

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

1750 Pennsylvania Avenue NW, Suite 910 | Washington, DC 20006
Phone: (202) 261-7600 | Fax: (202) 261-7650
www.csb.gov

Honorable Katherine A. Lemos
Chairperson and CEO



November 22, 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 David B. McKinley
Ranking Member
Subcommittee on Environment and
Climate Change
United States House of Representatives
Washington, D.C. 20515

RE: Questions for the record following CSB hearing on September 29, 2021

To Committee Leadership,

Thank you for the opportunity to engage with you in the hearing titled, "Protecting Communities from Industrial Accidents: Revitalizing the Chemical Safety Board." We appreciate your support for the critical mission of this agency. At the request of the Chairman of the Committee on Energy and Commerce and Subcommittee Chair for Oversight and Investigations, we are providing our responses to the written questions for the record we received on November 2, 2021.

The CSB's plan to address the 18 open investigations in an accelerated manner, while maintaining integrity, will require our adopting a novel approach.

- Concurrently, the CSB will continue to refine the process model moving forward that accommodates a range of investigative products and timelines to effectively serve our community and meet our full mandate. This is discussed more fully in the attached written response.

This accelerated plan produces the completion of incident reports through transparent virtual and/or hybrid board meetings for as many as four investigations each quarter for FY22 and FY23.

- This would put us on track to close all current investigations within this two-year timeframe and would exceed the performance of the CSB at any point since our inception.
- The current plan is aggressive and would involve the agency adding to our goal of completing as many as 11 investigations in FY22.
- This assumes flexibility in the order of completion based on factors outside of our control (e.g., unsafe structure, site contamination), or if we identify a high-priority incident that is ready for release and needs to be moved up in the queue.

This plan prioritizes the completion of older investigations. Moving into FY23, all open incidents occurring prior to CY20 would be completed.

- The new process model would permit members of the Board to review and vote on currently issued recommendations simultaneously.
- To ensure transparency and CSB's accountability to the timeline, we will be setting firm dates for virtual board meetings at the start of each fiscal year.

We greatly appreciate the House Energy and Commerce Committee's support for our agency and our mission. Should you need any additional information or detail, my team and I are ready to engage.

Sincerely,

A handwritten signature in black ink, reading "Katherine A. Lemos", followed by a long horizontal flourish.

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

Encl. – Attachment A – Additional Questions for the Record November 27, 2021

ONE HUNDRED SEVENTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115

Majority (202) 225-2927
Minority (202) 225-3641

November 2, 2021

The Honorable Katherine A. Lemos
Chairperson and CEO
U.S. Chemical and Hazard Investigation Board
1750 Pennsylvania Avenue NW
Suite 900
Washington, DC 20006

Dear Chairperson Lemos:

Thank you for appearing before the Subcommittee on Oversight and Investigations on Wednesday, September 29, 2021, at the hearing entitled "Protecting Communities from Industrial Accidents: Revitalizing the Chemical Safety Board." I appreciate the time and effort you gave as a witness before the Committee on Energy and Commerce.

Pursuant to Rule 3 of the Committee on Energy and Commerce, members are permitted to submit additional questions to the witnesses for their responses, which will be included in the hearing record. Attached are questions directed to you from certain members of the Committee. In preparing your answers to these questions, please address your response to the member who has submitted the questions in the space provided.

To facilitate the printing of the hearing record, please submit your responses to these questions no later than the close of business on Wednesday, November 17, 2021. As previously noted, this transmittal letter and your responses will all be included in the hearing record. Your written responses should be transmitted by e-mail in the Word document provided to Austin Flack, Policy Analyst, at austin.flack@mail.house.gov. To help in maintaining the proper format for hearing records, please use the document provided to complete your responses.

Thank you for your prompt attention to this request. If you need additional information or have other questions, please contact Austin Flack with the Committee staff at (202) 225-2927.

Sincerely,

A handwritten signature in blue ink that reads "Frank Pallone, Jr." with a stylized, cursive script.

Frank Pallone, Jr.
Chairman

Attachments

cc: The Honorable Cathy McMorris Rodgers
Ranking Member

Committee on Energy and Commerce

The Honorable Diana DeGette

Chair

Subcommittee on Oversight and Investigations

The Honorable H. Morgan Griffith

Ranking Member

Subcommittee on Oversight and Investigations

Subcommittee on Oversight and Investigations
Hearing on
“Protecting Communities from Industrial Accidents: Revitalizing the Chemical Safety Board”
September 29, 2021

The Honorable Katherine A. Lemos, Chairperson and CEO, U.S. Chemical Hazard Investigation Board

The Honorable Frank Pallone, Jr. (D-NJ)

1. In the most recent CSB Performance and Accountability Report, released in November 2020, CSB indicated that the report on the June 2019 incident at Philadelphia Energy Solutions (PES) was “complete and awaiting Board action.” Subsequent to the hearing, CSB provided the Committee with its current plan for completion of open investigations and reduction of CSB’s backlog (Investigation Closure Plan). The Investigation Closure Plan indicates that the PES Refinery report is now scheduled to be released in Q3-Q4 FY22. This investigation relates to a release of hydrofluoric acid (HF) – a dangerous chemical used in dozens of refineries across the country. There have been a number of HF “near misses” in recent years, including the April 2018 incident at Husky Energy Refinery in Superior, Wisconsin which also remains under investigation by CSB (currently scheduled for release in FY22 Q2-Q3). Given the risks presented to surrounding communities by this dangerous chemical, some have suggested that HF-related investigations are particularly important to finalize and make public in a timely fashion.
 - a. Nearly a year has passed since CSB stated the PES Refinery report was complete. Why has the release of this report been delayed? What specifically has impeded the board action and approval?

Safe use of Hydrofluoric Acid (HF) in the refining process is an important topic for the CSB. For this reason, the CSB has heightened its attention to and closely monitored for incidents involving HF. For example, earlier this year we were made aware of an event that highlighted the success of HF mitigation technologies and processes in preventing injury and damage. Due to this success, the event did not meet our reporting requirements.

The Chairperson is aware of previous correspondence with the EPA in 2019 with regards to the EPA’s 1993 study addressing HF across a range of industries.

Product integrity is a priority, especially for an investigative report addressing such a significant and complex topic as HF,

Through the course of rebuilding the agency and filling critical staff roles, the CSB has identified the need to develop and reinforce a uniform investigative and report review process that applies to the factual element of the report as well as the final product. Without uniformity of product process and expectations, as well as staffing and training challenges, many investigative reports have been delayed.

The CSB is returning to what once was the norm in ensuring input from key personnel. For example, prior to Chairperson Lemos' term, completed investigations were not subject to legal review, nor did they undergo review from additional management due to a lack of personnel.

"Ready for board review" refers to a product that has passed identified external and internal reviews and, following which, changes are routinely requested by board members. This is an important role for the Board in ensuring integrity of the facts, conclusions, and recommendations.

Over the past year, the CSB has worked diligently to draft this updated process, which is being pilot-tested and refined as we continue to advance and complete investigations.

This process provides confidence in the CSB's ability to close more investigations in FY22 than any year since the inception of the CSB.

Ensuring report integrity and efficiency is essential to the success of our agency in meeting its mission.

2. As discussed during the hearing, thousands of chemical and petrochemical facilities are in low-lying areas, where they are vulnerable to sea-level rise, storm surges, and inland flooding due to increasing storm and hurricane intensity. Thousands more are in areas threatened by the wildfires that have become a regular summer occurrence in the West. However, in addition to these threats, climate change poses a number of less-obvious hazards to chemical facilities. For example, because the risks associated with the storage, transportation and use of many chemicals increase with heat, the fact that climate change is bringing more extreme temperatures will increase the risk of chemical disaster at some facilities. In addition, prolonged droughts make it more challenging to guarantee water will be available for process-cooling. Finally, because there's a human factor in many chemical disasters, disruption to human operations at facilities caused by the extreme temperatures and major storms may increase the risks of incidents, as well. Because of this, I think it is important for CSB to be examining and assisting chemical facilities in preparing for all of these potential effects of climate change. For this reason, I'd like to understand the following:
 - a. When CSB investigates a given incident, does it identify the factors, including those mentioned above, that may have been related to climate change, or that could be exacerbated by increasing climate change?

Yes, for every current investigation, the CSB is identifying and evaluating the role of extreme weather in its review of all potentially relevant factors. We take extreme weather seriously, as facility resilience in the face of extreme weather is one of the biggest challenges facing the chemical industry today.

The ability to ensure the availability of critical utilities, such as electric power and cooling water, to maintain safe operating conditions, adequate preparation for extreme weather events, and adequate and reliable mitigation processes in the event of an accidental release, are examined by the investigation team for the event under investigation.

The CSB engages with specific incidents after an event occurs. For example, in Arkema, extreme weather caused by a hurricane created conditions directly linked to weather as a causal factor. We report on these issues and have published safety bulletins to industry to increase awareness of extreme weather. We have also published similar alerts for the effects of cold temperatures on restarts of petroleum refineries.

We have also increased our consideration of weather-related factors in our monitoring of collecting data for all incidents.

- b. When CSB makes recommendations, whether to industry, unions, or other federal or state agencies, does it identify factors that are expected to present an increasing risk as a result of climate change?

Yes, for every current investigation, the CSB is including extreme weather in its review of all potentially relevant factors, to include related recommendations.

In addition, our reports now include weather analysis at the time of the event, and we specifically determine if the weather, extreme or typical, was a causal factor directly or indirectly in the incident.

Since our involvement occurs post-incident, we view climate change issues through the lens of extreme weather and its impact on a particular event. Our enabling language includes provisions for safety studies, but our staffing currently is sized to respond to incidents as our priority. Safety studies are conducted on an ad hoc basis with the existing investigator staff. Per our enabling legislation, these safety studies must be coordinated with other federal agencies, to prevent duplication of resources.

Environmental conditions such as extreme temperature, rain and wind events should be included in a company's hazard analysis process, and it is reasonable to expect the company to develop an appropriate prevention and mitigation plan. For this reason, we applaud the CCPS's response to our recommendation from the Arkema incident to update guidance, which now calls for extreme weather to be included in the risk assessment and mitigation process and provides specific checklists for facility owners and operators. We also produced recommendations to Arkema Inc. in ensuring that all their facilities were reviewed for potential operational risk due to extreme weather, which has been closed successfully.

- c. Has CSB identified a set of scientific resources that it draws upon to help assess the impacts of increased sea-level rise, storm surge, storm intensity, flooding, wildfire, drought, and heat waves on its mission?

Yes. As the CSB continues to develop stronger partnerships with federal agencies and academic institutions, we are first enhancing current relationships with those having weather-related scientific expertise, to include NOAA's Severe Weather Forecasting Center, FEMA, DOE, and others listed below. We will continue to expand and refine this list based on the incident at hand.

Our enabling language includes provisions for safety studies, but our staffing currently is sized to respond to incidents as our priority and safety studies are done on an ad hoc basis with the

existing investigator staff. Per our enabling legislation, these safety studies must be coordinated with other federal agencies.

- d. Does CSB have staff who have the expertise to identify climate change-related factors in its investigation reports and recommendations?

Yes, in the event additional technical expertise is needed specific to extreme weather for a specific incident, we have a contract in place to secure this expertise.

- e. Does CSB consult with others in the federal government, whether at EPA, the Department of Energy, or the Office of Science and Technology Policy, on any of these questions?

Yes, CSB has continual interchange with a range of federal agencies, to include EPA, OSHA, DOE (e.g., Argonne, EIA, Oakridge, Lawrence Livermore), FEMA, U.S. Coast Guard, PHSMA, BSEE, and DHS/CIMA, on technical and policy issues, to include extreme weather. As an example, climate change and extreme weather was a focal discussion topic during an interchange with GAO Engagement on climate change in which we participated.

The Honorable Diana DeGette (D-CO)

1. In response to my request during the hearing, you provided the Chemical Safety Board's (CSB) current plan for completion of open investigations and reduction of CSB's backlog (Investigation Closure Plan), which we have included at Attachment B. Thank you for promptly providing the requested information. As you know, CSB is required pursuant to 40 C.F.R. 1600.5(c)(1)(ii) to provide a "schedule for completion of all open investigations, studies, and other important work of the Board" at each quarterly public meeting.

- a. To fulfill this requirement, will CSB commit to providing an updated version of the Investigation Closure Plan at each quarterly public meeting?

Yes, the CSB will provide an updated version of the Investigation Closure Plan at each quarterly business meeting and post the update on our public website.

Transparency regarding our performance and progress is important to us and to our stakeholders. The CSB has taken significant steps to increase transparency in the past 18 months and will continue to do so.

- b. Following each quarterly public meeting, will CSB commit to posting the updated Investigation Closure Plan on its website so that it remains accessible to the public?

Yes, the Investigation Closure Plan, with quarterly updates, will remain on our public website so that it is consistently accessible to the public.

2. Within the letter accompanying the Investigation Closure Plan, you noted that, "The plan allows for deployments to continue at the FY 2021 rate and assumes that funds for new Mission Product team members will be appropriated, with staff onboarded and trained."

Within your testimony, you also noted efforts to onboard additional investigators and members of the technical team.

- a. Can you please provide details of your hiring plan, including the specific positions that need to be filled in order to successfully execute the Investigation Closure Plan? As part of this, please explain what specifically CSB is doing to ensure its current and future staff possess the diversity of expertise needed in order to address the range of topics outlined within CSB's statute, i.e., accident reconstruction, safety engineering, human factors, toxicology and air pollution regulation.

Consistent with our previous formal communications with the Energy and Commerce Committee, critical positions must be filled across the Mission Product Team, Support Staff, and Leadership.

For the Mission Product Team, the agency has proposed a plan which features additional staff in investigations, recommendations, and safety studies. The role of investigators is paramount, but we also need to hire recommendations staff that work alongside investigators. Some new hires should have investigative backgrounds and skills, as well as subject matter expertise in human factors, environmental policy, etc. Further staff with technical, software, and experiment design experience are needed in safety studies to support incident report data tracking and analysis, and the initiation and updating of focused studies (e.g., CSB 2001 Reactives Report). These proactive safety studies and efforts are clearly outlined in our mandate as "realized or potential hazards" and include our identification of potential hazards that could pose greater risk in the future, such as climate change. Per our enabling legislation, we should partner with our federal counterparts in these proactive efforts for the greatest use of taxpayer funds and to identify significant risks most accurately and efficiently for the entire chemical industry and the impacted public communities.

For Support Staff, we are pleased to have recently filled two critical roles in Human Resources and Procurement. These hires are required to enable and support the Mission Product Team in both hiring and in providing contract subject matter expertise to bear.

We are mindful of and continually revisiting the benefit analysis of direct hires versus continuing to rely on the vast number of contractors that support our Mission Product and Support Staff teams. For critical roles that require full-time support, hiring direct will allow for more stability, integration, communication, and promotion of a common culture and process.

There is no substitute for a strong leadership team, to include career staff and appointed board members, which is essential to attracting and maintaining qualified and engaged staff. We are attending to the balance required as we scale up to a level of functioning that meets our core mission in a timely manner and with integrity.

Remaining gaps across these three areas, in comparing current staff to our proposed FY23 Staffing Plan, include:

Mission Product Team:

- Chemical Incident Investigators
- Safety Recommendations Specialists

- Safety Studies and Data Analysis Manager
- Technical Writers and Editors

Support Staff:

- Chief Information Officer
- Communications Director
- FOIA Officer
- Board Member Confidential Assistants

Leadership:

- Managing Director
- General Counsel

Each position is critical to the success of our agency, and to meeting our Investigation Closure Plan.

The hiring plan is dynamic and challenging, with retirements and an uncertain budget environment, to include the potential for a full year CR for FY21. Other challenges include heavy competition with the private sector, especially starting FY21 to the present day.

Despite these challenges, we take pride in our accomplishments. From an all-time low in 2019 of eight total Mission Product Team staff, we are now at a four-year high of 14. If fully appropriated, the Mission Product Team will equate to an all-time high by the end of FY23. The agency is seeking a modest increase in budget after many years of standstill, and we are hopeful to receive Congressional support in this area.

We are ready to take on the hiring and training challenges to meet our mission.

- b. Given the urgency of the work at CSB and the dire need for staff, have you considered petitioning the Office of Personnel Management for direct hiring authority? If not, why not?

As a micro agency, the CSB does not have the human resources necessary to execute direct hiring authority. The CSB utilizes the inter-agency services provided by the Department of Interior's Interior Business Center through an interagency agreement. It is our expectation that the process will be improved following the recent hiring of an HR Director.

3. We understand that CSB's Incident Reporting Rule has resulted in the submission of thousands of incidents to CSB over the last year. While it is understandable that CSB cannot deploy on-site to each and every one of these incidents, I believe the public, and particularly surrounding communities, would be interested in learning more about these accidental releases so that they can assess their own risks.

Providing timely information to the public and local communities is a priority, and the reason we instituted this past year a more proactive approach to media releases with factual details in the initial stages of an investigation, press interviews in the community, as well as reaching out to Congressional staff with responsibility for affected constituents.

To ensure completeness of data, the CSB uses a broad set of criteria when requesting incident reports from the USCG National Response Center (NRC). From an average of over 735 reports received monthly from the NRC, approximately 3 of these reports per month meet CSB's incident reporting criteria. A much smaller percentage of these meet deployment criteria but are still monitored.

Events that meet direct reporting criteria are nearly always included in NRC data which is widely utilized as a public record.

4. One concern we have heard is that the Incident Reporting Rule and resource limitations have caused CSB to undertake non-deployment investigations. My understanding is that these non-deployment investigations are essentially written requests for information sent to company management, without deploying CSB investigators on-site to conduct interviews and otherwise gather evidence. The concern is that non-deployment investigations rely primarily on information provided by company management, rather than workers, first responders, labor unions, or other key witnesses and stakeholders.
 - a. Can you please explain CSB's process around non-deployment investigations? When are they conducted, and how are you accounting for their inherent limitations?

Incidents that do not meet criteria for full deployment may sometimes be of value in the interests of furtherance of the CSB's mission.

In the past the CSB has produced a range of products (Safety Bulletins, Hazard Study, Case Study, etc.) and applied differential and a dynamic level of resources to each investigation, based on what is learned in the initial stages. The decision to investigate was not polarized and static, but agile in adapting to provide the most productive outcomes and lessons for the community. A return to this model for the CSB would allow the CSB to enhance productivity from learnings.

Whether a team is initially deployed in person does not prevent the escalation or de-escalation of resources and the product outcome. Especially in the chemical domain, deploying in person immediately may not be the most efficient approach as the actual site can be inaccessible due to a lack of structural integrity. A remote interview or trip to a separate location, such as headquarters, can be far more productive.

If a reported event meets the criteria of an accidental release as defined by the Accidental Release Reporting Rule, the CSB routinely initiates a document request to the owner/operator for additional information regarding the incident and will also request investigative reports when conducted by Federal, state, local agencies, to include labor organizations and incident commanders.

This "range of products" approach requires additional resources to finalize and fully implement but provides a clear added benefits and safety information to the community.

Once again, we are still exploring the right model for the CSB moving forward, but the general approach described above is similar to the model employed successfully at the NTSB.

- b. Has CSB ever reached conclusions about the root cause of an incident without deploying investigators to the incident site? If so, can you please elaborate on how many times this has occurred and for which incidents?

Historical records from previous Administrations are incomplete. Many CSB products, for example, safety studies or safety bulletins, have advanced the mission of the agency without a root cause determination of an incident. Given capabilities with remote access to sites, interviews with subjects via webcams, and virtual meetings and access, the CSB is adopting more innovative practices in investigative capabilities. More investigative work is conducted remotely than ever before.

- c. To the extent CSB conducts non-deployment investigations or other reviews that do not involve on-site deployment, it is important that CSB is transparent about the information sources it is relying on as part of those reviews. How does CSB plan to communicate the information sources it has and has not relied on when sharing the results of non-deployment investigations or other products that do not involve full deployment of CSB staff to incident sites?

Transparency is vitally important to the CSB. Details on citation of appropriate review materials will be finalized prior to any advancement of CSB products.

5. As discussed during the hearing, the U.S. Environmental Protection Agency (EPA) is revising its Risk Management Program (RMP) regulations. My understanding is that, after years of identifying the root causes of exactly the kinds of chemical disasters the RMP is intended to prevent, the Board's investigation findings and recommendations are a great repository of information on how to avoid chemical disasters. We understand that CSB has already provided some information to EPA regarding certain recommendations relevant to this rulemaking, including information at a listening session and a July 30, 2021, letter outlining three open recommendations to EPA (July 2021 Letter). While this is a good start, I think more is needed to ensure EPA has the full benefit of the valuable knowledge gained by CSB over the years.
 - a. Does CSB keep a catalog of prevention measures, based on its more than 100 investigation reports, that could help facility managers and others to adopt the best approaches to preventing chemical incidents? If so, will CSB make this list public and provide it to EPA as part of the RMP rulemaking process?

The CSB has not historically kept a catalog of prevention measures, but with additional resources in personnel and software investments, the CSB would be willing to compile this list and provide it to relevant stakeholders, to include the EPA.

With resources provided to both the EPA and CSB, we would look forward to taking on this challenge together. As a joint effort, we could ensure that elements of our findings are not taken out of context, and our teams could simultaneously learn more about each

other's activities, to include the investigative process and the EPA's regulatory process and growth.

All CSB closed investigations and recommendations issued are available on our website, to include a range of information that could be catalogued for the benefit of the community, to include the EPA.

- b. Beyond the July 2021 Letter, what additional steps is CSB doing to provide EPA detailed recommendations and information to inform the RMP rulemaking process? As part of this process, can CSB provide EPA a list of inherently-safer technologies and recommendations for how facilities may evaluate which inherently-safer technologies may address its particular hazards?

The CSB will continue to work closely with the EPA to inform RMP improvements through the course of past and future investigation recommendations.

In dealings with any stakeholder, to include the EPA, upon request, the CSB is willing to compile a list of previously issued recommendations as it is beneficial to our mutual mission.

6. EPA's RMP program is closely related to the Occupational and Safety Health Administration's (OSHA) Process Safety Management (PSM) standards, which address the management and handling of highly hazardous chemicals.
 - a. Similar to the questions above regarding RMP, what steps is CSB taking to ensure that OSHA is informed of relevant findings and recommendations that can and should inform its PSM standards?

The CSB will continue to work closely with OSHA to inform PSM improvements through the course of past and future investigation recommendations.

Over the past 18 months, the CSB has invested in strengthening relationships on all fronts with both the EPA and OSHA, to ensure effective communication and progress towards higher safety standards.

7. What specific steps is CSB taking to comply with President Biden's Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*?

The CSB is committed to improving the safety of both workers and the public, to include the fence line communities, who are most often underserved and vulnerable to chemical accidents and incidents.

Impact or potential impact to the fence line communities is a vital component of our deployment criteria. In addition, as many workers are residents of the local community, we protect both by

performing our mission: timely completion of investigations, issuing safety recommendations, and advocating their successful closure.

Our communications with the impacted communities must be improved. We have already made progress in FY21 through issuing factual media releases during deployment and in the early investigative phases to update these communities. Enhanced communications with stakeholders, especially the EPA, is critically important.

The Honorable H. Morgan Griffith (R-VA)

1. As a follow-up to the hearing, you sent the Committee the Chemical Safety Board's (CSB) current plan to complete those investigations comprising the present backlog, including mentions of the "anticipated board meeting time frame" for each backlogged investigation. According to this document, CSB intends the oldest investigation from 2016 to close first in the FY22 Q1-Q2 timeframe. However, after that, investigations are not prioritized based upon date, such as the Bio-Lab Conyers incident subject to close in FY22 Q2 with an incident date of September 14, 2020.

- a. Can you explain what criteria the CSB used to determine the order of backlogged investigations anticipated completion dates?

The decision criteria for the completion of investigations is based on the ability and urgency to effect safety, technical complexity of the incident, the amount of time required to recover, inspect and conduct testing of critical evidence, as well as the availability of the investigative staff.

- b. What is the status of the work on each of these backlogged investigations, including the percentage of each investigation toward completion?

The investigative staff often work on multiple investigations with priority to work involving the collection of perishable evidence, documenting the incident scene, and conducting interviews with personnel with direct knowledge of the incident.

Once the investigators begin preparation of their final report, we have more fidelity in the timeline for closure. Projects that involve detailed investigations are difficult to hold to a specific schedule since they are influenced by many external dependencies (site safety and availability, demolition status and access, evidence collection and reconstruction, etc.).

Regardless, the agency's plan is to complete up to 11 current investigations before the end of FY22 and the remaining in FY23.

- c. This planning document also notes, "estimated schedule for completion is subject to change based on external factors and investigation complexity." Please state what is meant by the "estimated schedule for completion is subject to change based on external factors and investigation complexity." Has the CSB reviewed the backlogged investigations beyond the incident dates stated in the planning document to determine which investigations may be more complex to close?

The CSB evaluated each of the 18 open investigations to determine the resources required to complete each of the investigations. All open investigations are assigned a lead investigator (Investigator-In-Charge), a staff attorney and a recommendations specialist. To the extent possible, a more complex investigation is assigned additional mission resources.

Per the planning document we provided, the Investigation Closure Plan assumes flexibility in the timeframe for completing investigations, as dynamic re-assessments are required based on numerous external and internal factors. For example: The order of completion may change based on factors outside our control (e.g., unsafe structure, site contamination), or if we identify a high-priority incident that is ready for release and warrants an accelerated placement in the queue.

- d. What is CSB's guidance on determining whether backlogged investigations are outdated and could be closed without resolution so that resources can be allocated to more recent investigations that have a broader impact on the chemical industry?

Internal guidance supplementing Board Order 40: Investigation Program was developed in earlier years and remains in place, with rationale and analysis for how and when to determine whether closing a backlogged investigation should occur, for the greater benefit of safety to the community.

With the "range of product" approach mentioned above, agency resources should align with the potential safety impact, as has been executed successfully in previous years at the CSB.

- e. Please state how CSB intends to handle investigations necessitated by accidental releases that occur after today's date to ensure they do not further exacerbate the current backlog or become casualties of a new a backlog. Please state how CSB intends to enforce any internally created deadlines for this kind of work.

The CSB is reducing the backlog of investigations while still deploying to new incidents on a consistent basis. All backlogged reports will be complete by the end of FY23 and new investigations will be targeted for closure in alignment with internal guidelines.

The mission plan through the FY23 budget request will result in the most mission staff in the history of the agency. Improved process with this increase in staff will allow the agency to continue to move toward accomplishing our goals.

2. The CSB's current planning document also states that "the CSB will continue to refine the process model moving forward that accommodates a range of investigative products and timelines to effectively serve our community and meet our full mandate."

- a. Please explain what is meant by "refine the process model," "range of investigative products," and "meet our full mandate"?

The agency is revising its investigative and report development and review process to improve the integrity and efficiency of the chemical incident investigation process.

With the "range of product" approach, provided in greater detail above, agency resources would align with the potential safety impact, as has been executed successfully in previous years at the CSB.

Meeting our full mandate refers to our mission as outlined by Congress and our mission statement.

- b. How long will it take CSB to “refine” its process model and what will be the impact of this on CSB’s investigations?

Consistent with the principles of continuous improvement, the CSB considers the refinement of its process model to be a dynamic activity. As mentioned earlier, the draft prototype has already been pilot-tested on the first three completed investigations. The range of investigation element still needs refinement.

Changes will result in reports with a higher degree of integrity and a reduction in the time required to complete investigations.

- c. Has the CSB considered submitting alternative investigative products besides investigative reports for the backlogged investigations to accelerate the process of completion?

Yes. The CSB has considered a range of options from administrative closures to subsidiary products. The consideration of these options is subject to change given the recommendation of career staff and leadership.

The Honorable David B. McKinley (R-WV)

1. Given the number of investigation requests, and the Chemical Safety Board’s current backlog, do you think its counter-productive to add to the Board’s workload and expand its scope by asking the Board to take on issues already being addressed by other agencies?

The CSB works to minimize inter-agency overlap and efforts are made to make sure resources are deployed efficiently given constraints on resources and agency backlog.

The CSB’s role is important and unique, as is the NTSB’s, in that the investigations conducted by the agency result in the determination of the cause or probable cause of the incident and when appropriate, recommendations to the operator of the facility, Federal agencies, and/or standard setting organizations. Our enabling legislation supports this independent model to follow that of the NTSB.

2. Is it appropriate for the Board to lobby other agencies for regulatory changes beyond issuing the recommendations in its reports?

Per the CSB’s enabling legislation, the advocacy and outreach activity of the Board is limited to actions specified in the Board’s recommendations and the successful closure of those recommendations.

3. Do you think the Board should adopt formal guidelines and/or standards to ensure the Board conducts objective, transparent investigations, and issues consistent reports?

The CSB agrees that formal guidelines should be developed in many instances and the agency is acting to develop and refine standards in many areas.

4. What is the single most important thing the Board needs or can do to streamline the process for completing timely investigations?

Completing the revision of the CSB's investigative and report development and review process will have the most impact in streamlining, improving the integrity and efficiency of the chemical incident investigation process.

Attachment B

CSB Investigation Closure Plan

Attachment 1

CSB Chemical Incident Investigation - Summary and Schedule of Open Investigations				
Date: 07 OCT 2021*				
	Incident Date	Investigation	Incident Location	Anticipated Board Meeting Timeframe
1	8/12/2016	Sunoco	Nederland, TX	FY22 Q1-Q2
2	4/3/2017	Loy-Lange Box Company	St. Louis, MO	FY22 Q2
3	5/31/2017	Didion Milling	Cambria, WI	FY22 Q2
4	9/14/2020	Bio-Lab Conyers	Conyers, GA	FY22 Q2
5	4/26/2018	Husky Energy Refinery	Superior, WI	FY22 Q2-Q3
6	5/19/2018	Kuraray EVAL	Pasadena, TX	FY22 Q3
7	1/24/2020	Watson Manufacturing and Grinding	Houston, TX	FY22 Q3
8	6/21/2019	Philadelphia Energy Solutions (PES)	Philadelphia, PA	FY22 Q3-Q4
9	3/17/2019	Intercontinental Terminals Company (ITC)	Deer Park, TX	FY22 Q4
10	11/27/2019	TPC Group	Port Neches, TX	FY22 Q4
11	4/2/2019	KMCO	Crosby, TX	FY22 Q4 - FY23 Q1
12	8/27/2020	Bio-Lab Lake Charles	Lake Charles, LA	FY23 Q1
13	1/29/2020	Wendland 1H Well	Burleson County, TX	FY23 Q1
14	11/13/2020	Wacker Polysilicon North America	Charleston, TN	FY23 Q1
15	12/9/2020	Optima-Belle LLC	Belle, WV	FY23 Q2
16	1/28/2021	Foundation Food Group	Gainesville, GA	FY23 Q2
17	4/8/2021	Yenkin-Majestic	Columbus, OH	FY23 Q2
18	7/27/2021	LyondellBasell	LaPorte, TX	FY23 Q3

* Estimated schedule for completion is subject to change based on external factors and investigation complexity.