



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

TESTIMONY

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Subcommittee on Environment
The Chemical Facilities Anti-Terrorism Standards Program (CFATS):
A Progress Report
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Thank you Chairman Shimkus, Ranking Member Tonko, and distinguished members for inviting me here today. My name is Michael Wilson, and I am the national director for occupational and environmental health at the BlueGreen Alliance. On behalf of my organization, our national labor and environmental partners, and the millions of members and supporters they represent, I want to thank you for convening the hearing today and for your interest in chemical safety and security.

When you take action to protect against the risk of chemical releases, fires, and explosions in industrial facilities, you are making your districts safer and protecting the health of every person in your district. The BlueGreen Alliance's partners represent thousands of workers in these facilities, as well as teachers, health care workers, construction workers, scientists, and citizens in communities across the country. Each one of our coalition's members wants to come home at the end of the day and live in a safe community.

I'm familiar with hazardous industrial facilities because I worked for 13 years as a professional firefighter, paramedic, and EMT, during which time I responded to about 10,000 emergency calls.

When my engine company was dispatched for a fire or chemical release at an industrial facility, we typically had very little information about the chemicals inside the building. There was a lot of uncertainty. At one industrial fire, we were preparing to enter when an explosion occurred inside the building and a 55-gallon drum burst through the roof, landing in a nearby parking lot. Another call came in as "a worker experiencing chest pain," so we entered the facility without putting on our self-contained breathing apparatus (SCBA), only to find when we got inside that there were several very anxious workers experiencing shortness of breath and nausea from exposure to chlorine gas.

So I understand why the firefighters who responded to the April 17, 2013, report of a structure fire at the West Fertilizer Co. in West, Texas, were standing in the blast zone when a stockpile of 50 tons of fertilizer grade ammonium nitrate detonated: They didn't know it was there. There was no law that required the transmission of that information from the company managers who knew about it, to the first responders who needed to know about it. As a result, 12 first responders and 3 local residents died and 260 other people were injured.ⁱ

Unfortunately, this situation was exceptional, but not unique. Data from the U.S. Environmental Protection Agency (EPA) show that serious industrial chemical accidents

occur every two-and-a-half days in communities across the nation.ⁱⁱ In the 10 years leading up to the West, Texas, explosion, there were 1,500 major industrial chemical fires, explosions, or chemical releases at U.S. companies, causing more than 17,000 injuries and 58 deaths, along with \$2 billion in property damage.ⁱⁱⁱ

Millions of Americans live in the vulnerability zone of an industrial chemical release, and one in three school children attend school in such an area.^{iv} African Americans, Latinos, and lower-income communities continue to be at greatest risk.^v The U.S. Chemical Safety and Hazard Investigation Board (CSB), EPA, and the Occupational Safety and Health Administration (OSHA) have all pointed out that these are risks that we know how to reduce; they are preventable through modern engineering and management practices that the industry itself has developed and recommended. This Committee and this Congress could take action to ensure that these practices are deployed throughout our nation's chemical facilities.

The Chemical Facility Anti-Terrorism Standards (CFATS) program is one of the federal programs designed to lower industrial chemicals risks by requiring a range of chemical security measures. And there is some evidence that CFATS is working. The Department of Homeland Security (DHS) reports that thousands of high-risk facilities have chosen to meet their chemical security obligations not only through traditional security measures, but also by implementing risk reduction strategies. These have included (1) consolidating chemicals from multiple sites into one or two sites; (2) replacing a hazardous chemical with a less hazardous one; (3) reducing the total quantity of a chemical held onsite; or (4) switching to

a less concentrated form of the chemical. Each of these actions, done right, does more than manage the risk—it actually *lowers* the risk of a deadly explosion or fire or release of a poisonous substance in the event not only of a terrorist attack, but also of an extreme weather event or earthquake, power outage, or mechanical failure. Assuming DHS is confident in the veracity of these claims, and is taking steps to validate them, I would submit to you that they represent a sound approach to meeting the industrial safety and security goals we are discussing today, and they demonstrate these types of approaches are feasible in existing industrial chemical processes.

On the other hand, there are about 3,500 other facilities that have remained in the high-risk tier and that pose a substantive risk to the safety of workers and nearby communities.^{vi} Changes to the CFATS program are needed to reward and reinforce the leaders, and to require the laggards to come up to the mark.

A reauthorized and strengthened CFATS can do this in at least four ways: (1) by expanding the requirements pertaining to information, training, planning, and resource sharing with emergency responders; (2) by ensuring the rights of workers and their representatives to participate meaningfully in chemical safety and security decision making; (3) by strengthening certain risk management provisions, such as those related to emerging threats; and (4) by adding new provisions that aim to move facilities from risk management to risk reduction. The Center for Chemical Process Safety describes risk reduction strategies as those that minimize the use of hazardous chemicals, or substitute them with safer chemicals, or that simplify or modify chemical processes to make them less

vulnerable to failure. Using cars as an analogy, risk reduction provisions require the driver to follow the vehicle's preventive maintenance schedule, rather than driving the car until the wheels fall off or the engine blows up.

This brings me to our experiences in California. In August 2012, Chevron's oil refinery in Richmond was the scene of an industrial disaster. An 8-inch-diameter pipe carrying hot fuel oil failed catastrophically, releasing a torrent of flammable vapors that quickly expanded 100 meters in all directions, and engulfed 19 refinery workers who managed to escape just moments before the vapor cloud ignited into a massive fireball. Some 15,000 people in the communities downwind of the plant sought medical attention for symptoms of exposure to the plume of smoke and toxic gases that spread over the northeastern Bay Area.^{vii}

The CSB's investigation later found that the incident could have been prevented if Chevron's managers had followed the recommendations of their own engineers, who had issued at least six reports over a period of several years calling attention to the problem of sulfidation corrosion and recommending a more aggressive pipe inspection and replacement program.^{viii} The engineers made these recommendations against a backdrop of catastrophic sulfidation corrosion fires, some of which caused worker fatalities, at Chevron's El Paso, Texas refinery (1988), Chevron's Pascagoula, Mississippi refinery (1988 and 1993), Chevron's Salt Lake City, Utah refinery (2002), the Richmond, Chevron refinery itself (2007), the Silver Eagle refinery in Woods Cross, Utah (2009), the Regina Saskatchewan, Canada refinery (2011), and the BP Cherry Point, Washington refinery (2012). By 2009, Chevron's engineers warned of the potential for a catastrophic failure,

and still management chose not to act. The pipe finally failed in 2012 exactly as the engineers predicted it would, and 19 people nearly lost their lives.^{ix}

I began serving as chief scientist in California's Department of Industrial Relations around this time, and we recognized that if worker representatives had been in management's pipe corrosion meetings, and if they had been given the engineer's reports to read, they would almost certainly have demanded corrective action, then and there. Workers need strong regulatory language to gain a seat at the decision-making table. Once there, they provide experience and expertise, as well as accountability and transparency—they can play a key role in mitigating poor decisions and lopsided priorities that can result behind closed doors. Provisions that allow for this in CFATS would improve its effectiveness, and the ability of facility engineers to have their views heard, and even adopted into practice.

What does the 2012 Chevron fire teach us about the need for stronger first responder provisions in CFATS? Firefighters responding from Richmond and nearby cities discovered they were not able to communicate with the refinery incident commander because the plant operated on a different radio frequency from municipal fire departments. The result was a fairly high degree of chaos and uncertainty on the scene, and it was dangerous for everyone involved. If there had been a requirement for more frequent communication and training between the Chevron refinery and local first responders, this problem would have been discovered and corrected.

Largely in response to the Chevron fire, the State of California adopted a sweeping revision to its Process Safety Management (PSM) regulations for the state's 14 oil refineries.^x California is the third largest refining state after Texas and Louisiana.^{xi} A task force convened by the governor's office concluded that a new regulatory framework could improve refinery safety in the four areas I've noted for CFATS: emergency response, workers' rights, risk management, and risk reduction. The resulting 10,000-word regulation took five years and much consultation with industry and labor to develop, and it is now in force. We are now finding that when the best practices of an inherently hazardous industry are translated into regulation, it levels the playing field between leaders and laggards.

The principles embodied in the new California rule—and the approach we took in manifesting those principles into regulatory language—are worth investigating as a model for CFATS, especially those that pertain to risk reduction. With regard to today's hearing, California's new PSM regulation explicitly shifts the focus of chemical safety from a risk management to a risk prevention framework. It includes essential new rights of workers and their representatives to participate throughout all phases of PSM decision-making, and it includes many of the industry's own recommended best practices in the areas of human factors, the hierarchy of controls, safety culture, managing organizational change, and learning from near misses.

While California is in its first year of improving the safety of refineries and surrounding communities, the U.S. EPA is at the same time proposing to substantially weaken the

federal Chemical Disaster Rule, by rolling back some of its most life-protecting and disaster-preventing provisions. On May 17, 2018, the EPA proposed to:

- Roll back language on training and planning coordination between emergency responders and at-risk facilities;
- Eliminate a requirement for facilities to learn from their mistakes by looking back at accidents or near-misses to assess how to prevent them in the future;
- End information sharing with local communities around hazards at the facility and emergency preparedness and evacuation procedures;
- Eliminate requirements to assure incident investigation reports are completed effectively, within twelve months;
- Eliminate requirements for worker training at certain facilities, so that supervisors and workers involved in operating processes need not have basic safety training;
- Eliminate a requirement for independent audits for serious chemical accidents; and
- Eliminate a requirement for the most dangerous subset of facilities to assess the applicability of safer technologies and practices so that if a problem occurs (whatever the cause), fewer people will be killed or injured.

The May EPA rollback proposal explicitly states that it would put low-income communities and communities of color at increased risk of chemical disasters.^{xii} EPA's proposal reflects a disregard for the safety of American workers, who are hurt "first and worst" when a refinery or chemical facility owner fails to invest in modern engineering practices to prevent a fire, explosion or release, or to respond to workers' concerns about the need for maintenance or corrective action. This Congress can do the right thing and direct EPA to do

its job. The Chemical Disaster Rule will genuinely improve public safety and national security and should be pushed forward in its original form, not weakened or delayed as the administration has proposed.

Clearly, we need to prevent chemical accidents. We need to ensure that workers, first responders, and communities have the information and resources they need to protect themselves and everyone else. We need rules based on best practices that don't allow the laggards to hold back the leaders. These are our workers, our communities, our first responders. When we know what to do to protect them, as we do in the case of chemical accidents, it is our duty to act.

Whether unintentional or due to terrorism, we have learned that a chemical fire, explosion, or release can devastate the lives of workers, families, and entire communities. Rather than follow EPA's path with the Chemical Disaster Rule, which will undoubtedly weaken our nation's protections against chemical disasters, I urge you to use the reauthorization of CFATS as an opportunity to strengthen the program and promote risk reduction. The result would be fewer explosions, fewer deaths and hospitalizations, and a far more resilient industrial infrastructure.

In closing, Chairman Shimkus, Ranking Member Tonko, and members of the subcommittee, thank you again for your important work and for granting me the opportunity to appear at today's hearing.

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- ⁱ U.S. Chemical Safety Board (CSB), “West Fertilizer Explosion and Fire.” January 2016. Available: <https://www.csb.gov/west-fertilizer-explosion-and-fire-/>.
- ⁱⁱ U.S. Environmental Protection Agency (EPA), “Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act,” January 2017. Available: <https://www.gpo.gov/fdsys/pkg/FR-2017-01-13/pdf/2016-31426.pdf>.
- ⁱⁱⁱ EPA, “40 CFR Part 68 Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Proposed Rule,” March 2016. Available: <https://www.gpo.gov/fdsys/pkg/FR-2016-03-14/pdf/2016-05191.pdf>.
- ^{iv} Center for Effective Government, “Kids in Danger Zones: One in Three U.S. Schoolchildren at Risk From Chemical Exposures,” September 2014. Available: <https://www.foreffectivegov.org/kids-in-danger-zones>.
- ^v Earthjustice, *Another Year Of Preventable Chemical Disasters*, April 2018. Available: <https://earthjustice.org/news/press/2018/another-year-of-preventable-chemical-disasters>.
- ^{vi} Coalition to Prevent Chemical Disasters, “Testimony of Paul Orum, Chemical Safety Advocate,” February 2018. Available: <https://homeland.house.gov/wp-content/uploads/2018/02/Testimony-Orum.pdf>
- ^{vii} CSB, “Chevron Refinery Fire Final Report,” January 2015. Available: <https://www.csb.gov/chevron-refinery-fire/>.
- ^{viii} Ibid.
- ^{ix} CSB, “Interim Investigation Report Chevron Richmond Refinery Fire,” August 2012. Available: https://www.csb.gov/assets/1/17/draft_report_for_public_comment.pdf?14934.
- ^x California Department of Industrial Relations, “Landmark Workplace Safety and Health Regulation Approved to Reduce Risk of Major Incidents at Oil Refineries in California,” May 2017. Available: <https://www.dir.ca.gov/DIRNews/2017/2017-37.pdf>.
- ^{xi} U.S. Energy Information Agency, “California State Profile and Energy Estimates.” Available: <https://www.eia.gov/state/?sid=CA>.
- ^{xiii} EPA, “Regulatory Impact Analysis, Reconsideration of the 2017 Amendments to the Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7).” May 2018. <https://www.regulations.gov/document?D=EPA-HQ-OEM-2015-0725-0907>