U.S. Chemical Safety and Hazard Investigations Board

Business Meeting

March 5, 2021

Conducted Remotely

U.S. CHEMICAL SAFETY BOARD MEMBERS PRESENT:

Katherine Lemos, Chairman & CEO

STAFF PRESENT:

Stephen Klejst, Director of Investigations

Chuck Barbee, Director of Recommendations

Mark Kaszniak, Senior Recommendations Specialist

OPERATOR: Welcome to the Chemical Safety Board business meeting conference call. My name is John and I'll be your operator for today's call. At this time, all participants are in a listen-only mode. Please note the conference is being recorded. And now I'll turn the call over to Dr. Katherine Lemos. Dr. Lemos, you may begin.

CHAIR LEMOS: So, welcome everyone. We will now call to order this public meeting of the U.S. Chemical Safety and Hazard Investigation Board, referred to as the CSB. My name is Dr. Katherine Lemos, the Chairman and CEO for the agency.

Today we meet in open session, as required by the Government in the Sunshine Act, to discuss operations and agency activities. Due to COVID, this meeting is being conducted completely remote. So, unlike previous meetings, we're not in our conference room in headquarters.

The CSB is an independent, non-regulatory federal agency that investigates major chemical incidents at fixed facilities. The investigations examine and evaluate a wide range of aspects, to include equipment and system design, regulations, industry standards and guidance, training, operations, and procedures, and human and organizational factors.

And with the facts, we conduct analysis to determine the probable cause and contributing factors of the event and may also issue safety recommendations for the purpose of preventing similar incidents in the future.

So, we have another great agenda for today. For the first part of the meeting, I'll review some strategic topics, to include management priorities and challenges, the CSB's accomplishments in Fiscal Year 20 and our progress to date in Fiscal Year FY21 towards meeting our priorities and overcoming our challenges, and what to expect from the CSB as an agency moving forward. I'll close my part of the meeting by reviewing deployments since our last public meeting in October.

Following this, we'll turn to Director Klejst and his team of investigative and recommendations experts to let you know about staff products that are currently in review by the Board. He'll provide a status update of the Incident Reporting Rule Guidance and highlight five of the safety recommendations we've recently brought to closure.

So, I want to take the opportunity to highlight my priorities as Chairman. It's important to keep a clear sight on what we're working towards. The first is a focus on the mission, which is to drive chemical safety change, which is to continue delivering

high-quality safety products in the community. And we look forward to maximizing our incident reporting database to guide our deployments.

The second priority is to drive efficiency of operations within the agency, expanding our workforce and improving business partnerships. And this translates to hiring investigative and technical staff and support staff that fuels and enables their ability to produce.

As many know, as a small agency, we conduct…we contract out a healthy portion of our support functions to business partners. And timely and productive outcomes of our products requires a daily investment in managing these relationships and taking a fresh look moving forward.

And Number 3, to strengthen stakeholder and federal counterpart relationships to maximize our resources. It has been a pleasure to meet the many stakeholders across the chemical industry, and I appreciate your contributions to safety.

Further, our enabling legislation directs us to work closely with our federal counterparts, and I'm positive that even stronger partnerships will contribute to our productivity and impact.

As we also discussed last July, in the public meeting, we are addressing our challenges head-on and taking a proactive approach to move our agency forward to meet our mission.

One of the most obvious challenges is carrying out the role of the Board as the only Board Member. As I've said many times, I very much look forward to new members joining me at the CSB. And I trust that our productivity and efficiency will motivate interest and others to join us.

Another challenge is Board Member roles and responsibilities. Our policies regarding Board Member roles and responsibilities are currently not in alignment with our enabling legislation. Board Members are selected for their technical expertise, as explained in the United States Code. Currently, many administrative activities are assigned to the Board that should be in the hands of staff. And this causes an inefficiency.

I had anticipated and announced changes in our policies by the end of Fiscal Year 21, but am glad to finally say that these changes will be in effect very soon. The outcome of these changes are that staff will be empowered to execute on business decisions and Board Members will more vigorously pursue the

agency's mission through technical reviews, stakeholder collaboration and community outreach.

Both of these management challenges were highlighted by the EPA Office of Inspector General and we have given them our full commitment to address these.

I'd now like to turn to the CSB's accomplishments in Fiscal Year 20 and our progress to date in Fiscal Year 21 towards meeting our priorities and overcoming our challenges.

You may notice that we posted our Impact Report for Fiscal Year 20 on the web and sent out emails. I'm…I'm just going to provide some of the highlights from this report that I think are…are critical and show our value.

We had seven deployments to new investigations or new incidents. We hired six new investigators. We voted on 15 recommendation status changes. Of those 15, eight were closed and seven were advanced. And we produced four Factual Update Reports. Finally, we closed one investigation.

So, in Fiscal Year 2021, I look forward to an even more productive set of outcomes, as we work transparently and with accountability in fulfilling the CSB's mission to drive chemical safety change through independent investigations for…to protect

people and the environment. And when I say people, I mean both workers, as well as the community members.

So, we are already making some great progress only a few days into the second quarter of FY21. Today is the 5th of March, which is, you know, five days into the second quarter. We already have three deployments, which I'll talk about later. We have hired two new investigators and we have a group of new investigator positions set to post in the very near future. And we voted on 28 recommendation status changes. 22 of them were closed, and six were advanced.

So, I want to contrast that to FY21. So, the fact that we have 22 closed versus eight in the fiscal year, just in the first quarter, is…is pretty astounding.

We've also hired some critical staff to meet our priorities and address our challenges. In January, we hired a senior advisor and executive counsel, Mr. David LaCerte, who will serve as our Acting Managing Director. He will be addressing our many staffing gaps, as well as enhancing the efficiency of our agency through internal processes and strong business relationships.

Mr. LaCerte is working to finalize our Board Order for Board Member Roles and Responsibilities, which is based on the work of our previous staff Deputy General Counsel. So he's taking it over

the finish line. It's not a new product. He's just taking it to the finish line, as I promised last fall.

In November we hired a senior advisor, Mr. Bruce Walker, to serve as our government liaison, to manage and integrate our communications and stakeholder relations, and to enhance our relationships with our federal counterparts. And we can already see the benefit he brings through our three press releases during the deployment to Foundation Food Groups in Atlanta last month as well as our press release with an update of facts from the Belle, West Virginia deployment in late November.

Mr. Walker is also leading our agency responses to an on-going GAO Engagement on Chemical Facilities and Climate Change.

So what can we expect, or what can you expect, from the CSB moving forward? And the types of things that I've presented so far are not new…is not new information. Our priorities are the same as I presented last July and September--our challenges, what we're dealing with,and our commitments moving forward.And I would…I would say that about the transparency and communication that you should expect that I've already communicated and want you to hear and believe.

You've already seen our focus on more frequent updates to recent events, as just mentioned. As Chairman, I intend to ensure

that all our investigations receive timely updates to inform workers and communities of our activities.

So, as the board member on scene for the deployment to the recent incident in Gainesville, Georgia, which is outside Atlanta, I was able to gain insight first-hand to the impact this particular incident had on the local workforce and their families and friends, and their interest in working towards a higher degree of community and worker safety.

Transparency and communication also include public meetings during the release of Community Updates. And to the extent possible with COVID, these meetings will be held live in the impacted communities. We will also hold Board Meetings for the closure of investigations, which will allow our investigative team to walk through the facts and analysis and how they arrived at their conclusions and recommendations. And will also provide for transparency into how the Board arrived at its assessments and decisions.

I also want to refer everyone to CSB.gov for recent Board activities and the status of investigations. When going online, you'll notice that since joining, the CSB has advanced 37 notations, all of which are posted on our website. You'll see that the CSB is moving forward with recommendation status changes

extremely quickly. When I started at the agency, we had 144 open recommendations. That was at the end of April of last year. To date, we have closed on 26 safety recommendations, and are down to a total of 118 open. And I'll…I'll steal a line from our Manager of our…Director of Recommendations. We have an all-time high of 86% closure rate for our safety recommendations across the board.

The largest contributors to delays in the closure are the fact that some recommendations were not accepted and some of them require a development and implementation of regulatory standards, which takes a long time, as we know.

The CSB has also posted investigation information pages for each of its 19 open investigations.

So I'll close by reviewing three new deployments since our last public meeting in October.

Most recent is our deployment to an incident involving a release of liquid nitrogen at Foundation Food Groups, a poultry processing plant in Gainesville, Georgia, on January 28th of this year. The incident resulted in six fatalities and multiple injuries. And you can find several updates at csb.gov under the Foundation Foods Investigation Information page. We did one

visual press briefing and we provided two informational press updates.

The CSB also deployed to an explosion at Optima Chemical LLC in Belle, West Virginia, on December 8 of 2020. The incident led to one fatality and two injuries, as well as a shelter-in-place for community members within a two-mile radius of the facility. We recently released an update on this investigation and plan to have more information available in the very near future.

Finally, the CSB deployed to an incident at the Wacker Polysilicon North America facility in Charleston, Tennessee, on November 13th, 2020, involving a release of hydrochloric acid. Seven workers were exposed. One of the workers was fatally injured and three other workers sustained serious injuries.

I want to reiterate that the time that our agency spends on the ground in incident investigation does not account for the impact that it has upon the community, to include the workers and the family members and friends.

I'll now turn to the meeting…turn the meeting over to Director Klejst, Director of Investigations and Recommendations, and his team of investigative and recommendations experts to let you know about staff products that are currently in review by the Board, to provide a status update of the Incident Reporting Rule

Guidance, and highlight five of the many safety recommendations we've recently brought to closure since our previous meeting. Director Klejst.

DIRECTOR KLEJST: Thank you, Chairman Lemos. The Office of Recommendations is working to finalize the evaluation of the next group of 18 responses received from recommendation recipients. Staff's proposed action for the Board's consideration will be completed within the next several weeks.

The Office of Investigations completed a draft report, prepared on the CSB's investigation of the incident that occurred on October 26, 2019, at the Aghorn Operating facility in Odessa, Texas. After a Board review is complete, and Board comments are addressed to the satisfaction, a public Board Meeting will be convened to share the outcome of the investigation.

The CSB's Accidental Release Reporting Rule went into effect on March 23rd of 2020. Over the past year, the agency received over 12 submissions from organizations requesting guidance on the application of the reporting rule.

Staff from the Office of General Counsel and the Office of Investigations reviewed the submissions and prepared a guidance document that can be used by organizations to assist them in determining if an event qualifies as a reportable event under the

reporting rule. The document is in final staff…in final staff review phase, and we look forward to providing this guidance to the community.

I'll now turn it over to our Director of Recommendations, Mr. Chuck Barbee, to present five of the recently closed safety recommendations we'd like to highlight at this meeting. Director Barbee.

DIRECTOR BARBEE: Thank you, Executive Director Klejst.

The first two recommendations we will highlight come from the CSB's Chevron Refinery fire investigation. One of those was to Chevron and the other was to API. And here's the incident brief.

On August 6, 2012, the Chevron Refinery in Richmond, California, experienced a catastrophic pipe failure in a crude unit, causing the release of flammable hydrocarbon process fluid, which partially vaporized into a large cloud. 19 Chevron employees engulfed by the vapor cloud escaped, narrowly avoiding serious injury. The ignition and subsequent continued burning of the hydrocarbon process fluid resulted in a large plume of unknown particulates and vapor. Approximately 15,000 people from the surrounding area sought medical treatment in the weeks following the incident.

The U.S. Chemical Safety and Hazard Investigation Board's investigation found that the pipe failure was caused by sulfidation corrosion, a damage mechanism that causes piping walls to thin over time. The CSB found multiple reasons for the failure to detect this serious damage.

As a result of this incident, the CSB issued 37 recommendations and two of those were urgent. We'll first discuss the Urgent Recommendation made to Chevron. From this investigation, we issued Chevron five recommendations. And the two that were urgent are to Chevron. And as a result actually of this one being closed, all of them are now closed.

This recommendation is Number 2012-3-I-CA, Urgent Rec Number 2. And it says at all California Chevron U.S. refineries, report leading and lagging process safety indicators, such as the action item completion status…status of recommendations from damage mechanism hazard reviews, to the federal, state, and local regulatory agencies that have chemical release prevention authority.

Here's what Chevron did, okay. Pursuant to the newly adopted California process safety management regulations that became effective on October 1, 2017, refineries must develop,

implement, and maintain an effective program to track and document process safety performance indicators.

Chevron USA currently reports leading and lagging indicators…or process safety indicator data for its Richmond refinery to Contra Costa Health Services, as required by the City of Richmond and the Contra Costa County Industrial Safety Ordinance.

In addition, newly adopted California Accidental Release Prevention Program Regulations, called "CalARP," require all of California's covered facilities, which include the Chevron Richmond and El Segundo refineries, to report process safety indicators for the previous calendar year by June 30th.

Chevron USA informed the CSB that on June 30th of 2019, the Chevron Richmond refinery provided leading and lagging process safety indicator data to its Unified Program Agency and to Cal/OES on June 28th, 2019. An updated version was sent to both agencies on May 11th, 2020. The Chevron El Segundo refinery provided its leading and lagging process safety indicator data to its Unified Program Agency and to Cal/OSHA on June 26th, 2019.

As a result, on January 20th, 2021, the Board voted to change the status of this recommendation to "Closed – Acceptable Alternative Action". The sole reason it was "Acceptable

Alternative Action" instead of "Acceptable Action" was that, under normal circumstances, Cal/OSHA only reviews process safety indicator data when they conduct a Program Quality Verification inspection, and they have not yet scheduled one. And that was the only reason.

CHAIR LEMOS: So, thank you so much, Director Barbee. A question. What types of process safety indicators do petroleum refineries provide to their local unified program agency?

DIRECTOR BARBEE: Ah, that's a good question. The newly adopted California Accidental Release Prevention Program, or CalARP regulations, require all of California's covered facilities, including refineries, to report the following process safety indicators annually:

1, past due inspections for piping and pressure vessels. 2, past due process hazard analysis corrective actions and seismic corrective actions. 3, past due incident investigation corrective actions for major incidents. 4, the number of major incidents that have occurred since the updated regulations were passed. 5, the number of temporary piping and equipment repairs installed on hydrocarbon and high energy utility systems that are past their date of replacement with a permanent repair and the total number of temporary piping and equipment repairs installed

on hydrocarbon and high energy utility systems. And 6, site-specific indicators, consisting of activities and other events that are measured in order to evaluate the performance of process safety systems for the purpose of continuous improvement.

CHAIR LEMOS: So, another question for you, Director Barbee. When California petroleum refineries submit their indicator data to their local unified program agency, is this information publicly available?

DIRECTOR BARBEE: Yes, it is. Data is available from every refinery on the California Governor's Office of Emergency Services website. In addition, Contra Costa County's website contains annual process safety performance indicator data for four refineries located in Contra Costa County. These are Chevron Richmond Refinery, Marathon, Phillips 66 Rodeo Refinery, and PBF Energy.

Now we'll move on to a recommendation to API for this same incident. As a result of this incident, we issued API six recommendations and this one is specific to R26.

It says, "Revise API RP 939-C," which is the "Guidelines for Avoiding Sulfidation Corrosion Failures in Oil Refineries to establish minimum requirements for preventing catastrophic rupture of low-silicon carbon steel piping. At a minimum:

a. Require users to identify carbon steel piping circuits susceptible to sulfidation corrosion that may contain low-silicon components. These circuits have the potential to contain carbon steel components that were not manufactured to the American Society for Testing and Materials (ASTM) A106 specification and may contain less than .10 weight percent silicon content. b. For piping circuits contained to meet the specifications detailed in [R26(a)], require users to either (1) enact a program to inspect every component within the piping circuit once, known as [a] 100% component inspection (per the requirements established pursuant to recommendation [R28(c)]), or (2) replace the identified at-risk carbon steel piping with a steel alloy that is more resistant to sulfidation corrosion."

And "c. If low-silicone components or components with accelerated corrosion are identified in a carbon steel piping circuit meeting the specifications detailed in [R26(a)], require designation of these components as permanent Condition Monitoring Locations" [or] (CMLs) [under the piping components…or] until the piping components [are com…]are replaced."

Excuse me. That was a long recommendation. Alright. Now, in this case, API addressed all the issues raised by the CSB recommendation, but they tend…they retained the typical "should"

language associated with its recommended practice guidance documents. As such, on January 20th, 2021, the Board voted to change the status of this recommendation to "Closed, Acceptable Alternative Action".

CHAIR LEMOS: So, thank you so much, Director Barbee. Can you tell me how does API 939-Charlie address piping that has been identified as being susceptible to sulfidation corrosion?

DIRECTOR BARBEE: Ah. When low-silicone carbon steel piping components are identified, 939-Charlie relies on API 570, Piping Inspection Code, to manage their replacement. API 570 addresses requirements for piping inspection plans, inspection analysis and evaluation, performing remaining life calculations, and recommendations for repair and replacement.

By following API 570, effective company management systems should ensure that susceptible low-silicone carbon steel piping components are replaced before they fail.

CHAIR LEMOS: Great…great response, Director Barbee. One final question on this one. So why do we think this "should" language, which is…which is very policy-oriented…this "should" language is sufficient versus what the actual recommendation language asked for?

DIRECTOR BARBEE: Ah. API 939-Charlie is a recommended practice rather than a standard. Recommended practices generally include recommendations rather than requirements. The CSB's recommendation did not address turning this into a standard. And so the CSB is…is accepting that 939-Charlie includes "should" language instead of "shall" language.

However, this is not a hard rule. There are times that "shall" language is required and it's primarily for applicability issues, which is not the case with this recommended practice.

The next two recommendations come from the CSB's BP America Refinery explosion investigation, which is also referred to as the BP Texas City investigation.

And here's what happened: On March 23rd, 2005, the BP Texas City refinery experienced severe explosions and fire in an isomerization unit (ISOM) and we're going to call that "ISOM" from here moving forward, that resulted in 15 deaths, 180 injuries, and significant monetary losses.

The accident was caused by the overfilling of a raffinate splitter tower during startup that, in turn, opened pressure relief devices and dumped flammable liquid into a blowdown drum with a stack that was open to the atmosphere. The flammable liquid released from the stack exceeded the capacity of both the

blowdown drum and its stack and was released into the surrounding area where it…where it ignited, resulting in the explosions and fire.

The U.S. Chemical Safety and Hazard Investigation Board investigation found that the incident was caused by multiple technical, system, and organizational deficiencies, and the agency issued recommendations to various parties.

Among the findings, the CSB investigation concluded that the ISOM operators were likely fatigued from working long hours over consecutive days during the turnaround of the unit prior to startup. Additionally, the CSB found that there were no federal safety regulations, industry safety guidelines, or voluntary standards to manage and prevent fatigue as a risk factor.

Now, as a result of this investigation, the CSB issued 26 recommendations, two of which were “urgent”. The two recommendation recipients we’re going to talk about here are API and USW, United Steelworkers. So the CSB issued five recommendations to API, two of which were “urgent” and only one of those remains open and that’s a non-urgent one. And the CSB issued two recommendations to the United Steelworkers and only one of them remains open.

The recommendation in this particular case is R7(a and b) and it refers to both these recommendation recipients together in that paragraph.

It says: "Work together"--and this is API and the United Steelworkers--"to develop two new consensus American National Standard Institute [or] (ANSI) standards. In the second standard, develop fatigue prevention guidelines for the refining and petrochemical industries that, at a minimum, limit hours and days of work and address shift work."

"In the development of each standard, ensure that the committees a. are accredited and conform to ANSI principles of openness, balance, due process, and consensus; [and] b. include representation of diverse sectors such as industry, labor, government, public interest and environmental organizations and experts from relevant scientific organizations and disciplines."

Now, in this case, API is accredited by ANSI and developed the proposed Second Edition of Recommended Practice 755 in accordance with ANSI standards. API RP 755 met all the requirements of the recommendation specific to developing fatigue prevention guidelines and the API RP 755 Revision Committee had diverse representation by the following sectors: industry, engineering, contractors, government, consultants, trade

associations, professional societies, labor, and others. And the United Steelworkers was one of the participants in those API…or RP 755 Revision Committee meetings. As a result, on January 20th, 2021, the Board voted to change the status of this recommendation to both API and the United Steelworkers to "Closed – Acceptable Action".

CHAIR LEMOS: Thank you so much, Director Barbee. I know this is a…a seminal incident investigation, for which the Chemical Safety Board is well known. Can you tell me what…what is it about this particular recommendation that was so ground-breaking, that we needed to highlight it today?

DIRECTOR BARBEE: Absolutely, Chairman Lemos. And, as you and I both come from the other investigative backgrounds, this was the first fatigue standard ever considered for the petroleum industry. It's just…it's ground-breaking. I cannot stress how major this was.

CHAIR LEMOS: I would agree with you. I've not…I've not seen any other fatigue standard in our industry, in the chemical industry, considered. Yet I see them throughout the other domains, to include aviation, rail, marine, etc. So I…I think this is monumental.

My second question would be, why is part b. of this recommendation so important?

DIRECTOR BARBEE: Ah. This type of recommendation, in part …b. And it was basically to…to the United Steelworkers, saying that they need to participate in this. Like I say, this type of recommendation allows the CSB to directly influence who participates with the primary recommendation recipient in implementing a recommendation. And we're not bound by specific numbers, so we could have easily required several more additional participants.

This is important to keep in mind when developing or modifying consensus standards. ANSI requires a balance as to committee makeup and, you know, committee participation is voluntary. So it's important to remember that the CSB, like I say, it has the ability to influence that balance, when appropriate.

The last recommendation comes from the CSB's Caribbean Petroleum Refining tank explosion and fire investigation that will be presented by Senior Recommendations Specialist Mark Kaszniak of my staff. Mr. Kaszniak, please proceed with your presentation.

SPECIALIST KASZNIAK: Thank you, Director Barbee. On October 23, 2009, explosions and fire occurred at the Caribbean Petroleum Corporation, commonly referred to as CAPECO, facility in Bayamon, Puerto Rico. While offloading the contents of the tanker ship, the CAPE BRUNY, into the CAPECO onshore tank farm, an estimated 200,000 gallons of gasoline overflowed from an aboveground storage tank into a secondary containment dike that had an open drain.

During the overflow, some of the gasoline, which sprayed from the tank's roof vents and hit the tank's wind girder as it fell, aerosolized, forming a large vapor cloud, estimated to encompass an area of about 107 acres, that subsequently ignited after reaching an ignition source in CAPECO's wastewater treatment facility.

The ensuing blast, multiple secondary explosions, and fire resulted in significant damage to 17 of 48 petroleum storage tanks on the site. The blast created a pressure wave that registered 2.9 on the Richter scale and damaged approximately 300 homes and businesses up to one-and-a-quarter miles away from the site.

Although there were no fatalities and only three people experienced minor injuries offsite as a result of the initial

blast, the fires burned for almost 60 hours. Petroleum products leaked into the soil, nearby wetlands, and navigable waterways in the surrounding area.

As a part of its investigation, the Chemical Safety Board analyzed relevant regulatory, industry, and consensus standards for safety and management of bulk…bulk aboveground storage facilities. The CSB noted that in its investigation report that a number of industry trade groups, professional associations, and code officials, such as the American Petroleum Institute, or known as API, the National Fire Protection Association, and International Code Council, publish national consensus standards that apply to aboveground storage tanks at these terminal facilities.

In its review of API's national consensus standards, the CSB determined that while API Standard 2350, entitled "Overfill Protection for Storage Tanks in Petroleum Facilities," and the API Manual of Petroleum Measurement Standards Chapter 3.1A, were the most relevant to overfilling of tanks at storage terminals, many other API standards need to be taken into consideration for proper management of above…of, excuse me, aboveground storage tank operations at terminal facilities.

For example…one…one…one is API Standard Number 2003, entitled "Protections Against Ignitions Arising from Static, Lightning, and Stray Currents," that provides best practices for preventing static and stray electrical currents, as well as charts that compare pipe diameter, flow velocities, and flow rates that minimize static and stray currents during tank filling, thus reducing the possibility of a fire/explosion. But this standard is not specific to tank filling operations itself.

Consequently, the Board issued a recommendation to API to create one standard practice, or publicize the existence of all standards and recommended practices, governing aboveground storage tank operations, including references to international standards and best practices at tank terminals that would enable facilities to readily access these good engineering practices.

So, the number of investigation…number of recommendations issued with regard to this investigation were nine in total. Three of those recommendations were issued to API and, after the closure of this recommendation, there are two recommendations that remain open.

So, this recommendation was Recommendation Number 9. And it stated, "Develop a single publication or resource describing all API standards and other relevant codes, standards, guidance, and

information for filling operations of aboveground storage tank
562 [terminals] in petroleum facilities that describes [the
563 following]: a. The required design and management practices for
564 control of filling operations; b. The minimum set of independent
565 overfill protection safeguards [of the…of the control…]if the
566 control fails; and c. Operational challenges [such as]
567 (monitoring/calculating flow rates, ability to maintain constant
568 line pressures, and influences of valve cracking) related to
569 loading multiple tanks concurrently from a single product
570 source."
571 So, API, in late 2020, published API Standard 2610 that
572 addressed all the requirements listed in the CSB recommendation,
573 with the exception of information regarding loading multiple
574 tanks concurrently. As a result, on January 20th, 2021, the Board
575 voted to…to close this recommendation as an "Acceptable
576 Alternative Action".
577 CHAIR LEMOS: So, thank you so much, Mr. Kaszniak. Why is
578 this particular recommendation being closed as an "Acceptable
579 Alternative Action" versus "Acceptable Action"?
580 SPECIALIST KASZNIAK: Well the reason for that, Dr. Lemos,
581 is that the third edition of Standard addresses all the
582 requirements contained in the CSB recommendation. However the
583 provisions listed in Section 11.2, pertaining to flow rates and

line pressures are not explicitly linked, while for loading multiple tanks…they're not…from a single product source that were mentioned in the CSB recommendation, are not explicitly linked in the recommendation. The user has to consult another referenced standard that is listed in the API 2610 to find this information. So that is why we…that the Board closed it as an "Acceptable Alternative Action."

CHAIR LEMOS: That's helpful so much. Thank you, Mr. Kaszniak. Second question I have would be how many standards and other guidance documents apply to terminals and their storage tanks?

SPECIALIST KASZNIAK: Well, the third edition of API 2610 lists 194 technical references that may be applicable to terminals and tank facilities. They include a variety of international standards, U.S. regulatory standards, building codes, as well as API and various other industry consensus and specification standards.

DIRECTOR KLEJST: Thank you, Mr. Barbee and thank you, Mr. Kaszniak. Chairman Lemos, thank you for the opportunity to provide this update on the staff's accomplishments.

CHAIR LEMOS: Thank you so much, Director Klejst, and to our Recommendations Team. I know a lot of time…a lot of time and

effort goes into these recommendation status changes. And the…the CSB is moving forward quickly on the recommendations front. Thank you to the entire team that has worked tirelessly to make this happen.

This concludes the agenda items for our second public business…public business meeting for FY21. We are still planning to hold our next public meeting at the end of April, on schedule.

In closing, I want to thank everyone for attending today's meeting. I urge you to continue monitoring our website, and if you haven't already done so, to sign up for CSB news alerts.

All of us share a strong interest in preventing chemical incidents in the future, and we need to work together as a community to do so. If you would like to provide a public comment, you may do so by writing meeting@csb.gov.

I want to thank you for your attendance, and with that, this meeting is adjourned.

OPERATOR: Thank you, ladies and gentlemen. This concludes today's conference. Thank you for participating and you may now disconnect.