

National Insecurity?

By Joy LePree **With experts warning that chemical plants could be used as weapons of mass destruction, new legislation may force tighter security at your plant.** After four years of controversy and claims that America's chemical plants are prime targets for terrorist attacks, it appears that the government is forcing facilities to beef up security via regulatory action. But with both federal and state (at least in New Jersey) regulations cropping up simultaneously, some industry experts wonder if it's overkill. **Legitimate Legislation?** EPA has cataloged some 15,000 facilities in the U.S. that manufacture, use or store hazardous chemicals for productive, legitimate purposes in amounts that could cause extensive harm if turned against us as weapons. The Department of Homeland Security, using a different methodology, identified 3,400 facilities that could affect more than 1,000 people if attacked. According to a Department of Homeland Security spokesperson, only a fraction of these chemical facilities are regulated for security by the federal government or adhere to voluntary industry security standards. It's no secret that a large number of the nation's chemical facilities — 140 to be exact — call New Jersey home. According to New Jersey Gov. Jon Corzine's office, the state harbors 11 chemical plants that each have the potential to harm one million residents if attacked. Similarly, a Congressional study identified seven New Jersey chemical facilities that each have the potential to kill one million people if used as weapons. Since 9/11, chemical associations across the nation have been implementing voluntary security standards for their members to follow, and most of their members subscribe to them. Estimates from the American Chemistry Council claim that the chemical industry has spent \$3 billion to improve the security in facilities across the nation. The Chemistry Council of New Jersey says its members alone have spent \$100 million to reduce risk. Recently, however, New Jersey and federal government officials took the matter into their own hands and created what safety experts deem as necessary action. "Even though there are voluntary best practices, you have some companies who will voluntarily perform the best practices, but you are also going to have many companies that will not do anything unless they are required to do it," says Carolyn W. Merritt, chair and CEO of the U.S. Chemical Safety and Hazard Investigation Board, an independent federal agency. "For this reason, regulatory action is necessary." **Double Whammy** Almost simultaneously, both the state of New Jersey and the federal government took action. Late in November 2005, Richard Codey, who was acting governor of New Jersey, enacted a prescriptive order requiring facility-by-facility security assessments to evaluate potential security threats and vulnerabilities and likely consequences of a chemical release. Of the 140 facilities that must comply with these standards, 43 are subject to the state's Toxic Catastrophe Prevention Act program. As part of the new requirements, these 43 facilities must review the potential for adopting inherently safer technology, which calls for the replacement of highly hazardous chemicals with those that pose less risk and for the storage of lesser amounts of hazardous chemicals on site. By March 29, all facilities should have conducted vulnerability assessments and developed a list of necessary security measures and a timeline for implementation. Meanwhile on Capitol Hill,

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Susan Collins, the chair of the Senate Homeland Security and Governmental Affairs Committee, along with ranking member Joseph Lieberman, introduced a major piece of legislation that addresses security vulnerabilities at the nation's chemical plants. Although the Chemical Facility Anti-Terrorism Act of 2005 faces a long trip through Congress, if passed, it would require vulnerability assessments, implementation of security measures and development of emergency response plans. It is not clear whether the federal bill would require examination of inherently safer technology. The federal bill is risk- and performance-based, meaning it is not a blanket policy that covers every chemical facility. Instead, if a facility poses a greater risk, more stringent security measures are required. The Department of Homeland Security will have the authority to immediately shut down high-risk facilities that, in the department's view, are not in compliance. Initially, the proposed law pre-empted state level legislation, which would have made New Jersey's standard moot. However, in an effort to gain support for the bill, it is generally believed that the pre-emption clause will be removed. Most industry associations generally support adoption of the federal bill. "We are strongly encouraged by the fact that Senator Collins has introduced this bill, although we'd like to see it marked up with a few changes before it's passed into law," says Jamie Conrad, assistant general counsel with the American Chemistry Council. "We think federal regulation is a good thing because while most facilities have taken action, about 10 percent have not. These free riders aren't going to do anything until the government forces them. Doing nothing not only gives them a competitive advantage over companies that are implementing precautions, it also creates a security risk to us all." **Inherently Safer for Whom?** At the U.S. Chemical Safety and Hazard Investigation Board, Merritt also favors legislation that includes provisions for inherently safer technology evaluations. "There's a lot of technological work with regard to things like onsite generation of hazardous materials, modification of storage containers and modifying processes to use different chemicals that perform the same function in the process but are less hazardous and put the public at less risk," says Merritt. "It is just a part of what many companies normally do. However, there will always be those companies who don't want to make capital investments in those ways unless it's required and that's why it needs to be put into regulations. Making companies identify the risks and potential alternatives is an outstanding thing to have in regulations." Industry organizations, however, do not see inherently safer technology mandates through the same rose-colored glasses. "While the prescriptive order is not out of bounds, there is a specific problem with the language mandating that companies must conduct inherently safer technology assessments," says Rob McCarver, director of government relations with the Synthetic Organic Chemical Manufacturers Association. "Inherently safer technology considerations are standard operating procedure when developing processes and considering what sort of chemicals to have on site or to use in a process. So the assessment itself is not the problem. The problem is that the decision to use or not to use a hazardous chemical should be made by scientists, chemical engineers and safety experts, not dictated by the government. Government bureaucrats do not have the necessary expertise to evaluate safety concerns." Not only do industry experts have a problem with government involvement in inherently safer technologies, some say using alternative chemicals may not be possible. "It's not as easy as it sounds to switch Chemical A for Chemical B even though they may have similar properties," says Elvin Montero, director of communications and issue

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management for The Chemistry Council of New Jersey. "Using alternative chemicals might result in a compromised final product, which could very well be an antibiotic or bulletproof vest. Do we really want these products compromised?" In addition, he questions the safety of reducing the amount of hazardous chemicals kept on site. "It may seem safer in some cases not to store large amounts of a hazardous chemical at a facility. However, this may require the company to receive more shipments each day to complete their process. Most deliveries are received via truck, so these trucks are driving up and down the highway at 70 miles an hour carrying hazardous materials, not once, but four times a day 365 days a year. This is inherently safer for whom?" Montero questions. While these experts are troubled by the very mention of inherently safer technologies in legislation, it should be noted that neither the New Jersey order nor the proposed federal bill requires inherently safer technologies to be implemented. There is some speculation as to whether the federal legislation will even mention inherently safer technology requirements. According to American Chemistry Council's Conrad, there is language in the bill that could be interpreted as requiring inherently safer technologies. But as it currently stands, inherently safer technology provisions that merely require facilities to consider and explain inherently safer technology evaluations shouldn't make much of a difference in the day-to-day operations of chemical facilities. "In theory, the company itself can decide whether or not to make changes," says Conrad. "However, there is some speculation that New Jersey may force chemical manufacturers to implement the changes." Undoubtedly, the speculation comes from New Jersey environmental officials, including Bradley Campbell, who was quoted in a Nov. 30 Philadelphia Inquirer article stating: "Following the requirement that 43 of the highest-risk firms look into using safer technology, the next step is to decide whether, or under what circumstances, firms should be required to adopt technologies." While the heat may be on in New Jersey, the proposed federal bill takes a less frightening approach to inherently safer technologies, says Conrad. "If you are a high-risk facility, you would need to get your facility into compliance by adding on security measures or by making changes at your plant that make it less risky," he says. "While those changes may include swapping hazardous chemicals for non-hazardous ones or storing less of them on site, the decision is left to plant officials whether to implement these changes in an effort to reduce their risk, without giving the government the authority to dictate it," he says. "We're comfortable with that approach because it leaves the decision to the discretion of the plant safety experts without having the government overriding their expert opinion." **Get Cracking** Inherently safer technologies aside, industry associations expect neither new federal nor state regulations to have much impact on the daily grind at most chemical facilities. Members of good standing in the most reputable industry associations adhere to some form of best practices and are already in compliance with most of the requirements. The American Chemistry Council estimates that 90 percent of America's chemical facilities belong to this category. Over the past four years, companies that subscribed to some sort of voluntary guidelines have already conducted vulnerability assessments and developed plans that consider the results of those assessments. They have described the type of security measures needed, implemented those measures and created emergency response plans. The difference now is these practices are or will become mandatory, and the documentation for each activity will have to be submitted to the government. Officials will review the filings and visit all facilities to be sure the

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necessary measures have been taken. However, the estimated 10 percent of companies that haven't yet beefed up security better get cracking — it would appear that they have a lot of work ahead. "Companies that handle, store, transport or manufacture chemicals need to start looking at what their vulnerabilities are and how they can boost security in order to deter, as much as possible, a criminal intent," says Merritt. "Owners of properties with chemicals on site would be wise to immediately begin this process." **Point & Counterpoint: Is It Fair** Opinion surrounding New Jersey's prescriptive order enacted late last year isn't as favorable as that for the pending federal bill. "The chemistry industry in New Jersey didn't wait for legislation or an executive order to secure our plants," argues Elvin Montero, director of communications and issue management for The Chemistry Council of New Jersey. "It seems the cooperative approach between the state and our sector is being abandoned. The prescriptive order seems to penalize early, responsible actors, while adding requirements that have little to do with security." Some believe the combination of possible federal legislation and state level standards is overkill. "The idea behind creating a decent federal bill is there's no reason for state activity," says Jamie Conrad, assistant general counsel with the American Chemistry Council. "If you compared the cost of complying with the prescriptive order to that of compliance with the federal bill, the federal bill's cost is probably higher. But if you put the two together, that creates the highest cost outcome for chemical facilities." Despite potential costs, Carolyn W. Merritt, chair and CEO of the U.S. Chemical Safety and Hazard Investigation Board, still feels two sets of standards are better than one. "There is not only room for both federal and state standards, but both standards are necessary. The federal government is casting a wide and broad blanket and the bill includes a very broad provision of things that need to be addressed," Merritt says. "On a state level, you can address those things in a much more specific way regarding the industry you have in your state. I applaud New Jersey for taking their incentive early on in order to address a risk they know they have and a public they know is exposed." **About the Author:** Joy LePree is a contributing writer for Chem.Info. She has worked as a journalist for 13 years, covering a variety of issues and trends involving chemicals, processing, engineering and maintenance. Lisa Arrigo, editorial director, also contributed to this report. To share your comments about the content of this article, send an e-mail to larrigo@reedbusiness.com.

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