
U.S. CHEMICAL SAFETY BOARD
2017-2021

STRATEGIC PLAN



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“Our efforts to build trust internally and externally, and to increase productivity within the organization will serve as the foundation for the successful execution of our mission and goals.”

— **Vanessa Allen Sutherland**

Chairperson and CEO,

U.S. Chemical Safety and Hazard Investigation Board (CSB)

A MESSAGE FROM THE CHAIRPERSON OF THE CSB



It is my pleasure to present the U.S. Chemical Safety Board (CSB) *2017–2021 Strategic Plan* on behalf of my fellow Board Members and the CSB professional staff. The staff and stakeholder contribution to this strategic plan over the past 18 months has been invaluable as the agency continues to examine emerging chemical safety hazards and help drive chemical safety improvements.

The *2017–2021 Strategic Plan* is a blueprint for CSB priorities. This plan allows us to judiciously allocate our resources to achieve our strategic goals and to promote accountability for our safety mission. It is a living document that will provide flexibility in executing the mission as circumstances change. My goals for this plan are to promote a nimble agency focused on reaching broader audiences, to deliver innovative and persuasive safety products that help drive chemical safety improvements, and to become a premier Federal resource for chemical safety knowledge.

Over the next four years, I will continue to strive to create consistency with a special focus on organizational efficiency and health. Our efforts to build trust internally and externally, and to increase productivity within the organization will serve as the foundation for the successful execution of our mission and goals. The strategic plan will help assure focus as the CSB works to complete timely investigations of chemical incidents and influence chemical safety for the better.

With the successful execution of our mission, the CSB will continue to share critical safety lessons with industry, workers, and the public. We have a responsibility to create a nation safe from chemical disasters. I look forward to building stronger relationships with stakeholders while collaborating to achieve such a vision.

A handwritten signature in black ink that reads "Vanessa Allen Sutherland". The signature is fluid and cursive, with the first name being the most prominent.

Vanessa Allen Sutherland
Chairperson and CEO
U.S. Chemical Safety and Hazard Investigation Board

MISSION, VISION AND STRATEGIC GOALS



MISSION

Drive chemical safety change through independent investigations to protect people and the environment.



VISION

A nation safe from chemical disasters.



STRATEGIC GOALS

Advancing the mission in three ways.



GOAL 1: Prevent recurrence of significant chemical incidents through independent investigations.



GOAL 2: Advocate safety and achieve change through recommendations, outreach, and education.



GOAL 3: Create and maintain an engaged, high-performing workforce.

EXECUTIVE SUMMARY

To best serve the public and our stakeholders over the next five years, the U.S. Chemical Safety and Hazard Investigation Board (CSB) staff and Board Members changed the focus of the agency’s mission and vision statements and developed new core values. **Our mission is to drive chemical safety change to protect people and the environment.** By working to execute this mission, we also seek to achieve a broader vision to create a nation safe from chemical disasters.

To achieve both the mission and the vision, we will conduct objective, independent investigations that display technical rigor at all stages—from deployment, to report release and follow-up on recommendations, to long-term advocacy. To support our efforts, we have developed strategic goals to improve our investigations, recommendations, outreach, and CSB human capital.

Specifically, we will strategically select incidents for investigation that are likely to yield products that inform many more stakeholders than just the companies and communities directly involved in the incidents.

We also will work with stakeholders from industry, labor, and the non-profit sector, as well as Federal, state, and local governments, among others, to champion continual improvement in

the chemical industry and to disseminate lessons learned. We will use a variety of tools to convey these messages, including our reports, in-person attendance at advocacy events, website and social media presence, safety alerts, and our popular safety videos, some of which are available with subtitles in other languages.

Perhaps most importantly, we will work to support our greatest resource—the CSB staff—to champion the same continual improvement that we expect from the companies involved in our investigations. We will continue to fine tune and streamline our internal processes, performance metrics, and professional development program so CSB staff may dedicate their time and attention to completing work that can help prevent chemical disasters.

CORE VALUES

To support our vision and mission, we have redefined our core values. To achieve our goals, we must continually communicate and uphold these values across the organization.



OBJECTIVITY: Conduct investigations that collect, review, and analyze evidence without seeking to blame or find fault.



TECHNICAL RIGOR: Perform thorough research, analysis, and reviews that contribute to well-designed, thoughtful, accurate, and reliable work products.



INTEGRITY: Promote honesty, fairness, and consistency in our words and actions.



COLLABORATION: Support coalition building, teamwork, and resource-sharing internally and externally, including with current agency stakeholders and potential stakeholders.



DEDICATION: Demonstrate commitment to the employees and the stakeholders whom we serve.



CONTINUAL IMPROVEMENT: Create an internal culture that seeks to learn from all experiences, acquires new knowledge, considers all viewpoints, sets new goals, and applies lessons learned.

BACKGROUND AND LEGISLATIVE MANDATE

The U.S. Chemical Safety and Hazard Investigation Board (CSB) is an independent Federal agency established to investigate incidents and hazards resulting from the production, processing, and handling of chemical substances that can cause death, serious injury, or substantial environmental or property damage. Congress created the CSB as a part of the Clean Air Act Amendments of 1990, but the agency did not commence operations until 1998.

The CSB is headquartered in Washington, DC, with a regional office in Denver, Colorado. It is governed by its Board, which consists of one presidentially nominated Chairperson (who also serves concurrently as an appointed Board Member) and four other presidentially nominated Board Members. All nominations by the President of the United States to the Board are subject to U.S. Senate confirmation. Once confirmed, each new member is eligible to serve a five-year fixed term.

The CSB's charge is to investigate significant chemical incidents and hazards and advocate for the implementation of recommendations to protect workers, the public, and the environment.

Since the CSB began operations, the agency has published written safety products and produced award-winning safety videos. In total, the CSB has deployed to 148 incidents, published 92 investigation reports, case studies, safety bulletins and

hazard studies, produced 67 video products, and closed 593 of a total of 784 safety recommendations (76%).¹

CSB investigations are independent, meaning they are not subject to the control, review, or influence of any other Federal agency or outside entity. CSB investigations can address all aspects of chemical incidents: direct and proximate causes (e.g., equipment failures), underlying systemic and organizational causes (e.g., inadequacies in corporate or facility-level safety management systems and organizational culture), and opportunities to improve operational practices, regulatory standards and enforcement. The CSB issues safety recommendations to a variety of recipients, including Federal and state regulatory agencies, companies, industry and labor organizations, standard-setting bodies, and emergency responders.

¹ As of September 8, 2016.



In the CSB’s investigative work, the agency has identified recurrent chemical safety issues and hazards, critical industry trends, and common lessons learned. These topics include: toxic chemical handling (e.g., hydrogen fluoride, chlorine, ammonia, and phosgene), hazards of combustible dust, reactive chemicals, oil and gas production, and hot work activities (e.g., welding).

Despite its U.S. mandate and domestic focus, the CSB has had a global impact on chemical safety. CSB recommendations for industry best practices have been adopted in many countries over the past decade, contributing to enhanced worldwide process safety knowledge. The CSB’s investigative reports and safety videos are used extensively around the world, particularly in countries with established chemical and oil

industry sectors. The CSB receives requests for safety briefings from stakeholders in North America, Australia, Europe, South America, Africa, and Asia.

CSB safety videos have been subtitled in Spanish, French, Korean, and Chinese for dissemination to a broad audience. The videos are regularly featured in industry-developed training seminars designed to educate workers about process safety and occupational health. The videos are also used in labor organization and academic training programs around the world.

Moreover, through the implementation of the CSB’s “Drivers of Critical Chemical Safety Change” program, the CSB pursues needed safety changes in key focus areas. This work is highlighted by Board Member and staff



presentations at national chemical safety conferences, and through publication of papers in professional journals and editorial pieces in local, state, and national media.

Chemical safety information is also transmitted through the Board's regularly scheduled business meetings, which are held no less than quarterly in Washington, DC, and are open to the public.

Top: A view of the Delaware City Refining Company—the CSB is investigating a series of three incidents that occurred at the facility in 2015.

Right: CSB Chairperson Vanessa Allen Sutherland addresses media at a news conference in Waco, TX.



STRATEGIC GOAL 1



Prevent recurrence of significant chemical incidents through independent investigations.

GOAL CONTEXT: The CSB must select incidents to investigate that will have the greatest impact on U.S. workplaces, public health and safety, and the environment. Because of the large number of incidents that occur each year, the CSB must exercise discretion when deciding whether to initiate an investigation. To that end, the agency uses a screening process to systematically evaluate and prudently select chemical incidents for investigation. The CSB will continue to refine screening criteria and information-gathering activities to improve its deployment decisions and effective resource allocations. The agency will enhance its techniques and processes to complete investigations in a timely manner, while ensuring that key safety issues are addressed thoroughly in the resulting products.

OBJECTIVES



OBJECTIVE 1.1. Select for investigations those incidents and hazards that are most likely to generate recommendations or findings with broad preventive impact.

The strategic selection of incidents will allow the agency to allocate its resources in a manner that promotes efficiency and leads to the development of high impact recommendations or broadly applicable findings. In addition, the CSB will continue to collect data to identify and analyze existing industry hazards. The CSB, per its legislative mandate, may then conduct broad safety studies of such hazards to examine commonalities among significant incidents and draw attention to key lessons learned.

Why This Strategy Will Work

The CSB's commitment to the strategic selection and timely completion of chemical incident investigations will allow the agency to issue independent, technical investigation reports and recommendations with broad preventive impact, thereby informing all stakeholders of lessons learned and driving change for the prevention and mitigation of future incidents.



A view of the Exxon Refinery in Torrance, CA, following a 2015 explosion.

 **OBJECTIVE 1.2.** Complete timely, high-quality investigations that determine the causes of incidents.

The CSB will revise, update, and improve investigation-related Board Orders. We will engage in a prioritized effort to develop protocols and procedures that can further advance the timeliness and quality of the products of our investigations.

 **OBJECTIVE 1.3.** Develop and issue recommendations with broad preventive impact.

The CSB will strive to help achieve incident prevention by issuing recommendations to a variety of parties that are most likely, or most influential, to create safety change, including government entities, safety organizations, trade unions, trade associations, corporations, emergency response organizations, and educational institutions.

STRATEGIC GOAL 1 PERFORMANCE MEASURES

MEASURE

Number of deployments made to high-consequence incidents

Percentage of deployments resulting in the completion of a CSB product or included as part of a data set used in a CSB product or communication tool

Average time to complete an investigation

Percentage of investigations completed within established time period

Percentage of recommendations issued or reissued that are classified as High-Impact

STRATEGIC GOAL 2



Advocate safety and achieve change through recommendations, outreach, and education.

GOAL CONTEXT: The CSB’s safety recommendations, as well as the investigative facts and findings from which the recommendations are derived, are the conduits through which chemical safety change can be achieved.

The CSB’s objective is to share its findings and recommendations with as wide an audience as possible, while also directing advocacy efforts to those stakeholders who have the greatest responsibility and capability to enact and promote them. Therefore, the CSB collaborates with other organizations to spread its safety message and to maximize the impact of agency resources. The agency uses various outreach mechanisms

to promote its chemical safety information and disseminate updates on recommendations’ status, product releases, new initiatives, and public events. The agency identified a list of “Drivers of Critical Chemical Safety Change” to guide the efficient use of limited resources to pursue the implementation of changes that are most likely to achieve important, national-level safety improvements.

CSB investigation reports and safety videos make the Board’s investigative findings available to millions of people worldwide. They are available free-of-charge at www.csb.gov.

Why This Strategy Will Work

The CSB’s targeted advocacy for chemical safety change will allow the agency to use its resources strategically to promote actions that could have the greatest, most widespread preventive effects. This approach will not only allow the CSB to nimbly respond to changing industry conditions and emerging technology, but also provide a framework for prioritizing both long-term and short-term agency goals.

OBJECTIVES

 **OBJECTIVE 2.1.** Pursue the implementation of recommendations, with focused effort on those designated as high-impact.

In addition to effective communication with recommendations recipients, develop and maintain collaborative relationships with other agencies, industry, scientific, non-profit, and labor entities that are “agents of change” for chemical safety. Board Members and staff will assist the Office of Recommendations in outreach efforts and relationship-building, targeted toward implementation of CSB recommendations.

 **OBJECTIVE 2.2.** Identify and strategically promote key chemical safety issues.

The CSB must identify and communicate key investigative findings to workers, industry, and the public. Communication strategies above and beyond investigative reports include: participation in public forums, symposia, and conferences on emerging safety issues, whether hosted by

regulators, industry, workforce, experts, or other stakeholders; the production of thematic safety videos and video safety messages; the publication of articles relevant to CSB investigation findings; a presence on social media; and the development of electronic resources related to these critical topic areas.

 **OBJECTIVE 2.3.** Disseminate chemical safety information using a variety of high-visibility tools and products.

The CSB will use a variety of creative, high-visibility tools and products including: investigation reports; public meetings and news conferences to share investigation findings and safety recommendations held in the communities affected by chemical incidents; regular business meetings in Washington, DC, to update stakeholders on current agency initiatives; scholarly publications to educate others on critical safety topics; safety videos to disseminate lessons in a widely-accessible format; public discourse to engage with all stakeholders; and strategic use of social media to promote investigation findings, high-impact recommendations, and ongoing safety initiatives.

STRATEGIC GOAL 2 PERFORMANCE MEASURES

MEASURE

Number of recommendations successfully closed

Number of advocacy activities and initiatives completed by the Board and staff to advance chemical safety improvements

Number of safety videos produced

Number of safety videos viewed, website views, and publications downloaded

Number of outcome-oriented safety results or actions taken by stakeholders (e.g., industry or regulatory standard revised on account of CSB investigative finding)

Number of targeted advocacy initiatives focusing on the Drivers of Critical Chemical Safety Change Program

Number of outreach requests received and completed

STRATEGIC GOAL 3



Create and maintain an engaged, high-performing workforce.

GOAL CONTEXT: CSB employees are the agency's most valuable resource. Goal 3 seeks to optimize our human capital resources to advance the agency's mission. Proper use of employee skills will best serve the public and the CSB. The CSB strives for continual improvement to promote organizational efficiency throughout the agency. Creating revised and renewed CSB policies, procedures, and training will also help improve productivity and encourage adherence to the CSB's core values and Code of Conduct. This approach, along with strong managerial skills, will foster an open environment that empowers employees to contribute varied ideas and solutions to their work.

OBJECTIVES

 **OBJECTIVE 3.1.** Implement effective recruiting, targeted retention, and skills-based training and mentorship.

To achieve these significant human capital goals, the agency will employ and update onboarding platforms, career ladders, individual development plans, Office of Personnel Management assessments, award and recognition programs, and skills-based training on both group and individual levels. The goal of these efforts is to provide employees with the skills needed to help the CSB run effectively, which will also promote the retention of talented employees.

Why These Strategies Will Work

CSB employees have asked for more direction, clarity, and support. The approaches we will use are based on sound organizational development principles that have been demonstrated to improve employee engagement, which in turn will foster positive performance. The CSB has recommended that companies review and make adjustments to their organizational cultures to promote safety and continual improvement. Over the next five years, the agency will apply the same process to its own operations to improve organizational effectiveness, which should enhance the agency's ability to drive safety change.

CODE OF CONDUCT

We the employees of the CSB will treat each other with mutual respect by:



Conducting ourselves in a highly professional manner.



Communicating constructively and often.



Treating others as you want to be treated.



Valuing teamwork.



Taking personal responsibility for making the CSB a supportive, productive and positive working environment.



Building trusting relationships.



Working collaboratively, include others when appropriate.



 **OBJECTIVE 3.2. Encourage management development and leadership at all levels.**

In this initiative, the CSB will pilot a uniform series of new communications and leadership courses. The agency will incorporate a management skills development program for managers and prospective leaders. This program will emphasize the importance of holding managers accountable for making sound decisions and reward those who do. Management accountability will also be a critical element in all supervisors' and managers' performance plans. Ultimately, the objective of this program will be to create standard expectations for all agency managers and prospective managers.

 **OBJECTIVE 3.3. Strategically allocate resources across the organization.**

The CSB will strategically allocate financial, personnel, and information technology resources to best achieve the agency's mission. Budget forecasting will closely align with action planning that

details the implementation of each strategic goal and objective outlined in this Strategic Plan. The agency's recent organizational assessments, IT Capital Plan, and Human Capital Plan will all be reviewed and reinvigorated to achieve or exceed metrics identified in annual agency action plans.

 **OBJECTIVE 3.4. Strengthen operational performance and project management efforts.**

The agency will achieve improved operational performance by adhering to agency and departmental action plans and making resource determinations based on their potential to advance the CSB strategic goals. Using performance metrics identified in this plan, the agency will create realistic sub-goals with metrics, milestones and targets for each action plan item.

The CSB is looking forward to continuing its efforts to drive safety change through the successful implementation of its 2017–2021 Strategic Plan.

STRATEGIC GOAL 3 PERFORMANCE MEASURES

MEASURE

Number of and time taken to fill open positions with new CSB hires

Percentage of onboarding and mentoring plans implemented, by office

Percentage increase of selected Federal employee viewpoint survey results

Percentage of high-performing employees retained

Number of diversity recruiting and retention efforts completed

Percentage of positive participant reviews of management skills “core curriculum” courses

Percentage of managers' performance standards that include management responsibilities to improve accountability and reward sound management practices

Percentage of departmental action plans, linked to agency action plan, completed and implemented annually

Top: Don Holmstrom, Director of the CSB's Western Regional Office, speaks to plant personnel in Contra Costa County, CA. Bottom left: CSB Investigator Mark Wingard and contractors examine a piece of equipment during testing. Bottom right: CSB investigators examine the scene of a massive fire and explosion at the Enterprise Gas Plant in Pascagoula, MS.

U.S. Chemical Safety and Hazard Investigation Board
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