloud.org/documents/557129-crs-update-of-us-rmps-state-by-state-4-12-11.html

The increase in 2012 included 28 additional facilities that put between 10,000 and 99,999 people at risk in the following states: Arizona, California, Colorado, Kansas, Louisiana, New Jersey, New Mexico, New York, Ohio, Oregon, Rhode Island, South Dakota, Texas, Utah, and Washington.

The 2011 CRS update also showed an increase of 332 in the total number of RMP facilities over the 2009 CRS update. https://www.documentcloud.org/documents/557128-crs-update-2009.html

**Smart Security Eliminates the Catastrophic Consequences of an Attack:**

In February 2008, the CEO of Association of American Railroads 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…."***

The good news is that there are many commercially available safer processes for virtually all of the poison gas or toxic-by-inhalation (TIH) processes that pose the greatest risks to major urban centers. The Center for American Progress (CAP) has done several reports analyzing EPA's Risk Management Program data and in 2006 identified 284 facilities that have converted since 1999. See full report at:

http://www.americanprogress.org/issues/2006/04/b681085_ct2556757.html

Examples of conversions from TIH chemicals:

--- The **Blue Plains sewage treatment plant in Washington, D.C.** halted its use of chlorine and switched to a safer chemical process ninety days after the 9/11 attacks due to fears of another attack. The plant had seven 90 ton rail cars of chlorine on sight following the 9/11 attacks. The conversion cost approximately $0.50 per year for each water customer.

--- By mid-2012, the **Clorox Company converted all of its U.S. facilities** to "strengthen our operations and add another layer of security," according to their CEO Don Knauss. Clorox also indicated that these changes "won't affect the size of the company's work-force." This conversion eliminated Clorox's bulk use of chlorine gas and catastrophic risks to more than 13 million people in nearby communities.

http://investors.thecloroxcompany.com/releasedetail.cfm?ReleaseID=420583

The CAP analysis also showed that 87% of the converted facilities spent $1 million or

less and one third expected to save money, particularly from reduced liability costs and reduced regulation compliance costs. Clearly these conversion costs pale in comparison to the billions of dollars incurred in disaster response, relocating communities, defending against personal injury law suits or resolving environmental clean-up liability or long term conventional security costs which add nothing to the bottom line.

While the CAP analysis demonstrates the availability and feasibility of safer alternatives, most of the examples are not at the highest risk facilities. A 2008 CAP analysis identified 300 chemical facilities that together put 110 Million Americans at risk. At the current rate of voluntary conversions, without any new regulatory requirements, **it could take 40 years to eliminate these hazards to our major cities**.

The 2006 Government Accountability Office (GAO) report (GAO-06-150),"Homeland Security DHS Is Taking Steps to Enhance Security at Chemical Facilities, But Additional Authority Is Needed," concluded, "Implementing inherently safer technologies potentially could lessen the consequences of a terrorist attack by reducing the chemical risks present at facilities, thereby making facilities less attractive targets."

An earlier GAO report (GAO-05-165) identified chlorine gas and 90-ton chlorine rail cars as "among the top five terrorist-related wastewater system vulnerabilities." Among the top three recommendations: "Replacing gaseous chemicals used in wastewater treatment with less hazardous alternatives." In addition, the largest majority of experts gave replacing these chlorine facilities the highest priority for federal funding.

"The most desirable solution to preventing chemical releases is to reduce or eliminate the hazard where possible, not to control it. This can be achieved by modifying

processes where possible to minimize the amount of hazardous material used, lower the temperatures and pressures required, replace a hazardous substance with a less hazardous substitute, or minimize the complexity of a chemical process." -- **National Academy of Sciences** 2006

"As hard as it is to believe, the chemical industry has refused to take adequate precautions to safeguard its facilities and surrounding communities. Some plants have strengthened on-site security by adding guards, building fences or installing surveillance cameras. Others have committed to reducing or phasing out their use of highly hazardous processes or chemicals in favor of safer ones. Unfortunately, however, it is still business as usual at most plants. They continue to deal with high volumes of dangerous chemicals -- even when safer materials or processes are readily available. That is why the government must require industry cooperation in homeland security." --- **Former Senator Gary Hart (D-CO)** ***Washington Post*** Op-Ed August 11, 2003

**The Benefits of Safer Chemical Processes:**

**Risk Management Solutions estimated that a "chlorine spill scenario results in 42,600 total casualties, over 10,000 of which are fatal.** Insurance claims covering these casualties would exceed $7 billion." **http://www.rms.com/NewsPress/PR_042904_CasualtyStudy.asp**

The use of safer chemical processes offer a more competitive and stable business plan with fewer regulations, potentially zero liability, sustainable profitability, better relationships with workers and neighboring communities and no threat of a catastrophic attack or accident. Specifically, the use of safer processes will likely result in a facility no longer being subject to DHS's CFATS or EPA's RMP regulations.

Obviously, chemical facilities located on site at nuclear power plants, drinking water treatment facilities, iconic facilities such as Disney World, etc. also need protection through conventional security means. Using safer chemical processes at these facilities, however, will also reduce the consequences of an attack on them.

Given DHS's finite resources and the late start the nation has in addressing chemical security it is urgent that we use safer processes to mitigate the consequence of an attack. By doing so we eliminate risks, safeguard communities and save scarce money and conventional security resources to protect facilities that cannot be neutralized as attractive targets (airports, U.S. Capitol, etc.).

**A Comprehensive Program of Prevention Is Needed:**

To truly protect employees and surrounding communities, our economy and national security a comprehensive program should include:
1) Requirements for the use of "smart security" to prevent the catastrophic consequences of an attack by implementing cost-effective safer and more secure chemicals and processes at all of the highest risk facilities.
2) Include all categories of facilities such as port facilities and water treatment plants.
3) Involve plant employees in developing plant security programs, including participation in workplace inspections, and provide employees with both an appeals and a waiver procedure to protect against excessive background checks.
4) Allow citizen suits and petitions to enforce the law and require reporting measures that strengthen accountability.
5) Allow states to set more protective security standards.
6) Require collaboration between the DHS, EPA and other agencies.

**The Threats Continue to Linger and Unfold**

Secretary of Defense Leon Panetta issued a warning to business executives in NY City regarding the increasing threat of cyber attacks last October. He said, "The collective result of these kinds of attacks could be a cyber Pearl Harbor; an attack that would cause physical destruction and the loss of life..." He also gave the example of "computer

control systems that operate chemical, electricity and water plants and those that guide transportation throughout this country."

http://www.defense.gov/transcripts/transcript.aspx?transcriptid=5136

A November 21, 2011 MSNBC story reported, “Hacker says he penetrated the network of a South Houston, Texas, water-treatment plant to expose the inherent vulnerabilities in critical industrial control facilities and prove how easily they can be compromised.” The potential consequences of a real attack could result in the release of the contents of a 90 ton chlorine rail car which are routinely used to store chlorine gas at water treatment plants. http://www.msnbc.msn.com/id/45394132/ns/technology_and_science-security/#.TsvL17LNlGUA

A November 2010 Washington Post report revealed that the Lashkar-e-Taiba terrorist organization that committed the 2008 attacks in Mumbai, India, had also asked a now convicted U.S. ally to "conduct surveillance of an unnamed chemical plant in Maryland." Lashkar-e-Taiba was reportedly gathering intelligence on U.S. targets as early as 2001. http://tpmlivewire.talkingpointsmemo.com/2010/11/the-man-behind-mumbai.php

On August 2, 2010, two men were convicted of plotting to blow up jet-fuel tanks at John F. Kennedy International Airport, a plan authorities said was meant to outdo the September 11, 2001 attacks. http://www.washingtontimes.com/news/2010/aug/2/ny-jury-convicts-2-jfk-airport-tank-blast-plot/?page=1

Since before 9/11, the Kuehne Chemical Company in South Kearny, NJ has put up to 12 million people at risk of a chemical disaster due to their chlorine gas storage adjacent to

New York City. Former counter terrorism operative for the CIA, Charles Faddis visited the Kuehne plant in July 2009. In his book Willful Neglect he wrote:

> ***"Anybody with minimal training in breaching and some basic equipment can go through those gates in moments. After that, it is all over. There is no way on earth that any guards inside are going to react, repel a team of armed assailants and prevent the inevitable. Every tank in the facility is going to be ruptured, either by satchel charges or vehicle borne explosive devices, and what happens in the surrounding area is then going to be purely a function of meteorological conditions."***

(For approximately two years Kuehne's web site has stated that they were in the process of converting to a safer process but no details have been made public.)

On August 29, 2007, a single railroad tank car of chlorine somehow rolled out of a rail yard in Las Vegas, Nevada and ran for twenty miles before it was secured. During that twenty mile run it rolled through the heart of Las Vegas and densely populated neighborhoods. Even though the car reached speeds of up to fifty miles an hour, it miraculously didn't derail or release the chlorine. http://www.lvrj.com/news/9466232.html

"You know, the threat is just staring us in the face. I mean, all you'd have to do is to have a major chemical facility in a major metropolitan area go up and there'd be hell to pay politically," says Rudman. "People will say, 'Well, didn't we know that this existed?' Of course, we knew." --- **Former Senator Warren Rudman (R-NH) *CBS 60 Minutes***