



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

BUDGET REQUEST

FY 2020

**FY 2020 Budget Request
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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, root cause investigations of serious chemical incidents, which are often preventable with robust safety programs. The agency then makes recommendations aimed at preventing similar incidents from recurring.

The CSB is a unique agency, modeled on the U.S. National Transportation Safety Board. No other Federal agency or private entity performs this type of comprehensive investigation. 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 incidents.

Throughout its twenty-year history, the CSB has initiated more than 130 deployments and issued more than 800 recommendations related to chemical incidents. 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 regulators, industry personnel, standard-setting organizations, academia, and the American people to ensure that facilities that use hazardous chemicals properly manage their hazards and perform their work in a safe manner.

With a budget of \$12 million and an authorized staff of 47 in FY 2019, the CSB consistently works to advance chemical safety. The impact of the CSB's investigations and recommendations has resulted in significant safety improvements throughout the country in a wide variety of industries. The following examples of safety improvements were a direct result of CSB safety recommendations.

- Within a year of the incident, the CSB completed its investigation of the explosions and fires at the Arkema Chemical Plant located in Crosby, Texas. The incidents occurred following the devastation of Hurricane Harvey. The CSB's final reports maps out key findings and guidance in planning for flooding or other severe weather events. The Center for Chemical Process Safety recently informed us that, in response to a CSB recommendation, they plan to revise their 2014 publication entitled "Recovery from Natural Disasters" by the end of calendar year 2019.
- MGPI Processing, Inc. facility in Atchison, Kansas implemented new safeguards specific to the facility's ventilation system and chemical transfer equipment, with special focus on the fill lines, transfer valves, transfer piping, tanks, and associating, equipment. This included upgrading their chemical unloading and transfer equipment with chemical portal separation, signage, unique locks, and fittings; and implementing an innovative key control and chemical unloading sequences.
- California is implementing landmark process safety and chemical release rules for oil refineries. The rules are based, in part, on CSB recommendations from the Chevron Richmond and Exxon Torrance investigations. California has hired and trained new

investigators to enforce the rules at the state's 14 refineries. The State of Washington is currently moving to adopt new process safety rules for its five refineries, based on California's model safeguards, and prompted, in part, by CSB's investigation of the 2014 incident at the Tesoro refinery in Anacortes, WA, that killed seven workers.

- In 2018, the CSB commemorated its 20 years of driving chemical safety change in the United States. From 1998 to 2018, the CSB addressed critical chemical safety gaps and deficiencies through its reports and recommendations to companies, standards developing organizations, academia, industry associations, emergency responders, labor groups and Federal and state government agencies.
- The video products released in FY 2018 include three full-length safety videos detailing the findings from a chemical release resulting from extreme weather during Hurricane Harvey in Crosby, Texas; an olefins plant explosion in Baton Rouge, Louisiana; and a toxic release in Atchison, Kansas. The CSB released four computer-generated animations of incidents at a refinery in Superior, Wisconsin; an oil well blowout and fire in Pittsburg County, Oklahoma; and chemical fires in Crosby, Texas and DeRidder, Louisiana.

The costs of chemical disasters total in the hundreds of billions of dollars. To make the safety of Americans our primary priority, it is critical that chemical safety lessons are learned and shared among diverse stakeholders that use hazardous chemicals. The CSB has investigated numerous high consequence incidents that have resulted in millions of dollars in damage and a disruption to the regional and local economies.

- On April 26, 2018, an explosion at a refinery in Wisconsin resulted in severe property damage and the evacuation of much of the nearby city. The incident resulted in at least \$20 million in property damage and \$40 million in business interruption expenses.
- Flooding from Hurricane Harvey in August 2017 disabled the refrigeration system at a chemical plant near Houston. As the temperature of chemicals stored at the facility rose, the trailers containing them began to catch fire, and emergency responders issued a six-day evacuation of residents within a 1.5-mile radius of the plant.
- A 2016 explosion at a natural gas plant in Pascagoula, MS resulted in damages of over \$10.4 million due to fire response activities and another \$7.1 million in equipment damage.
- A 2016 explosion at one of the country's four nitrous oxide production facilities caused one fatality and led to a chemical shortage that affected hospitals, dentists, universities, food producers, and other industrial facilities across the country.
- A 2013 explosion at a fertilizer facility resulted in 15 fatalities and more than 260 injuries; \$230 million in insurance-related losses; and \$16 million in Federal disaster assistance; however, the company held only a \$1 million insurance policy.
- A 2012 explosion at a refinery resulted in medical treatment for 15,000 residents; \$2 million in fines and restitution; and \$447 million in increased gas prices for California consumers.¹
- A 2010 explosion at an offshore drilling rig in the Gulf of Mexico resulted in \$21 billion in settlements; \$13 billion in economic and medical claims from local businesses and

¹ Gonzales, Dan, Timothy Gulden, Aaron Strong and William Hoyle. Cost-Benefit Analysis of Proposed California Oil and Gas Refinery Regulations. Santa Monica, CA: RAND Corporation, 2016. http://www.rand.org/pubs/research_reports/RR1421.html.

residents;² 11 workers killed and 17 injured; and four million barrels of oil spilled into the Gulf of Mexico.

If the CSB's many safety lessons prevent at least one catastrophic incident, the costs avoided from damage to facilities and the surrounding communities, 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 hazardous chemicals. If we do not learn from previous incidents, Americans will continue to spend billions of dollars responding to new ones. Through its independent investigations, the CSB plays a unique role in fostering collaboration with industry, regulators, standards setting bodies and professional organizations, thus emphasizing the CSB's vital role in driving critical chemical safety change in the United States.

² Data current at the publication of the CSB's final report. Litigation continued beyond the CSB's investigation.

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 \$12.451 million in FY 2020 to accomplish its unique safety mission. This is an increase of \$0.451 million, or 3.76%, above the \$12 million annualized rate provided by the Consolidated Appropriations Act, 2019. The requested amount allows the CSB to maintain and develop its investigation and safety outreach capacity in FY 2020, address succession planning concerns raised in the CSB's FY 2018 Human Capital Plan and continued implementation of the President's initiatives for information technology (IT) modernization, preservation of government records, transitioning to an all-electronic environment for records preservation, and increasing the accessibility of Federal information to the American public. To successfully achieve its mission and meet the President's objectives for FY 2020 and beyond, the CSB will require additional funding in several areas that are described in the object classification detail.

The requested increase in FY 2020 is largely related to full year funding for positions that are to be filled in FY 2019. At the time of the 2020 Budget Request submission, the CSB has several vacant positions for its mission-critical occupation, Chemical Incident Investigator. The agency is currently in the midst of personnel actions to fill vacancies and acquire additional expertise in areas that are not currently present within the investigations staff. We expect to fill these positions during FY 2019. In addition, critical staff positions, including the General Counsel and a Contracting Officer are currently vacant. The agency anticipates filling these positions as soon as possible.

The CSB will continue to fill critical vacancies in FY 2019 and anticipates recruiting new investigators in order to increase its FY 2020 output. With the additional funds provided in FY 2019 the CSB will enhance its infrastructure. The CSB anticipates increases in the administrative and legal requirements such as implementation of a reporting rule,³ electronic management of investigation records, responding to related Freedom of Information Act requests, and conduct advocacy and outreach so that recommendations are implemented, and safety information is disseminated.

³ On February 4, 2019, the U.S. District Court ordered the CSB to issue a final rule pursuant to 42 U.S.C. § 7412(r)(6)(c)(iii) within one year. See *Air Alliance of Houston v Chemical Safety and Hazard Investigation Bd.*, No. 17-02608, 2019 WL 450677 (D.D.C., February 4, 2019).

CSB Accomplishments

Investigations

The CSB's first strategic goal is to prevent recurrence of significant chemical incidents through independent investigations. The CSB completed 3 investigations in FY 2018 and one in early FY 2019.

- **Gas Plant Explosion and Fire (Moss Point, MS):** A flammable gas release with subsequent fire and explosions occurred at the Enterprise Products Gas Plant, near Pascagoula, Mississippi, on June 27, 2016. The incident resulted in the evacuation of the local community and the closure of the plant for almost six months. **The CSB's final investigation report was released on February 13, 2019.**
- **Chemical Fire and Facility Flooding (Crosby, TX):** On August 29, 2017, flooding from Hurricane Harvey disabled the refrigeration system at the Arkema plant in Crosby, TX, which manufactures organic peroxides. The following day, citizens within a 1.5-mile radius were evacuated for six days. During the refrigeration outage, trailers increased in temperature and the peroxides spontaneously combusted on August 31. Officials ignited the remaining unstable chemicals on September 3, 2017. The CSB's investigative report provided guidance for the shutdown and startup of chemical facilities in response to extreme weather. **The final investigation report was released on May 24, 2018.**
- **Hot Work Explosion (DeRidder, LA):** On February 8, 2017, three contractors were killed, and seven contractors sustained injuries in an explosion at the Packaging Corporation of America facility in DeRidder, Louisiana. The fatally-injured contractors were conducting hot work activities near a 100,000-gallon storage tank that contained a flammable atmosphere and ultimately exploded. **The CSB's final report was released on April 24, 2018.**
- **Chlorine Release and Community Shelter-in-Place (Atchison, KS):** On October 21, 2016, sulfuric acid was inadvertently unloaded from a tanker truck into a fixed sodium hypochlorite tank at the MGPI Processing plant in Atchison, Kansas. The two materials combined to produce a mixture of chlorine gas that sent over 140 individuals, both workers and members of the public, to area hospitals and resulted in shelter-in-place and evacuation orders for thousands of local residents. **The final investigation report was released on January 3, 2018.**

In addition to the chemical incident investigations completed, the CSB continues to conduct field work, analysis, and report writing on several major investigations. The CSB deployed to four new incidents, released four factual 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.

- **Manufacturing Facility Explosion (Pasadena, TX):** On May 19, 2018, an explosion injured 21 workers at the EVAL facility in Pasadena, Texas. The facility manufactures ethylene vinyl-alcohol copolymers, sold as EVAL. Kuraray America is a Tokyo-based specialty chemical manufacturer.
- **Refinery Explosion and Fire (Superior, WI):** On April 26, 2018 an explosion and subsequent fire occurred at the Husky Superior Refinery in Superior, WI. 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. However, as a result of the explosion, thirty-six 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, WI was evacuated. **The CSB released a factual investigative update in Superior, WI on August 2, 2018 and held a public meeting in the community on December 12, 2018.**
- **Gas Well Blowout and Fire (Pittsburg County, OK):** On January 21, 2018 a large explosion during drilling operations at Pryor Trust gas well 0718 fatally injured five workers. **The CSB released a factual investigative update in Oklahoma City, OK on August 16, 2018.**
- **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 injured and killed could have been considerably higher. The packing facility where some employees had been working completely collapsed as a result of the explosion. A factual update was released in May 2018. Significant forensic examination of two gap mills which are suspected in the explosion is scheduled to be conducted this year. Completion of this teardown and examination will provide critical information necessary to complete the investigation.
- **Tank Explosions (Barbour County, WV):** On May 24, 2017, an out-of-service tank exploded at the Midland Resource Recovery facility in Philippi, West Virginia, killing two workers and severely injuring another. A few weeks later, on June 20, 2017, another vessel exploded and killed one contractor working at the site. The explosions happened in pressure vessels that were being decommissioned and cleaned, following use in natural gas service to add odorant to natural gas pipelines.
- **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.

- **Hot Work Explosion and Fire (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.
- **Toxic Chemical Release (LaPorte, TX):** On November 15, 2014, nearly 24,000 pounds of methyl mercaptan were released at the DuPont Chemical manufacturing facility in LaPorte, Texas. The release resulted in the deaths of three operators and a shift supervisor inside an enclosed manufacturing building. Additionally, three other workers were injured from their exposure to methyl mercaptan and at least three more workers experienced methyl mercaptan exposure symptoms.

Recommendations Successes

The CSB's second strategic goal is to pursue safety change through safety recommendations, outreach, and education. The implementation of CSB recommendations resulted in several significant safety improvements in FY 2018. Since its creation, the CSB has issued a total of 815 recommendations to industry, trade associations, standards setting bodies, and state and Federal agencies to advance chemical safety practices. Of those 815 recommendations, 676 (or 83%) have been closed. In FY 2018, the CSB closed 40 recommendations and advanced 3 others from 26 completed investigations.

Of the recommendations closed in FY 2018, one response exceeded the actions recommended by the CSB to reduce future safety risks and hazards. On October 21, 2016, a chemical release occurred at the MGPI Processing plant in Atchison, Kansas. MGPI Processing produces distilled spirits and specialty wheat proteins and starches. The release occurred when a chemical delivery truck was inadvertently connected to a tank containing incompatible material. The plume generated by the chemical reaction led to a shelter-in-place order for thousands of residents. At least 120 employees and members of the public sought medical attention. Following the investigation, the CSB issued recommendations to MGPI to install safeguards, such as alarms and interlocks, to prevent personnel from opening the incorrect chemical transfer valves during deliveries. In addition, there was a recommendation to install mitigation measures to automatically shut down the transfer of chemicals into the facility based on process deviations or abnormal conditions (e.g., pressure, temperature, flow or level indications; gas detection). In addition to the highly innovative solutions that they implemented to meet the requirement of the recommendation (e.g., chemical portal separation, signage, unique locks, and fittings as well as an extremely innovative key control and chemical unloading sequence), MGPI's use of process hazard analysis (PHA) to identify additional hazards and implement the resulting corrective actions to include removing the Acetic Anhydride process in its entirety, clearly enhances the reduction of future risk and optimizes driving positive chemical safety change at the facility.

Impact from the CSB's recommendations can also be seen in the circumstances surrounding the April 26, 2018 explosion at the Husky Superior Refinery located in Superior, Wisconsin. The incident occurred during a scheduled break time and many workers who were in the unit prior to the explosion had moved either into blast-resistant buildings or away from the process unit. The use of blast-resistant buildings was a key recommendation from the CSB's investigation of another refinery explosion in Texas City, Texas, more than 13 years ago.

These actions are a prime example of how CSB recommendations have a life-saving impact across the industry.

Safety Outreach and Collaboration

In 2018, the U.S. Chemical Safety Board (CSB) celebrated its 20th year of *driving chemical safety change* in the United States. From 1998 to 2018, the CSB addressed critical chemical safety gaps and deficiencies through its investigative reports and issued recommendations to companies, standards-developing organizations, academia, industry associations, emergency responders, labor groups and Federal and state government agencies. CSB recommendations continue to drive safety changes to help protect workers, the public, and the environment.

To highlight the CSB's investigative work over the past 20 years, the CSB focused on a specific chemical safety theme each month in 2018 where the agency has made a significant impact by sharing lessons learned, issuing recommendations, advocating for safety change and collaborating with stakeholders. Every month, the CSB added new resources to its website to help stakeholders benefit from the agency's 20 years of safety experience:

- January, Twenty-year overview of the CSB
- February, Process Safety Management
- March, Safe Hot Work Practices
- April, Combustible Dust Safety
- May, Extreme Weather
- June, Preventive Maintenance
- July, Contractor Safety
- August, Laboratory Safety
- September, Winterization
- October, Emergency Planning and Response
- November, Human Fatigue
- December, Reactive Hazards

Throughout FY 2018, the CSB targeted its outreach to advance strategic safety topics described in the *Drivers of Critical Chemical Safety Change Program*. This program identifies the most critical chemical safety improvements needed to protect both people and the environment. CSB staff use this program to direct outreach initiatives and ensure that the agency's limited resources are optimized to address the most critical chemical hazards facing the nation. Currently, the CSB has identified five drivers of critical safety change: 1) Combustible Dust Safety; 2) Process safety Management for the 21st Century; 3) Emergency Planning and Response (Preparedness); 4) Preventive Maintenance; and 5) Safe Hot Work Practices.

The CSB's newly launched website capitalized on the CSB's 20-year anniversary as well as the agency's *Drivers of Critical Chemical Safety Change Program* while seeking to improve the user experience and enhance accessibility to our products and videos. The site seeks to expand the agency's audience by providing Spanish translations for most CSB products and closed captioning of CSB safety videos.

In an additional effort to optimize the use of its limited resources to advance chemical safety, the CSB has collaborated with other Federal agencies and safety organizations to advance shared safety goals. In August 2018, the CSB participated in the nationwide Safe + Sound Week, partnering with OSHA, the National Institute for Occupational Safety and Health (NIOSH), the National Safety Council, the American Society of Safety Professionals and the American Industrial Hygiene Association to raise awareness and understanding of the value of safety and health programs. The CSB also issued a joint statement focusing on the importance of preventive maintenance with the Chlorine Institute as well as a statement with the American Chemical Society on the safe performance of lab demonstrations. The CSB will continue to identify opportunities to collaborate with other Federal agencies and safety organizations in FY 2019 and FY 2020.

Finally, the CSB released a variety of safety video products to view and download, free of charge, on its website and on YouTube. The video products released since October 2017 include two full-length safety videos detailing the findings from an olefins plant explosion in Baton Rouge, LA, and a chlorine release in Atchison, KA; four computer-generated animations of incidents at refineries in, and DeRidder, LA, Superior, WI, and a well blowout and fire in Pittsburg County, OK.

The CSB released a safety message related to “winterization” and an emergency response related safety message related to the refinery explosion and fire in Superior, WI.

CSB videos have been viewed more than 8.2 million times on YouTube, and the agency’s YouTube channel has more than 27,000 followers.

Organizational Excellence

The CSB’s third strategic goal is to create and maintain an engaged, high-performing workforce. The Board’s *FY 2017-2021 Strategic Plan* serves as a guide for CSB work to examine emerging chemical safety hazards and drive chemical safety improvements. With this plan, the agency judiciously allocates limited resources to achieve the strategic goals and to promote accountability for its safety mission. Through the successful implementation of the Strategic Plan, the agency will increase its flexibility to reach broader audiences, deliver innovative and persuasive safety products, and become a premier Federal resource for chemical safety knowledge.

In FY 2018, the CSB developed and implemented a new Human Capital Plan and initiated recruiting efforts to fill multiple vacancies for the agency’s mission critical position, Chemical Incident Investigators. Given the increased complexity of investigations, together with increased automation and human interaction, the CSB must strengthen our ability to analyze increasingly complex engineering processes, human interactions with these complex processes, and deploy to incidents in new industries and with emerging technologies.

The Human Capital Plan also recognizes the need to train and develop future investigators and support staff to continue organizational continuity. Specifically, 23% of the agency’s workforce will be eligible for voluntary retirement by 2022. As a microagency, the CSB must have the

resources to hire, train and develop future investigators and support staff. The loss of one employee to retirement or attrition has a significant impact on the agency. Filling vacant positions in FY 2019 will assure knowledge transfer and minimize the impact of retirements and attrition.

The CSB is investing in technological advances to improve operational excellence and accessibility of CSB products to the American public. To implement recent executive orders and OMB guidance on IT development, modernization and enhancement (DME), the CSB is upgrading equipment and software to accommodate the significant increases in the number of electronic records created and maintained. In addition, to comply with the Administration's initiatives for IT modernization, the CSB is making several improvements to its IT infrastructure, including the replacement of aging and end-of-life hardware; migration from physical hardware to servers in a virtualized environment in both its Washington, DC and Denver, CO, offices. These improvements are required to maintain IT system security and integrity and continue in FY 2019. To support the advanced software, the agency was required expand internet bandwidth in both its Washington, DC, and Denver, Colorado, offices. The budget request recognizes the increased ongoing costs associated with a larger bandwidth capability, which is critical to support the growing electronic environment and provide faster connections to cloud-based applications and systems.

In establishing the CSB, the Congress provided that the agency "shall. . . establish by regulation requirements binding on persons for reporting accidental releases into the ambient air subject to the Board's investigatory jurisdiction." 42 U.S.C. § 74126)(C)(iii). In 2009, the agency initiated an advance notice of proposed rulemaking (ANPRM) in which it proposed a number of different scenarios to facilitate the statutory requirement of reporting incidents. A number of comments were received by the agency. However, the agency did not proceed further with a rulemaking. The statute provides that "reporting releases to the National Response Center, in lieu of the Board directly, shall satisfy such regulations. The National Response Center shall promptly notify the Board of any releases wjocj are within the Board's jurisdiction." Id.

On December 7, 2017, suit was filed in the U.S. District Court for the District of Columbia against the CSB seeking a ruling to direct the agency to initiate a rulemaking pursuant to 42 U.S.C. §7412(6)(C)(iii). On February 4, 2019, the district court judge issued his ruling in the case, Air Alliance Houston v. U.S. Chemical Safety and Hazard. The judge ordered the agency to produce a rule within one year of the date of the order.

The CSB will undertake a rulemaking proceeding during this fiscal year, with the goal to satisfy the court's order. This will be a significant undertaking for the agency for which substantial funds will be necessary to obtain the technical assistance in designing a database system to receive the incident reports, as well for the regulatory and economic analysis that will be required for the agency to promulgate the rule. To accomplish this within the time frame specified by the court, the agency anticipates that it will dedicate at least \$350,000 in personnel and consultancy costs. Such a reporting requirement will necessarily require an ongoing cost to support a database system, which the agency estimates would be an annualized cost of \$50,000.

FY 2020 Budget Request

The CSB is requesting a budget of \$12.451 million in FY 2020 to execute its unique safety mission. Almost 90% of the funds requested in FY 2020 will be distributed into four main budget categories: personnel compensation, personnel benefits, rent, and other services. Of the requested \$12.451 million, compensation costs, including fringe benefits, account for \$7.931 million – or 63.70% of the total agency budget. To procure mandatory services provided by other government agencies, such as payroll, personnel management, accounting, procurement and occupational health services, and other non-governmental contractors, the CSB requests \$2.507 million – or 20.13% of the agency’s budget request. Finally, \$731,000 – or 5.87% – is requested for rent, which includes office space in Washington, DC, and Denver, Colorado.

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

- **Investigations.** The CSB evaluates several chemical incidents that occur every day across the country and initiates investigations where there is a significant chemical safety issue 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.
- **Safety 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 2020 the agency will continue to implement its Human Capital and Succession Plans. 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 requested FY 2020 increase is primarily to provide full-year funding for positions filled in FY 2019. At the time of the 2020 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 and acquire additional expertise in areas that are not currently present within the

investigations staff. In addition, critical support and administrative staff positions, including the General Counsel and a Contracting Officer are currently vacant and will be filled in FY 2019.

With critical vacancies filled in FY 2019, the CSB anticipates an increased ability to conduct more investigations in FY 2020. As a result, slight increases will be needed for investigation related costs such as travel and consultants, along with the additional cost to fully fund positions in FY 2020.

Conclusion

The CSB's FY 2020 budget request for \$12.451 million allows the CSB to execute its unique safety mission and strengthen its capacity to conduct root cause investigations of catastrophic chemical incidents. 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 in FY 2020. 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 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 \$12.451 million for FY 2020. 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 2020 is shown in the table below by budget object classification with a comparison to the FY 2019 estimated costs. The table is supported with a narrative explanation of the amount requested for each budget object classification.

Budget Object Classification Table
Fiscal Years 2019 and 2020

Budget Object Class	Budgeted FY 2019*	Requested FY 2020	Change FY 2019-2020	
			\$	%
11 Personnel Compensation	5,103,475	6,037,000	933,525	18.29%
12 Personnel Benefits	1,754,158	1,894,000	139,842	7.97%
Subtotal Personnel Costs	6,857,633	7,931,000	1,073,367	15.65%
21 Travel	550,000	610,000	60,000	10.91%
22 Transportation of Things	0	0	0	0.00%
23.2 Space Rental Payments	731,316	731,000	-316	-0.04%
23.3 Communications, Utilities and Misc.	246,248	273,000	26,752	10.86%
24 Printing and Reproduction	19,700	20,000	300	1.52%
25 Other Services	3,175,620	2,507,000	-668,620	-21.05%
26 Supplies and Materials	269,483	284,000	14,517	5.39%
31 Equipment	150,000	95,000	-55,000	-36.67%
Totals	12,000,000	12,451,000	451,000	3.76%
FTE	47	47	0	0.00%

* Public Law No. 116-6

Budget Object Classification Detail

11.0 Personnel Compensation

Change FY 2019-FY 2020			
FY 2019	FY 2020	Amount	%
\$5,103,475	\$6,037,000	\$933,525	18.29%

The budget request for FY 2020 includes \$6,037,000 to fund direct payroll costs for five board members and 42 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 2019-FY 2020			
FY 2019	FY 2020	Amount	%
\$1,754,158	\$1,894,000	\$139,842	7.97%

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 2020 request reflects benefits for five board members and 42 staff members.

21.0 Travel

Change FY 2019-FY 2020			
FY 2019	FY 2020	Amount	%
\$550,000	\$610,000	\$60,000	10.91%

CSB board members and staff travel are required to travel to conduct the agencies core work of investigating incidents and advocating safety and change through recommendations and outreach. In addition, travel is required between CSB offices in Washington, DC and Denver, Colorado, and to certain training courses. CSB requests an increase of \$60,000 to provide for additional travel primarily to deploy to more incidents.

22.0 Transportation of Things

The CSB does not anticipate employee relocation shipment costs in FY 2020.

23.2 Space Rental Payments

Change FY 2019-FY 2020			
<u>FY 2019</u>	<u>FY 2020</u>	<u>Amount</u>	<u>%</u>
\$731,316	\$731,000	-\$316	-0.04%

The CSB anticipates minimal change in space rental costs in FY 2020. This is largely due to new lower cost space for the Denver, Colorado office that will offset anticipated real estate tax and operating cost increases for the Washington, DC office.

23.3 Communications, Utilities and Misc.

Change FY 2019-FY 2020			
<u>FY 2019</u>	<u>FY 2020</u>	<u>Amount</u>	<u>%</u>
\$246,248	\$273,000	\$26,752	10.86%

Communication and postage costs are projected to be \$273,000 in FY 2020. This includes \$163,000 to provide sufficient internet bandwidth for the volume of data transmitted across the agency and to webcast meetings to the public. Other communications and utilities costs include \$65,000 for cell phones and wireless broadband usage; \$29,000 for telephone services in the Washington, DC and Denver, Colorado offices; and \$8,000 for postage and express mail. Other costs are related to building security and continuity of operations.

24.0 Printing and Reproduction

Change FY 2019-FY 2020			
<u>FY 2019</u>	<u>FY 2020</u>	<u>Amount</u>	<u>%</u>
\$19,700	\$20,000	\$300	1.52%

The CSB anticipates minimal change in printing and reproduction costs in FY 2020.

25.0 Other Services

Change FY 2019-FY 2020

FY 2019	FY 2020	Amount	%
\$3,175,620	\$2,507,000	-\$668,620	-21.05%

A total of \$2,507,000 is requested for services in FY 2020. Requirements in this BOC fall into two basic categories: interagency agreements for services provided by other Federal agencies and contractual services provided by non-Federal sources. Additional information on each category is provided in the following paragraphs.

Services Provided by Other Federal Agencies. A total of \$632,000 is requested for services provided by other Federal agencies. These services include \$647,000 for financial, travel, and procurement services provided by the Bureau of the Fiscal Service (BFS) in the Department of the Treasury; and \$163,000 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.

Other Contractual Services. The CSB procures a variety of services to support its mission, including expert consultants for investigations and testing (\$550,000), support for safety animation and video production (\$350,000), training (\$150,000), information technology software maintenance (\$111,000), and website hosting (\$82,000).

26.0 Supplies and Materials

Change FY 2019-FY 2020

FY 2019	FY 2020	Amount	%
\$269,483	\$284,000	\$14,517	5.39%

The amount of \$284,000 is requested for supplies and materials in FY 2020, including books, reference materials and subscriptions (\$184,000), general office and computer supplies (\$38,000), field safety supplies (\$35,000), and outreach materials (\$28,000).

31.0 Equipment

Change FY 2019-FY 2020

FY 2019	FY 2020	Amount	%
\$150,000	\$95,000	-\$55,000	-36.67%

Equipment costs are reduced in FY 2020 due to one-time office furniture purchases anticipated in FY 2019.

V. Additional Tables

CSB Appropriations by Fiscal Year (Dollars in Millions)

Salaries & Expenses

Fiscal Year	One-Year Funds	Two-Year Funds	Total Funds
1998	\$4.00	\$0.00	\$4.00
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 ^a	12.45	0.00	12.45

^a. Requested.

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.

CSB Personnel Data

Grade	On Board 9/30/2016	On Board 9/30/2017	On Board 9/30/2018	Projected FY 2019	Requested FY 2020
GS-7	0	0	0	0	0
GS-9	2	3	0	8	8
GS-11	1	0	3	3	3
GS-12	5	5	2	2	2
GS-13	5	5	6	7	7
GS-14	14	15	8	10	10
GS-15	10	9	7	9	9
Executive	4	4	3	5	5
SES	0	1	2	3	3
Totals	41	42	31	47	47

Recommended Appropriations Language

CHEMICAL SAFETY AND HAZARD INVESTIGATION BOARD
Federal Funds

SALARIES AND EXPENSES

For necessary expenses in carrying out activities pursuant to section 112(r)(6) of the Clean Air Act, as amended, 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, \$12,451,000. 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.

Chemical Safety & Hazard Investigation Board Organization Chart

