

Director's Corner

On March 16, President Trump submitted his initial budget outline entitled, "America First: A Budget Blueprint to Make America Great Again." The budget proposed significant reductions in domestic spending, including the elimination of the U.S. Chemical Safety Board (CSB), budgeted at \$11 million a year. With this limited budget, the CSB is charged with the daunting responsibility of investigating chemical process incidents, develop lessons learned, and communicate the lessons learned with the objective of preventing, mitigating, and improving response capabilities for future incidents.



CSB has become an effective and important partner for our country's process industries. And, it is these chemical, energy and related companies that are so essential to our nation's continued economic development and competitiveness. Process industries are often dependent on hazardous materials and operate with the daunting challenge of preventing catastrophic incidents. Companies often lack the in-house expertise to self-investigate, while concerns about liability may inhibit willingness to share lessons learned. It was in recognition of these limitations that Congress created the U.S. Chemical Safety and Hazard Investigation Board (CSB) so Americans can benefit from on-going expertise to investigate major incidents and disseminate best practices and technologies to minimize catastrophic incidents. We believe that this is a competence that must be maintained and that it is a need we must continue to meet.

CSB has investigated more than 130 major chemical incidents across the country and has issued 788 safety recommendations, 78 percent of which have been closed. CSB safety reports, bulletins, and videos are widely used and cited by the industrial community, academia, professional associations, first responders, labor, and community leaders. In fact, the CSB's 68 videos have received 6.4 million views and its YouTube channel has nearly 20,000 followers.

We believe that within the context of improving safety in the process industry and making safety second nature, the Center has an obligation to opine on issues that directly impact safety within the U.S. chemical industry and as a result impacts the safety of all Americans. Chemicals play a key role in today's high-tech world. The chemical industry is linked to every technologically advanced industry, and only a handful of the goods and services we enjoy on a daily basis would exist without essential chemical products. The use of chemicals is a two-edged sword. Safe use creates a healthier economy and a higher standard of living. Unsafe use threatens our lives, our businesses and ultimately our world. For this reason, working and living safely with chemicals are the ultimate focus of the Mary Kay O'Connor Process Safety Center. I sincerely believe this is also the focus of the CSB.

The CSB was authorized by the Clean Air Act Amendments of 1990 and became operational in January 1998. The legislative history states: "The principal role of the new chemical safety board is to investigate accidents to determine the conditions and circumstances which led up to the event and to identify the cause or causes so that similar events might be prevented." The CSB has a unique statutory mission, which includes producing high-quality investigation reports, recommendations and other technical products; developing and implementing a system for chemical incident data collection and analysis; and promoting the prevention of chemical incidents. In order to prevent future incidents, CSB investigations produce "lessons" that are applicable to other facilities, processes or chemicals.

Incidents investigated by the CSB might be selected because there is a pattern of similar incidents in the past. Such patterns could involve factors such as the following:

- certain chemicals or classes of chemicals
- processes or types of processes
- industries, companies, or facilities
- types or sizes of companies
- operations such as maintenance, confined space entry, startup or shutdown
- utility failures

- management style, commitment or competence
- economic conditions of a company or industry
- unit operations such as reactors and distillation columns
- control system failures
- equipment failures
- reactions due to contamination or corrosion
- inadequate training or procedures
- human factors and working conditions

Detecting these patterns or trends requires root cause investigation of individual incidents as well as analyses of database(s) of previous incidents. Investigations and further research are also justified when underlying technical issues are poorly understood. The magnitude of the consequences or potential consequences should also be considered. Investigations should not only reveal why an incident occurred but also why the consequences were so severe. The investigations can also identify needs or deficiencies with regard to prevention, mitigation, or response approaches. Other lessons learned may shed light on emergency response planning measures, land-use planning, risk communication, and other such important factors.

The 2018 federal budget proposed by President Trump defunds the CSB completely. While we understand that we as a nation must make tough choices and look at the need and effectiveness of every dollar that is included in the budget, we feel that the \$11 million needed to keep the CSB operational is worth every penny. The unique mission of the CSB cannot be fulfilled by another agency or industry organization.

In presenting his budget, President Trump has stated that the 2018 budget blueprint should be

“A budget that puts America first must make the safety of our people its number one priority— because without safety, there can be no prosperity... a budget that emphasizes national security and public safety.”

We agree with the President and in fact we argue that national security and public safety are intricately tied with process safety in the chemical process industries. We believe that process safety is directly tied with the sustainability and continued development of the nation. Incidents like the methyl isocyanate incident in Bhopal in 1984 and the Deep Water Horizon incident in 2010 are classic examples in this regard. The Bhopal incident resulted in more than 2,000 fatalities, hundreds of thousands of injuries, and major environmental impacts. The Deep Water Horizon incident resulted in 11 fatalities and the worst oil spill in modern times causing major environmental impacts. The financial impact of each one of these two incidents was also far reaching. There are a multitude of such other incidents that have caused harm to employees, the public and the environment. The CSB, modeled after the highly respected National Transportation Safety Board (NTSB), was expressly created to investigate incidents such as the ones discussed here and develop lessons learned and communicate those lessons such that similar incidents can be prevented in the future. More precisely, the CSB is required to:

“ [conduct] accident investigations and hazard investigations [which lead] to new safety recommendations, are the Board's principal tool for achieving positive change. Recommendations are issued to government agencies, companies, trade associations, labor unions, and other groups ...While some recommendations may be adopted immediately, others require extensive effort and advocacy to achieve implementation. Board members and staff work to promote safety actions based on CSB recommendations... CSB recommendations have been implemented in industry, leading to safer plants, workers, and communities.”

I applaud the CSB for accomplishing so much with so little in this important area of safety which in the end make[s] the safety of our people its number one priority...because without safety, there can be no prosperity.

We hope that as the President and the Congress move forward in finalizing the 2018 federal budget, those involved in determining the funding and the fate of the CSB, take into account the value of the mission and the role the CSB plays in the US in maintaining the safety of human lives, jobs and the overall prosperity of our nation.