



Testimony

Of

Steve Sallman  
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before the

Senate Committee on Environment and Public  
Works

On

Stakeholder Perspectives on the Importance of the  
U.S. Chemical Safety and Hazard Investigation  
Board

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Chairman Barrasso, Ranking Member Carper and members of the committee, thank you for the opportunity to testify today. My name is Steve Sallman and I am the assistant director of the United Steelworkers' Health, Safety and Environment Department. Our union is the largest industrial union in North America, representing approximately 850,000 members across a wide variety of manufacturing and service sectors. Most relevant for this hearing, we are the predominant union in oil refining, chemicals, rubber, plastics, paper, steel, and other metals – the industries most likely to experience a catastrophic chemical accident. Many U.S. Chemical Safety Board (CSB) investigations have taken place at facilities represented by our union.

I have worked in our union's safety department for 16 years and in the safety field for 28 years. I also serve as a labor representative on the National Advisory Committee on Occupational Safety and Health (NACOSH) and NFPA's 652 Technical Committee on the Fundamentals of Combustible Dust. I began advocating for worker health and safety when I was a member of USW Local Union 310 and worked at the Bridgestone/Firestone Plant in Des Moines, Iowa, where I served as the fulltime safety & health committee chairperson for 8 years. After that, I spent nearly 5 years as a safety and health consultant for the Iowa Division of Labor-OSHA. Over the course of my career I have investigated many fatalities and life-altering incidents, provided technical assistances to local unions, and worked closely with employers' safety and health professionals. I have extensive experience in the paper sector. ..

Our union believes that every worker should return home at the end of their work day with the same health and life quality they had at the start of the day. The Chemical Safety Board's mission and investigations are imperative in reaching that goal. Through

my testimony I want to emphasize four major points: the importance of the CSB, the need to fill vacant seats on the board, the need for sufficient funding, and the need for the agency to have sufficient staff to investigate incidents.

### **Importance of the CSB**

As a fact finding, non-regulatory, agency the CSB investigations have provided lessons learned for industry that have assuredly prevented future injuries and saved lives. Many Chemical Safety Board investigations have taken place at facilities represented by our union. I would like to highlight some of my firsthand experience with the CSB involving a triple fatality incident at Packaging Corporation of America (PCA), a USW-represented paper mill. Paper mills are essentially chemical plants that manufacture paper, where our union has experienced some of the highest number of fatalities. In July, 2008, A tank containing a mixture of recycled paper pulp and water exploded, killing three workers. The CSB investigators and their resources were invaluable to the employer and the union in the fact-finding after the incident. CSB investigators assisted with sampling and analyzing contents of the tank involved with the explosion. The CSB cataloged evidence, conducted in-depth interviews, and researched similar incidents within the industry; ultimately developing a safety bulletin on the hazards of hot work.<sup>1</sup> During this incident, the 80-foot tall storage tank at the mill contained highly flammable hydrogen gas, a by-product of bacterial decomposition of organic fiber waste inside the tank. The CSB helped bring the industry's attention to the largely unrecognized hazard of recycled paper pulp and water in tanks. The CSB found

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<sup>1</sup> [https://www.csb.gov/assets/1/17/csb\\_hot\\_work\\_safety\\_bulletin\\_embargoed\\_until\\_10\\_a\\_m\\_3\\_4\\_101.pdf?14329](https://www.csb.gov/assets/1/17/csb_hot_work_safety_bulletin_embargoed_until_10_a_m_3_4_101.pdf?14329)

this mixture decomposes to form flammable hydrogen and necessitates using combustible gas monitoring prior to performing hot work. Although we were pleased with the CSB issuing the safety bulletin, we were disappointed when they were unable to produce a full report and video about the incident itself due to understaffing and the heavy workload CSB had at that time.

Similarly, In February 8, 2017, I worked with the CSB on another triple fatality, that also injured 7, at a paper mill in Louisiana. That incident involved hot work and an explosive vapor space, containing air and flammable turpentine vapor in the headspace of an atmospheric tank. The CSB investigation exposed how OSHA's Process Safety Management (PSM) regulation is too limited in scope for this facility. The PSM regulation does not apply to the mill's foul condensate tank and equipment. The CSB released a comprehensive report and video about the incident.<sup>2</sup> The investigation results improved our members' awareness with hazard recognition and the importance of having proper engineering controls. The CSB is producing a second video about this incident that will bring much needed attention to Process Safety Management in the paper industry and its application to atmospheric tanks.

More recently, in the early morning of June 21, 2019, the Philadelphia Energy Solutions Refinery in South Philadelphia suffered a massive explosion and fire. The incident centered in the alkylation unit, where thousands of gallons of highly toxic hydrofluoric acid were in use. Had the acid been released, it could have caused an immense catastrophe, with a lethal vapor plume extending for miles. However,

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<sup>2</sup> <https://www.csb.gov/packaging-corporation-of-america-hot-work-explosion-/>

members of USW Local Union 10-1 quickly diverted the acid to a secure dump tank. Other members worked to swiftly shut down other hazardous processes, and acted as first responders, playing a significant role in containing the fire, avoiding a toxic release and preventing any loss of life. Despite these heroic efforts to minimize the damage of this incident, over 1,000 USW members are now out of work because the refinery is not operating. The CSB has an ongoing investigation and we continue to work cooperatively with them. This incident is another example of how uncontrolled hazards can, and do, shut down workplaces. In today's economy, we cannot afford to lose living and saving wage jobs, not to mention, the impact this has on the surrounding communities and businesses.

Many CSB recommendations from investigation reports have led to changes in industry practice or government regulations, for example the new California rules for safety at oil refineries.<sup>3</sup> But facility owners are not the only ones who benefit from CSB investigations. Many of the root cause findings are applicable across sectors with highly hazardous substances and processes including many USW represented workplaces. Specifically, our union has used many of the CSB reports and videos in our trainings and safety meetings in places like BP Texas City, MGPI Industries, and the Formosa Plastics Vinyl Chloride Explosion, to name a few. We show CSB-produced videos and cite CSB conclusions in trainings and safety meetings with rank-and-file workers to prevent future incidents in the areas of process safety management, hot work, combustible dust, and inadvertent mixing.

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<sup>3</sup> See <https://www.dir.ca.gov/oshsb/process-safety-management-for-petroleum-refineries.html>

Many of the CSB reports and videos illustrate how the “normalization of deviation” led to an incident. One example is BP Texas City where hazards and alarm fatigue were normalized, fatigue factors were real and workers were doing more with less. We also continue to use the CSB’s combustible dust video to bring attention to this illusive hazard.

The videos that the CSB produces are of excellent quality and are understandable to stakeholders from a wide range of experiences. Our members learn a lot from these videos, and we hear reports from all around the world about other safety professionals using the lessons demonstrated in CSB videos to prevent catastrophic incidents at industrial facilities worldwide.

### **The Need to Fill Vacant Board Seats**

In order for the CSB to produce its high quality investigations, recommendations, and videos, the Board must have members who support and uphold its mission to **"drive chemical safety change through independent investigation to protect people and the environment."**<sup>4</sup> The five-member board’s primary function is to deploy investigative staff to perform root cause investigations of chemical accidents at fixed industrial facilities.

When Congress created the Chemical Safety Board in the Clean Air Act Amendments of 1990, it gave the CSB a unique statutory mission and provided in law that no other agency or executive branch official may direct the activities of the Board. Following the successful model of the National Transportation Safety Board and the

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<sup>4</sup> <https://www.csb.gov/about-the-csb/mission/>

Department of Transportation, Congress directed that the CSB's investigative function be completely independent of the rulemaking, inspection, and enforcement authorities of EPA and OSHA.

Board seats need to be filled with a diverse slate of qualified individuals for the CSB to continue to carry out its mission. Historically, the board had some leadership challenges that resulted in a large backlog and delay in incident investigations, like the four years it took to finish the investigation into the explosion at a USW-represented refinery in Anacortes, WA.<sup>5</sup> However, our union is very pleased that the most recent slate of members has successfully cleared an investigation backlog and improved administration.

The five member board has been operating for some time with only three members.<sup>6</sup> Former board member Manny Ehrlich's term expired in December of 2019 and current board member Rick Engler's term expires in just a few weeks in February. Board member, and Interim Executive Authority, Kristen M. Kulinowski, Ph.D's term expires in August of this year.

Last year, this committee advanced Catherine Lemos's nomination to be chairperson of the CSB.<sup>7</sup> Yet even if confirmed, she will be the only member of the board by August 2020 if the White House does not nominate and the Senate does not confirm other qualified individuals to serve on this board.

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<sup>5</sup> <https://publicintegrity.org/inequality-poverty-opportunity/workers-rights/leadership-at-chemical-safety-board-questioned-amid-investigation-backlog/>

<sup>6</sup> <https://www.csb.gov/about-the-csb/board-members/>

<sup>7</sup> <https://www.epw.senate.gov/public/index.cfm/press-releases-republican?ID=6CAC354C-CC6C-4876-9D00-88A6056FB9EA>

## **Funding the CSB Must be a Priority**

There is longstanding bipartisan support in Congress and among a variety of labor and industry stakeholders for a fully funded CSB. However, over the last several years, this Administration has proposed a budget that does not fund the CSB.

The CSB is a very small agency with fewer than fifty staff and a budget of approximately \$12 million to accomplish a very important mission.<sup>8</sup> Our union believes this is a bargain, and we work hard to ensure members of Congress understand how important the work of this agency is to preventing loss of life and costly damage to infrastructure from catastrophic chemical incidents.

In April 2017, the CSB released a report titled “Safety Business Case” aggregating the results of four of its investigations: West Fertilizer Company, the Chevron Richmond Refinery, the Deepwater Horizon/Macondo Well Blowout, and the BP Texas City Refinery.<sup>9</sup> The cost of these disasters ranged from \$247 million to \$32 billion dollars. While our union often hears employers dispute the cost of safety upgrades, those costs pale in comparison to that of disasters we have seen.

We support appropriations sufficient for the continuation of CSB deployments to incidents. With the Administration’s recent roll back of the Risk Management Program’s (RMP) Chemical Disaster Rule (CDR), the CSB stands as one of the last lines of defense in providing root cause analysis investigations and recommendations to prevent future catastrophic incidents. It is important for Congress to show continued bi-

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<sup>8</sup> [https://www.csb.gov/assets/1/6/justification\\_2020.pdf](https://www.csb.gov/assets/1/6/justification_2020.pdf)

<sup>9</sup> [https://www.csb.gov/assets/1/6/csb\\_business\\_case\\_for\\_safety.pdf](https://www.csb.gov/assets/1/6/csb_business_case_for_safety.pdf)



partisan support for the CSB and its mission to protect working people and American communities.

### **The Need to Increase Investigative Staff**

Historically the quality of CSB reports has been high, and the dedication of the professional staff is obvious in our interactions with them. However, despite this, the CSB does not currently have a sufficient staff of investigators. We are concerned that this shortage will lead to an increased backlog of open investigations and the inability to deploy to needed investigations. Our union supports CSB investigators and values the thoroughness of the root and contributing causes investigations they perform.

As I previously mentioned, the CSB was so understaffed over the last decade that investigators were not able to complete their work. In addition to the 2008 investigation mentioned above, the CSB leadership cancelled other investigations in 2015. Our union raised concerns in a letter to the House Oversight Committee highlighting three of these investigations cancelled for lack of staff. Two of these investigations were at USW-represented facilities:

- The CSB initially deployed to a July 2009 fire and release of hydrofluoric acid (HF) at the Citgo refinery in Corpus Christi, TX. HF is a very hazardous chemical that is widely used in oil refineries across the country. CSB issue a “Urgent Recommendations” document about five months after the incident but never completed a full investigation.<sup>10</sup>

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<sup>10</sup> <https://www.csb.gov/citgo-refinery-hydrofluoric-acid-release-and-fire/>

- An explosion at the Horsehead zinc plant in Monaca, PA killed two workers and resulted in the closure of the facility in July 2010. CSB deployed three days after the incident and promised a full investigation. However, the CSB cancelled its work on the root and contributing causes investigation in January 2015.<sup>11</sup>

Our union does not want to see a situation like this in the future where promises are broken and needed lessons are not learned. We also do not want a situation where investigations are not being undertaken, putting workers and communities at greater risk. The CSB has many ongoing investigations dating as far back as 2016. Timely completion of these and future investigations by a fully staffed CSB will provide the lessons learned and reduce risk of future tragedies for government, industry, unions, and other stakeholders.

Following the CSB mission, investigators perform “root cause” investigations. Root causes are usually deficiencies in safety management systems, but can be any factor that would have prevented the accident if that factor had not occurred. Our union has significant experience and expertise in conducting incident investigations through the Triangle of Prevention Program (“TOP”). A 2015 white paper called, “Looking for Trouble: A Comprehensive Union-Management Safety and Health System,” outlines the ways that root cause analysis prevents future incidents by looking beyond the immediate cause of an accident, thereby allowing the facility to identify and address the true reasons for the release, fire, or explosion.<sup>12</sup> Most incidents have multiple causes –

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<sup>11</sup> <https://www.csb.gov/horsehead-holding-company-fatal-explosion-and-fire/>

<sup>12</sup> <https://www.usw.org/get-involved/hsande/resources/looking-for-trouble/LFT-11202018.pdf>

things that led directly to the accident – as well as contributing factors that did not directly cause the accident but made it more likely or more severe.

Root and contributing causes incident investigations are not about who or what caused an incident but about how the conditions allowed a tragedy to occur. CSB investigators complete high quality investigations looking for these root and contributing causes. By finding these causes CSB strives to ensure that facilities or entire industries address hazardous conditions, work organization factors and management system failures.

The CSB's materials, developed from their root and contributing cause investigations, help our workplaces prevent future tragedies and incidents by illustrating the need for workers to be set up for success. The reports and videos identify both system and organizational failures. The investigations show the importance for preventative, predictive and periodic maintenance of process equipment that is too often allowed to run to failure. Hierarchy of controls, inherently safer design and human factors engineering play a critical role in preventing incidents at workplaces and allow for facilities to "fail safely". Our members gain an increased ability to recognize and understand system failures, increased hazard recognition skills, identify and address work organization factors, and recognize the importance of engineering controls needed to prevent recurrence of incidents. In addition, the reports and videos bring much-needed information to families of the workers whose lives were taken from them.

However, without the proper funding and staffing, we will continue to learn about hazards incident-by-incident or even worse, fatality-by-fatality. For this reason, we strongly support efforts to hire and retain more qualified investigators at the CSB.

## **In Summary**

In conclusion, our union hopes that all of the members of this committee understand the importance of this small agency. Bipartisan support has contributed to the CSB's success in carrying out its mission to make the nation's workplaces and communities safer by conducting investigations and providing analyses that accomplish those goals. We look forward to continuing to work with lawmakers, and the CSB, to protect our members, communities and prevent future incidents. Thank you again for the opportunity to testify.