



**U.S. Chemical Safety and
Hazard Investigation Board**

BUDGET REQUEST

FY 2023

**FY 2023 Budget Request
Table of Contents**

Contents

I. Introduction 3

II. Vision, Mission and Strategic Goals 6

III. Budget Request 7

IV. Budget by Object Classification Category 17

V. Additional Tables.....

Appropriations by Fiscal Years 22

Personnel Data 23

Organization Chart..... 24

Recommended Appropriations Language..... 25

I. Introduction

As an independent, non-regulatory agency, the U.S. Chemical Safety and Hazard Investigation Board's (CSB) mission is to drive chemical safety change through independent investigations to protect people and the environment. To that end, the CSB conducts comprehensive investigations of serious chemical incidents, which are often preventable with the effective implementation of robust safety management systems. The agency then makes recommendations aimed at preventing or mitigating the consequences of similar incidents.

The CSB is a unique agency, modeled after the National Transportation Safety Board (NTSB). CSB investigations have collectively identified gaps in regulatory requirements, industry standards and guidance, workforce training and operations, and emergency planning and response that caused or exacerbated the human and environmental consequences of chemical incidents.

Throughout its history, the CSB has initiated more than 140 deployments to chemical incidents and issued over 860 safety recommendations. Incidents investigated by the CSB have resulted in more than 200 fatalities, over 1,200 injuries, and significant environmental damage.

The CSB's vision is a "nation safe from chemical disasters." The CSB educates and prompts action from regulators, industry personnel, standard-setting organizations, academia, and the American people to ensure that facilities that use hazardous chemicals properly manage their risk and perform their work in a safe manner.

During the last two years, the CSB, like the rest of the country, encountered unique challenges due to the circumstances surrounding the COVID-19 pandemic. In 2020, the CSB was able to quickly adapt to remote work through execution of its existing telework capabilities and CSB staff members have continued to telework throughout the pandemic. The Chairperson has supported the work of the CSB's COVID-19 task force, which developed practices, policies, and a risk management strategy for the agency. Because of this, CSB staff members have been able to effectively pursue the agency's mission while operating in a safe and efficient manner. As part of the CSB's COVID-19 safety plan, staff members regularly interact via Microsoft Teams and Government Zoom platforms. Despite challenges presented by the pandemic, the CSB has continued to execute ongoing initiatives to enhance teamwork and collaboration amongst its staff.

In 2021, the CSB began to hold public board meetings to vote on its final investigative reports. These meetings, which are available to view by members of the public via Government Zoom, present the investigation's findings, analysis and recommendations for board vote in an open and transparent manner. This enhanced level of transparency can be expected moving forward as the agency continues to vote on investigations in full view of the public.

Although a micro-agency with a budget of \$12 million and an authorized staff of 47 in FY 2021, the CSB consistently advances chemical safety in the United States. The impact of the CSB's investigations and recommendations has resulted in significant safety improvements throughout the country across a wide variety of industries. The following safety changes are a direct result of CSB investigations and recommendations:

- As a result of the CSB’s 2014 investigation into a fire and explosion at the Chevron Refinery, Richmond, CA, the California Division of Occupational Safety and Health instituted a new Process Safety Management (PSM) regulation which adopted many improvements aimed at making refineries safer for workers and citizens. Through a more robust process safety management approach aimed at identifying hazards, implementing inherently safer solutions, and reducing risks to the greatest extent feasible, California has advanced chemical safety.
- Following the CSB’s investigation of a natural gas explosion that killed six workers during a planned work activity to clean debris from natural gas pipes at Kleen Energy in Middletown, CT, the CSB called on the American Society of Mechanical Engineers (ASME) to require inherently safer fuel gas piping cleaning methodologies in favor of gas blows. As a result of the CSB’s recommendations, ASME updated the appropriate guidance document to provide reference to the National Fire Protection Association’s (NFPA) applicable standard which includes applicable guidance for inherently safer fuel gas pipe cleaning.
- After flooding caused by Hurricane Harvey at the Arkema plant in Crosby, TX, the CSB launched an investigation and found a significant lack of industry guidance on planning for flooding or other severe weather events. The agency recommended that the Center for Chemical Process Safety (CCPS) produce relevant guidance to prevent similar incidents. CCPS released that guidance, “Assessment of and Planning for Natural Hazards,” which provides an updated and comprehensive approach for assessing natural hazards, means to address the hazards, and emergency planning.

Chemical disasters are extremely costly. To accomplish the CSB’s mission, it is critical that chemical safety lessons are learned and shared among the many diverse stakeholders that use hazardous chemicals. The CSB has investigated numerous high-consequence incidents that have resulted in millions of dollars in damage and disruptions to regional and local economies.

- On April 26, 2018, an explosion at the Husky Refinery in Superior, Wisconsin, resulted in severe property damage and the evacuation of much of the nearby city. The loss associated with the incident is approximately \$650 million.
- On April 2, 2019, a fire and explosion occurred at the KMCO custom chemical processing and specialty chemical manufacturing facility in Crosby, TX. The incident resulted in one fatality, multiple injuries, and significant property damage. The monetary loss due to the incident is estimated at \$100 million.
- On June 21, 2019, an explosion and fire at the Philadelphia Energy Solutions (PES) Refinery in Philadelphia, Pennsylvania, resulted in a massive explosion and fire releasing process fluid that included over 5,000 pounds of hydrofluoric acid, or HF. The loss associated with the incident is estimated at \$750 million with the refinery shutting down and the loss of over 1,000 jobs.
- On November 27, 2019, a major loss of containment event occurred, resulting in multiple fires and explosions at the TPC Group (TPC) Port Neches Operations (PNO) facility in Port Neches, TX. The monetary loss due to the incident is estimated at \$500 million.

If the CSB's many safety lessons and recommendations prevent at least one catastrophic incident, the costs avoided from damage to facilities and the surrounding communities and the environment, legal settlements, and the loss of human life far outweigh the agency's annual budget. Safety and prosperity are compatible. Strong safety programs are critical for the economic success of the many industries that use, process, or work with hazardous chemicals. If we do not learn from previous incidents, Americans will continue to spend billions of dollars responding to future incidents. Through its independent investigations, the CSB plays a unique role in fostering collaboration with industry, regulators, standards-setting bodies, and professional organizations, to work together to drive critical chemical safety change in the United States.

II. Vision, Mission and Strategic Goals

Vision

A nation safe from chemical disasters.

Mission

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

Strategic Goals

Goal 1 – Prevent recurrence of significant chemical incidents through independent investigations.

- 1.1. Select for investigations those incidents and hazards that are most likely to generate recommendations or findings with broad preventive impact.
- 1.2. Complete timely, high-quality investigations that determine the causes of incidents.
- 1.3. Develop and issue recommendations with broad preventive impact.

Goal 2 – Advocate safety and achieve change through recommendations, outreach, and education.

- 2.1. Pursue the implementation of recommendations, with focused effort on those designated as high impact.
- 2.2. Identify and strategically promote key chemical safety issues.
- 2.3. Disseminate chemical safety information using a variety of high-visibility tools and products.

Goal 3 – Create and maintain an engaged, high-performing workforce.

- 3.1. Implement effective recruiting, targeted retention, and skills-based training and mentorship.
- 3.2. Encourage management development and leadership at all levels.
- 3.3. Strategically allocate resources across the organization.
- 3.4. Strengthen operational performance and project management efforts.

III. Budget Request

Budget Request Summary

The CSB requests a budget of \$14.4 million in FY 2023 to pursue its unique safety mission and continuing operations. This is an increase of \$1.0 million, or 7.46% above the \$13.4 million rate proposed by the House in July 2021.

The requested amount allows the CSB to maintain and develop its investigations program, safety outreach capabilities, and enhance its infrastructure in FY 2023; staff up in key areas that are imperative to executing the CSB's mission; and continue implementation of the President's initiatives for information technology (IT) modernization, including transitioning to an all-electronic environment for records preservation and transparency; and increasing the accessibility of Federal information to the American public, including increased accessibility to the CSB's investigative records. To successfully achieve its mission for FY 2023 and beyond, the CSB will evaluate additional funding through the annual President's Budget process in several areas that are described in the object classification detail.

The FY 2023 request includes \$300,000 for no-year funding to maintain and enhance a new Docket Management System (DMS). Over the past few years, the CSB has continued its shift from paper-based business processes to electronic-based business processes. In FY 2022, the CSB will shift to electronic storage of docket items with an in-house developed database application. Members of the public will be able to access investigation information on a publicly available server. The small no-year funding requested in FY 2023 will allow the agency to continue to maintain and enhance the newly developed DMS.

It is important to note that a number of agencies have utilized a DMS to a high level of success. The NTSB and the FAA Office of Safety have docket management systems and consider them to be an asset to support their core missions. Consistent with the benefits experienced by other Federal agencies, the CSB envisions increased transparency, efficiency, and overall growth when it comes to the sharing of valuable safety related information. A well-designed DMS will deliver core functionality that provides meaningful ancillary benefits to the user and the CSB, such as more efficient data entry, more effective data retrieval, better tools, and enhanced public access. A properly designed DMS delivers not only the functionality that will allow the CSB to internally process information more effectively, but also provides the public with access to appropriate information with much greater efficiency than the current methods available to the agency.

The requested increase in FY 2023 also provides full-year funding for positions that are to be filled in FY 2022. As of the time of this FY 2023 budget request submission, the CSB has several vacant positions for its mission-critical occupation, Chemical Incident Investigator. The agency is continuing to hire mission-critical positions in FY 2022 as well as FY 2023 – with the intent of ensuring a fully staffed agency to meet the agency's mission. Currently, other critical staff positions remain vacant, including the Chief Information Officer and General Counsel.

With the additional funds in FY 2023 the CSB will also enhance its infrastructure. The CSB anticipates increases in its administrative and legal requirements with the implementation of new publicly available databases.

CSB Accomplishments

Investigations

The CSB's first strategic goal is to prevent recurrence of significant chemical incidents through independent investigations. The CSB made significant progress on 20 open investigations and completed three investigations in FY 2021.

Aghorn Energy Fatal Chemical Release (Odessa, TX): On October 26, 2019, a release of hydrogen sulfide led to the deaths of one worker and one member of the public. The CSB's final report identified six main safety issues related to the incident. The CSB issued a total of nine recommendations in an effort to improve the safety at similar sites across the country. The CSB made seven recommendations to Aghorn Operating, Inc. for safety improvements at all waterflood stations where the potential exposure to dangerous levels of toxic hydrogen sulfide gas exists. The CSB also made two recommendations to federal and state regulators, the Occupational Safety and Health Administration (OSHA) and the Railroad Commission of Texas, addressing the requirements for protecting workers from hazardous air contaminants and from hazardous energy.

Evergreen Packaging Paper Mill Fire (Canton, NC): On September 21, 2020, a fire occurred at the Evergreen Packaging Paper Mill in Canton, NC, during a scheduled maintenance event. Two contractors were fatally injured as a result of the incident. The CSB issued a total of eight recommendations to Evergreen for developing and implementing a policy that addresses hot work and simultaneous operations and requires the involvement of emergency response personnel in planning and coordination of activities involving the use of flammable materials in confined spaces. The CSB also reiterated a previous recommendation and issued two new recommendations to the Occupational Safety and Health Administration (OSHA), addressing the hazards and controls when using flammable materials in confined spaces.

AB Specialty Silicones Blending Company Fire and Explosion (Waukegan, IL): On May 3, 2019, an explosion and fire occurred at the AB Specialty Silicones facility in Waukegan, Illinois. Four workers were fatally injured and there was extensive damage to nearby businesses. The CSB's final report identified five main safety issues related to the incident. The CSB issued three recommendations to AB Specialty Silicones for developing hazardous gas detection and alarm programs and associated procedures, establishing a safety management system that addresses process safety at the facility, and incorporating into operations and activities at AB Specialty the specific elements recommended in CCPS's *Essential Practices for Managing Chemical Reactivity Hazards*. The CSB also reiterated two recommendations to federal regulators, the Occupational Safety and Health Administration (OSHA), and the Environmental Protection Agency (EPA), advocating for the implementation of previously issued recommendations that require new regulations that address reactive hazards.

In addition to the chemical incident investigations completed in FY 2021, the CSB continues to conduct field work, analysis, and report writing on several major investigations. The CSB deployed to five new incidents, released seven updates on ongoing investigations, and made significant progress in the completion of other open investigations. The agency has continued to focus on the completion of more timely investigation reports to ensure that critical safety recommendations can be released earlier to

prevent catastrophic incidents. Due to hiring in FY 2020 and FY 2021, all open incident investigations are now being actively worked.

Deployments and New Investigations in FY 2021

In FY 2021, the CSB deployed to five chemical incidents. With the Office of Investigations currently staffed at 13 chemical incident investigators and the Office of Recommendations staffed with two recommendations specialists, this has made for an extremely busy, active, and productive year.

- On Friday November 13, 2020, at approximately 10:04 a.m. EST, seven workers were exposed to a release of hydrochloric acid during a maintenance activity at the Wacker Polysilicon North America facility in Charleston, Tennessee. One of the workers was fatally injured, and three other workers sustained serious injuries.
- On Tuesday December 8, 2020, at approximately 10 p.m. EST an explosion occurred at Optima Chemical LLC in Belle, WV. The incident resulted in one fatality and two injuries as well as a shelter-in-place for community members within a 2-mile radius of the facility. The CSB provided an information release on March 2, 2021.
- On January 28, 2021, a liquid nitrogen release at the Foundation Food Group's Prepared Foods Division in Gainesville, GA, led to six fatalities and multiple injuries. The CSB held a news conference during the deployment phase of its investigation and issued two information releases.
- On April 8, 2021, an explosion and fire erupted at the Yenkin-Majestic paint and OPC Polymers Corporation in Columbus, OH. One employee was fatally injured and eight were transported to area hospitals for injuries. The blast shook neighboring buildings and at least one nearby business sustained damage. The CSB issued two information releases following the deployment.
- On July 27, 2021, a release of 100,000 pounds of acetic acid during a maintenance event at the LyondellBasell facility in La Porte, TX, resulted in fatal injuries to two contract employees and 30 other personnel being transported to medical facilities for evaluation and/or treatment. The CSB provided an information release on August 3, 2021.

Ongoing Investigations

- **Hot Work Fire and Explosion (Nederland, TX):** On August 12, 2016, seven workers were injured at the Sunoco Logistics Partners natural gas terminal in Nederland, Texas. The incident involved a flash fire during welding activities.
- **Catastrophic Pressure Vessel Rupture (St. Louis, MO):** On April 3, 2017, an overpressure within a steam condensate storage tank at the Loy-Lange Box Company launched the vessel into a neighboring dry-cleaning facility and fatally injured one worker at the box company and three members of the public at the adjacent facility. **The CSB released an investigative**

factual update in May 2017.

- **Combustible Dust Explosion (Cambria, WI):** On May 31, 2017, an explosion occurred at the Didion Milling facility in Cambria, Wisconsin, where sixteen employees were working the night shift. Thirteen people were injured, five fatally. If this incident had occurred twelve hours earlier during the day shift, up to fifty people would have been working in the damaged buildings, and the number of injuries and fatalities could have been considerably higher. The packing facility, where some employees had been working, completely collapsed as a result of the explosion. Significant forensic examination of two gap mills involved in the explosion took place in 2019. Completion of this teardown and examination has provided critical information necessary to complete the investigation. **The CSB released a factual investigative update in May 2018. In September of 2020, the CSB released a “Dust Hazard Learning Review,” which presented combustible dust hazards from multiple perspectives.**
- **Refinery Fire and Explosion (Superior, WI):** On April 26, 2018, an explosion and subsequent fire occurred at the Husky Superior Refinery in Superior, Wisconsin. The explosion occurred during a scheduled break time and many workers who were previously in the unit before the explosion had moved either into blast-resistant buildings or away from the process unit at the time of the explosion. As a result of the explosion, 36 people sought medical attention, including eleven refinery and contract workers who suffered OSHA-recordable injuries. In addition, a large portion of the community of Superior, Wisconsin, was evacuated. **The CSB released a factual investigative update in Superior, Wisconsin, in August 2018, and held a public meeting in the community in December 2018.**
- **Manufacturing Facility Explosion (Pasadena, TX):** On May 19, 2018, an explosion injured 21 workers at the Kuraray America EVAL facility in Pasadena, Texas. The facility manufactures ethylene vinyl-alcohol copolymers, sold as EVAL. Kuraray America is a Tokyo-based specialty chemical manufacturer. **The CSB released an investigative factual update in October 2018.**
- **Tank Fires and Explosions (Deer Park, TX):** On March 17, 2019, a tank fire erupted at the Intercontinental Terminal Company (ITC). **The CSB released an investigative factual update in October of 2019.**
- **Custom Chemical Blending and Processing Company Fire and Explosion (Crosby, TX):** On April 2, 2019, a fire and explosion at the KMCO custom chemical processing and specialty chemical manufacturing facility caused one fatality and multiple injuries. **The CSB released an investigative factual in September 2019.**
- **Refinery Fire and Explosion (Philadelphia, PA):** On June 21, 2019, there was a release of vapor in the Philadelphia Energy Solutions refinery alkylation unit. The vapor found an ignition source, causing a fire and multiple explosions. This was one factor leading to the refinery’s permanent closure and the loss of more than 1,000 jobs. **The CSB released an investigative factual update and preliminary animation in October 2019.**
- **Chemical Facility Fire and Explosion (Port Neches, TX):** On November 27, 2019, an

explosion and fire occurred at the TPC Group chemical plant in Port Neches, Texas. The initial explosion caused extensive damage to the facility and injuries to two facility employees and a contractor.

- **Manufacturing Facility Fire and Explosion (Houston, TX):** On January 24, 2020, an explosion fatally injured two workers at Watson Grinding, a machining, grinding, lapping, and thermal spray coatings services company. The explosion caused extensive damage to nearby homes and businesses.
- **Gas Well Explosion (Burlison County, TX):** On January 29, 2020, a gas well explosion at the Wendland 1H Well fatally injured three contract workers during an onshore drilling operation.
- **Chemical Fire Following Hurricane Laura (Westlake, LA):** On August 27, 2020, a fire occurred at the Bio-Lab Lake Charles chemical facility following landfall of Hurricane Laura. The fire led to a call for local residents to shelter-in-place.
- **Chemical Release (Conyers, GA):** On September 14, 2020, a thermal decomposition event occurred at the Bio-Lab facility in Conyers, GA. Interstate Highway 20 was closed temporarily due to smoke produced by the event.

Recommendations

The CSB's second strategic goal is to pursue safety change through safety recommendations, outreach, and education. Since its creation, the CSB has issued a total of 861 recommendations to industry, trade associations, standards-setting bodies, and state and Federal agencies to advance chemical safety practices. These recommendations are the CSB's primary tools for preventing future chemical incidents and mitigating consequences when they do occur; they drive positive, critical chemical safety change.

The CSB has prioritized recommendation closures in FY 2021 and made some significant progress on many of its open recommendations. In FY 2021, the Board voted on the status of **47 recommendations**. Of the 47 recommendations voted upon, the CSB **closed 41** and advanced the status of six.

The CSB's performance for FY 2021 in advancing recommendation status changes increased by over 200% from FY 2020 (15 versus 47). The subset of recommendations closed with successful outcomes increased by 600% from FY 2020 (four versus 28), which translates to the implementation of higher safety standards across the chemical industry. Finally, **20 new recommendations** have been issued in FY 2021, as compared to none in FY 2020.

Of the 861 recommendations, **758 (88%) have been closed and 103 (12%) are open**.

Of the recommendations addressed most recently three actions really stand out.

- As a result of recommendations from the CSB's investigation of a nitrous oxide trailer truck explosion at the Airgas manufacturing facility in Cantonment, Florida, on August 28, 2016,

which fatally injured an Airgas employee and heavily damaged the facility, the Compressed Gas Association (CGA) developed a safety management system (SMS) standard as well as updated their standards for the storage and handling of Nitrous Oxide. Instead of limiting the SMS standard to the nitrous oxide industry, the scope was expanded to all processes within the industrial and medical gases industries. These actions, which are a direct result of CSB recommendations, provide increased safety over several industry segments including the international community.

- On March 23, 2005, the BP Texas City refinery experienced severe explosions and fire in an isomerization unit (ISOM) that resulted in 15 deaths, 180 injuries, and significant monetary losses. In its report on the incident, the CSB found that operators were likely fatigued from working long hours over consecutive days during the turnaround of the unit prior to startup. The CSB learned that there were no federal safety regulations, industry safety guidelines, or voluntary standards to manage and prevent fatigue as a risk factor. As a result, the CSB recommended that the American Petroleum Institute (API) and the United Steelworkers work together to develop a new consensus American National Standards Institute (ANSI) standard on fatigue prevention guidelines for the refining and petrochemical industries. As a result of this recommendation, API developed ANSI/API Recommended Practice (RP) 755 - Fatigue Risk Management Systems for Personnel in the Refining and Petrochemical Industries, which provides industry guidance on fatigue prevention where previously there was none.
- As a result of the CSB's investigation into the April 20, 2020, multiple-fatality incident at the Macondo oil well that led to the deaths of eleven individuals; serious physical injuries to seventeen others; the evacuation of 115 individuals from the rig; the sinking of the Deepwater Horizon; and massive marine and coastal damage from approximately four million barrels of released hydrocarbons, the CSB found a lack of tracked performance indicator data throughout industry. Therefore, the CSB issued a recommendation to Department of the Interior - Bureau of Safety and Environmental Enforcement (DOI - BSEE) to expand their offshore regulations to require the collection, tracking, and analysis of safety performance indicators from the offshore oil and gas industry to further influence industry efforts in reducing major accident risks. The resulting publicly available safety performance indicators are now collected and measured throughout the entire offshore oil and gas industry to reduce risk and enhance safety and environmental protection.

Safety Outreach and Collaboration

In FY 2021, the CSB made a commitment to increased transparency. The CSB has demonstrated this through initiating virtual Board Meetings upon completion of investigations. This provides the public with insight into the staff's investigative process, the facts and analysis, conclusions, and recommendations. Further, the Board's deliberation occurs in real time. In FY 2021, utilizing this new transparency process, the CSB completed three investigations: Aghorn, AB Specialty Silicones and Evergreen Packaging. This compares to only one completed investigation in FY 2020.

Many of the CSB's investigations are featured in videos on our YouTube Channel, which addresses our mandate for outreach and education. In FY 2021 the CSB also held four virtual Sunshine Act

Board Business Meetings which allowed the public to hear updates on the agency’s activities.

On September 29, 2021, Dr. Katherine A. Lemos, testified before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce which held a hybrid hearing that included both in-person and remote attendance. Committee Chairman, Frank Pallone (NJ), set the tone and said, “In my view, getting the CSB back to functioning at the highest level is the first step. The goal of today’s hearing is to help get CSB back on track, and I hope that we can all come together to revitalize this critical agency.” Throughout the hearing, Chairman Lemos advocated for additional resources for the CSB and emphasized the ongoing progress which has been made throughout her tenure as Chairperson and CEO.

During her term, the Chairperson has participated in a number of events utilizing both in-person and remote capabilities. To name a few, the Chairperson participated as a keynote speaker at the 2020 Center for Chemical Process Safety Big Data Conference as well as a presenter to the University of Southern California, Human Factors Class. Each event reached several hundred people and elevated the visibility of the CSB’s work.

CSB staff participated in several events across the country related to ongoing investigations work as well as process safety management seminars and symposium.

In 2021, the CSB released one safety video entitled “Silent Killer: Hydrogen Sulfide Release in Odessa, TX”, associated with the Aghorn investigation report. The video is available to view and download, free of charge, on the CSB’s website and on YouTube. The 17-minute video details the events surrounding the tragic event in Odessa, Texas, which fatally injured a worker and a member of the public due to the release of hydrogen sulfide at a waterflood station. The CSB's safety video includes a new animation of the events leading up to the incident, and interviews with both the CSB’s Chairperson and the Supervisory Investigator for this investigation. The final video has received almost 500,000 views on YouTube.

Since 2005 the CSB has produced **66 online animated videos** which are available on YouTube, with nearly 26 million total views and more than **200,000 subscribers**.

Create and maintain an engaged, high-performing workforce

Goal 3 emphasizes organizational excellence. In FY 2021 CSB continued its recruiting efforts to fill multiple vacancies for the agency’s mission critical position, Chemical Incident Investigator. Industry trends drive a need for the CSB to strengthen our capacity to analyze increasingly complex engineering processes and human interactions with these processes and deploy to incidents in new industries and with emerging technologies. In FY 2022 the CSB is hiring a total of four new Chemical Incident Investigators. Moreover, the CSB filled critical non-Investigator positions in FY 2021 which include the Senior Advisor to the Chairman and CEO, a Senior Advisor/Executive Council, a Human Resources Director and most recently a Managing Director. Additionally, the CSB is actively in the process of recruiting and hiring both a Contract Officer and Chief Information Officer.

In FY 2021, the CSB also worked to improve operational excellence for maintaining electronic records. The CSB uses two systems for records management. One system, TRIM/Content Manager, is a database primarily used for permanent electronic document and records management storage, and the other system, SharePoint online, is used for temporary document and records storage and editing, data entry,

and file sharing. To maximize efficiencies and increase security, the CSB worked with a contractor to integrate the systems and maximize their functionality. As of September 30, 2021, the CSB has completed the implementation of this project. The CSB now automatically archives investigations from SharePoint sites into TRIM/Content Manager. The CSB is currently planning the upgrade of this system again in FY 2022 to the latest version of the software which includes more improvements, including better integration with Microsoft Teams where CSB's new investigations are managed.

FY 2023 Budget Request

The CSB is requesting a budget of \$14.4 million in FY 2023 to execute its unique safety mission and continuing operations, plus the development of new databases.

Over 90% of the funds requested in FY 2023 will be distributed into four main budget categories: personnel compensation, personnel benefits, rent, and other services. Of the requested \$14.4 million, compensation costs, including fringe benefits, account for \$9.9 million – or 69% of the total agency budget. To procure mandatory services provided by other government agencies, such as payroll, personnel management, accounting, procurement, occupational health services, and other non-governmental contractors, the CSB requests \$2.9 million – or 20% of the agency’s budget request. Finally, \$760,000 – or 5% – is requested for rent, which includes office space in Washington, DC.

The requested funding will allow the CSB to maintain and further develop programmatic activities that support its three strategic goals.

- **Investigations.** The CSB evaluates significant chemical incidents and initiates investigations where there are significant chemical safety consequences or issues with high potential for learning. To complete these investigations, the agency identifies the root causes of chemical incidents, issues recommendations to eliminate safety gaps and shares findings broadly across industries that use hazardous chemicals. CSB investigations are transparent. The agency conducts press briefings and public hearings to share findings, obtain additional facts and address concerns from members of the community. Investigative materials are available on the agency’s website, to include the new video recordings of Board Meetings.
- **Safety Promotion and Outreach.** The agency collaborates with stakeholder groups and works with recommendations recipients – including government entities, safety organizations, trade associations, corporations, labor organizations, emergency response organizations, and educational institutions – to implement the Board’s safety recommendations. The CSB continues to release safety videos and other products, in both English and Spanish, to ensure that valuable safety lessons are available to broad audiences to maximize their preventive impact.
- **Operational Excellence.** The CSB strives for continual improvement to promote organizational efficiency. In FY 2023 the agency will continue to increase staffing on the mission team and in key support positions in order to meet our mission. The CSB will also continue efforts to improve management metrics and accountability to ensure that investigations are completed in a timely manner and resources are strategically allocated to advance chemical safety change. Finally, the CSB will continue using its IT system to support the growing electronic records environment and increase productivity using cloud-based applications and systems.

The CSB currently receives information on approximately one reportable chemical incident a week which works out to at least 52 incidents per year that fall under the agency's purview. These incidents are reported to the CSB as the result of our Incident Reporting Rule. The agency consistently follows up on all the events within our jurisdiction.

The requested FY 2023 increase is primarily to provide full-year funding for positions filled in FY 2022 and FY 2023. At the time of the 2023 budget request submission, the CSB has several vacant positions for its mission-critical occupation, Chemical Incident Investigator. The agency has prioritized the recruitment and retention of candidates for the chemical incident investigator vacancies. In FY 2021 & 2022 the CSB successfully hired four new Chemical Incident Investigators. In FY 2022 the agency is looking to hire four additional Chemical Incident Investigators as well as well key support positions in the Office of General Counsel, contracting and procurement, information technology, and other areas of support.

With critical vacancies filled in FY 2022 and FY 2023, the CSB anticipates an increased ability to conduct more investigations in FY 2023. As a result, slight increases will be needed for investigation-related costs such as travel and consultants, along with the additional cost to fully funded positions in FY 2023.

Conclusion

The CSB's FY 2023 budget request for \$14.4 million allows the CSB to execute its unique safety mission, strengthening its capacity to conduct comprehensive investigations of catastrophic chemical incidents and to provide critical recommendations that yield safety returns to the chemical industry. By sharing the safety lessons from its incident investigations with industry, workers, and the public, the CSB maintains its role as a premier resource for chemical safety lessons learned. The agency will also continue to retain existing and obtain new talent. The resources developed by the CSB are used nationwide to prevent the loss of life, injuries, and damage to surrounding communities that result from these preventable chemical incidents. This investment in the CSB allows the agency to become more effective in completing and distributing its critical life-saving work. As the agency continues to investigate chemical incidents, the Board's recommendations will draw on its robust history of chemical safety knowledge so that new and emerging industries will benefit from the best practices and safety advancements implemented by their predecessors to achieve greater prosperity. The CSB is a modest Federal investment with a large potential return: improved safety practices and requirements and long-term economic sustainability for all types of industries that use hazardous chemicals, which in turn better protects the environment and saves more lives.

IV. Budget by Object Classification Category

The U.S. Chemical Safety and Hazard Investigation Board (CSB) requests \$ 14.4 million for FY 2023. The funding requested will enable the CSB to achieve its core mission, as required by the Clean Air Act Amendments of 1990. The proposed budget for FY 2023 is shown in the table below by budget object classification with a comparison to the FY 2022 projected costs. The table is supported with a narrative explanation of the amount requested for each budget object classification.

Budget Object Classification Table
Fiscal Years 2022 and 2023

Budget Object Class		Projected FY 2022*	Requested FY 2023	Change FY 2022-2023	
				\$	%
11	Personnel Compensation	\$6,209,000	\$7,428,000	\$1,217,000	19.59%
12	Personnel Benefits	\$2,109,000	\$2,567,000	\$460,000	21.83%
Subtotal Personnel Costs		\$8,318,000	\$9,995,000	\$1,677,000	20.16%
21	Travel	\$235,000	\$255,000	\$20,000	8.51%
22	Transportation of Things	\$100,000	\$0	-\$100,000	-100.00%
23.2	Space Rental Payments	\$743,000	\$760,000	\$17,000	2.29%
23.3	Communications, Utilities and Misc.	\$119,000	\$122,000	\$3,000	2.52%
24	Printing and Reproduction	\$15,000	\$15,000	\$0	0.00%
25	Other Services	\$3,543,000	\$2,932,000	-\$611,000	-17.25%
26	Supplies and Materials	\$276,000	\$270,000	-\$6,000	-2.17%
31	Equipment	\$51,000	\$51,000	\$0	0.00%
Totals		\$13,400,000	\$14,400,000	\$1,000,000	7.46%
FTE		46	49	3	6.52%

* [Text of H.R. 4372, July 6, 2021](#)

Budget Object Classification Detail

11.0 Personnel Compensation

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$6,211,000	\$7,428,000	\$1,217,000	19.59%

The budget request for FY 2023 includes \$7,428,000 to fund direct payroll costs for five board members and 44 staff members. This object class includes promotions and step increases to retain and advance entry and intermediate level employees.

12.0 Personnel Benefits

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$2,107,000	\$2,567,000	\$460,000	21.83%

CSB personnel benefits include the government's contributions to the CSRS and FERS retirement programs; life and health insurance programs; the student loan repayment program; the Transit Subsidy Program; and the Thrift Savings Plan. The FY 2023 request reflects benefits for five board members and 44 staff members.

21.0 Travel

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$235,000	\$255,000	\$20,000	8.51%

CSB board members and staff are required to travel to conduct the agency's core work of investigating incidents and advocating for safety change through recommendations and outreach. In addition, travel is required for remote workers between remote duty stations and CSB offices in Washington, DC, as well as to certain training courses. The CSB requests an increase of \$20,000 to provide for additional travel primarily to deploy to more incidents as well as Board Members' outreach initiatives.

22.0 Transportation of Things

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$100,000	\$0	-\$100,000	-100.00%

The CSB anticipates no shipment costs in FY 2023.

23.2 Space Rental Payments

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$743,000	\$760,000	\$17,000	2.29%

The CSB anticipates an increase in space rental costs in FY 2023. This is due to real estate tax and operating cost increases for the Washington, DC, office.

23.3 Communications, Utilities and Misc.

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$119,000	\$122,000	\$3,000	2.52%

Communication and postage costs are projected to be \$122,000 in FY 2023, almost the same rate from FY 2022, except for a small inflation. The communication cost includes \$109,000 to provide enough internet bandwidth for the volume of data transmitted across the agency and to webcast meetings to the public. Other communications and utilities costs include \$5,000 for postage and express mail, and \$8,000 in costs associated with building security and continuity of operations.

24.0 Printing and Reproduction

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$15,000	\$15,000	\$0	0.00%

The CSB anticipates no change in printing and reproduction costs in FY 2023.

25.0 Other Services

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$3,543,000	\$2,932,000	-\$611,000	-17.25%

A total of \$2,932,000 is requested for services in FY 2023. Requirements in this BOC fall into three basic categories: interagency agreements for services provided by other Federal agencies, contractual services to support the new Docket Management system; in addition to other contractual services provided by non-Federal sources. Supplementary information on each category is provided in the following paragraphs.

Services Provided by Other Federal Agencies. A total of \$970,000 is requested for services provided by other Federal agencies. These services include \$654,000 for financial, travel, and procurement services provided by the Bureau of the Fiscal Service (BFS) in the Department of the Treasury; and \$210,000 for personnel and payroll services provided by the Interior Business Center (IBC) in the Department of the Interior. The remaining funds will be used for other interagency agreements with Federal Occupational Health for investigator physical examinations and respirator fit testing, incident notification services provided by the United States Coast Guard's National Response Center (NRC), HSPD-12 compliance, Employee Assistance Program (EAP) support and other government-provided services.

Docket Management System. A total of \$300,000 is requested as a no-year fund for a Docket Management System. The CSB is beginning its shift to electronic storage of docket items with an in-house developed application in FY 2022. The CSB is implementing its docket management system (DMS), a contractor developed system, to manage dockets electronically. Over the past few years, the CSB has continued its shift from paper-based business processes to electronic-based business processes.

The CSB seeks a system to streamline our paper-based operations into an electronic database. Members of the public will be able to access investigative based information on a publicly available server.

Related Task:

Given the complexity of this IT initiative, the project will require ongoing maintenance by a service provider to develop and write the systems requirements document. The resources required to develop this document exceeds the current capacity of the agency's IT resources.

Cost: The requirement's contract would be valued at approximately 300K.

FTE Estimate:

Upon completion of the DMS the CSB estimates we may need the support of one entry-level GS-09/11 investigator FTE to update and manage the system.

Other Contractual Services. The CSB procures a variety of services to support its mission, including expert consultants for investigations and testing (\$500,000), support for safety animation and video production (\$300,000), training (\$175,000), and information technology software maintenance (\$180,000).

26.0 Supplies and Materials

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$276,000	\$270,000	-\$6,000	-2.17%

The amount of \$270,000 is requested for supplies and materials in FY 2023, including books, reference materials and subscriptions (\$187,000), general office and computer supplies (\$16,000), field safety supplies (\$25,000), and outreach materials (\$42,000).

31.0 Equipment

Change FY 2022-FY 2023

<u>FY 2022</u>	<u>FY 2023</u>	<u>Amount</u>	<u>%</u>
\$51,000	\$51,000	\$0	0.00%

The CSB anticipates no change in FY 2023 to support the purchases applicable to the IT Capital plan.

V. Additional Tables

CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD

Appropriations by Fiscal Years

(Dollars in Millions)

Salaries & Expenses

Fiscal Year	One-Year Funds	Two/No-Year Funds	Total Funds
1999	6.50	0.00	6.50
2000	7.97	0.00	7.97
2001	4.99	2.49	7.48
2002	5.34	2.50	7.84
2003	7.31	0.50	7.81
2004	8.20	0.00	8.20
2005	9.03	0.00	9.03
2006	9.06	0.00	9.06
2007	9.11	0.00	9.11
2008	9.26	0.00	9.26
2009	10.20	0.00	10.20
2010	11.15	0.00	11.15
2011	10.78	0.00	10.78
2012	11.13	0.00	11.13
2013	11.20	0.00	11.20
2014	11.00	0.00	11.00
2015	11.00	0.00	11.00
2016	11.00	0.00	11.00
2017	11.00	0.00	11.00
2018	11.00	0.00	11.00
2019	12.00	0.00	12.00
2020	12.00	0.00	12.00
2021	12.00	0.00	12.00
2022 ^a	13.40	0.00	13.40
2023	14.10	0.30*	14.40

^a [Text of H.R. 4372, July 6, 2021](#)

* Proposed as a no-year fund

Emergency Fund ^b

Fiscal Year	New Funding	Amount Spent to Date	Total Available
2004	\$0.44	\$0.00	\$0.44
2005	\$0.40	\$0.00	\$0.84

- b. The Emergency Fund was established in FY 2004. It provides a funding mechanism so periodic incident investigation cost fluctuation can be met without delaying critical phases of the investigations. It is no-year funding, meaning it is available until expended.

**CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD
Personnel Data**

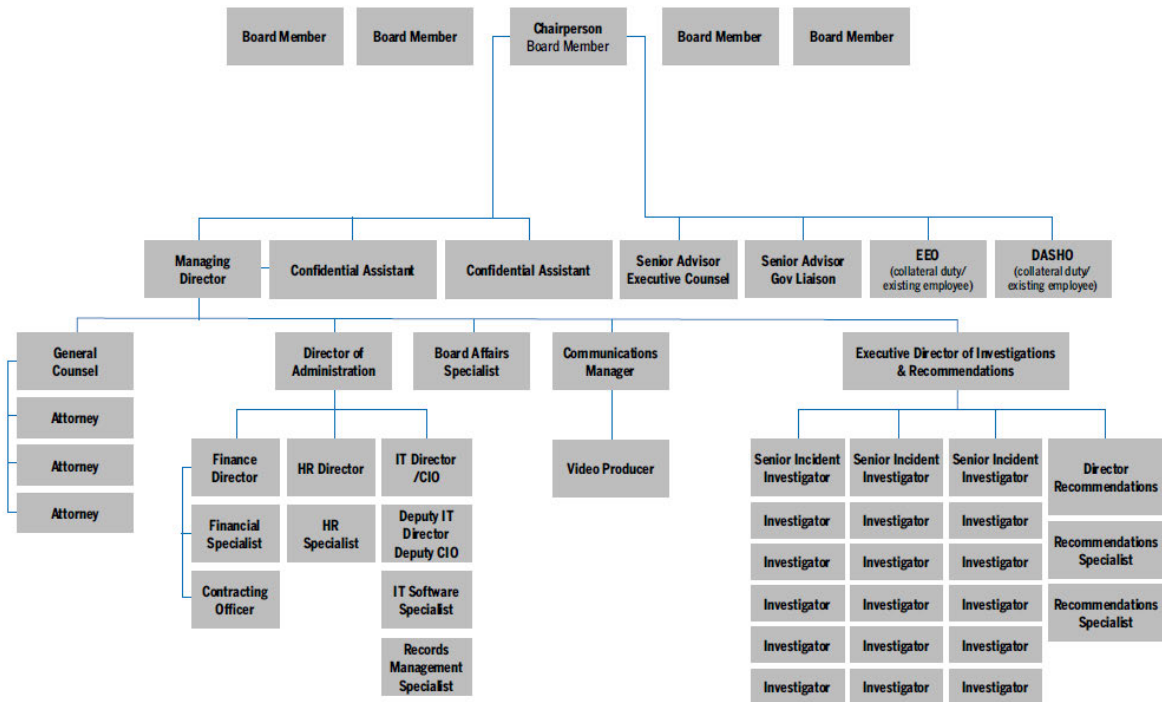
Grade	On Board 9/30/2019	On Board 9/30/2020	On Board 9/30/2021	Projected FY 2022	Requested FY 2023
GS-7	0	0	0	0	0
GS-9	0	0	0	2	0
GS-11	3	2	1	3	3
GS-12	2	2	1	5	5
GS-13	6	5	5	5	6
GS-14	8	12	11	12	15
GS-15	7	10	7	9	10
Executive	3	1	1	5	5
SES	2	2	3	5	5
Totals	31	34	29	46	49

CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD

Organization Chart



CSB ORGANIZATIONAL CHART



CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD

Recommended Appropriations Language

SALARIES AND EXPENSES

For necessary expenses in carrying out activities pursuant to section 112(r)(6) of the Clean Air Act, including hire of passenger vehicles, uniforms or allowances therefore, as authorized by 5 U.S.C. 5901-5902, and for services authorized by 5 U.S.C. 3109 but at rates for individuals not to exceed the per diem equivalent to the maximum rate payable for senior level positions under 5 U.S.C. 5376, \$14,400,000, of which \$300,000 shall remain available until expended: *Provided*, That notwithstanding any other provision of law, the individual appointed to the position of Inspector General of the Environmental Protection Agency (EPA) shall, by virtue of such appointment, also hold the position of Inspector General of the Board: *Provided further*, That notwithstanding any other provision of law, the Inspector General of the Board shall utilize personnel of the Office of Inspector General of EPA in performing the duties of the Inspector General of the Board, and shall not appoint any individuals to positions within the Board.