U.S. CHEMICAL SAFETY BOARD

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CHEVRON RICHMOND REFINERY FIRE

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PUBLIC MEETING

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WEDNESDAY,
JANUARY 28, 2015

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U.S. CHEMICAL SAFETY BOARD MEMBERS PRESENT:

RAFAEL MOURE-ERASO, Ph.D., Chairperson, U.S. Chemical Safety Board
MANNY EHRLICH, JR., Member, U.S. Chemical Safety Board
MARK GRIFFON, Member, U.S. Chemical Safety Board

STAFF PRESENT:

RICHARD C. LOEB, General Counsel
DON HOLMSTROM, Director, Western Regional Office
DANIEL HOROWITZ, Managing Director of CSB

ALSO PRESENT:

CLYDE TROMBETTAS, Cal/OSHA
BILL LINDSAY, City of Richmond
RANDY SAWYER, Contra Costa County Health Department

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P R O C E E D I N G S

(6:30 p.m.)

CHAIRPERSON MOURE-ERASO: Good afternoon, everybody. I think we are ready to start. Good afternoon and welcome to this public meeting of the US Chemical Safety Board, the CSB. I am Rafael Moure-Eraso. I am the Chairperson of the Board.

Joining me today is to my right, Board Member Mark Griffon and to my left Board Member Manny Ehrlich at the end of the table. Joining us is the General Counsel of the CSB, Richard Loeb.

With me also there's a number of CSB staff members that I will be introducing and whose efforts are the ones that permitted this meeting to take place. They have facilitated to put the meeting together.

As most of you know, the CSB is an independent, non regulatory federal agency that investigates major chemical accidents at fixed facilities. That's what it says in our charter.

The investigations examine all aspects of chemical accidents including physical causes related to the equipment design as well as inadequance in regulations industry standards and systems, the safety management system of a given location.

Ultimately we issue safety recommendations which are specifically designed to prevent similar accidents in the future in the chemical sector where the accident occurred. The purpose of today's meeting is for the CSB investigative team to present the third and final report into the 2012 fire and explosion at the Chevron refinery right here in Richmond, California concluding then this CSB investigation.

As most of you know, 90 workers were in danger by the explosion and fire and the resulting large drifting black smoke generated plume caused more then 15,000 residents of the Richmond area to seek hospital treatment. The CSB held two public meetings since 2012 on this

accident and released two investigation products.

Today's report is the third and final installment of our investigation. The first Chevron report, we call it the interim report and you can read it on our website, discussed issues of piping corrosion and how to prevent these hazards.

It asked state and local authorities to develop rules to encourage refineries to use safer modern technologies. Our second report reviewed the state and local regulatory system as a whole. The Board approved this report in November 2014, the second report.

It calls on the state to modernize its regulatory system and to make sure that refineries are truly reducing process risks and not simply completely paperwork to meet government requirements. To their great credit the State of California, the Contra Costa County and the City of Richmond have taken numerous actions in response to the accident and the recommendations of our reports.

We will hear more about these actions later this evening during the panel discussion that we are having. Recently for example, the State of California Industrial Relations, Department of Industrial Relations has drafted extensive revisions to the rules concerning what is called process safety management at refineries.

The new regulations will require employers to prevent and eliminate to the greatest extent feasible health and safety risk to employees. When adopted, the new process safety rules together with the refinery turnaround laws that the governor of California, the legislators of California have just passed will give California the strongest safety rules for refineries in the country.

Today's final report has found some recommendations that were not covered by the two previous reports. These include analysis on the Chevron organization. We look at their safety culture and their emergency response

capabilities.

We also analyzed the industrial standards for chemical leaks and the responses to chemical leaks and we also looked at industrial standards for mechanical integrity. We made recommendations in the final report to the American Petroleum Institute, to the American Society of Mechanical Engineers, to the Contra Costa County and to the Mayor and City Council of Richmond.

I will, at this time to recognize some important people from this region that have asked to make a statement before us in these proceedings. And at this time I would like to recognize and invite Christopher Whitmore, which is the Outreach Coordinator for Congressman, Mark DeSaulnier from the office and he has a statement to make. So, Mr. Whitmore, please.

MR. WHITMORE: Hello, good evening. As he just stated my name is Christopher Whitmore. I'm here representing Congressman Mark DeSaulnier as his Outreach Coordinator for West

Contra Costa County.

Unfortunately, Congressman DeSaulnier cannot be here this evening. However, I have a statement that reads as follows. Having lived to see my constituents die in refinery accidents it is long past time to address preventable refinery incidents once and for all.

As a Contra Costa County supervisor after the Tosco tragedies resulting in the deaths of five constituents, I helped to craft and implement the Industrial Safety Ordinance, the first of its kind nationally and with the strongest safety standards in our country. I support the Chemical Safety Board's investigative efforts and findings regarding the August 2012 Richmond Chevron refinery fire.

I am deeply disappointed to see many of the preventable issues found in the CSB's latest report mirror those of earlier reports. Among these findings, worker safety culture and infrastructure upgrades must always be the paramount priority.

Nineteen employees narrowly escaped the most recent explosion and more than 15,000 community members required care related to the explosion. This is unacceptable. However, report findings and industries acknowledgment that higher safety standards benefit all parties provides new opportunities to move forward jointly to improve safety standards.

Higher safety standards have historically led to reduced incidents, higher productivity, lower insurance rates for refineries and better safety for workers and the community. I continue to support CSB and President Obama's push to implement more rigorous standards that will improve the safety and circumstances of workers, the community, the environment and the economy.

Just as I authored the foremost local Industrial Safety Ordinance, county and nation wide as a member of the Workforce Protection Subcommittee on the Congressional Education and Workforce Committee, I want to thank the CSB for

coming back to Richmond. I hope that these findings will instigate change to adopt and mandate improved best practices at the national level.

And I would just like to add before I leave that if anyone here would like a copy of the statement by Congressman DeSaulnier they will be in the front entranceway of the chambers. So thank you very much for your time.

(Applause)

CHAIRPERSON MOURE-ERASO: Thank you very much, Mr. Whitmore. At this time I also would like with respect to our work, our investigative work in Chevron to take this opportunity to thank the workers at Chevron and the managers who readily and voluntarily cooperated with the CSB investigation.

Their cooperation and their interest in preventing major accidents is evident in the report we are presenting tonight. I am also pleased that the Chevron company, his comments that were filed tonight in the press release has

expressed agreement with most of the CSB's findings and recommendations.

At this time allow me to cover this evening's agenda. First we're going to have the opening statements, my opening statement and the opening statements of the Board Members. Then we're going to be followed by the Director of the Western Regional Office that is going to present the results of the third Chevron report and final report.

Following Mr. Holmstrom's presentation the Board will be given the opportunity to ask some questions to the team that conducted the investigation. Following that we will hear from three panelists who will discuss the state and local actions related to and following the 2012 incident.

Will be here, representatives from Cal/OSHA, from Contra Costa County and from the City of Richmond and I will be introducing to them at that time in the agenda. The panel portion of the presentation will be followed by

questions for the Board Members and the staff to the panel.

Then we'll have short break and following that short break we would like to hear public comments. There is a yellow sheet that is circulating around anybody that would like to have to present a shared comment should come to the front and provide their comments.

There is a lot of people that have signed, I understand. And so in recognition and respect for all the people that signed I will ask you that you limit your comments to three minutes. So after that part of the program we are going to have a, after the public comment we are going to have the vote on the report, the official vote on the results of the report, on the recommendations.

And that is going to be followed by the discussion of other Board meetings and then adjournment. Every safety meeting has to go through this statement so I have to like to tell you that, to give you some safety information

about this room.

Probably all of you know there are two entrances in the back and you can have an exit out of these doors in the case of an emergency. So there are two and two there. So that is the safety information if we need to evacuate the room.

I hope that we don't need to. I'm sure we probably won't have to, but there you go. Please so take notice of the exits and I also have to ask to please mute your cell phones so that the proceedings might not be disturbed.

I now would like to recognize my fellow Board Members for opening statements. First I am going to ask Mr. Mark Griffon. Please, Mark.

MR. GRIFFON: Thank you, Mr. Chairman. I'm glad to be back in Richmond with our final report. I look forward to the presentation by the staff and I'm hopeful that the findings and recommendations in the report will be helpful in improving safety at the Chevron site as well as

other refineries in California and nationwide.

This investigation has in many ways been a catalyst for a national dialogue on the need for reform in process safety. Other activities including the President's Executive Order 13650 calling on OSHA and EPA to consider whether process safety regulatory reform was needed and the subsequent request for information by OSHA and the EPA on the process safety management and risk management planning standards, have also been instrumental in bringing attention to this issue at the national level.

While this meeting is focused on our third and final report on the August 2012 Chevron incident, I want to take this opportunity to discuss our second report, the regulatory report which was approved, as the Chairman said, through a written vote for the Board, of the Board on November 5, 2014.

This report made recommendations for improvements to the current process safety

management regulations in the State of California, Contra Costa County and the City of Richmond. Tonight we are going to hear from the panelists from Cal/OSHA, Contra Costa County and the City of Richmond about some of the progress that's being made.

I look forward to hearing from this panel. The report also discusses other regulatory approaches in use around the world for regulating high hazard facilities. I continue to have great interest in the alternative approaches as they may pertain to California or to the national regulatory reform.

I hope these models will be further examined as the need for improvements to OSHA's PSM standard are being considered. In particular I would like to draw your attention to Section 7 of the CSB Regulatory Report. In this section titled Process Safety Management Reform at the Federal Level, a Path Forward, the CSB commits to holding a public hearing to discuss the need for process safety management regulatory reform at

the federal level.

The meeting will be held in the spring of this year and will include discussion of various models for high hazard facility safety regulation from around the US and the world, including consideration of safety case type models. Those participating in the hearing will be asked to address some of the questions, concerns and challenges to implementation that were raised by the Board during the January 2014 meeting here in Richmond.

I urge you all to watch for this meeting and if possible to participate. Let me now turn to the final report which is the focus of tonight's meeting. When this incident first occurred many of us raised questions about possible organizational failures that may have contributed to the August 2012 incident.

I am glad that this report examines some of these questions. As Congressman George Miller said in his remarks in April 2013 Board meeting, "Chevron has pointed to its operational

excellence program as the cornerstone of its safety culture. It has found that on two key principles, one", and he's quoting Chevron, do it safety or not at all.

And the second one "there is always time to do it right." What happened to these principles? Congressman Miller went on to ask how did the management of a highly sophisticated corporation lack the ability to connect the expertise of its physical material scientists located right in Richmond with the practices of it business units operating 300 yards away in its refinery?

Was there an organizational failure? Why was Chevron's inspection team's advice to replace the piping overridden during the 2011 refinery turnaround? Was the decision not to replace this piping driven by budget considerations?

And I would just add to those why did Chevron attempt to deal with a leak while the unit was running rather than shutting down the

unit to do the necessary maintenance? How was this decision made?

To me these are some of the most important questions of this incident that needed to be answered to understand how this incident could have occurred. I look forward to hearing from the staff tonight about these questions of possible organizational failures and questions of Chevron's safety culture.

I also look forward to gaining a better understanding of the response to the leak and eventual fire. Why wasn't the unit shut down? Were emergency responders aware of the hazards they faced? Why were so many people in close proximity to the leak when the fire started?

Was the notice to the community effective? Was air monitoring adequate and are the appropriate systems in place to provide the community with the information about these releases?

I hope the findings and

recommendations made in this final report are useful in improving safety at the Richmond facility and where applicable at refineries nationwide and improved safety for the workers and for the surrounding communities. Thank you very much.

CHAIRPERSON MOURE-ERASO: Thank you, Mr. Griffon. Mr. Ehrlich?

MR. EHRLICH: Mr. Chairman, thank you. Good evening, ladies and gentlemen. Thank you for having us out here. This is my first trip to Richmond and obviously I wasn't in attendance at the first two meetings or been involved in the investigation to this point.

I think you'll find that the team that did the investigation has done an outstanding job and I think my role on this board is to be able to take the lessons learned from an incident like this, no matter how difficult they are, and help apply them across the chemical industry so that the same thing doesn't happen in other locations. Thank you very much.

CHAIRPERSON MOURE-ERASO: Thank you, Mr. Ehrlich. Moving with the agenda I would like to introduce the Chemical Safety Board Managing Director that is going to continue with the next item of the agenda. Dr. Horowitz, please.

DR. HOROWITZ: Thank you, Mr. Chairman. Tonight the CSB's Western Regional Office Director, Donald Holmstrom will be presenting the findings from the final investigation report on the Chevron Richmond refinery incident.

The CSB's Chevron investigation team, which consists of Team Lead, Dan Tillema and Investigators Lauren Grim, Amanda Johnson, Mark Wingard and Steve Cutcheon would have liked to have been here tonight to present their findings but much of that team has unfortunately been deployed to Texas since November to investigate the serious toxic gas incident that resulted in four fatalities at the DuPort La Porte facility near Houston.

However, Don Holmstrom who is the

leader of that team will be presenting their findings tonight and summarizing them for your consideration and asking for your questions and ultimately for your approval for the draft report.

And Mr. Holmstrom is one of our most experienced investigators, led the BP Texas City investigation for the Board, clean energy investigation, deep water investigation and many others that have been recognized over the years. So, Mr. Holmstrom, please proceed.

MR. HOLMSTROM: Thank you very much, Daniel. I will be presenting the key findings from our third and final investigation report on the Chevron incident. These findings deal primarily with organizational issues, industry standards, emergency response.

I will begin the presentation by sharing our key findings from the draft report followed by our proposed recommendations. Following the presentation the Board will have the opportunity to ask questions regarding the

final draft report.

A panel of regulatory representatives from Cal/OSHA, Contra Costa County and the City of Richmond will then provide updates on their organizations activities in response to the Chevron incident. Following those statements there will be an opportunity for members of the public to speak.

Finally the Board will vote on adopting the final report and the recommendations. On August 6, 2012, the Chevron refinery in Richmond, California experienced a catastrophic pipe rupture of the 4-sidecut piping in the crude unit.

The CSB determined that 19 Chevron employees were engulfed in a vapor cloud formed by the hydrocarbon release and narrowly escaped serious injuries or death. In addition, 15,000 members of this community sought medical treatment.

We found that the immediate cause of this incident was sulfidation corrosion, a common

damage mechanism in refineries. To date the CSB has released two investigation reports on this incident. The first report released in April of 2013 assigned the need for California to require inherently safer design, rigorous and documented damage mechanism hazard reviews and thorough analysis of the process safeguards.

In this report the CSB made recommendations to Chevron, the City of Richmond, Contra Costa County, the State of California and the US Environmental Protection Agency. The second report, CSB's regulatory report was adopted in October of 2014 and discussed the continuing trend of significant and deadly incidents at petroleum refineries in the US during the last decade.

In this report the CSB identified the following shortcomings with process safety regulations in both the US and California. The CSB determined that neither the US or California process safety regulations effectively established goals to prevent incidents or reduce

risk.

The regulations are static, unable to adopt innovation, newly defined hazards or technical advances. They do not require the use or implementation of inherently safer systems or the hierarchy of controls.

Finally, they do not ensure continuous process safety improvements. As a result, the CSB made a recommendation to the State of California to enhance and restructure its process safety management regulations for petroleum refineries with more robust risk reduction requirements.

I will present our key findings and recommendations in just a few minutes. Although everyone here, no doubt, is familiar with the sequence of events that led to the accident we think it would be helpful to first play for your our video animation depicting the Chevron accident time line.

(Video animation)

On August 6, 2012, the crude unit was

operating normally. Around 3:50 that afternoon an operator was performing a routine check when he noticed a small puddle on the ground near the distillation tower. The liquid appeared to be dripping from an eight inch insulated pipe, 14 feet overhead.

The leaking pipe was a section of the tower's number 4-sidecut line, which operated at a temperature of 640 degrees Fahrenheit and contained light gas oil, a combustible liquid similar to diesel fuel. Chevron inspectors knew that over the years the walls of the number 4-sidecut had thinned due to corrosion.

But they did not realize how close this particular segment was to failure. There was no shut off valve between the pipe and the distillation tower and no way to isolate the leak. The head operator was called to the scene.

Although he believed the situation was serious he did not believe the small leak warranted immediately shutting down the unit and stopping production. Following Chevron's

standard practice for responding to hazardous leaks, refinery firefighters were sent to the scene.

A number of managers, engineers and technicians gathered there informally to assess the problem. The group discussed a recommendation from an operator to shut down the unit. But they decided to first try to pin point the leak by removing insulation from the pipe while the crude unit was still running.

They hoped they could stop the leak with a temporary metal fitting known as a clamp. A Chevron firefighter tried using a pike pole to hook and pull away the insulation. But this poking action was deemed too dangerous because it was moving the pipe.

The CSB later found that the tip of the pike likely caused a small puncture in the already thinned pipe. As the unit continued to operate workers assembled scaffolding directly beneath the leaking pipe. Two firefighters then used a hook to remove the insulation from the

pipe.

As they were working, hydrocarbon vapor began to flow out from underneath the insulation. The two firefighters backed away from the growing vapor cloud as the hot vapor mixed with air it ignited.

That fire was quickly put out and the two firefighters immediately climbed down off the scaffolding. But the exact location of the leak was still obscured by the remaining insulation and firefighting water.

So the Chevron firefighters attempted to strip the insulation off the pipe with high pressure water. But the leak suddenly worsened and hot hydrocarbon liquid started to spray out of the pipe.

A decision was finally made to begin an emergency shut down of the crude unit. But it was too late. Suddenly the pipe ripped open. A vapor cloud formed and rapidly expanded as the large inventory of hydrocarbons in the distillation tower started to vent through the

ruptured pipe.

The vapor cloud immediately spread over hundreds of feet engulfing all 19 people who had gathered nearby. The firefighters and operators struggled to escape through the dense hydrocarbon cloud unable to see. They had to feel their way out, some on their hands and knees.

At approximately 6:30 p.m., two minutes after the huge vapor cloud formed, the hydrocarbons ignited. One firefighter was trapped inside a fire engine when it was suddenly engulfed in flames. He radioed for help. Mayday, mayday this is 460.

But when he received no response he assumed everyone else was dead. To escape the inferno he fled through what witnesses described as a wall of fire. Fortunately, all the workers would eventually flee to safety and there were no fatalities.

MR. HOLMSTROM: As an introduction to the key findings of the CSB's final investigation

report I'll briefly review the technical findings presented in the CSB's April 2013 interim report. The 4-sidecut piping that failed catastrophically in this incident removed approximately 640 degree light gas oil from the crude distillation tower flowing on average at 10,800 barrels per day.

The crude distillation tower is part of the initial refining process taking crude oil and separating it into streams for blending and intermediate feed stock for other refinery processes to ultimately produce motor fuels, lubricants and other products.

The rupture of the 4-sidecut piping resulted in the wall of a 52 inch component of this piping being extremely thin due to a damaged mechanism known as sulfidation corrosion. Sulfidation corrosion causes pipe walls to gradually thin over time and is common in crude oil distillation where naturally occurring sulfur and sulfur compounds found in crude oil feed, react with steel piping and equipment.

The Chevron refinery 4-sidecut piping

was constructed of carbon steel, which corrodes at a much faster rate from sulfidation than other typical alternative materials of construction such as higher chromium containing steels.

These metallurgies are referred to as inherently safer metallurgies because they reduce the risk presented by sulfidation corrosion. This animation shown here on the slide shows a pipe cross section demonstrating how the 4-sidecut piping wall material, shown in gray, would corrode depending on the material of construction.

You can see how the low silicon carbon steel and regular carbon steel thins significantly over a 15 year time period when compared to inherently safer steels such as 9-Chrome and stainless steel. A high ranking technique to implement inherently safer design is to replace metallurgy with an upgraded, inherently safer material of construction.

I will now review three categories of key findings from the final investigation report,

organizational and safety culture, emergency response and industry codes and standards. The full text of these findings as well as an analysis related to this findings can be found in a draft of the final investigation report that has been on the CSB website since last Thursday and I believe there's a number of reports that have been available to the audience here as well.

First, organizational and safety culture key findings. The CSB found that Chevron did not effectively implement internal recommendations to help prevent pipe failures due to sulfidation corrosion.

In the ten year period prior to the incident a small number of Chevron personnel with knowledge and understanding of sulfidation corrosion recommended on several occasions either a one time inspection of every component within the 4-sidecut piping circuit that failed known as 100 percent component inspection or an upgrade of the material of construction of the 4-sidecut piping.

The recommendations were not implemented effectively and the 52 inch component remained in service until it failed on August 6, 2012. The CSB found that both during the 2007 and 2011 turnarounds, Richmond Refinery's Turnaround Planning Group in accordance with Chevron's turnaround framing document criteria rejected internal recommendations to perform 100 percent component inspections or replace the portion of the piping that ultimately failed.

Either of these actions had the potential to prevent the August 6, 2012, incident. The CSB found that the decision making that took place during the August 6th incident in a similar 2010 incident suggests a culture that normalized continued operation of a unit despite a hazardous leak.

During response activities on August 6th, Chevron firefighters were instructed to remove insulation on the piping while it was leaking flammable hydrocarbons placing them in harms way. A similar incident occurred in April

2010 when a pipe was found to be leaking on a high temperature jet fuel process.

No timely action was taken to repair the leak or shut down the unit and the pipe remained in operation until the leak significantly worsened two days later. Finally, the unit was shut down and the leak was repaired.

Both incidents are examples of decision making that encouraged and tolerated continued operation of a refinery unit despite the presence of a hazardous leak. The CSB found that there has been an increased reluctance among Chevron Richmond refinery employees to use their stop work authority.

Safety culture surveys conducted of Chevron Richmond refinery staff in 2008 and 2010, showed there was a significant increase in this reluctance among operators and mechanics. This may explain why no individuals used their stop work authority on the day of the incident despite participants reporting and CSB interviews that they were not comfortable with the hazardous

activity taking place.

In these same surveys, Chevron Richmond refinery employees reported increased concerns with how the refinery maintained its equipment. Next I'm going to talk about the emergency response key findings.

The CSB found that the Chevron incident command structure did not effectively identify potential damage mechanisms that could have contributed to the 4-sidecut piping leak and did not identify the potential for a catastrophic rupture. The incident commands lack of knowledge of all potential significant causes of the leak led emergency responders to take actions that may have ultimately exacerbated the leak.

Many Chevron personnel were thus put in harms way. In addition, process conditions were not effectively identified and communicated to incident command on the day of the incident. Several Chevron fire department personnel responded to the leak, were erroneously informed that the operating temperature of the leaking

piping was only 130 degrees Fahrenheit, more than 500 degrees cooler than the actual temperature.

The CSB also found that the leak response and mitigation strategy developed on the day of the incident involved stripping insulation from the hot piping to identify the leak location. Attempts to remove the insulation actually worsened the leak ultimately resulting in the pipe rupture and endangerment of the lives of every one responding.

On the day of the incident Chevron had no formal leak response protocol to provide guidance for operations personnel, refinery management, emergency responders or the incident commander to determine how to evaluate a process leak that had the potential for a catastrophic failure, determine a safe hot zone and remove unnecessary personnel from the area.

Chevron had no formal system to ensure that the right people were gathering the necessary information before deciding on leak mitigation strategies. In response to this

incident, Chevron has improved its internal policies by developing and implementing a leak response protocol for determining how to assess and mitigate leaks within the refinery.

The new protocol would require unit shut down if a similar leak were to occur in the Chevron refinery. Finally, industry codes and standards key findings. The CSB found that the American Petroleum Institute Recommended Practice 939-C, Guidelines for Avoiding Sulfidation Corrosion Failures in Oil Refineries does not require comprehensive inspection or effective facility upgrades.

API 939-C is a primary industry guidance document on methods to monitor and control sulfidation corrosion. It states that carbon steel piping, if it contains low silicon concentrations, can corrode due to sulfidation at a faster rate than adjacent higher silicon piping components.

However, API 939-C does not specifically require users to either perform a

100 percent component inspection for low silicon components or recommend the facilities upgrade their high risk carbon steel circuits to steel alloys that are more resistant to sulfidation corrosion.

The CSB found that industry codes and standards present inconsistent information about carbon steel piping susceptible to sulfidation corrosion. API has published various codes and recommended practices, in addition to API 939-C, that discuss sulfidation corrosion.

These include: API 570, Piping Inspection Code, Inservice Inspection, Rating and Repair; API 571, Damage Mechanisms Affecting Fixed Equipment in the Refining Industry; API 574, Inspection Practices for Piping Component Systems and API 578, Material Verification Program for New and Existing Alloy Piping Systems.

While these documents provide some information on sulfidation corrosion, the information and guidance is varied and

inconsistent. The CSB has also determined that the language of these standards is written with permissive language with no minimum requirements.

Finally, the CSB found that industry guidance in responding to process leaks do not present adequate or consistent information about responding to these process leak incidents. API and the American Society of Mechanical Engineers have published several codes, standards and recommended practices that provide information on how to safely control, mitigate or respond to hazardous process fluid leaks.

However, the guidance is permissive and inconsistent failing to require safety evaluation of leaks, the determination of the toxicity of the leak or the worst case scenario of the leak despite its potential to be catastrophic.

And finally, the guidance does not require limiting the site access around the leak to essential personnel only or shut down the unit which can put employees in harms way. Based on

our findings and analysis, the investigation team proposed to the Board the following recommendations.

I will be hitting on the highlights of these recommendations and the full wording of each recommendation will be on the screen. First, to the American Petroleum Institute is the first set of recommendations seeking to strengthen industry standards relating to sulfidation corrosion.

The CSB proposes Recommendations 23 to revise API 939-C, Guidelines for Avoiding Sulfidation Corrosion Failures in Oil Refineries to establish minimum requirements for preventing catastrophic rupture of low silicon carbon steel piping.

The next recommendation, the CSB proposes Recommendation 24 to revise API 571, Damage Mechanisms Affecting Fixed Equipment in the Refining Industry to increase awareness of sulfidation corrosion characteristics and refer users to the specific API standards that provide

important information to prevent catastrophic rupture of low silicon carbon steel piping.

The CSB proposes Recommendation 28 to revise API RP 2001, Fire Protection in Refineries to require users to develop a process fluid leak response protocol specific to their own facility that must be followed when a process leak is discovered. The CSB proposes that users incorporate key actions into their leak response protocol to effectively manage response to potential sulfidation corrosion piping failure.

The CSB proposes Recommendation 25 to API 570, Piping Inspection Code to incorporate language consistent with API 939-C, increase awareness of sulfidation corrosion characteristics, provide additional information to prevent catastrophic rupture of low silicon carbon steel piping and require users to follow the proposed leak response guidance in API 2001 Fire Protection in Refineries.

The CSB proposes Recommendation 26 to revise API 578, Material Verification Program for

New and Existing Alloy Piping Systems, to require users to establish and implement a program to identify carbon steel piping circuits that are susceptible to sulfidation corrosion and may contain low silicon components.

The CSB proposes Recommendation 27 to revise API 574, Inspection Practices for Piping System Components to incorporate as a normative reference API 939-C and to follow the leak response protocol requirements established in API 2001 Fire Protection in Refineries.

The CSB makes the next proposed recommendation to the American Society of Mechanical Engineers or ASME. The CSB proposes Recommendation 29 to revise ASME PCC2-2011, Repair of Pressure Equipment and Piping to require users to follow the minimum process fluid leak response requirements established in API 2001 Fire Protection in Refineries, developed in response to Recommendation 28, before conducting process fluid leak repairs.

The CSB makes the following proposed

recommendations to the Chevron Corporation. The CSB proposes Recommendation 30 to Chevron to develop an accountability method to identify and track effective implementation of the Chevron or industry best practices to ensure process safety or employee personal safety.

The CSB proposes Recommendation 31 to develop an audible process for all recommended turnaround items related to inspection or mechanical integrity recommendations that are denied or deferred. This process shall provide the submitter of the deferred or denied recommendation with a mechanism to further elevate and discuss the recommendation with higher management officials.

The CSB proposes Recommendation 32 to Chevron to develop an approval process that includes a technical review that must be implemented prior to resetting the minimum alert thickness to a lower value in the inspection database.

The final two proposed recommendations

nearly identical are made to the Board of Supervisors, Contra Costa County, California and to the Mayor and City Council of Richmond, California with the goal of continuously improving process safety culture at petroleum refineries in Contra Costa County.

To the Board of Supervisors, Contra Costa County, California and the Mayor and City Council City of Richmond, California, revise the Industrial Safety Ordinance, ISO regulations for petroleum refineries to require the development of an oversight committee comprised of the regulator, the company, the workforce and their representatives and community representatives.

Among the duties of this committee shall be to oversee development and implementation of action items created as the result of safety culture assessment findings. That concludes my presentation on the CSB's final investigation report on the Chevron Richmond incident.

I will now open it up to the Board to

ask any questions on the draft report and proposed recommendations. Thank you, Chairman Moure-Eraso and Board and Daniel.

CHAIRPERSON MOURE-ERASO: Thank you very much, Mr. Holstrom. Let me get started with one question that I would like to direct to you and to the team, you are speaking for the team.

In two of the reports that covered the Chevron incident, especially in the first one and in this one, in this third one, the investigators report they need to look at inherently safer technologies to prevent these accidents from happening. And there is some reference of course to the type of metal of the piping.

But also there is some mentioning on the content of sulfur that could, is directly in the crude, in the feeding stock that eventually is the root of the corrosion. So my question to you is, do you consider that the content of sulfur and they tried to decrease the content of sulfur in the feed stock could be considered also an inherently safer technology to prevent this

type of corrosion that we experienced here?

MR. HOLMSTROM: Chairman Moure-Eraso, the CSB in its reports has dealt with this issue not only in the Chevron investigation but in a prior investigation in the same county, Contra Costa County in the Tosco investigation.

And the incident occurred in 1999 where there was a piping failure and a leak and many of the similar issues that we're discussing today, including stop work authority issues and issues related to corrosion management and importance of doing management of change analysis in dealing with any change in the composition of the feed stock.

In that Tosco investigation the CSB pointed out a good industry practice including API 750 that would require the conduct of a management to change analysis if there was changes in feed stock that could impact corrosion in the refinery process, also if there were changes in throughput or other changes such as temperature, composition of corrosion products,

et cetera, we cited that, the importance of conducting that type of analysis prior to the implementation of a change.

And that's certainly an important part of any management of change process is that analysis takes place before any process changes occur. In our first report, in the interim report of Chevron, we in fact made recommendations to California, Contra Costa County and the City of Richmond addressing the importance of performing inherently safer systems analysis to analyze the opportunities for implementing inherent safety, which includes improved materials of construction that could be triggered by the increase in sulfur content.

It could be triggered by other factors that we noted in our report. We noted in our report that Chevron had in fact removed a stripper that was part of the process that increased the sulfur content of the feed related to the piping and impacted the piping in question.

We noted that the temperature had increased over time. We also noted the content of sulfur had increased over time. All of those factors should have led Chevron to conduct some sort of management of change review and implemented in that process an inherently safer systems analysis.

So we included in our recommendation to, I believe it was R7, to 678, to several parties that inherently safer systems analysis be performed prior to the change and include a review of the factors I just mentioned and that it be triggered by things like construction of new process, process unit rebuilds, significant process repairs, and the development of corrective actions from incident investigations.

So that was intended to be conducted, that type of analysis, in the conduct of a management of change. So if there is a change in sulfur content, if the type of crude is different, if there is more hydrogen sulfide in the crude because of change in equipment, if the

temperature of the crude changes these are factors that all can effect sulfidation corrosion.

Increased throughput, increased flow, those are things that should trigger some sort of management change analysis that should rigorously look at the alternatives for implementing some sort of inherently safer systems analysis.

CHAIRPERSON MOURE-ERASO: Thank you, Mr. Holmstrom. Now I would like to ask Board Member, Manny Ehrlich, if he has some comments or questions.

MR. EHRLICH: Thank you, Mr. Chairman. I really have more of a comment than a question. And this comment comes from the fact that I have about 25 years of experience in the private sector in emergency response.

But you mentioned in the report that a number of individuals were concerned about using the stop work procedure during this emergency. And you also mentioned that the incident command structure didn't appear to be

fully developed.

Had it been fully developed there would have been another mechanism in the command structure where the safety officer has responsibility for terminating an operation in the event of an emergency and in the event that the coworkers or the workers feel that they are at unacceptable risk.

And had that happened it may not have done very much to stop the leak, obviously. But what it would have done is it would have caused all of the personnel to be evacuated from the area and not involved in this type of disaster. Thank you.

CHAIRPERSON MOURE-ERASO: Thank you, Mr. Ehrlich. Mr. Griffon.

MR. GRIFFON: Thank you, Mr. Chairman. Yes, I have a few questions for the team, the team of one. First of all does Chevron have a poor safety culture?

MR. HOLMSTROM: Mark, I think the way we approach this is to identify specific

opportunities for improvement in the safety culture at the Chevron refinery and I think that some of those specific opportunities that we identify in the report we had touched on them in our presentation.

And to go, if I may, a little more deeply into some of those items. We talked about what we call normalization of deviance. And we noted that there was at least a couple of other incidents that involved deciding to continue to operate the plant even though there was a hazardous leak that was present.

And the decision making about whether or not to shut down a unit or keep things running is a very fundamental decision and involves management accountability. In the first volume of the Center for Chemical Process Safety, CCPS, they wrote on technical aspects of process safety.

Their first element was management accountability and it talked very specifically about the importance of dealing with the tension

between production and safety and that management has to exercise important oversight over, putting safety above continuity of operations and making sure there is protection of people.

And so what we found in the safety culture surveys is there was concern about utilizing stop work authority. We go into a discussion about stop work authority historically.

And again, this is an issue that the CSB has quite a bit of experience with. It goes, one of the cases it goes back again to the Tosco in the 1999 Tosco incident where we specifically identified the importance of having that ability to stop work and some of the things that inhibit that ability to exercise stop work authority.

For example, the power relationship between management and workers and often the, exercising the ability of stop work is to take a position that's different than management. And so an environment has to be created that encourages stop work authority and there are

strong provisions that allow it to take place and where workers can exercise it without fear of any kind of retribution or consequences.

And those are things that we pointed out in that report way back in 1999 and I think those are factors that are currently at play in this, in our analysis of this incident. The two other things we mentioned, and again looking at the safety culture surveys from 2008, 2010 and the current incident, were the issues of concerns about fixing things, mechanical integrity, repairs being conducted.

And one of the things that we cited that managers and engineers had a declining, from 2008 to 2010, confidence of, that anyone had, you know, the ability to stop unsafe activity and also the plant as a whole had, you know, also concerns in those surveys about, you know, things being repaired.

There were similar findings in the report about process safety issues being completed, like incident investigations and

lessons learned being implemented. And so for us those were concrete, in addition to our interviews out of the 2012 incident, those were additional survey results where additional findings we thought were important.

MR. GRIFFON: And just to follow up on that, I think I know the answer to this, but the focus was mainly on the Richmond refinery? You didn't look at Chevron corporate wide?

MR. HOLMSTROM: No, we did not. I mean one example of how the CSB has looked at the corporation from one of our recommendations, the CSB recommended in the BP Texas City incident to form what was called the James Baker III Safety Culture Review which led to the Baker report, which looked at all the BP refineries in the United States and had a number of very significant findings on how to improve process safety culture in the refining sector.

We did not do that kind of analysis where we looked at a number of Chevron refineries. But I would note that a number of

the specific organizational findings that we talked about in this report also involved programs from Chevron corporate, the (inaudible) and some of the other issues that we discussed where the plant had been notified about the failure to implement the ETC recommendations on sulfidation corrosion including 100 percent component inspection or upgrading the metallurgy.

Those issues had not been implemented and they involved the corporate groups interacting with the plant personnel.

MR. GRIFFON: And let me just follow up on the organizational failure which you started to talk to there. I mean the report detailed how various committees and work groups were making recommendations regarding inspections or the need for pipe replacement that were basically ignored.

Can you tell me why these recommendations were rejected? What was the basis for the recommendations being rejected and was cost a driving, a driver of this decision

making?

MR. HOLMSTROM: Well I think that it's, one thing that's an overriding fact is that any refinery needs to put a high, the highest priority on safety but that cost is always an issue. That's certainly true.

Our specific findings delve more with how those decisions were made, how they were played out organizationally. And I think the fundamental issues that we identified, Board Member Griffon, related to the importance of having oversight and accountability by higher level managers at the plant to ensure that the right decisions were being made.

Ironically, in the turnaround framing documents a number of these decisions were being rejected based on what was perceived to be lack of data or data driven decisions when in fact the good practice guidelines from industry and Chevron's own technical center findings and recommendations were to gather more data.

So the decisions were being made there

wasn't enough data when in fact the actual decision was to gather more data so that a correct decision could be made about the extent of sulfidation corrosion and the extent of potential piping circuits that had low silicon components and those could have been identified.

So that was actually an initiative to gather more data, but based on the limited, incomplete data that they had they were rejecting those recommendations.

MR. GRIFFON: And you may have touched on this in your response there. But this framing document I'm interest in basically is, includes the criteria by which the turnaround group makes their determinations on what can be done during the turnarounds versus what could be done on the run, I guess for running maintenance as some would refer to it.

And I'm wondering just, you mentioned some of the problems with that. But I'm wondering how is that criteria initially established or how is it modified and who is

involved in sort of setting or establishing that criteria because it seems like that's a big factor in this whole thing is who makes those rules on what can be done while running versus what can be done, has to be done during a turnaround.

MR. HOLMSTROM: Certainly. I think we identified that as a safety culture issue first and foremost. But I think we went further and identified that it's very important when people, rather than people making decisions based on the pressures of the moment, there's often a lot of stress when these leaks are occurring there's an emergency response activity, that it's very important for a company to have an existing protocol.

And one of the things that Chevron did do in the wake of this incident was develop a leak response protocol which in fact has about a half a dozen questions that it asks that lead directly to making a decision to shut down the unit, which includes what do we know about the

damage mechanisms. If you don't know whenever you have a doubt you should shut down the unit.

That's what the current protocol provides for and as we say in the report we think that's an important step forward and we think that there's additional items that we talk about including in that process and we make a recommendation for industry as a whole to develop a leak response protocol that would address the important decision of directly making, setting forth criteria to be able to decide when to shut down a process unit and make that based on a criteria that are developed in the calm atmosphere of planning and process review as opposed to making decisions in an emergency that don't have the benefit of that thinking.

And one of the most important things is to have the right technical information in front of you and have those, that technical expertise available so that you can assess the full scope of the potential catastrophic impact of a potential leak. There's several types of

damage mechanisms in refinery processes that could lead to sooner than later a catastrophic failure and sulfidation corrosion is one of those.

And if that information had been available to those who were making the decision, we believe that it would likely have led to the decision to shut down the unit much more quickly.

In fact, the same circuit that was 12 inches in diameter, it was subject to the same process feed, it was subject to the same material, was replaced in the 2011 turnaround. And these facts as they accumulate are pretty overwhelming evidence that sulfidation corrosion should have been considered and brought to the attention of the incident commander and others so that correct decisions could have been made to limit the nonessential people in the area, create a much larger hot zone.

You know, while these are insights that are gained, you know, from, you know, after the incidents, it's important that these lessons

be spread throughout the industry. So we've made a recommendation to API in their Firefighting Refinery Recommended Practice 2001 to incorporate these process leak protocols in that approach.

MR. GRIFFON: And last question, I promise. In the report Figure 25 I think is very informative. It has a, it shows a, for lack of a better term, a spaghetti diagram of all the various committees and work groups that were making these recommendations and where they reported to in the organizational chart.

And it's, well I'll just ask, it seems to me that a lot of these were made at the lower or middle level and was plant management aware or notified of these technical recommendations and, you know, do we think that's a flaw in their system?

MR. HOLMSTROM: I think in a couple of the examples that we give in the report there were plant managers that were involved in that decision making. But for the most part a lot of the folks involved were at lower levels of the

organization.

I think the point we're making is somebody at a higher level on the organization has to have oversight and accountability for making these decisions and be held accountable to make sure, for example, that the ETC Guidelines on sulfidation corrosion which could have helped prevent this incident, are implemented in the refinery and not rejected, for example, in the turnaround framing document meetings where items are being rejected from being worked on during a turnaround.

We think that somebody has to have overall accountability and oversight over that process and we make recommendations to Chevron to make sure that occurs.

MR. GRIFFON: And just the last follow up in regard to that. The organizational, the detailed organizational chart that I, that we have in our files has a PSM/OE unit in the organization. And I'm pretty sure I'm right about this.

But I think none of the PSM people were really involved on any of these referring or recommending committees, although they obviously had, you know, very talented technical people, metallurgists, et cetera. I'm wondering if the PSM group should have been integrated in this process somehow and well I'll leave it at that.

MR. HOLMSTROM: Do you want me to respond?

MR. GRIFFON: Yes. Should they have been, yes?

MR. HOLMSTROM: I mean arguably mechanical integrity is an element of PSM and folks who have that technical expertise. Certainly there should be people, we believe, that would include the management oversight element who make sure that those voices are being heard.

And we previously recommended in the BP Texas City report that process safety have a direct voice to the higher level, not only managers in a facility, but to the higher level

corporate officials so that process safety advice and process safety thinking does not, is not only interjected at a low level in the organization but becomes one of the most important voices in decision making throughout the organization.

MR. GRIFFON: Thank you, Mr. Chairman. Thank you, Mr. Holmstrom.

CHAIRPERSON MOURE-ERASO: We'll continue immediately with the agenda. I would like to call for, we call it a Regulatory Panel that is going to discuss the actions that have been taken in response to this particular incident.

I would like to invite to this desk over here, Mr. Clyde Trombettas, the District Manager of Cal/OSHA for the Process Safety Management Unit. You have to look out for your name from there and sit behind that.

All right. I would like to invite Randy Sawyer, the Director of Hazardous Materials Program of the Contra Costa County, Randy. And also Mr. Bill Lindsay, the City Manager for the

City of Richmond, California.

So I believe you have statements. I will start with Mr. Trombettas, please.

MR. TROMBETTAS: Thank you. Honorable Moure-Eraso, Board Members and staff, thank you for the opportunity to participate in this public meeting addressing the Chemical Safety Board's final report on the Chevron fire of August 6, 2012.

My name is Clyde Trombettas. I'm the district manager for Cal/OSHA's statewide Process Safety Management Unit. Following a serious fire at the Chevron Richmond refinery on August 6, 2012, Governor Brown formed an interagency working group to examine ways to improve public and worker safety through enhanced oversight of refineries.

The report by the governor's interagency working group on refinery safety issued in February 2014 raised concerns about the safety of the state's petroleum refineries.

The report called for the

establishment of an interagency refinery task force to include but not limited to, coordinate revisions to the state's refinery safety regulations, known as process safety management and the California Accidental Release Program or CALARP regulations, strengthen regulatory enforcement and improve coordination between refineries.

In 2014, DIR convened and participated in over 20 stakeholder meetings with the petroleum refinery industry pertaining to process safety, refinery workers, community based organizations and the public. At each of these meetings DIR presented the findings, the recommendations of the governor's report and described DIR's proposed revisions to the PSM standard to refineries for discussion and feedback.

Three of these meetings consisted of DIR's PSM Advisory Committee made up of invited representatives from labor and industry. All Advisory Committee meetings were open to members

of the public.

Proposed changes to the PSM standard include but not limited to the following. One, hierarchy of hazard controls. Two, safety culture assessments. Three, damage mechanism hazard reviews. Four, root cause analysis after significant accident or releases.

Five, explicitly accounting for human factors. Six, requiring structured methods to ensure effectiveness of safeguards. And seven, most importantly, employee participation in all elements of the PSM standard.

DIR and Cal/OSHA are working toward submitting the proposed PSM regulations to the Occupational Safety and Health Standards Board this year along with an economic analysis of those changes to the Occupational Safety and Health Standards Board. This will initiate the process of formal rule making and public comment.

After the Standards Board adopts the proposed changes the new standard for refineries will be submitted to the Office of Administrative

Law for approval. It is anticipated that the revised PSM standard will go into effect in 2016.

A new assessment on the state's oil refineries implemented by DIR in 2013 or the Department of Industrial Relations, requires refineries to provide funding support to DIR for Cal/OSHA's PSM refinery program. The assessment is based on the number of barrels of oil processed each year as a percentage of the state's total.

These funds, which are independent of the state's general fund, have allowed DIR to expand the staffing of the PSM Unit from ten personnel in 2012 to 27 today. Among the newly hired staff that the new funding has allowed the PSM Unit to hire are nine new compliance officers with either chemical or mechanical engineering degrees and support the PSM Unit's training program.

Before conducting a PSM inspection all newly hired compliance officers receive 15 weeks of intensive, technical and field training which

provides 600 hours of training to each compliance officer. Prior to 2013, inspection of the state's petroleum refineries was limited by time and resource constraints.

In most cases a single compliance officer conducted two to three planned refinery inspections per year in addition to responding to complaints, accidents and referrals. Planned inspections typically focused on one element of the PSM standard, such as operating procedures usually in a single unit of the refinery.

The inspection required about 80 hours over two weeks to complete. By contrast in 2014, thanks to the presence of more compliance officers, the PSM Unit conducted significantly more inspections and these inspections were far more thorough.

In total the PSM Unit conducted six refinery inspections, two of which were planned program quality verification inspections and averaged 1,530 hours for each refinery. The other four inspections were accidents which

averaged 306 hours each and two complaints inspections averaging 802 hours each.

A PQV inspection is an inspection in an establishment covered by the PSM regulation performed by compliance personnel who have successfully completed the division sponsored and approved training.

The PQV inspections entail a comprehensive evaluation of the establishment's program for complying with each PSM element, the quality of the establishment's program compared to recognized and generally accepted good engineering practices and verification of the effectiveness of the establishment's program implementation.

As a side note, in calendar year 2014 the PSM Unit conducted two complaint inspections totaling 1,605 hours and two terms of probation type inspections totaling 904 hours at the Chevron refinery in Richmond. JR is taking the leading in developing enhanced coordination of oversight and enforcement activities of the

petroleum refineries with federal, state and local agencies.

In 2014, Cal/OSHA provided a total of 160 hours of advanced PSM training to local Certified Unified Program Agency representatives or CUPA representatives which oversee the CALARP program, federal EPA compliance officers and Contra Costa Counties refinery inspectors in their Hazardous Materials Unit.

In 2015, DIR is coordinating an interagency enforcement working group to discuss the coordination of enforcement activities, including cross referrals, cross training and joint or coordinated inspections and auditing. The working group will also identify the refineries to be targeted for inspection.

Lastly, the group will discuss the facilitation and development of an electronic information data sharing system among federal, state and local agencies. The system will include information about inspections, compliance and enforcement activity as well as the means to

collect information identified in reports and a process for timely flow of information between regulatory agencies.

Lastly, I would personally like to thank the CSB for its assistance and guidance in this process.

CHAIRPERSON MOURE-ERASO: Thank you very much, Mr. Trombettas. I would like to call now Mr. Bill Lindsay, the City Manager of the City of Richmond, California.

MR. LINDSAY: Thank you, Mr. Chair. And I'd like to begin by thanking the Chemical Safety Board for once again coming to the City of Richmond and having this public meeting. I think it's very important in the process and I think you've shown great leadership.

And I did want to also thank the staff for the really excellent and detailed, thorough work that you did. And this has been very important in our learning process. I'm here representing the Richmond City Council. Mayor Tom Butt can't be here this evening.

And I believe we may have some other Council Members here this evening. Vice Mayor Jael Myrick, Council Member Nat Bates, Council Member Jovanka Beckles, Council Member Eduardo Martinez who I believe may be here and former mayor and current Council Member Gayle McLaughlin who I believe is here also.

I also wanted to acknowledge the work by our staff who I think have worked closely with the CSB staff, in particular Lina Velasco, our principle planner. Also here this evening is our new fire chief who wasn't here during the incident, Adrian Shepherd and Terry Harris our fire marshal all of whom are learning from the outstanding work you did.

In terms of the recommendations I really want to let you know where it stands in terms of what the city has been doing. After the CSB issued its interim report a joint committee which was made up of Council Members Jim Rogers and Javonka Beckles, also it included County Supervisors John Gioia and Federal Glover, was

formed to work with city and county staff to develop language to address the CSB's recommendations.

So this was over a year and a half ago now. As part of the process a working group on the industrial safety work, on the Industrial Safety Ordinance was formed to gather input from different stakeholders and to prepare a draft ordinance. In July of 2014, their work on the Ordinance was completed and the City Council adopted amendments to the Industrial Safety Ordinance.

And in particular the proposed amendments include language that requires stationary sources to perform inherently safer systems analysis. And that is specifically every five years for existing covered processes in the development and analysis of recommended actions identified in a process hazard analysis.

As part of a management of change review whenever a major change is proposed at a facility that could reasonably result in a major

chemical accident or release. When an incident investigation report recommends a major change that could reasonably result in a major chemical accident or release.

When a root cause analysis report recommends a major change that could reasonably result in a major chemical accident or release and during the design of new processes, process units and facilities. So again, these amendments that we incorporated include language that requires stationary sources to perform this analysis for inherently safer systems.

So we've tried to take that language and put it into practice through our ordinance. As you may know, the city's Industrial Safety Ordinance is intended to conform with that of Contra Costa County. In fact the Contra Costa County Health Services is charged by the City's ordinance as authority charged with enforcing the requirements of the ISO Ordinance.

So we work very closely together and one thing that this process allowed us to do is

conform our ordinance with theirs more closely so that we have better administration. There were some other recommendations that came out of the reports, specifically participation in a joint regulatory program.

The City has been working State's Refinery Safety Task Force to host community input meetings on potential regulation changes and we are certainly ready to participate in this joint regulatory program as soon as it's established. Overall just again, goal of the Chemical Safety Board as we understand it is to reduce the risk of an accidental release to as low as reasonably practicable or ALARP.

And the proposed amendments or the amendments that we adopted acknowledge this goal and include the language that says the purpose and goal sections of the City's ISO are in preventing and reducing the number, frequency and severity of accidental releases in the county to the greatest extent feasible.

And we feel that this language is

equivalent to and perhaps stronger language even than the ALARP standard. I think with that I will turn it over to Randy Sawyer who can really provide more detail in terms of how this process is being further implemented and how the staffing is going. And again, I just want to thank you very much for your work, for being here this evening and for your help.

CHAIRPERSON MOURE-ERASO: Thank you very much, Mr. Lindsay. So now I call on Mr. Randy Sawyer, the Director of the Hazardous Materials Program of the Contra Costa County. Mr. Sawyer.

MR. SAWYER: Thank you, Chairman Moura-Eraso and other Board Members. As Mr. Lindsay mentioned we worked closely together in looking at the Industrial Safety Ordinance and revising it.

And the language is basically identical between the county's and the City of Richmond's Industrial Safety Ordinance. So as he mentioned we addressed some of the

recommendations, the two recommendations that looked at amending the Industrial Safety Ordinance to include inherently safer systems and expand on that, expand on where in the Industrial Safety Ordinance more than what we had already in there.

Also looked at doing what we call a safety protection analysis or safeguard protection analysis which looks at how effective the safeguards are and when they look at a process hazard analysis. And that's using basically what is called a level of protection analysis or LOPA.

And that is, or some equivalent that is approved by our department before they could use it, an equivalent method. So those, we worked closely together. We had the joint committee and we had a working committee. And we feel like we fully adopted those two recommendations.

The other recommendation basically looking at the damage, one of the recommendations

is to monitor and confirm the effective implementation of a damage mechanism hazard reviews. It was a recommendation for Chevron to perform.

And what we've done on that, one of the things that Chevron had a project they had to do an environmental impact review on is called a modernization project. And they did an extensive damage mechanism review for the areas that the project covered, which is many different processes within their refinery.

We sat in on some of those review sessions to see that they actually, what kind of process they had in place and how they were implementing it. They have also looked at all the piping in the refinery that could potentially have sulfidation corrosion where the temperature of the piping could be above 450 degrees.

And they've looked at all those and then they have plans in place. They are replacing some piping or increasing inspections or anything. But they are in the process of,

they are, have a plan of action to address all the findings they found in that review.

They've also, we've also, they're looking at lower temperatures where sulfidation could occur and they're looking at the piping at this time there. We're also meeting with them and making sure how they implement the findings for their damage mechanism reviews and do their process hazard analysis.

So we continue to follow that process and we'll continue to follow it even through our audit process and inspection process and in the other meetings with the refinery. Another one is to look at a joint regulatory program to share information among, to different agencies basically.

And we've been working with Cal/OSHA, Cal EPA, Cal OES on how, California Office of Emergency Services, on how we can share information, what kind of repository there will be, how we can be, maybe perform at least work together on inspections and how we do stuff. As

Mr. Trombettas said, we worked with them on following up on some items that came out of the Chevron.

We've also done the same thing after Tesoro incidents that occurred last year. So we worked closely with Cal/OSHA in the past. We plan to continue to do so. Some of the things that we changed that really address those things in Industrial Safety Ordinance for both the city and the county was just as one of the purposes and goals is to facilitate cooperation between the industry, the county and we added some agencies like the local fire departments, Cal/OSHA, EPA and other agencies that may have oversight of the refinery.

So we want to make sure we have continued cooperation with them as they do their work. Another section in the ordinance to even expand a little bit on that, our copy of our final determinations of our audits and inspections we will share, which we had been doing but we're expanding this.

We will share this with Cal/OSHA, EPA and local fire departments that have oversight over the stationary sources. So that's trying to foster more cooperation between the different agencies as we move forward.

In the regulatory report, your second report, you made a recommendation to look at our compensation system and how we can get better regulatories to hire basically and to be able to get the right technical experience they have. Our Board of Supervisors working with the unions actually was able to come up with a, some compensation for them and actually they were going to increase their salaries for the engineers that have oversight over the Industrial Safety Ordinance and the California Accidental Release Prevention Program by 25 percent over the next three years.

As of July 1, 2014, there was a 12 percent increase. July 1, 2015, there will be another ten percent increase and then July 1, 2016, there will be three percent. This will

bring the annual salary range, your base salary range between $96,394 and $117,168.

And we're in the process of trying to hire more people. We still have one opening, actually two openings. We're working with the city. One of the recommendations that the city made or one of the things they put actually in their ordinance that was different from ours is that there would be a full-time engineering position to look at process safety issues at the Chevron refinery.

And we're in the process of trying to hire someone to fill that position. One of the things that wasn't a recommendation to us, the county or the city, was to look at process safety, leading lagging process safety performance indicators.

And that was a recommendation made to Cal EPA which actually to state, not just EPA but Department of Industrial Relations. That is actually being looked at as part of the regulatory package that Mr. Trombettas talked

about just a few minutes ago.

But it's something that we've already put in our ordinance. We're requiring our facilities to cover the Industrial Safety Ordinance to actually have two sets of, type of indicators. One is what we call common indicators that will be public and it would be consistent between all the facilities covered in the Industrial Safety Ordinance.

And they would be, it would be on an ongoing basis, on an annual basis they would give us updates on where they are at. And the other one was that each facility is supposed to develop their own indicators that go beyond that.

The four indicators that we were looking at is common indicators is looking at past due recommendations from process hazard analysis, past due recommendations, if there's past due recommendations from incident investigations and past due inspections for piping and equipment.

And also the accident reports, the

accident, major accident reports that you get through API that those would also be available, that would be part of the process too. So that's basically some of the things that I think we've been addressing pretty thoroughly.

One of the things that, on the last recommendation and the final report that just came out our Board's put together an ad hoc committee to look at the Industrial Safety Ordinance after the Chevron fire. And that's something we're going to be reporting back to them very shortly.

We met with the ad hoc committee earlier this week and they would like a report back on how we're going to address that recommendation also.

CHAIRPERSON MOURE-ERASO: Thank you very much, Mr. Sawyer. Now I would like to give opportunity to our investigative team in the person of Mr. Holmstrom and of the Board to address some questions to the panel.

So we're going to put you through a

little bit of an interrogation here. So I would like, do you have any questions, Mr. Holmstrom, for the panel?

MR. HOLMSTROM: Just a comment. I think the actions that have been taken are really exemplary and appreciate the proactive nature of your actions you've taken. And I think you're setting a model actually for the rest of the country in terms of working together and taking proactive steps to improve safety.

So I want to commend all three of you for the steps that your respective agencies have taken. Thank you.

CHAIRPERSON MOURE-ERASO: Thank you, Mr. Holmstrom. Mr. Ehrlich, do you have any questions to the panel?

MR. EHRLICH: No, I don't. Thank you again. I echo the sentiments of Mr. Holmstrom. As I said I've been an executive in the private sector for a long time and I think it's definitely going to prove very valuable not only here but across the country as well. Thank you

very much.

CHAIRPERSON MOURE-ERASO: Thank you. Mr. Griffon.

MR. GRIFFON: Thank you. I'm also going to disappoint. I'm not going to have questions. I also just want to make a comment that I'm happy to hear the progress being made and I'm also glad the work that the CSB has done has seemed to have been a catalyst for some of those improvements. So it's very, very good to hear your progress. Thank you.

CHAIRPERSON MOURE-ERASO: I do have a question. I mean of course as the Chairperson of the agency I echo the feelings and the statements of my colleagues about how satisfying it is to see that actions happen to our recommendations even proactive actions is the case here.

I do have a question that I think is, has been an important development also here in California. This goes to Mr. Trombettas and that is I understand that a new regulation was passed in California that relates to refinery

turnaround.

So my question is what is the nature of the regulation, somehow if it at all relates to PSM and your PSM efforts?

MR. TROMBETTAS: Yes, if I were to include it in my statement it would have been over five minutes. But it's actually Senate Bill 1300, requiring turnarounds.

CHAIRPERSON MOURE-ERASO: The mike.

MR. TROMBETTAS: Sorry about that. Okay. How is that? So Senate Bill 1300 dealing with refinery turnarounds. And kind of in a nut shell what it does is on September 15th of every year all 15 refineries in the State of California are to provide Cal/OSHA or the PSM Unit with their scheduled turnarounds, their turnaround schedules for the following year.

So September 15, 2015, we would receive all the turnaround schedules of all 15 refineries for 2016. We would, the staff would review those schedules and based on a review of those schedules two refineries up north and two

refineries down south would be picked for inspection, turnaround inspection.

Sixty days prior to the inspection the refineries, the two refineries up north and south will be required to provide all the information on deferred maintenance. So any maintenance that was put into the turnaround schedule but say the turnaround team, impact team at some facilities would be called, say reject it or say they would defer it past the turnaround there has to be a written justification as to why.

And then 30 days prior to the turnaround if there's any additional deferred maintenance there would have to be written justification. Usually say the first, I don't like to pick on refineries at least the first week of a turnaround because they're pretty hot and heavy.

But you get about the second week of the turnaround we would open an inspection and we would review those deferred jobs or tasks and really sit down if their justification, if the

refinery's justification is okay or not. If it's not okay then it's going to open some dialogue as to why it's not being conducted at the existing turnaround.

Also it gives us the opportunity to, there's another bill called Senate Bill 54 which deals with maintenance contractors during turnarounds, to review all out of state contractors because California is unique in our regulations that a lot of times we get contractors coming from out of state to work in refineries that do not understand or sometimes even comply with our existing Title 8 regulations.

So we would be inspecting all of the out of state contractors as well. It will be a busy time during these turnarounds.

CHAIRPERSON MOURE-ERASO: It's a very interesting regulation I guess. And it's a thing that I believe, I hope that is being looked at the national level because it's a very good tool to identify problems, you know, especially around

turnaround operations that are so critical.

So thank you very much. I would like to continue the agenda. In the agenda we have public statements from people that have signed that would like to address the Board. And but before moving into that I would like for us to take a break of five minutes to take a breather. So five minutes break.

(Whereupon, the above-entitled matter went off the record briefly.)

CHAIRPERSON MOURE-ERASO: Okay. Having finished our break I guess we'll continue with our agenda. I would like to call on our Managing Director, Dr. Daniel Horowitz to facilitate the public discussion. So, Dr. Horowitz.

DR. HOROWITZ: Thank you, Mr. Chairman. There is one yellow sheet in the back of the room. If you have not yet signed up for public comment you are more than welcome to do so. First commenter is Chairman John Gioia of the Contra Costa County Board of Supervisors.

MR. GIOIA: Good evening. I'm John Gioia. I live in Richmond. I represent this area of the Board of Supervisors and have chaired this year. Let me first start by thanking the Chemical Safety Board for coming back to Richmond and for holding your meeting.

CHAIRPERSON MOURE-ERASO: Right. Excuse me, but one of our Board Members they just arrived. Okay, I'm sorry, go ahead.

MR. GIOIA: Thanks. First again, just to thank the Chemical Safety Board for coming to Richmond. I think it says a lot to hold your vote, have the meeting, hear public input and hold your vote here in our community.

So let me just say we greatly appreciate that and I want to especially thank your thoroughness, your professionalism and your transparency in investigating the root causes of the 2012 fire and making thoughtful recommendations to the city, to the county, to Chevron and to other agencies in your earlier reports.

As you're aware, I think it's important that you know we took your recommendations of your previous reports seriously. The City of Richmond and Contra Costa County both amended our Industrial Safety Ordinances to fully incorporate your recommended changes to what is already the strongest local Industrial Safety Ordinance in the country.

And as you may know, there has been some consideration whether it's adopted more state wide to apply to refineries in Southern California. Also the city and the county established an oversight committee which included representatives of the community, labor and public agencies to oversee the development of a safety culture assessment of the Chevron refinery.

And that assessment is currently in the process of winding up. It's being conducted by an independent third party that's basically assessing all the safety culture aspects at the refinery and it's conclusions and recommendations

will be released when it is completed very soon.

I've read through your new findings and recommendations just released in your final report. And again, I think you've been thoughtful and I appreciate those new recommendations.

Our Industrial Safety Ordinance ad hoc committee of our Board met earlier this week. We've asked Randy Sawyer, our Director of Hazardous Materials to report back to our Industrial Safety Ordinance Committee with recommendations on how to address and look forward to how to implement best your new recommendations.

I do want to close by saying I think it's important for everyone to know that your extensive efforts investigating and making recommendations are appreciated by the community. They're appreciated by Contra Costa County and your leadership of your Board and your staff has been important to achieving safety improvements at the refinery and improvements to our own

Industrial Safety Ordinance.

And we look forward to continuing to work with you. And again, thanks for coming to Richmond and helping improve safety in our community, thanks.

CHAIRPERSON MOURE-ERASO: Thank you.

(Applause)

DR. HOROWITZ: Thank you. Next up and if you've accidently signed up here thinking you were just signing up for the meeting that's fine. You don't have to comment. But we have a number of folks. Mary Wesley, Ms. Wesley.

Paul and Angie Lavely, I believe it is. And, sir, if you don't mind for the transcript could you spell out your name?

MR. LAVELY: Yes, it's Lavely, L-A-V-E-L-Y. Well first I would like to recognize the amount of work that you did. I know that only a small portion of the team that worked on this could possibly be here tonight.

There had to be ten to 15 people who worked on this report from all areas. And it is,

I think an excellent report. I was glad to also see that you said that you felt you had gotten very good cooperation from Chevron both at the management level and at the employee level because no report such as this could be written without that cooperation, certainly if it was it wouldn't be accurate.

The other is I have 25 or so years of experience in nuclear power emergency planning and planning. I was very surprised to see that refineries don't have a lessons learned program wherein accidents, problems, experience that other refineries, other units that are similar are passed on to them as an industry and evaluated by an individual plant to see how it affects them and what actions they need to take or to assure that actions have already been taken.

That was a very big surprise. I know that nuclear power is a more regulated environment. But still it appears what limited research I was able to do that this specific

problem is an industry wide program problem.

It's something that occurs to these pipes and it shouldn't have taken a lot of review to say, wow, look at the consequences we can have if this occurs. We need to make sure that we don't have this problem and that we're not going to have it any time in the near future.

The other was is that it didn't look as though there was enough emphasis on the group that was reviewing safety items or process items to make sure that someone said you must do your job. If you feel that you can't do your job you must come to management and tell us what your concern is and what we need to do to help you.

At least there needs to be a free discussion why one group believes that something needs to be done and another group feels that it doesn't, an analysis, a careful review not in the heat of the moment of a fire. But at the time the decision is being made as to whether an item can be postponed or perhaps not even done or whether there's an alternative method to do it.

But there has to be the understanding, not stop work, but in doing your job that if you feel you're not being able to do your job you have to be able to go to management, that's a broad term. But you have to go to someone who has the power and authority to say okay, let's hear your side.

It will be expensive. Perhaps it's going to be expensive but it's going to be a hell of a lot cheaper than what occurred in that accident. But that was all I had to say. Thank you very much.

CHAIRPERSON MOURE-ERASO: Thank you.

DR. HOROWITZ: Thank you. Is there a Carlton Jones? I notice a couple of Members of the City Council have signed up here and since we're their guests I suppose we ought to ask them if they would like to speak. Eduardo Martinez.

MR. MARTINEZ: Eduardo Martinez, E-D-U-A-R-D-O, M-A-R-T-I-N-E-Z, City Council Member, former Planning Commissioner. And I want to thank you for the thorough and exacting work that

you did on the Chevron fire.

It was very informative and helpful on the Planning Commission for writing the recommendations for the modernization project. Unfortunately, many of the recommendations that we made were disregarded and hopefully we can reinstitute them at some later date.

I believe that your recommendations of creating a safety case model is important to maintain the safety of our community and hopefully we can look at them again and make them part of our safety program. But many, many thanks for you doing the work that you've done and for doing it here in Richmond. Thank you very much.

DR. HOROWITZ: Thank you.

(Applause)

DR. HOROWITZ: Gayle McLaughlin. Nice to see again, Mayor.

MS. MCLAUGHLIN: Nice to see you. It's great to see you all again and thank you, Mr. Chairman and Members of the Board and staff

of the CSB. We're very, very appreciative here in Richmond for the really detailed work that you have done and the time and effort that such a reputable Board as yourselves come to Richmond and give us your expertise. We really think it helped enormously.

Every time I see the animation that you put forward and it's circulated of course, the internet and such, but it's so profoundly both explanatory and impacting, you know. So that was, that's one of the things that I think has really broken it down for all of us to really feel what happened and the problem and the danger that so many were in, so many workers and the community at large.

So I just want to say I support your recommendations. The call for more corrosion resistant metals in the piping. The call for worker's rights to shut down operations during a chemical leak or other dangerous operations. Your call for strengthening the ISO and I am on the, now on the ISO Subcommittee of the Richmond

City Council myself and Jovanka Beckles.

So I will definitely be working with the county to implement the development of an oversight committee as you are calling for as a recommendation. And I think that is just in line with what we have many kind of alliances of groups, community groups and workers unions have already gotten together.

This will formalize this and bring in other parties to make sure that a true oversight body is in place as per our ISO. And I also want to thank you for confirming illegal management decisions that nearly killed the 20, 19 workers nearly 20 workers and sent more than 15,000 of local residents in the area to the hospital.

And I want to say the other thing that I think the animation brought out for me was how, just the worker's lives, you know, and to use the phraseology that we hear in today's world, Chevron's workers lives matter. You know, they matter.

(Applause)

MS. MCLAUGHLIN: They matter to me as a representative of the people of Richmond and they matter to our community I know as do our communities lives matter as well. So I look forward to being a part of implementing these recommendations.

And one thing that the Richmond, that we have at the Richmond City Council level that we implemented a few years back was to make sure that the principles of the precautionary principle get implemented in every decision we make basically meaning do no harm.

You know, every decision that a city makes and I believe every decision that a corporation makes should be given that full understanding do no harm. Perhaps if that was in the vision, in the thinking as well as all the knowledge that you have shared with us that should have been in their thinking, that refinery, that unit would have been shut down and the damage and the pain and the suffering and all the harm that accident created, the trauma, et

cetera would have been avoided.

So again, thank you so much and we are so glad you came to Richmond. Thanks.

CHAIRPERSON MOURE-ERASO: Thank you.

(Applause)

MR. HOROWITZ: Thank you. Next is Andres Soto with CBE.

MR. SOTO: Good evening, Mr. Chair and Members of the Board. I want to echo the gratitude that we in Richmond have for you to come here to hold this hearing here, to bring your findings here to our community so we can hear it firsthand, not filtered through the media.

Unfortunately there isn't more media here. But this is important to our community. We are very clear as we demonstrated in the rally out in front what's good for the workers is good for the community.

We strongly support the worker's right to stop the work when it's too dangerous and we believe that really needs to be enforced, it

needs to be developed and cultivated because as Gayle was just saying, you know, looking at that animation it's really kind of ridiculous now in hindsight that they would even think about continuing to operate while trying to deal with a leak.

So that and a lot of other work needs to be done. Clearly the public notification system fell far short. And so that's being worked on. But we hope that this is a turning point in the culture of the relationship between Chevron and the community.

Of course, it's like Democracy, it's going to take eternal vigilance. We're training the young people now so they can be as vigilant as some of us who are a little more gray haired. So thank you so much for being here and appreciate your work very much.

(Applause)

CHAIRPERSON MOURE-ERASO: I would like to also acknowledge that Mr. Soto and his organization when we finished the second

regulatory report they provided to all the Members of the Board with a certificate of recognition that we value very much and is in a prominent place. Thank you for that.

(Applause)

MR. HOROWITZ: Next up and I may struggle with the pronunciation a little bit is Torm Nompraseurt, thank you. And could you please spell your name for the transcript?

MR. NOMPRASEURT: Torm Nompraseurt. The first name is T-O-R-M. Last name is N-O-M-P-R-A-S-E-U-R-T. I'm here on behalf of the (inaudible) Committee but also a couple of the Asia Pacific Environmental Network leaders and members that were here earlier but they had to leave.

They want me to make sure that I thank you CSB Board and the staff. You have done a good work, tremendous work that you put this report together. This is the third time actually we mention that you came back to Richmond.

For me personally it's a significant

that you are providing to ask the community because now we have a tool to say to the City Council, a tool to see the supervisor and say why don't you do that because they recommend it. We have been screaming and yelling for 40 years.

I live here since 1975 before Chevron got here I was still, I was here. The problem as you see it always come down to Chevron to pick like make money or not to make money. And they don't care what the community has to do, what may die or say because we've been coming to the City Council for I came in here 40 years, 39 years.

And to supervisor also. I asked him to provide the policy, provide the law that Chevron has to comply. And every time they do that it's always what's done. It's nothing.

He would right now, couldn't right now, the city ordinance and the county ordinance it's not satisfied the committee because Chevron kept saying we're going to do this, we're going to do that and they've never done it.

So it happened again and again. And

so I'm not just here to complain because it's the fact of the history you already have from, you know, from day one until today even after the December, August 6, 2012, it still happened. A couple of weeks ago we still encountered with the Chevron issue.

What we want is really the safety prevention. That is the bottom line for the community and for the workers who work there. The workers there are community members. They have family life. They have children, grandchildren just like us.

And we totally support them whatever that they ask for Chevron should do so. And it's good for them, good for us for safety. We ask for safety. We don't ask nothing. It's really safety prevention. Chevron can use technology better technology, better training for all their staff, even management.

They have to have training in order so it doesn't say well I didn't know that. I forgot about that. So it has to be training for all the

workers and management all the way to the top management.

Those are something we want to see. So it doesn't have any fall there. And also I think it's important to cap the crude, what kind of crude come in because the more dirty crude the more it's going to cause problems and Chevron is going to try to refine the machine and they can try to run as you see earlier the allowment of the, a degree of a certain level.

But then they put high level even though between 100 to 125 degrees there is tremendous different heating there. Not talking about from 100 to a couple hundred different. Those are the things that our members, our community asks.

But also thank you very much for you provide this report. You give us a tool to go to our local and state policy maker to say that these are recommendations and we want this to be happening in the policy. Thank you so much.

(Applause)

MR. HOROWITZ: Thank you. Is there an Elliot Hughes, Mr. Hughes? Please spell your name. Three minutes please.

MR. HUGHES: E-L-L-I-O-T, H-U-G-H-E-S. And I am on the Executive Board of the Industrial Workers of the World. I'm just here to support the community as well as the USW 5 and their demand for a stop work authority for the union workers.

Obviously this accident could have been prevented if the worker, those workers had the power to shut the refinery down at the time. And as a result from that not being in place the whole working class of Richmond was affected by that.

And so, yes, I just wanted to say that my union who is working on organizing the Whole Foods here in Richmond as well as in the entire Bay Area is going to be standing behind the USW 5 and the working class community of Richmond as well. And thank you for your report.

It was very thorough and informative

and hopefully everybody can come together to make sure that refineries here and everywhere can be run safely and we can make a sustainable transition. Thank you.

(Applause)

MR. HOROWITZ: Thank you. Greg Karras, CBE.

MR. KARRAS: Thank you, Mr. Chairman, Members of the Board. Greg Karras, G-R-E-G, K-A-R-R-A-S. For the record, CBE agrees with your staff's excellent analysis, supports all the recommendations proposed and believes the report isn't going to do enough to make us workers safe by itself.

I suspect you would agree with that. For one thing we need to go beyond recommendations, right. I wanted to provide some very specific, only slightly technical perspective from this place based community where we work day in, day out, year in, year out and what we've seen that I think your staff would have seen if you didn't get called to too many of

these disasters in too many parts of the world so that you don't have enough time here.

So I'll be brief. But the punch line is what we've learned and learned again from this disaster is we won't be safe until we hold the people who run the oil companies, top managers, accountable in ways they understand as clearly as they understand short-term profits.

They kept running the crude unit with a hot leak when they should have shut it down. Right, we see that almost every month with planned flaring that it's not a catastrophic event. It averts one. But it poisons our communities.

And oftentimes they say to the air district in writing, well, you know, we make a lot of gasoline in the time that we save by just dumping those gases to the flares. This is not a mystery and I think I would like you to ask the question along with us if it's a right of the workers to shut down unsafe work then why do they have to negotiate with Chevron to get that right

in their contract.

(Applause)

MR. KARRAS: And I would say part of the reason why is that the people who you are advising, our city, our county, our state, our federal law makers are not holding them accountable at the management level when they keep doing this to us. So please join us in being stronger about that.

That's one suggestion to go further. The second one we wrote about, we testified about at your interim hearing. It's just a simple fact that when you have more corrosive feed stock and less resistant materials you can't have an inherently safer system unless you address both.

What happens in the communities and what has happened since, as Don Holmstrom said, here in full knowledge since 1999 when five workers died down the way at the Tosco refinery also partly a result of switching crude, is that under pressure from the companies when we talk a whole lot about say the materials for

construction and not a lot about the feed stock they take that as permission to ignore that.

And so here today we still have this situation where, you know, Chevron rebuilt in the decades while that pipe that was corroding that ultimately failed, they rebuilt their whole train from their super critical residual extraction to their TKC hydroprocessor, to their FCC unit to make more gasoline from lower quality, higher sulfur crude.

Spent a lot of money doing that. Didn't replace the pipe. You know and you've documented that their workers asked them to over and over again for at least a decade. You should know that their workers went beyond that. They filed an unsafe work practice complaint with Cal/OSHA and Cal/OSHA didn't act on it.

We went beyond that. CBE and the community took them to court and actually stopped them from going to even higher sulfur crude because we won. We didn't get a court decision that, we couldn't get as far as replacing the

pipes.

If you're stronger with us maybe we will. And one last thing I want to say about this, maybe two things, technically your staff says all of this. You know, higher sulfur crude dramatically increases sulfidation corrosion rate.

It makes it even harder to monitor and manage because you can't rely on past history after the crude switch and when that rebuild gets done to retool for the different quality of oil, that gets locked into place.

So we need to get even here in Richmond today and even in Contra Costa County today but certainly around the country, we need to get to the point where people are hearing you and us when we say prove it and get the, and make sure that the county staff here actually reviews and approves the final inherent safety analysis before that permit gets granted.

That's still not happening. That did not happen with Chevron's project to go to three

percent sulfur crude. It's not going to happen most likely next Tuesday at the next refinery down the road that the county is making a decision on.

It's not happening around the country. So when your staff says to you look, 95 percent of these refineries have, still have pipes from the early 1980's that they should have replaced well keep in mind that since the mid 1980's they've doubled they're coking capacity. They've invested billions in hydroprocessing, hydrogen plants, crackers, things that go to dirtier oil.

And so when you can see this in the official Energy Information Administration's data, the average over that time sulfur content has gone up just as much as it did at Chevron Richmond. It went up quicker in Richmond. It's almost as high on average nationwide as it was when this event happened.

We have a ticking time bomb. We have aging infrastructure with dirtier oil and you should join us in saying, hey, nobody is minding

the store. The time to fix this is before the next project gets approved. Thank you.

(Applause)

MR. HOROWITZ: Thank you. Next is Jim Payne. Mr. Payne, United Steel Workers.

MR. PAYNE: Good evening, Mr. Chair, Members of the Board, staff.

MR. HOROWITZ: And that is P-A-Y-N-E.

MR. PAYNE: P-A-Y-N-E. Thank you for all the hard work you've done. We appreciate the findings and recommendations that you've come up with. I'm with United Steel Workers Local 5. I'm the secretary treasurer there.

We represent workers at Chevron, Tesoro and Shell in Contra Costa County. I especially appreciate your finding and recommendation around stop work authority. That's something that is very important to us.

We agree with you that while all of the industry says that we have absolute stop work authority our members question it when it comes time to actually put it in place because they get

second guessed and pressured not to exercise it. It is so important that the workers at the Chevron refinery have actually proposed including it in their collective bargaining agreement, absolute stop work shut down process authority.

And management's rational response was that's management's rights and isn't willing to discuss it in that context. We are hopeful that your findings and recommendation will help sway them to come to the right conclusion on that proposal and once again we really appreciate all the hard work you guys do. Thank you.

(Applause)

MR. HOROWITZ: Thank you. Next is BK White, United Steel Workers. Mr. White.

MR. WHITE: Good evening. My name is BK White. I'm the United Steel Workers Local 5 President. I work with Jim Payne.

We've, standing here in support of the CSB not just in this finding but we stand with you guys with the great work that you do throughout our industry throughout the US and

also I would like to give our support to the Chairman and let you know that the United Steel Workers Local 5 always supports you.

I would also hope, we would like to thank you for such a comprehensive report. We worked with you guys. It was a pleasure. We know what you're goal was and I believe you achieved it with the root cause of the failing.

I hope that Chevron pays heed to your findings and your emphasis on process safety management and lean away from the behavior safety programs that they endorse. I would also like to thank and show our support for the environmental groups and for the progressive leaders in the community and for my workers who are here tonight.

As you've heard them come up and speak hopefully when you go back to the refinery you tell them who the real people of Richmond are. And I'm very proud to work in Richmond with progressive politics and their willingness to stand against a major corporation and fight for

their people. Thank you.

(Applause)

CHAIRPERSON MOURE-ERASO: Mr. White or should I say Brother White, I was a member of the USW and I wanted you to know that for me it means a lot personally, your statement of support of the Chairperson of this organization. And we would like to continue working with you and doing what is right for the workers of Local 5.

(Applause)

MR. HOROWITZ: Thank you. Next is Eric Larsen. Mr. Larsen, no, let's try it looks like Kathleen Wiber (phonetic) perhaps. I'm not sure of the last name. How about Claudia Citroen? Ms. Citroen.

MS. CITRON: C-L-A-U-D-I-A, C-I-T-R-O-E-N. So I'll say the thank you first because you will hear a lot more tonight still. I think for me the most remarkable was just to see you smile when you saw the representative of our city discuss the steps they have taken.

And I know you received an honorary

plaque last time and I don't know whether you know all the little things that happened besides all the Chevron things so I just wanted to fill you in. As part of the Chevron upgrade the city at one point asked Camilla Harris to write a recommendation on how the city should proceed.

And low and behold it went to a town hall meeting and the city took the, citizens took it apart and took it much further. They wouldn't have done that without your legal expertise, without your vocabulary, without your reasoning. So keep on doing what you're doing. And on the national level I see that newspapers and media keeps being interested in Richmond.

And they keep wondering what the heck is going on here and why are we in the paper and how do we get everyone excited about what's happening here? I hope and I wish that you from your point of view also address the media and tell them how you see how your work impacts cities and towns, empowers cities and towns in side stepping government and being very active

and very successful and productive in decision making.

I find it very important because it short cuts your work and the work in the cities. So thank you.

(Applause)

MR. HOROWITZ: Thank you. Okay. Is there a Chan V. Khan (phonetic)? Chan, no, okay. How about AJ Sebenza (phonetic)? Okay, Kate Sibley (phonetic), Ms. Sibley, no. Peter Peterson. How about Rick Alcaraz, Mr. Alcaraz?

MR. ALCARAZ: Good evening. My name is Rick Alcaraz. And I haven't faced Cal/OSHA in a long, long time. In the 80's we did a lot, but not so much lately.

First of all I would like to bring up the NFPA 2001 which is the National Fire Protection Act, and it has a lot of these so called problems that we have are in it. As a union steam fitter I went through a five year apprenticeship and then I went to school to learn purities and to learn what's in the air.

One of the things that you guys are talking about on the wearing of the pipe which is called in my language is friction laws. Whatever the product is that's going through your piping systems it wears down the integrity of the pipe.

And if it's heated it's even faster. But if it's dirty such oil products, I know they clean some of it before it enters the refineries but at the same time they have to add solvents to liquify, you guys all know about that. And that doesn't help.

And what you have, any time that you change direction in pipes you have friction laws. By that I mean the integrity of the pipe, the inside of the pipe not the outside. But every time you change directions up and down 45 degree angles back and forth or whatever, we used to put flow meters in these things and they were completed automated back in '88.

And for the life of me I look at the pipe up here in the picture right up here and the pipe comes in what we call 40-1-1, 40 feet one

inch long pipe. And the supports, I'm looking for supports and they used to be there but they're no longer in there.

As you can tell I haven't been in refineries for a few years. I went into the semi conductor area and stayed in it for a while. But I'd also, I've been here since 1945. I was, first job I had out of high school was at Chevron. I started a pipe fitters apprenticeship there.

And they were good to me and but things happen. There's a lot of accidents do happen around here. But, anyway, that's about all I have to say tonight. If I'm wrong about the automation that the flow meters should have been in there or they were in there at one time, you said you were looking for valves.

Well there was no valves. When we originally put the refinery in, in the 80's we started working on it and then I went out to Shell in '88 and then I went to Exxon and I've been around the Bay. I've made a good living at

my trade.

But if those flow meters were in there they shut off automatic when the flow stops or increases. It's set for one thing, the amount of travel of the product. And as soon as it fluctuates it shuts itself down. So thank you for listening to me.

MR. HOROWITZ: Thank you. Dina Razor, Ms. Razor. Jeff Kilbreth, is that you? Why don't you step right up?

MR. KILBRETH: I wasn't going to say anything because --

MR. HOROWITZ: Could you spell your name though? Let me reset the timer so that you get your whole time. Go ahead.

MR. KILBRETH: Jeff Kilbreth, K-I-L-B-R-E-T-H. I just, I wasn't going to speak because I think I don't have anything to add about the technical matters. I've been to all of the hearings and read all of the reports.

I did want to, I wanted to speak primarily because of what a couple of the last

people said about what an impact you've had on Richmond. And I guess I want to say two things.

First of all I don't think that the campaign to be seriously involved in studying the modernization project and your negotiating and understanding and trying to actually end up with a good project going forward would have happened nearly as well as it did without your, effectively your leadership and your clarity about searching for a better way to do things.

And Supervisor Gioia didn't blow his own horn. But I want to give you an example of what a far reaching effect your report and your focus on continuous improvement has had, you know, beyond just issues of safety. Continuous improvement is as true for emissions reduction and pollution reduction as it is for safety.

There should be goals. There should KPI's, you know, these kinds of things. And what we're doing now with the Bay Area Air Quality Management District is taking up questions around what sort of emission reduction should we strive

for over the next ten years.

You know, you don't change things by snapping your fingers. These things take time. But you need goals. You need KPI's. It's like safety cases and it's like so much of what you said in your report.

And I don't think that the Bay Area Air Quality Management District would be talking about these refinery regulation rules right now, changing them if you hadn't broken the ground. So thank you from the bottom of my heart.

(Applause)

MR. HOROWITZ: Thank you, Mr. Kilbreth. How about Quanah Brightman, Mr. Brightman.

MR. BRIGHTMAN: Good evening. My name is spelled Q-U-A-N-A-H, last name Brightman, B-R-I-G-H-T-M-A-N. My name is of course Quanah Parker Brightman as you just heard, an indigenous person. Also I'm Executive Director of United Native Americans.

I would like to, I wanted to come here

and of course bring voice for the indigenous population whose land you're currently occupying on. First and foremost, I would like to thank the Members of the Board and all the people who came and organized this. It was very thorough.

We really appreciate that as a community out here. I want to thank you and commend you for coming here and bringing forth this information and informing our community and the world.

But there's a number of things that need to be done to further what has been shared here tonight. First and foremost, I'd like to remind people that there are currently 13 refineries here in the State of California. There are five here in the greater Bay Area.

Now when and if another, you know, catastrophic explosion happens at one of the 13 refineries here in California will we see those responsible be brought upon charges of criminal negligence and criminal genocide upon our Mother Earth. Will we see that?

Will that be included in, will that be paper clipped in your little report because quite honestly until these people actually are brought to justice and treated as common criminals as they are for that gross negligence and incompetence this is not going to stop. It's not going to stop.

You need to realize that. This is a stepping stone for us. But we need to look forward. We need to build from this, all of us who are here. I'd like to also bring up we must act now to stop these dirty tar sands from being brought in our community and refined here at any and all of the refineries world wide.

I want to thank you for your time. Thank you for allowing me to speak, (foreign language).

MR. HOROWITZ: Thank you.

(Applause)

MR. HOROWITZ: Okay. How about Tim Laidman?

MR. LAIDMAN: Thank you. I'm Tim

Laidman. I'm with the Green Party of Contra Costa County on the Council there.

MR. HOROWITZ: And Laidman is?

MR. LAIDMAN: L-A-I-D-M-A-N. And also on the Green Party of California State Coordinating Committee. And I'm standing here in solidarity with the workers of United Steel Workers 5. They are the front line.

They are risking their lives and I really appreciate the work that you have all done to make their job safer, the community safer because there's nothing more important than the health and safety of those workers and of the community.

The profits of Chevron, which are enormous, are second to all of those. You can't replace a life with a billion dollars. And Chevron has a number of billions of dollars every quarter. But that doesn't bring anybody back that's died.

And the work that you've done, I think can save lives. I appreciate that and I thank

you. I also wanted to as an engineer I wanted to thank you for the technical work you've done and as a political activist I would also like to thank you for the political will that you've shown because those corporations with their 10's and 20's and 100's of billions of dollars often exert political pressure and we rarely see an organization, a Board, a government agency that actually has the ability to stand up to that pressure, that influence, that lobbying.

We don't see it in our Congress for instance. And I appreciate that you have that ability and you've done what you have done. And I would also echo all the sentiments about the good that it has caused here.

I hope that it continues on with stronger Industrial Safety Ordinance. Part of the Planning Commission's work was bartered away by some Council people. But I think if the new Council that the people elected which is full of a lot more progressives will go farther and be making an Industrial Safety Ordinance that gets

some of those lost things back and protects the workers and the community.

Thank you for your help in this. Thank you very much.

(Applause)

MR. HOROWITZ: Thank you. How about Steve Nadel (phonetic), okay. How about Marie Walcek.

MS. WALCEK: Hey. Marie Walcek. It's spelled W-A-L-C-E-K. I'm with the California Nurses Association. We represent nurses that live and work near the refinery including at Kaiser Richmond and at Doctors Medical Center. Our nurses are the ones that treated and cared for the 15,000 people that were sent to nearby hospitals after the refinery fire in 2012.

And that being said, I'm very grateful to hear a very thorough report talking about what went wrong and how we can prevent this in the future. We're at a time when West County is particularly vulnerable.

Whether or not you're aware, Doctors

Medical Center which was the primary hospital that was, had emergency room services nearest to the refinery is now no longer accepting any ambulances and is under serious threat of closure which would mean the only nearby hospital would be Kaiser Richmond, which unfortunately only has 15 emergency room beds.

So now is a critical time and seeing folks come together to make this refinery safer is good to see. I would like to uplift a lot of what your report recommended, particularly workers rights to stop refinery operations when they sense danger and the rest of the recommendations.

And also wanted to echo hearing, you know, what some other people said that we would like to see stricter regulations on the quality of crude used in Bay Area refineries, particularly at Chevron as nurses know what goes in absolutely effects what comes out. So we'd like to see that be a part of the plan moving forward and I hope this is just a small step as

we continue vigilance in improving safety for workers and the community. Thank you.

(Applause)

MR. HOROWITZ: Thank you, Ms. Walcek. How about Joel Britton. Is there a Joel Britton?

MR. BRITTON: That's J-O-E-L, B as in boy, R-I-T-T-O-N. I'm a former operator at the Chevron refinery in El Segundo and the Gulf Refinery in Sante Fe Springs. Proud ten plus year member of the Oil, Chemical and Atomic Workers Union and the Northern California organizer of the Socialist Workers Party.

According to US government statistics 4,500 workers were killed in the United States on the job in 2010. Our jobs can be dangerous. We all know how dangerous oil refineries can be. I would like to argue that refineries don't have to be places where workers die on the job.

No worker should have to die on the job if the corporate bottom lines, profits aren't what dictates how refineries are built and how they are maintained and operated. I believe I'm

going a little bit beyond your report in saying these things.

But I believe that we need to address this bigger picture. In order to work toward this workers need to fight to be in charge of all health and safety procedures. Managers, bosses, can't be trusted as this incident at Chevron Richmond has proven as the Chemical Safety Board reports have documented so convincingly.

Stop work authority, yes, for real. Workers control of conditions on the job is what is needed if no worker is to die. Workers control enforced by union power. The gentleman over here said cost is always an issue referring to dollar cost.

But this whole experience has demonstrated, has underlined the cost in human life is what must determine how refineries, railroads, et cetera are operated, human lives, workers lives and the lives of people in the surrounding communities. We should all support the United Steel Workers in its negotiations for

a new contract, a stronger contract with stronger safety provisions including the right to shut down process.

If that first operator who said that process should be shut down had been listened to. But as your report demonstrates workers fear retaliation for exercising what little say they are presumed to have up to this point. But we need to get stronger and the only way we're going to get stronger is for workers ourselves to organize and lead that fight. Thank you.

(Applause)

MR. HOROWITZ: Thank you. How about Jerry Freiwirth?

MR. FREIWIRTH: Jerry Freiwirth. J-E-R-R-Y, F-R-E-I-W-I-R-T-H. And I'm a recently retired operator at the Shell refinery. I'm a retired member of Local 5.

I will say that over my 20 plus years the videos and reports from the Chemical Safety Board have been some of the most useful things for operators to understand process and safety

questions. But it remains true that the accidents, the fires, the explosions continue to happen, not just here but Texas City and Anacortes in Washington with a depressing regularity.

And I think that goes to a little bit, it turns out what some of the last speaker spoke to. How do we stop this? The recommendations made in this report, particularly around the 100 percent inspection or replacement, around stop work authority are all very useful.

But where's the power to change the drive that comes from these companies? How many times have we, have refinery workers and operators and maintenance people seen in turnarounds where exactly what happened here where things are identified as dangerous but then when you get into the turnaround suddenly they disappear, they are pulled off the work scope?

It's exactly what happened here. And regulatory steps have failed repeatedly including here, including with Cal/OSHA who came one year

was called in by workers one year before the fire for almost exactly the same problem and nothing was done. It was signed off of.

So as a refinery worker I think the most important single thing I had to defend my life and the life of my coworkers was my union. I worked in non union situations and basically you're told either do the job or there's the gate.

At least when I had a union I could have some confidence that I could stop that work. I think the next step needs to be that our unions need to step up collectively. We need to step up because I do not believe that the regulatory commissions, the state governments have the power to take on the Chevrons and the Shells of this world.

Only the people who actually do the work and create the product and make the money have that power. And that's, I think what is posed if we can have any idea that we're going to stop the deaths that occur, the dispoilization

(phonetic) of our communities. I'm confident that will happen.

But that's, forgive me, but I think your recommendations and, you know, as an oil worker sitting here we've all listened to the paragraph after paragraph at work not just here of the things that no one can understand, the verbiage around safety. But the real question is and I'll finish up, when profits versus safety, as it stands today in our world profits will always win.

And I think that's what we need to give consideration how we change that.

(Applause)

MR. HOROWITZ: Next is Alisa Mescariolo (phonetic). No, okay. How about Rebecca Auerbach?

MS. AUERBACH: Richmond Resident, Rebecca Auerbach. R-E-B-E-C-C-A, A-U-E-R-B as in boy, A-C-H. Now that this wonderful report has brought the light of day into a company with so little regard for the lives inside and outside

its gates that the automatic response to an obvious hazard is to tell workers to go poke it with a stick, I want to see the follow through.

It would be too easy for everybody in this room to take this home and throw it in a corner. And if that happens I know where we're going to be in five years or in ten years or whenever the next fire happens and people do die.

And then everybody is going to be down at the coffee shop saying now what was that they said in 2015 about sulfur, what was that word and what were they saying about stop work something. I don't want that day to come. We've had a wonderful start.

I want to see it keep going. I call on everybody in this room to follow this through to the end. Thank you so much for coming to Richmond. We're glad to know that we're not alone here.

(Applause)

MR. HOROWITZ: Okay. Lipo Chantanasuk (phonetic), not here. Is there anybody here who

did not sign up who would like to speak for three minutes? I think that is it, Mr. Chairman.

CHAIRPERSON MOURE-ERASO: Thank you, Dr. Horowitz. So we move on our agenda. At this time we'll proceed with a vote to consider the final investigation report of the Chevron refinery accident.

I will make a motion that reads as follows. I move that the Chemical Safety Board approve Investigative Report Number 2012031CA entitled, Chevron Richmond Refinery Pipe Rupture and Fire, that occurred in August 6, 2012, in Richmond, California including all findings, recommendations and associated products like videos continue, that are contained in this January 28, 2015, report.

That is my motion. Do I hear a second?

(Off microphone comment)

CHAIRPERSON MOURE-ERASO: I hear a second. Is there any discussion among the Members of the Board on the motion? So not

hearing any discussion I will call the question. I ask the General Counsel, excuse me, record the vote.

MR. LOEB: The question has been called. Mr. Griffon?

MR. GRIFFON: Yes.

MR. LOEB: Mr. Ehrlich?

MR. EHRLICH: Yes.

MR. LOEB: Mr. Chairman?

CHAIRPERSON MOURE-ERASO: Yes. So --

(Applause)

CHAIRPERSON MOURE-ERASO: Okay. So there are three votes. It's a unanimous vote and so the report is adopted.

(Applause)

CHAIRPERSON MOURE-ERASO: As a way of closing remarks on the specifics of the investigation I would like to reiterate that this fire, tragic as it was will, in my view, prove an important milestone in industrial chemical safety.

California authorities at all levels

are poised to modernize their process safety rules and put this state at the forefront of the nation's accident prevention efforts. To them I say God speed. I also call upon federal regulators to closely study the progress that is underway here in California.

I believe it is a model for the whole country to emulate and will make our communities safer. I also would like to recognize and to express my deeply felt thanks to the entire CSB Chevron team for their tireless work on this case over two and a half years.

I know the whole Board joins me in congratulating your efforts. That concludes the discussion of the Chevron investigation and now pursuant to the agenda I ask if there is any other business before the Board during this public meeting.

MR. EHRLICH: Mr. Chairman, I have a motion to normalize the government of the CSB, governance of the CSB to approve agency operations in general. Having spent an excess of

50 years in the private sector I look at the CSB from an executive's perspective where lines of authority and a command structure are known to all.

First and perhaps foremost, is the fact that the products produced by the staff are outstanding and excellent. The Board continues, consists of remarkably dedicated, extremely bright and exceptionally committed, hard working group of professionals.

Looking at the agency's management and administration there are a number of issues that require, in my mind, clarification and solidification. For example, I have never worked in an organization where there is no clear delineation of responsibility for implementation of administrative tasks.

In this agency's case it would seem to me that the Chairperson of the Board should be responsible for such administrative issues for all the agency members, including the Board. Complicating matters is the fact that the agency

adopted the majority of its internal procedures or Board orders during a brief period between 2000 and 2002 where there was no Chairperson and no permanent staff director at the agency.

With regard to Board orders there appear to be too many, most of which deal with purely administrative issues and in my opinion should be eliminated. To the extent standard procedures are needed for such issues as contracting, budgeting and personnel these should be developed by the Chairperson or his delegates and updated on routine basis following government norms.

By clearly delineating the administrative issues to the chair and the programmatic responsibilities to the Board then delegating authority is appropriate in both areas I'm of the opinion that the Board would function much more smoothly and more time could be spent on the mission of the agency.

My motion has four components. First it adopts a new Board Order, Number 2015-01 that

rescinds numerous unnecessary, conflicting and antiquated Board orders related purely to the agency's administrative functioning. It clarifies that administration is and always has been the Chair's responsibility.

That is fully consistent with the statute best practices of other agencies including the NTSB and my philosophy of management based on 50 years of private sector experience. It encourages the Chair to develop a modern, streamline set of management directives covering administration, budgeting and personnel.

Second, my motion provides for adopting an updated Board Order Number 22 establishing updated procedures for the Safety Recommendations Program. This proposal was developed by the staff but has been waiting at the Board for resolution for more than two years.

Third, my motion adopts a new procedure for what is called investigation scoping. That is the critical process for planning out how individual investigations are

going to be conducted and what issues are to be pursued.

This will be a new chapter of the Board's investigation protocol. Once again the procedure has been proposed by staff and has been sitting before the Board for a number of months.

Finally, my motion would administratively close three very old CSB cases dating from 2009 and 2010 where there is no realistic opportunity to issue a CSB report. These are the investigation of two accidents from 2009 at the Silver Eagle refinery in Utah, a series of releases from the Citgo Corpus Christi refinery starting in 2009 and a 2010 zinc fire at the Horsehead facility in Monaca, Pennsylvania which has been closed and demolished.

In the case of the Silver Eagle and the Citgo cases the CSB has already issued technical reports or recommendations that establish many findings about the incidents. In the case of Horsehead the CSB staff is contracted with a distillation expert who has reviewed the

file and has prepared technical analysis which should be made available to the public after completion of staff reviews.

However, especially with both the plant and the process no longer in existence it would be fruitless to put more researchers into the case. These are the four parts of my motion and I urge that it be adopted by the Board.

I move the Board take the following actions to improve and facilitate mission operations, part one. Adopt a new Board Order 2015-01 entitled Streamlining of a Chemical Safety Board System of Board Orders.

Part two, rescind the existing Board Order 22 entitled CSB Recommendation Program and adopt an updated version of the Board order as recommended by the CSB staff. Part three, adopt a new chapter one of the CSB's investigation protocol, Board Order Number 40 entitled Investigation Scoping Process as recommended by the CSB staff.

And part four, terminate the following

CSB investigations. Investigation of the January 12, 2009, flash fire and November 4, 2009, hydrogen explosion at the Silver Eagle refinery in Woods Cross, Utah. Investigations of the July 19, 2009, hydrogen fluoride release and hydrocarbon fire at the Citgo refinery in Corpus Christi, Texas and a subsequent smaller hydrogen fluoride release on March 5, 2012.

Investigation of the July 22, 2010, zinc fire at the former Horsehead Corporation facility in Monaca, Pennsylvania and authorize the CSB staff to make available to the public the final results of a technical review of the Horsehead case file already conducted by the zinc distillation expert.

Upon completion of appropriate factual and confidential business information reviews, sorry, and completion of the business information reviews.

CHAIRPERSON MOURE-ERASO: So I hear a motion. There is a motion on the floor. Is there a second for this motion? I second the

motion. So there is a motion on the floor that has been read and second. Is there any discussion?

MR. GRIFFON: Mr. Chairman, I make a motion to table this matter.

CHAIRPERSON MOURE-ERASO: There is a second motion to table this matter. Is there a second for the motion to table the matter?

Hearing no second I call the question for the first motion. I will ask if there is any further discussion on this.

MR. GRIFFON: Yes, I have further discussion. First and foremost, we have another Board Member who has been confirmed by the Senate and is due to be on the Board in a few weeks.

And I think we're basically modifying all governance practices right here live in this meeting when another Board Member that's been confirmed by the Senate I believe should have an opportunity to speak to these very important issues that affect the agency going forward for some time.

Secondly, I've been delivered this document right now. This is the first time I've seen this. There is no way I can vote on this matter with, fully understanding what I'm voting on without some time to look this over completely.

And finally, these governance matters have been under discussion on the Board and great debate for several years. That is true. Several of them involve components that, quite frankly, get to this very meeting, which is conducting our business in the public, transparency.

And I think the current version of Board Order 22 effectively would, if it was put in place, would involve most of our recommendations, evaluations votes to be done in the private of our offices. And I have been pushing for several years on this Board to have more of that work done in front of the public.

The recommendations, where we want to see them through and make sure they happen at the plants, at the communities. And I think that's

totally very important for this Board to be effective.

So I urge my colleagues on the Board to at least wait until another confirmed member of this Board is seated and has an opportunity to review this material and debate it fully. Thank you.

CHAIRPERSON MOURE-ERASO: So you have a motion to make.

MR. GRIFFON: My motion was to table the matter until we have our confirmed member of the Board joins us.

CHAIRPERSON MOURE-ERASO: Well your motion as stated requires a second. And I ask again is there a second for that motion? Having heard none I would like to call the question to the first motion presented by Mr. Ehrlich.

So there is a motion on the floor by Mr. Ehrlich that has been read and copies of it has been distributed among the Members. And I ask Mr. Loeb, our General Counsel, to proceed then with a vote.

MR. LOEB: Mr. Ehrlich?

MR. EHRLICH: Yes.

MR. LOEB: Mr. Griffon?

MR. GRIFFON: A resounding, no.

MR. LOEB: Mr. Chairman?

CHAIRPERSON MOURE-ERASO: Yes. .

CHAIRPERSON MOURE-ERASO: Okay. I guess this ends the business of the Board tonight. Okay. So I forgot to say after I was interrupted that the motion carries 2-1. The motion is approved.

So this ends the business of this public meeting. Thank you very much for all of you to be here.

(Whereupon, the above-entitled matter went off the record.)

C E R T I F I C A T E

MATTER: Chevron Richmond Refinery File

DATE: 01-28-15

I hereby certify that the attached transcription of pages 1 to 173 inclusive are to the best of my belief and ability a true, accurate, and complete record of the above referenced proceedings as contained on the provided audio recording.

Neal R Gross
