

CSB SAFETY SPOTLIGHT: STATE ADVANCES IN DRIVING CHEMICAL SAFETY



U.S. Chemical Safety and Hazard Investigation Board

The U.S. Chemical Safety and Hazard Investigation Board (CSB) is highlighting the important role of individual state governments in driving critical chemical safety change. A number of state governments have made significant safety improvements following a chemical disaster within their state. They make them to protect their residents and the environment with the common goal of preventing future similar incidents.

The CSB has issued 80 safety recommendations to 22 different state governments stemming from 27 CSB investigations. Currently, only six of these investigations still have open recommendations issued to state governments. These CSB recommendations range from identifying risks and increasing safety inspections to developing and adopting significant, state-level chemical safety legislation. Several states have taken significant steps to implement positive safety changes in light of chemical disasters. The following are a few notable examples:

Following a 2007 propane explosion that occurred at a general store in Ghent, West Virginia, killing four people, the CSB issued a recommendation to the Governor and Legislature of the State of West Virginia aimed at improving propane training requirements for propane technicians. West Virginia approved a bill in 2010 requiring the completion of a nationally recognized propane service training program for "persons who install or maintain liquefied petroleum gas systems." This requirement was also implemented into the West Virginia State Fire Code.

On February 7, 2010, Kleen Energy, a natural gas-fueled power plant under construction in Middletown, Connecticut, experienced a catastrophic natural gas explosion that killed



six and injured at least 50 people. The incident occurred while workers were conducting a "gas blow," where natural gas is forced through new piping and released into the atmosphere at a high pressure and volume in order to remove debris. As a part of its investigation, the CSB issued a recommendation to the Governor and Legislature of the State of Connecticut to enact legislation that prohibits gas blows. In September of 2010, the former Governor of Connecticut, M. Jodi Rell,



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issued Executive Order No. 45, which banned the use of natural gas blows by power plants in Connecticut. To date, Connecticut is the only state that has banned this dangerous pipe-cleaning practice.

In 2014, the CSB issued a recommendation to the Governor and Legislature of the State of California to enhance and restructure California's process safety management regulations for petroleum refineries. The state of California amended its Occupational Safety and Health Process Safety Management (PSM) standard in 2017 to improve workplace safety and hazard prevention and management at California's 15 petroleum refineries. The newly adopted standard, which became effective on October 1, 2017, requires that refineries, among other things, perform a damage mechanism review for each existing and new mechanical, chemical, physical, or other process that results in equipment or material degradation. Refineries are also required to eliminate hazards to the greatest extent feasible using inherent safety measures. The CSB issued a similar regulatory recommendation to the

state of Washington in 2014 following its investigation of a catastrophic heat exchanger rupture and fire that killed seven workers at refinery in Anacortes. Language has been drafted for a new section of its PSM standard that will apply to petroleum refineries in the State of Washington. Multiple stakeholder meetings will be held in 2018 to review and discuss the proposed changes with a target of finalizing an updated regulation in 2019.

To the state governments who have implemented significant legislation, to drive positive chemical safety change, we at the CSB acknowledge and appreciate the commitment of state leadership in adopting these recommendations. To the state governments with open recommendations, we encourage you to keep moving towards implementation. Given the past state-level successes in improving chemical safety, we remain hopeful that you will succeed as we all have the shared vision of having a nation safe from chemical disasters, even if that must be accomplished one state at a time.

