

**TESTIMONY**

**OF**

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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**BEFORE THE**

**UNITED STATES HOUSE OF REPRESENTATIVES  
COMMITTEE ON HOMELAND SECURITY**

**JUNE 16, 2009**

Good morning Chairman Thompson, ranking member King and Members of the House Committee on Homeland Security. My name is Paul Baldauf and I serve as the Assistant Director of Radiation Protection and Release Prevention for the New Jersey Department of Environmental Protection (DEP). I have lead responsibility along with DEP Director of Operations Gary Sondermeyer for implementation of New Jersey's homeland security program for chemical facilities under the direction of DEP Acting Commissioner Mark N. Mauriello and Director Richard L. Cañas of our Office of Homeland Security and Preparedness (OHSP). I would first like to thank the Committee for the opportunity to appear before you to discuss the Chemical Facility Anti-Terrorism Act of 2009 and specifically the ongoing inherently safer technology and chemical sector security initiatives within the State of New Jersey.

Chemical plant security is a subject that Governor Jon S. Corzine has maintained as a top priority while serving in the United States Senate and over the past three and one-half years as our Governor. We view our Chemical Standards, including requirements for inherently safer technology evaluation, as vital to providing New Jersey with an accurate reflection of our current state of security preparedness, as I will further outline in my testimony.

In response to the risks posed by a possible terrorist attack on New Jersey's chemical facilities, New Jersey has taken significant steps to strengthen the security precautions at these plants. At this point we have close to six years of on the ground experience in implementing a homeland security program for all chemical facilities operating in our State. Best Security Practices were adopted for the Chemical Sector working cooperatively with industry leaders through the Infrastructure Advisory Committee on September 18, 2003. Since November 2005, New Jersey went further and adopted enforceable plant security practices for its chemical facilities as well as requirements for facility security assessments to evaluate potential security threats and vulnerabilities. The facilities that pose the most significant risks are subject to the State's Toxic Catastrophe Prevention Act (TCPA) program, which incorporates EPA's Risk Management Program but is stricter and broader in scope. I shall begin with a brief overview of New Jersey's domestic security preparedness activities, and then turn to the specific reasons why the evaluation of inherently safer technologies in the chemical industry is of vital importance.

#### **Overview of New Jersey's Domestic Security Preparedness Effort**

New Jersey's unique vulnerabilities have made us a leader among states in initiating and implementing measures to counter potential terrorist operatives, to reduce the risk of attack at critical infrastructure facilities, and to reduce the potential impacts to public health and safety if any such attacks should occur in the future. New Jersey undertakes these efforts through our Domestic Security Preparedness Task Force (Task Force), chaired by Director Richard L. Cañas of our OHSP.

As Assistant Director of Radiation Protection and Release Prevention, I serve as the DEP liaison to the chemical, nuclear, and petroleum sectors of our critical infrastructure. Through the Task Force and the OHSP, I also participate in New Jersey's preparedness and response effort for other sectors. In addition, I serve as a subject matter expert to the State, Local, Tribal, and Territorial Government Coordinating Council's Chemical Vulnerability Information Working Group.

The Task Force has undertaken a comprehensive program to reduce terror risk, to ensure preparedness at critical infrastructure facilities, and to test the efficacy of both public agencies and the private sector in responding to acts of terrorism. Every Task Force agency and every

sector of our critical infrastructure has developed, through public-private collaboration, a series of “Best Practices” for domestic security. Each set of Best Practices was reviewed and approved by the Task Force and the Governor. Every Task Force agency and every sector of our critical infrastructure has also participated in appropriate exercises to test the strengths and limits of terror detection and response capability.

### **New Jersey’s Toxic Catastrophe Prevention Act (TCPA) Program**

New Jersey has managed an oversight program to increase safety at chemical plants and other facilities that store or utilize extraordinarily hazardous materials for over 20 years. The Toxic Catastrophe Prevention Act (TCPA) program was created in 1986 as a result of a chemical accident in Bhopal, India that killed thousands of nearby residents. Several chemical facilities in New Jersey had experienced minor accidents prior to this time, clearly indicating that a similar risk existed in New Jersey. The TCPA requires facilities that handle extraordinarily hazardous substances above certain inventory thresholds to prepare and implement risk management plans. The plans must include detailed procedures for safety reviews of design and operation, operating procedures, maintenance procedures, training activities, emergency response, process hazard analysis with risk assessment and self-auditing procedures. An extraordinarily hazardous substance is defined as a substance, which if released into the environment would result in a significant likelihood of causing death or permanent disability.

In 1998 the program adopted USEPA’s 112(r) Accidental Release Prevention Program (40 CFR 68) by reference. This program included additional toxic substances and highly flammable substances. It also required each facility to complete a worst case scenario analysis. The worst case scenario models the resultant toxic cloud to a predetermined concentration. The USEPA end point concentrations are approximately one-tenth of the concentration that would cause death to persons exposed.

On August 4, 2003, the readoption of the TCPA rules added reactive hazards substances to the list of extraordinarily hazardous substances covered under the program. Industrial accidents in New Jersey resulting from reactive hazards demonstrated the need to include reactives under the TCPA program. Owners and operators having listed reactive hazard substances in quantities that meet or exceed thresholds are required to develop risk management plans to reduce the risk associated with these unstable substances. In addition, and the focus of this testimony, this readoption included a requirement that owners and operators evaluate inherently safer technology for newly designed and constructed covered processes.

In April, 2007 the DEP proposed amendments to the TCPA rule to require all companies subject to the program to evaluate the potential of incorporating inherently safer technology at their facility. This proposal also covers many sectors such as food, water/wastewater, petroleum, and energy which are outside the chemical industry. A relatively small number of facilities within these sectors store threshold amounts of extraordinarily hazardous substances. A final rule requiring the evaluation of inherently safer technology at all TCPA sites was adopted on May 5, 2008.

### **Chemical Sector Best Practices Standards**

New Jersey recognizes that facilities in the Chemical Sector are diverse in size, complexity, and potential for off site impacts to the community and therefore a blanket approach to addressing security concerns may not be practical. The Best Practices represent a risk-based approach to security consisting of a site-specific vulnerability assessment that evaluates threats to a facility’s operation, its particular vulnerabilities and likely consequences of a chemical release,

and the physical and procedural security measures already in place. The Chemical Sector Best Practices were predominantly derived from the Security Code of the American Chemistry Council's Responsible Care program.

Subsequently the Task Force determined that additional measures were necessary to ensure that appropriate prevention and response measures are implemented by the chemical sector to address emerging domestic security threats. As a result, Chemical Sector Best Practices Standards (Standards) were put in place on November 21, 2005.

The Standards require chemical sector facilities to, among other things:

- comply with the Chemical Sector Security Best Practices;
- conduct a terrorism-based security vulnerability assessment; and
- develop a prevention, preparedness, and response plan to minimize the risk of a terrorist attack.

In addition, chemical sector facilities subject to TCPA are required to conduct a review of the practicability and potential for adopting inherently safer technology.

#### **Inherently Safer Technology**

Facilities required to conduct an inherently safer technology review must evaluate:

- reducing the amount of extraordinarily hazardous substances materials that potentially may be released;
- substituting less hazardous materials;
- using extraordinarily hazardous substances in the least hazardous process conditions or form;
- and, designing equipment and processes to minimize the potential for equipment failure and human error.

I must emphasize that the inherently safer technology requirement under the Standards represents a practicability test; it is not mandatory that a covered facility implement IST, only that they evaluate. The results of the evaluations are held at the facility site, and are made available to DEP inspectors during an on-site visit.

Compliance with the Standards was required within 120 days of the effective date, March 21, 2006. We have been extremely pleased with the compliance levels we have seen to our standards. Compliance of the New Jersey requirements exceeded 98 percent. The Standards applied to facilities that are subject to either the Toxic Catastrophe Prevention Act (TCPA) or the Discharge Prevention, Containment and Countermeasure (DPCC) program, and report under certain Standard Industrial Classification (SIC) or North American Industrial Classification System (NAICS) codes. Of the total 157 facilities covered under the Standards, 45 are regulated TCPA facilities required to perform IST analysis. In all cases, facilities required under the Standards to conduct IST review have done so. All of these facilities have documented that they have previously implemented IST or similar risk reduction measures. 32 percent of the facilities have provided a schedule to implement additional IST or other risk reduction measures, and 19 percent have identified additional IST or risk reduction measures but have not yet scheduled their completion. The remaining 49 percent of the facilities had no additional recommendations. It should be noted that these are facilities that have been regulated under the TCPA program for many years resulting in the past implementation of IST and risk reduction measures.

The TCPA rule amendment requiring IST evaluation required all sites, regardless of their industry sector affiliation, to submit IST evaluations to the DEP by September 2, 2008. The total universe of all covered facilities in New Jersey is 87. The IST rule covered, for the first time, 42 water, wastewater, food, petroleum and energy sector sites. The 45 chemical sector sites

which had previously conducted an IST evaluation were required to submit their previous evaluation to achieve compliance. All TCPA sites completed and submitted their IST evaluation to the DEP. The DEP prioritized the review of the reports by sector to ensure consistency and efficiency. The water/wastewater sector includes 13 TCPA sites in New Jersey. It is important to note that the TCPA program has evolved from regulating over 300 water/wastewater facilities in 1987 to our current number of 13. The majority of these facilities have already deregistered from the TCPA program through a combination of IST implementation and consolidation over the last twenty years.

The DEP has completed the initial review of 19 of the 42 new IST evaluations with the remaining 23 expected to be completed by July 31, 2009. All of the 19 non-chemical sector reports evaluated to date were found to be deficient with each owner being granted sixty days to rectify outstanding issues. The most common deficiencies included failure to identify all potential IST alternatives and failure to provide justification for determination of an infeasible option. In terms of feasibility, sufficient documentation was not provided to support statements of economic, public health and safety, and technological infeasibility. It is important to note that IST in some form has been a practice in the chemical sector for many years, but is a relatively new concept to many of the other covered sectors. However, we do expect that in the long term the results of the non-chemical sector sites will compare favorably with those of the chemical industry subject to the Standards.

I believe that our compliance results clearly indicate that the evaluation of inherently safer technology is not overly burdensome on industry and is an effective tool for critically evaluating the risk reduction opportunities available at a specific facility. It is clear to us that IST analysis is simply good business practice for any facility storing or utilizing extraordinarily hazardous materials from an economic, worker safety and regulatory compliance standpoint.

But these measures alone are merely a starting point. Our knowledge of both the threat and the appropriate response is evolving daily. As we implement the “Best Practices” and work with facilities on site-by-site review of security vulnerabilities, we also have begun a process to review what additional regulatory measures may be appropriate to harden potential targets, to reduce risk to surrounding communities, and to involve workers and communities in the process.

#### **Chemical Facility Anti-Terrorism Act of 2009**

New Jersey has expressed serious concerns on a number of occasions about any language in federal regulations that has the potential to preempt existing state chemical security initiatives or limit future state actions to address unique vulnerabilities. Section 2109. Federal Preemption, clearly allows States to adopt or enforce any regulation, requirement, or standard of performance with respect to a covered chemical facility that is more stringent than a regulation, requirement, or standard of performance issued under Title XXI. We fully support this language since States retain the unqualified authority to adopt enhanced security requirements based upon risk and consequence factors within that State.

The proposed Act would capture chemical facilities currently exempt from the existing Chemical Facility Anti-Terrorism Standards, 6 CFR Part 27, expand the universe of regulated sites, and require assessments of methods to reduce the consequences of a terrorist attack at high risk sites. Overall, the Act addresses many of the comments previously submitted by New Jersey on 6 CFR Part 27.

Section 2106. Timely Sharing of Threat Information, requires the owner or operator of a covered chemical facility to provide information in a timely manner about any significant security incident or threat to their facility. To ensure a similar timely notification to local law

enforcement and emergency response organizations, an additional requirement to notify the appropriate fusion center for that jurisdiction is warranted.

As we have testified in the past, we do continue to strongly recommend consideration of permissive enabling language toward delegating oversight responsibility to State governments, along with appropriate levels of Federal funding to support homeland security efforts. This would include a petition process to DHS by interested State governments and granting of delegated authority on a discretionary basis. In the case of New Jersey, the actions taken in chemical security preparedness since September 11 have left the State well qualified to undertake such delegated responsibilities. State security (Office of Homeland Security and Preparedness and New Jersey State Police) and the chemical process safety experts (Department of Environmental Protection) are intimately familiar with the chemical facilities in question and have conducted multiple security and safety inspections at each site over the last six years. Leveraging and augmenting State resources is vital to ensuring that our chemical facilities are adequately protected from acts of terrorism.

### **Conclusion**

Although New Jersey took critical steps to address chemical facility security well over five years ago, we recognize that most states have not taken formal regulatory action and therefore, federal regulations to create minimum national chemical facility security standards are essential. At the same time, it is also important not to penalize those pro-active states and allow the states to retain the authority to adopt enhanced security requirements if states determine they are necessary. No two states are alike, and the risks posed by every facility present unique challenges based on location, population size, and other factors. Security standards that are appropriate to safeguard a facility in a rural area, for example, may not be sufficient for a facility located in one of the most densely populated and heavily traveled sections of the country. Simply put, one size does not fit all.

New Jersey's critical infrastructure concentration and high population density may have no comparison in the United States; our state needs to retain the ability to go beyond any Federal security baseline standard to ensure that our preparedness is measured in line with our potential vulnerabilities. We need federal standards, but they must be a floor ensuring a base level of protection, not a ceiling that constrains our ability to protect our citizens, as well as our neighbors. Governor Corzine has gone on record previously to express his concern for the safety of New Jersey's residents. In serving Governor Corzine, it is our duty to protect the citizens of our State and it is imperative that federal legislation enhances New Jersey's ability to protect our chemical sector critical infrastructure.

I once again would like to thank you Chairman Thompson, ranking member King and Members of the House Committee on Homeland Security. On behalf of DEP Acting Commissioner Mark N. Mauriello and Director of Homeland Security and Preparedness Richard L. Cañas, I sincerely want to thank you for the opportunity to share some of New Jersey's experience in implementing our chemical security and inherent safety program. We would be happy to entertain any questions you may have and are available at any time should additional information be valuable to the critical work of your Committee.