

# U.S. Chemical Safety and Hazard Investigation Board

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Honorable Katherine A. Lemos  
Chairman and CEO



June 10, 2021

The Honorable Frank Pallone, Jr.  
Chairman  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, D.C. 20515

The Honorable Cathy McMorris Rodgers  
Ranking Member  
Committee on Energy and Commerce  
United States House of Representatives  
Washington, D.C. 20515

The Honorable Diana DeGette  
Chair  
Subcommittee on Oversight and Investigations  
United States House of Representatives  
Washington, D.C. 20515

The Honorable H. Morgan Griffith  
Ranking Member  
Subcommittee on Oversight and Investigations  
United States House of Representatives  
Washington, D.C. 20515

The Honorable Paul D. Tonko  
Chairman  
Subcommittee on Environment and Climate Change  
United States House of Representatives  
Washington, D.C. 20515

The Honorable David B. McKinley  
Ranking Member  
Subcommittee on Environment and Climate Change  
United States House of Representatives  
Washington, D.C. 20515

To Committee Leadership,

Thank you for your letter of inquiry on May 20, 2021, regarding ongoing management, resource and personnel challenges at the U.S. Chemical Safety and Hazard Investigation Board (CSB). The attached response addresses the five questions raised in the body of your letter. When I joined the CSB at the end of April 2020, there were several immediate challenges to be met. CSB's management priorities are aligned across the following areas:

Management priorities:

- **Focus on the mission:** To drive chemical safety change, we need to continue delivering high-quality safety product to the community. In March we announced that, in the first quarter of FY 2021, we had made progress on 28 recommendation status changes. I am pleased to report that, in the past three months, we have made progress on 10 more safety recommendation status changes.

In addition, the final investigation report for the incident that occurred in Odessa, TX in October 2019 at the Aghorn Waterflood Station Operating facility was prepared by staff and approved by the Board during our most recent public Board meeting – the first time this has been done since 2016.

- **Drive efficiency of operations:** Expand our workforce and improve business partnerships.

Toward this priority, the CSB is processing four investigator positions with our HR business partner that are expected to be posted and closed on USA Jobs this month, with another round of investigator positions to follow.

- **Strengthen stakeholder and federal counterpart relationships to maximize our resources:** My objective is to keep the CSB moving forward with a focus on transparency and communication. We are learning,

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benchmarking and analyzing the lessons learned at our Federal partners – the Environmental Protection Agency (EPA), Occupational Safety and Health Administration (OSHA), Pipeline and Hazardous Materials Safety Administration (PHMSA), National Transportation Safety Board (NTSB), Defense Nuclear Facility Safety Board (DNFSB), Cybersecurity and Infrastructure Security (DHS-CISA), Alcohol, Tobacco, Firearms and Explosives (ATF), and others.

- **Board Member Roles and Responsibilities (BMRR):** We have invested many hours over the past year, investigating the best approach for the CSB moving forward. I am pleased to report that we have now finalized changes in response to the EPA OIG management challenge reports dating back to at least 2018.

This is a major step forward for the efficiency of the agency, will allow me to focus on my work as a board member and Chairman, as well as provide a governance architecture that allows new board members to be successful.

The new Board Order more closely aligns board member roles and responsibilities to our enabling legislation, which requires all board members to be appointed on the basis of technical qualification, professional standing, and demonstrated knowledge in the fields of accident reconstruction, safety engineering, human factors, toxicology, or air pollution regulation.

The new Board Order allows board members to better focus on their mission through engaging in technical reviews, stakeholder collaboration and community outreach, and empowers the Chairman and CSB staff through delegation to act in the administration of the agency.

The agency continues to improve every day as we re-engage/develop core processes, identify and hire new talent, and address the primary mission areas defined in our enabling legislation.

The nominations of three potential Board Members will provide the CSB with additional skilled technical resources and community advocacy voices as we perform our valuable work. Responding to chemical accidents across the country requires dedicated science and engineering resources to conduct investigations, develop recommendations at the Federal, State and local levels, and finally prepare and present our findings. I am proud of the team we have at the CSB and look forward to welcoming new Board members as we rebuild the agency. One of the fundamental elements of our process – advocacy – is a key role performed by the Board. Each member, based on their experience, technical background, and interest, selects one or two key advocacy efforts from our Critical Drivers List (CDL) to present the CSB's perspective to our industries, communities, and regulating bodies. This dramatically improves the impact and activity around chemical plant operations with a direct effect on worker, community, and environmental safety.

Sincerely,



Dr. Katherine A. Lemos  
Chairman and CEO  
U.S. Chemical Safety and Hazard Investigation Board  
1750 Pennsylvania Ave. NW, Suite 910  
Washington, DC 20006

Attachment: CSB FY 2020 Impact Report

Attachment: CSB 04 April 2021 Excerpt of Response to Energy and Commerce Request 10 December 2020

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- 1. With respect to staffing at the CSB, please provide the number of vacancies for each job category, including investigators, and an update on the status of filling each vacancy. Please also indicate whether current budget allocations are sufficient to fill every outstanding vacancy.**

The Agency has made significant progress in human capital planning. The recent addition of a term-limited SES to serve as Acting Managing Director allows CSB (“the Agency”) to re-organize and backfill critical SES and non-SES career roles across the Agency. To produce quality and timely safety investigations and products, the number of positions and roles are being re-aligned to reflect the Agency’s operational needs and growth plan.

For the Mission Product Team, operational efficiency and mission efficacy will be achieved through enhanced partnering agreements with our federal counterparts and contracts with subject matter experts. In addition to chemical safety domain experience, the Agency is seeking Mission Product Team members with expertise in policy, safety management systems, data management, and software to support our agency’s mandate for incident tracking and advocacy. The following are priority hires for the Mission Product Team: Investigators (4) and Recommendations Specialists (2).

For Support and Leadership staff, operational efficiency and mission efficacy will be achieved through improved business partnerships for human resources and procurement. To support the Mission Product Team in producing quality and timely safety investigations and products, the following are priority hires: Managing Director (1), General Counsel (1), Human Resources (1), and Procurement (1).

The number and types of subsequent posts will be based on the skillsets obtained through this round of hires. In the meantime, the Agency is seeking Detailees to fulfill critical administrative functions.

The Agency is pleased that three new board members have been nominated by the Administration and look forward to their contributions to the agency through their technical perspectives, advocacy and strategic direction.

Current budget allocations are insufficient to fill every needed position.

- 2. With respect to addressing the investigation backlog, please provide a copy of the CSB’s most recent investigation plan, including the status of all open investigations, the expected timeframe for completing each investigation, and the number of investigators assigned to each investigation. Please also provide a status update regarding any investigations that have been terminated, paused, or otherwise put on hold due to staffing or resources constraints.**

All open investigations are currently staffed and actively being worked. No investigations have been terminated, paused, or otherwise put on hold since Dr. Lemos assumed her position. Prior to this, three investigations were suspended in FY 2019 due to a lack of resources, along with another in early FY 2020. These investigations are now progressing under the tenure of Dr. Lemos. The Agency hired four new investigators in FY 2019, four in FY 2020, and two thus far in FY 2021.

Consistent career leadership is expected to enhance staff engagement, expectations and tenure.

There are currently 19 open investigations (see *Figure 1: List of Open Investigations*). Of the 19, five are in the early investigative phase, and 14 are in the mid-phase of analysis or report development. Several are nearing the advanced phase of report review and revision.

The number of Mission Product Team members assigned to each investigation varies by phase. More investigative support in the early phase allows for efficient fact collection, especially for perishable evidence. During the mid-phase, there are one to two investigators assigned, with one as the Investigator-In-Charge. In

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the advanced phase, reviews are conducted by multiple investigators. In addition, there is one recommendations specialist assigned throughout the investigation from the Mission Product Team.

The timeframe for completing investigations is a dynamic re-assessment based on numerous factors. The Agency plans to continue closing investigations with increased transparency through the public board meeting process, as initiated last month, and to improving the timelines as the Agency rebuilds our staff and processes.

By way of comparison, the Agency is modeled after the NTSB, though they are a larger organization with approximately 270 technical staff. NTSB can designate other organizations to assist in an investigation. Their investigative process can take five or more years. The NTSB Accident Database contains preliminary and final reports. The average time for an investigative process is two to three years. The NTSB currently lists 27 open major investigations on its website.

### **3. With respect to the recommendations approval process, please describe what factors contributed to the CSB's failure to approve any recommendations during the last fiscal year, and the steps, if any, you are taking or planning to address any deficiencies in the process.**

During FY 2020, three previous board members completed their five-year terms. There was only a one week overlap between Dr. Lemos and one remaining board member. Mission performance across the safety product domains, not just for new safety recommendations issued, was lower than in previous fiscal years. To meet the Agency's mandate, all elements of the investigative and recommendations lifecycle are required.

For FY 2020, one investigation was closed in December 2019 (Midland Resource Recovery Explosion), which did not yield recommendations. The 15 safety recommendations closed or advanced in FY 2020 occurred during Dr. Lemos' tenure as the sole board member, as did the Agency's issuance of a Safety Alert (*2020 Hurricane Season: Guidance for Chemical Plants During Extreme Weather*) and a Safety Spotlight (*Implementation of a Safety Management System is Key to a Safer Chemical Industry*).

In FY 2021, the Agency continues to make solid progress. The CSB has closed one investigation, issued nine new safety recommendations, and has closed or advanced 38 safety recommendations. Dr Lemos has also re-engaged with the Agency's counterparts in leadership at both the EPA and OSHA to achieve a more focused dialogue regarding our recommendation priorities.

Urgent safety recommendations can be issued at any time in the investigative process, though they are most often issued with an investigation closure. Safety Studies also produce new recommendations, through the research of potential hazards, where there is evidence to support such an investment. This element of our authority is not currently staffed. To accelerate these activities, we are seeking to partner with other Federal agencies having emergency response authorities, State and local governmental agencies and associations and organizations from the industrial, commercial, and nonprofit sectors.

Another element of the safety lifecycle yielding new safety recommendations that demands attention is the Critical Drivers List (CDL). As the NTSB accomplished in response to 2020 Governmental Accountability Office (GAO) recommendations for their Most Wanted List, the CSB looks to provide documented rigor to consideration of the criteria, process and technology used to identify, refine, and update changes to this list for Board approval and advocacy. These CDL enhancements will ensure outcomes that yield safety change with process transparency as would any investigation and provide data to support advocacy priorities.

Finally, closing and advancing safety recommendations is a key priority for the Agency and deserves heightened focus in effecting safety change, to which the Agency is applying additional resources moving forward.

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- 4. With respect to the significant number of board vacancies, please explain the impact and limitations of having a single board member, given the CSB's wide-ranging technical responsibilities, in addition to your administrative responsibilities as its chair.**

The Chairman role entails two separate duties, that of the CEO, exercising both the executive and administrative functions of the Board, and that of a board member, to promote the technical integrity of the CSB's investigations, approve findings and safety recommendations, and to advocate for these priorities.

Per our enabling legislation, board members are appointed based on technical qualification, professional standing, and demonstrated knowledge in the fields of accident reconstruction, safety engineering, human factors, toxicology, or air pollution regulation. First and foremost, board members are subject matter experts to guide the Agency in meeting its mission to reduce the risk and consequences of chemical accidents.

Additional board members are needed to expand the diversity of subject matter expertise and perspective brought to the voting process, and force multiply the Agency's advocacy of priority recommendations and critical drivers across the community.

Due to staffing gaps for key leadership roles, as well as a governance structure that was mis-aligned with our enabling legislation, a substantial portion of the Chairman's time over the past year was spent in her role as CEO. This has been a worthwhile time investment, through identifying and hiring temporary staff instrumental to the progress made in operational improvements, and in our enhanced communications with the public and stakeholders, especially in the areas of government and congressional affairs.

One operational improvement was updating internal policies regarding board member roles and responsibilities in response to multiple requests from the EPA's Office of Inspector General (OIG) in their yearly Management Challenges Reports backdating to 2017. As benchmarked against other independent safety agencies, these updates utilize best practices and are a leap forward in efficiency, as senior staff manages administrative matters to their level of responsibility, as intended, and board members focus on mission strategy and mission performance. The Agency continues to improve policies to ensure strong internal controls and additional transparency in executing decisions.

An analysis of board member tenure and overlap (see *Figure 2: List of CSB Board Members and Tenure*) indicates that only half of Senate confirmed members served out their full term or close to it. The average length for the remaining members is less than two years, with one term as short as one month. The newly created clarity in roles and responsibilities for board members is expected to contribute to more engaged members and an enhanced collegial environment.

- 5. To the extent not discussed in your responses to the previous requests, please describe any additional operational, staffing, and management challenges currently affecting the CSB, and what is being done to address these challenges. Please also describe what additional resources or changes to the CSB's structure and operations, if any, are needed for the CSB to execute its mission fully and effectively.**

The CSB has had historical issues in both recruiting and retaining board members. Agency efforts to define board member roles and responsibilities and adoption of remote work guidelines from OPM and OMB will help in recruitment and retention of board members; however, challenges such as statutory pay instead of tying pay to preexisting executive pay bands, non-staggered board member terms, and the lack of flexibility for board members to extend their term to provide continuity of operations are areas in which congressional assistance may help.

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**Figure 1: List of Open Investigations**

	<b>Incident Date</b>	<b>Incident Name</b>	<b>Incident Location</b>
1	4/8/2021	Yenkin-Majestic Paint And OPC Polymers Corporation	Columbus, OH
2	1/28/2021	Foundation Food Group Fatal Chemical Release	Gainesville, GA
3	12/9/2020	Optima-Belle LLC Explosion and Fire	Belle, WV
4	11/13/2020	Wacker Polysilicon Chemical Release	Charleston, TN
5	9/21/2020	Evergreen Packaging Mill Chemical Fatal Fire	Canton, NC
6	9/14/2020	Bio-Lab Chemical Release	Conyers, GA
7	8/27/2020	Bio-Lab Chemical Fire and Release	Lake Charles, LA
8	1/29/2020	Wendland 1H Well Fatal Explosion	Burleson County, TX
9	1/24/2020	Watson Manufacturing and Grinding Fatal Explosion and Fire	Houston, TX
10	11/27/2019	TPC Group Explosion and Fire	Port Neches, TX
11	6/21/2019	Philadelphia Energy Solutions (PES) Refinery Fire and Explosions	Philadelphia, PA
12	5/3/2019	AB Specialty Silicones, LLC	Waukegan, IL
13	4/2/2019	KMCO LLC Fatal Fire and Explosion	Crosby, TX
14	3/17/2019	Intercontinental Terminals Company (ITC) Tank Fire	Deer Park, TX
15	5/19/2018	Kuraray America EVAL Explosion	Pasadena, TX
16	4/26/2018	Husky Energy Refinery Explosion and Fire	Superior, WI
17	5/31/2017	Didion Milling Company Explosion and Fire	Cambria, WI
18	4/3/2017	Loy-Lange Box Company Pressure Vessel Explosion	St. Louis, MO
19	8/12/2016	Sunoco Logistics Partners Flash Fire	Nederland, TX

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Figure 2: List of CSB Board Members and Tenure

