UNITED STATES OF AMERICA
CHEMICAL SAFETY AND
HAZARD INVESTIGATION BOARD
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CHEVRON RICHMOND REFINERY FIRE
RICHMOND, CA
AUGUST 6, 2012

+ + + + +

INTERIM PUBLIC MEETING
+ + + + +
FRIDAY
APRIL 19th, 2013

+ + + + +
6:30 P.M.

CSHIB MEMBERS:

RAFAEL MOURE-ERASO, Chairman

MARK GRIFFON
BETH J. ROSENBERG
DANIEL HOROWITZ, Managing Director
RICHARD C. LOEB, General Counsel

INVESTIGATIVE TEAM:

DAN TILLEMA, Team Lead
STEVE CUTCHEN
ROGER EVANS
LAUREN GRIM
SAM McFADDEN, Anamet, Inc.

PANEL MEMBERS:

ELLEN WIDESS, Cal/OSHA

PAUL AMYOTTE, Dalhousie University

RANDY SAWYER, Contra Costa County

TUPPER HULL, Western States Petroleum

      Association

MIKE SMITH, USW Local 5

RON ESPINOZA, USW International

GREG KARRAS, Communities for a Better

      Environment

MIKE WILSON, U.C. Berkeley


ELECTED OFFICIALS PRESENT:


JOHN GIOIA, Member, Contra Costa Board of

      Supervisors

GAYLE McLAUGHLIN, Mayor, Richmond, CA

GEORGE MILLER, Congressman, California's


      Eleventh District

MARK CHEKAL-BAIN, on behalf of NANCY SKINNER,

      California State Assembly Member,

      Fifteenth State Assembly District

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Note: All public commenters' names are spelled
using best guesses.

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2                                      6:30 p.m.

3           CHAIRPERSON MOURE-ERASO:  Before

4    we start, I would like to note that we have

5    translation service tonight.  We have Spanish

6    and Laotian translators in the back.  There

7    are infrared earpieces that you can go in the

8    back and wear it if you need it.  You can get

9    the headsets over at the left of the stage.

10   That's left of the stage.

11              So, the meeting will now come to

12   order.  Thank you.  Good evening, everyone.

13   Welcome to this public meeting of the U.S.

14   Chemical Safety Board.  I am Rafael Moure-

15   Eraso, the chairperson of the Chemical Safety

16   Board, and with me at the table are my fellow

17   board members, Mr. Mark Griffon and Beth

18   Rosenberg.  We are also joined at the head

19   table here by Richard Loeb, who is the general

20   counsel of the Chemical Safety Board.

21              Before we proceed further, please

22   locate the meeting room exits that you will

1  use in case of an emergency.  You can see they

2  are marked there in green lights on the sides,

3  if you need to leave the building.

4            We are especially honored today to

5  be able to have our meeting in this historic

6  facility.  And we also are especially honored

7  by the presence this evening of Congressman

8  George Miller who is here with us.

9            (Applause.)

10            CHAIRPERSON MOURE-ERASO:

11  Congressman George Miller is one of our best

12  boosters in Washington, and a good friend of

13  the Chemical Safety Board.  Also here with us

14  is John Gioia, who is the chairman of the

15  Contra Costa Board of Supervisors.  Could you

16  please stand?

17            (Applause.)

18            CHAIRPERSON MOURE-ERASO:  And also

19  with us is Gayle McLaughlin, the mayor of

20  Richmond.

21            (Applause.)

22            CHAIRPERSON MOURE-ERASO:  We'd

1 also like to welcome any members of the

2 California Legislature that might be with us

3 today.  At the entrance, as you can see, is a

4 copy of the agenda of this meeting, so you can

5 follow the proceedings.  Everybody should have

6 one now.

7 And also there are copies of the

8 report.  We are calling this an interim

9 report, but as you can see it's almost 100

10 pages, and it's a very complete set of

11 findings and recommendations.

12 We are here this evening so that

13 our investigation team may present a draft

14 report on this investigation, on the

15 investigation findings, along with a series of

16 urgent safety recommendations regarding the

17 massive vapor release and fire which occurred

18 last August at the Chevron refinery here in

19 Richmond.

20 Toward the end of the meeting, the

21 Board will vote on whether to approve this

22 final report and the recommendations, which

1    make the report official and will appear on

2    the website as a public document.

3              As I think everyone knows from our

4    previous reports and press conferences and

5    releases here, the vapor release was caused by

6    a highly corroded piping that gave way.  You

7    will hear that Chevron failed to replace

8    critical sections of piping of the crude oil

9    unit over a ten year period, even though the

10   company was aware of the overall hazard of

11   sulfidation corrosion and its risk of

12   catastrophic failure.

13             But make no mistake, the ultimate

14   issue here is not corrosion, but how to make

15   effective corporate decisions.

16             (Applause.)

17             CHAIRPERSON MOURE-ERASO:

18   Companies that run refineries like the one in

19   Richmond must take every measure possible,

20   including the use of inherently safer

21   materials and processes, to run the plants in

22   a safe manner.  The lives of workers are too

1   important to do otherwise.  The lives and

2   well-being of residents in neighboring

3   communities are too important to do otherwise.

4                    (Applause.)

5                    CHAIRPERSON MOURE-ERASO:  And

6   regulators need effective tools and resources

7   to encourage companies to make the right

8   choices.  Even with some resource limitation,

9   California OSHA has the only dedicated process

10  safety management unit of any regulatory

11  agency in the nation.  That is a great thing.

12  Still, California OSHA and other regulatory

13  agencies like it, including Federal OSHA, need

14  to be given substantially more resources so

15  that they can do more inspections and ensure

16  the public's safety.

17                   (Applause.)

18                   CHAIRPERSON MOURE-ERASO:  Finally,

19  oil companies need to operate in a more

20  transparent way.  Refineries --

21                   (Applause.)

22                   CHAIRPERSON MOURE-ERASO:

1   Refineries need to share information about

2   their hazards.  They need to listen to

3   communities and --

4               (Applause.)

5               CHAIRPERSON MOURE-ERASO:  -- and

6   let the public know what they are doing to

7   make the facility as safe as humanly possible.

8               (Applause.)

9               CHAIRPERSON MOURE-ERASO:  Life is

10  too precious to do otherwise.  We need a

11  change in how refineries do business, in

12  California and nationwide.  Here today in

13  Contra Costa we have a unique opportunity to

14  effect meaningful change by learning from this

15  major accident.

16              In this community, we see a

17  constellation of engaged institutions that

18  represent all stakeholders in the region,

19  especially the 15,000 community members that

20  sought medical attention following the fire.

21  The stakeholders are demanding change.

22              These groups that have worked and

1    collaborated with us -- and this is not a

2    complete list -- are the Labor Occupational

3    Health Program with the University of

4    California, the Community for Better

5    Environment, the CBE, the Blue-Green Alliance,

6    the United Steel Workers Local 5, the United

7    Steel Workers International, California OSHA,

8    California EPA, the City of Richmond,

9    especially, Contra Costa County, and the

10   California Legislature.

11              Also, we have been in contact and

12   have spent substantial time, quality time,

13   with the California Refinery Task Force.  And

14   very importantly, I hope that our

15   recommendations, that are very specific, will

16   be considered by the Governor of California's

17   Refinery Task Force.

18              All these institutions have the

19   energy and the will to implement our

20   recommendations.  Thank you very much.

21              (Applause.)

22              CHAIRPERSON MOURE-ERASO:  I would

1   now like to ask if other Board members have

2   opening remarks.  I am calling first on Doctor

3   Beth Rosenberg.

4                   MEMBER ROSENBERG:  Thank you.

5   Thank you, Chairperson.

6                   Good evening.  It's heartening to

7   see so many of you concerned enough, angry

8   enough, to give up your Friday night to think

9   about refinery safety.  I'm Beth Rosenberg.

10  I've been at the CSB for four months, and I'm

11  learning that everyone has his own view of

12  what's important, of what a root cause is.

13  You'll hear many views tonight, and I'll add

14  mine to the mix.

15                  Our investigators found that, over

16  a 10 year period, Chevron technical experts

17  and workers made at least six recommendations

18  to increase inspection or replace the piping

19  that eventually leaked.

20                  I would like to know what was

21  going on in Chevron's management.  What flawed

22  decisionmaking matrices did they use?  What

1    financial incentives did they have that

2    allowed them to dismiss the repeated warnings

3    of their employees and gamble with the safety

4    of their workforce and the public?

5              I realize the subject of corporate

6    decisionmaking is on the agenda for the final

7    report and will not be discussed tonight, but

8    I take this incident at Chevron as a

9    cautionary tale about what happens when senior

10   management ignores the concerns and advice of

11   workers.

12             This problem is not unique to

13   Chevron.  In my 30 years as an occupational

14   health professional, I have found it to be

15   rampant across many sectors.  Whether your

16   workplace is a refinery or a bakery,

17   management ignoring the advice of workers is

18   a serious mistake.  Not only is it bad for

19   management, because good information is not

20   put to good use, but as we see here it is

21   dangerous and can have terrible and completely

22   avoidable consequences.

1          Why so many organizations persist

2     in this harmful, ultimately self-destructive

3     behavior is important to figure out, both for

4     the health of the organization or the

5     business, and mainly the public health.

6               Thank you.

7               (Applause.)

8               CHAIRPERSON MOURE-ERASO:  Thank

9     you, Doctor Rosenberg.  Now I would like to

10    call upon my colleague, the Board member, Mark

11    Griffon.  Mark?

12              MEMBER GRIFFON:  Thank you,

13    Chairperson.

14              I think this incident brings into

15    focus an issue of great concern to me: the

16    issue of an aging refinery sector.  This

17    Chevron refinery has been in operation for

18    over 100 years.  The crude unit in question in

19    this incident was constructed in 1976.  It

20    seems to me that an aging refinery is like an

21    old house: it needs a lot of constant

22    maintenance.

1          Recent research conducted by the

2     United Kingdom Health and Safety Executive

3     shows that 50 percent of major hazard loss of

4     containment events from 1980 through 2006

5     arising from technical plant failures were

6     primarily due to aging plant mechanisms, such

7     as erosion, corrosion and fatigue.  These are

8     sobering statistics, given the age of the

9     refineries in operation around the country.

10    Couple this with what appears to me to be a

11    culture of running to failure and the common

12    practice of running maintenance in the

13    refinery sector, and it seems to me you have

14    a recipe for a catastrophe.

15              It is critical to note that

16    Chevron is well aware of these issues of aging

17    plants, and yet decisions were made that led

18    to the failure on August 6th.  Our

19    investigation found that in the 10 years prior

20    to the incident a small number of personnel

21    with knowledge and understanding of

22    sulfidation corrosion made at least six

1    recommendations to increase inspections or

2    upgrade metallurgy.

3                So the question is, why did these

4    recommendations for the most part fall on deaf

5    ears?  Who decided not to implement the

6    recommendations, or delay the implementation

7    of the recommendations?  And most importantly,

8    why?

9                This, I believe, is critical in

10   understanding why this incident occurred and

11   may have some valuable insights into why we

12   continue to see so many process safety

13   problems in the refinery sector nationwide.

14   I look forward to our team's more extensive

15   examination of these issues in our final

16   report.

17                Finally, and perhaps the most

18   important issue in this case, is the

19   connection of process safety decisions and the

20   potential risk to the community.  Fifteen

21   thousand people went to the hospital after

22   this incident.  These people have a right to

1  know what they were exposed to and what, if

2  any, adverse health effects can be expected.

3              (Applause.)

4              MEMBER GRIFFON:  In our final

5  report, we need to examine the systems in

6  place to answer these questions for the

7  community, and to keep the community safe.

8              Thank you.

9              (Applause.)

10              CHAIRPERSON MOURE-ERASO:  Thank

11  you, Mr. Griffon.

12              Our next activity will be the

13  presentation of the report, and I am going to

14  start with the introduction of the Chemical

15  Safety Board Investigation Team.

16              The person that spent a

17  substantial amount of time with the team

18  putting the investigation together is Donald

19  Holstrom.  He was planning to be here with us,

20  however probably a lot of you have read about

21  the explosion and terrible accident that took

22  place in West, Texas, in the state of Texas,

1    and he had to deploy with 10 investigators to

2    that place yesterday morning, and at this

3    moment he is there taking the first steps to

4    initiate our investigation in West, Texas.  He

5    is not with us today; he had to deploy.

6              Additional members of the team are

7    Dan Tillema, who is the team leader, sitting

8    here at the table on my right, and he is --

9              (Applause.)

10             CHAIRPERSON MOURE-ERASO:  Dan

11   Tillema is very well known in these parts,

12   yes.  Steve Cutchen, Roger Evans, Lauren Grim,

13   and Sam McFadden from the Anamet Company that

14   has been our consultant.  He's also here.

15             (Applause.)

16             CHAIRPERSON MOURE-ERASO:  Missing

17   from the table are people that also were part

18   of the team, but they cannot be here with us

19   because they are deployed in West, Texas, and

20   they are Mark Wingard, Amanda Johnson, and

21   Kelly Wilson.

22             Now I would like to turn over the

1    microphone to Mr. Dan Tillema, the

2    investigator in charge of the Chevron

3    investigation.  Dan?

4              (Applause.)

5              INVESTIGATOR TILLEMA:  Thank you,

6    Chairman Moure.  I would also like to note

7    that the investigation team has had great

8    cooperation from other groups and agencies

9    throughout our investigation, including

10   Chevron and their employees, United Steel

11   Workers, Cal OSHA, especially Patrick Bell,

12   Clyde Trombetis and his PSM team (phonetic),

13   Contra Costa County, the City of Richmond,

14   Mary Westling (phonetic) and her team with the

15   EPA, and the Bay Area Air Quality Management

16   District.

17             Last summer on August 6th the

18   Chevron refinery right here in Richmond,

19   California experienced a catastrophic pipe

20   rupture in their crude unit.  As a result of

21   this incident, 19 employees lives were

22   endangered and 15,000 members of this

1    community sought medical treatment.  We found

2    that the immediate cause of this incident was

3    sulfidation corrosion, a common damage

4    mechanism in refineries.

5              As a result of this incident, the

6    Chevron crude unit remains out of commission

7    over eight months later.  We have written an

8    interim report describing this accident, and

9    tonight we are proposing recommendations to

10   Chevron, the City of Richmond, Contra Costa

11   County, the State of California and the U.S.

12   Environmental Protection Agency.  These

13   recommendations address the need for

14   inherently safer design, rigorous and

15   documented damage mechanism hazard reviews and

16   thorough analysis process safeguards.

17             We will begin our presentation

18   this evening by showing an animation of the

19   August 6th Chevron incident.  We will then

20   present our key investigation findings,

21   followed by our proposed recommendations.

22   Elected officials will then give statements,

1    and the Board will have an opportunity to ask

2    the investigation team questions.  We will

3    then hear from panel experts, and then the

4    public.  The Board will vote on adopting the

5    interim report and proposed recommendations.

6               I will now show the video

7    depicting the August 6th Chevron incident.

8               (Whereupon, a video was

9    displayed.)

10              RECORDING:  The Chevron Richmond

11   Refinery lies approximately 10 miles northeast

12   of San Francisco in California's Contra Costa

13   County.  The 2,900 acre facility was initially

14   established in 1902 and primarily makes

15   transportation fuels such as gasoline and

16   diesel, as well as lube oils.  The refinery

17   can process up to 250,000 barrels of crude oil

18   per day.

19              The first step of the refining

20   process takes place in the crude unit, where

21   crude oil is cleaned and heated before

22   entering the distillation tower.  Inside the

1    tower, the crude oil is boiled.  The vapor

2    then condenses into various liquid hydrocarbon

3    fractions, or streams, including jet fuel,

4    diesel, and gas oil.  The different streams

5    exit the distillation tower through separate

6    pipes, or sidecuts, that lead to other

7    sections of the refinery.

8              On August 6th, 2012, the crude

9    unit was operating normally.  Around 3:50 that

10   afternoon, an operator was performing a

11   routine check when he noticed a small puddle

12   on the ground near the distillation tower.

13   The liquid appeared to be dripping from an 8

14   inch insulated pipe 14 feet overhead.  The

15   leaking pipe was a section of the tower's

16   number four sidecut line, which operated at a

17   temperature of 640 degrees Fahrenheit and

18   contained light gas oil, a combustible liquid

19   similar to diesel fuel.

20             Chevron inspectors knew that, over

21   the years, the walls of the number four

22   sidecut had thinned due to corrosion, but they

1    did not realize how close this particular

2    segment was to failure.  There was no shutoff

3    valve between the pipe and the distillation

4    tower, and no way to isolate the leak.

5              The head operator was called to

6    the scene.  Although he believed the situation

7    was serious, he did not believe the small leak

8    warranted immediately shutting down the unit

9    and stopping production.  Following Chevron's

10   standard practice for responding to hazardous

11   leaks, refinery firefighters were sent to the

12   scene.

13             A number of managers, engineers

14   and technicians gathered there informally to

15   assess the problem.  The group discussed a

16   recommendation from an operator to shut down

17   the unit, but they decided to first try to

18   pinpoint the leak by removing insulation from

19   the pipe while the crude unit was still

20   running.  The hoped they could stop the leak

21   with a temporary metal fitting known as a

22   clamp.

1           A Chevron firefighter tried using

2      a pike pole to hook and pull away the

3      insulation, but this poking action was deemed

4      too dangerous because it was moving the pipe.

5      The CSB later found that the tip of the pike

6      likely caused a small puncture in the already

7      thinned pipe.

8           As the unit continued to operate,

9      workers assembled scaffolding directly beneath

10     the leaking pipe.  Two firefighters then used

11     a hook to remove the insulation from the pipe.

12     As they were working, hydrocarbon vapor began

13     to flow out from underneath the insulation.

14     The two firefighters backed away from the

15     growing vapor cloud.  As the hot vapor mixed

16     with air, it ignited.

17           That fire was quickly put out, and

18     the two firefighters immediately climbed down

19     off the scaffolding, but the exact location of

20     the leak was still obscured by the remaining

21     insulation and firefighting water, so the

22     Chevron firefighters attempted to strip the

1    insulation off the pipe with high pressure

2    water.

3              But the leak suddenly worsened,

4    and hot hydrocarbon liquid started to spray

5    out of the pipe.  A decision was finally made

6    to begin an emergency shutdown of the crude

7    unit, but it was too late.  Suddenly the pipe

8    ripped open.  A vapor cloud formed and rapidly

9    expanded as the large inventory of

10   hydrocarbons in the distillation tower started

11   to vent through the ruptured pipe.

12             The vapor cloud immediately spread

13   over hundreds of feet, engulfing all 19 people

14   who had gathered nearby.  The firefighters and

15   operators struggled to escape through the

16   dense hydrocarbon cloud.  Unable to see, they

17   had to feel their way out, some on their hands

18   and knees.

19             At approximately 6:30 p.m., two

20   minutes after the huge vapor cloud formed, the

21   hydrocarbons ignited.  One firefighter was

22   trapped inside a fire engine when it was

1  suddenly engulfed in flames.  He radioed for

2  help.

3              "Mayday, mayday, mayday.  This is

4  460."

5              But when he received no response,

6  he assumed everyone else was dead.  To escape

7  the inferno, he fled through what witnesses

8  described as a wall of fire.  Fortunately, all

9  the workers would eventually flee to safety,

10  and there were no fatalities.

11              The towering white vapor cloud

12  could be seen as far away as San Francisco on

13  the unusually clear August day.  After the

14  ignition, a dense plume of black smoke formed

15  and drifted away from the refinery.  The fire

16  continued burning for hours.  Over the

17  succeeding days, more than 15,000 people

18  sought medical treatment at nearby hospitals

19  for breathing problems and other symptoms.

20              During its investigation, the CSB

21  determined that the carbon steel pipe

22  installed in 1976 had thinned to the point of

1    failure from an effect known as sulfidation

2    corrosion.  Carbon steel piping is

3    particularly susceptible to this type of

4    corrosion, which occurs over time when the

5    steel is exposed to sulfur-containing

6    hydrocarbons at high temperatures.  Steel

7    piping that happens to be low in the element

8    silicon corrodes especially quickly.

9               The CSB learned that sulfidation

10   corrosion had caused a major failure at

11   Chevron's refinery in Salt Lake City, Utah in

12   2002.  Chevron then performed an enhanced

13   inspection of the number four sidecut pipe at

14   the Richmond refinery.  It revealed

15   accelerated thinning in the piping section

16   that would ultimately fail in 2012.

17   Replacement was recommended, but this did not

18   occur, and the section of piping was never

19   inspected again.

20               In 2009, Chevron experts

21   recommended that every segment of high risk

22   carbon steel piping be inspected for

1    corrosion, however this was not done.  During

2    a maintenance turnaround of the crude unit in

3    2011, Chevron inspectors examined some, but

4    not all, locations along the number four

5    sidecut, and found significant thinning.  Some

6    sections were replaced, but managers decided

7    that the line was thick enough to stay in

8    service and that an overall replacement could

9    wait up to five more years.

10                    According to CSB investigators, a

11    key lesson is that each and every segment of

12    the piping should have been inspected.  Most

13    importantly, the pipe should have been

14    replaced much earlier with an inherently safer

15    corrosion-resistant alloy.  The CSB also

16    concluded that, had the crude unit been shut

17    down when the leak was first noticed, the

18    massive fire likely would not have occurred,

19    the 19 workers would never have been

20    endangered, and the community would have been

21    protected.

22                    For more information on the CSB

1    Chevron investigation, please visit CSB.gov.

2              "Ground monitor, we're going to

3    supply from this hydrant.  We've got to supply

4    that ground monitor with our five-inch."

5              "I see it.  Actually, you may want

6    to add" --

7              "Back in.  We're going to back

8    in."

9              "All right.  We'll jump out."

10             (Whereupon, the video ended.)

11             (Applause.)

12             INVESTIGATOR TILLEMA:  In our

13   presentation this evening, Lauren Grim will

14   detail the technical causes of the incident,

15   describe opportunities to replace the four

16   sidecut pipe, and will discuss the importance

17   of process hazard analyses and the thorough

18   evaluation of safeguards.

19             Roger Evans will then describe

20   inherently safer systems and ways to improve

21   the California regulatory system.

22             And finally, Steve Cutchen will

1    present our proposed recommendations to the

2    Board.

3                I will now turn the presentation

4    over to Investigator Lauren Grim.

5                INVESTIGATOR GRIM:  Thank you,

6    Dan.  As shown in the video that you have just

7    seen, the four sidecut pipe wall became

8    extremely thin due to sulfidation corrosion

9    and ultimately ruptured.  Sulfidation

10   corrosion rates are fastest in carbon steel,

11   which is a plain, basic steel.  This was the

12   material of construction of the four sidecut

13   piping that failed at the Chevron refinery

14   here in Richmond.  Other metallurgies, like

15   high-chromium steels, thin at a much slower

16   rate.

17                These metallurgies are referred to

18   as inherently safer metallurgies, because they

19   reduce the risk presented by sulfidation

20   corrosion.  This animation shown here on this

21   slide shows a pipe cross section demonstrating

22   how the four sidecut line would corrode

1    depending on the line's material of

2    construction.  We can see how low-silicon

3    carbon steel and regular carbon steel thin

4    over a 15 year time period when compared to

5    inherently safer steels 9-Chrome and stainless

6    steel.

7              Inherently safer systems experts

8    Paul Amyotte, who is a member of our panel

9    this evening, and Trevor Kletz published an

10   augmented version of the well known risk

11   reduction tool called A Hierarchy of Controls

12   by including concepts of inherently safer

13   systems.  For example, replacing metallurgy

14   with an upgraded inherently safer material of

15   construction is a high ranking technique to

16   implement inherently safer design.

17             Piping circuits, such as the

18   Chevron refinery four sidecut piping circuit,

19   are comprised of many piping components,

20   including elbows, straight piping, tees and

21   fittings.  In this example shown on the slide,

22   the straight-run piping components are in

1    yellow and the tees and fittings are in gray.

2    Components in piping circuits such as this one

3    are usually connected by welds, which are

4    shown here as red lines on this slide.

5              To monitor corrosion rates,

6    companies are required by regulation to

7    measure piping thickness at periodic locations

8    throughout piping circuits.  These measurement

9    locations are typically placed on elbows and

10   fittings.  We have found, however, that this

11   presents a problem when measuring sulfidation

12   corrosion in carbon steel piping circuits.

13   Carbon steel elbows and fittings generally

14   contain high percentages of silicon.  If there

15   are low-silicon piping components in the

16   circuit, like the straight-run red piping

17   components seen in this slide, they may thin

18   significantly faster than the measured high-

19   silicon fittings, possibly leading to rupture.

20   This is what happened on August 6th here in

21   Richmond.

22             To identify the low-silicon

1    components, such as the ones shown in red

2    here, 100 percent component inspection, by

3    either thickness testing or chemical

4    laboratory testing, must be performed.

5              Here we see a photo that was taken

6    in a laboratory of the pipe component that

7    failed at the Chevron refinery.  Directly

8    upstream of the component is an elbow.  This

9    elbow contained a high percentage of silicon,

10   and this was also a location where inspectors

11   regularly measured the four sidecut pipe

12   thickness.

13             The component that failed

14   contained an extremely low percentage of

15   silicon, and it was not regularly thickness

16   tested.  The high corrosion rates that it

17   experienced were unknown until it ultimately

18   failed on August 6th.

19             We'll now take a closer look at

20   the failed piping component.  The yellow

21   rectangle that you can see in this photo is a

22   sample that was cut in our metallurgical

1    laboratory.  It consists of a portion of the

2    elbow, the failed component, and the weld that

3    connects the two.

4              When viewing the cross section of

5    this sample, we can see the extreme variation

6    in thinning that occurred in the Chevron four

7    sidecut piping circuit.  The ruptured

8    component was approximately 90 percent thinner

9    than the adjacent elbow, and this component

10   also contained almost 94 percent less silicon

11   than the elbow.

12             We do have the cross section of

13   the sample here with us this evening on a

14   posterboard.

15             The August 6th Chevron incident

16   was preventable.  The refining industry has

17   been aware of risks associated with low-

18   silicon carbon steel since as early as 1974.

19   In addition, Chevron employees are highly

20   qualified individuals with considerable

21   sulfidation corrosion expertise.  These

22   employees made numerous recommendations to

1    either inspect or upgrade the four sidecut

2    piping circuit.

3              The blue arrows you see appearing

4    now on the screen were recommendations to

5    increase inspection of the four sidecut line,

6    and the red arrows are recommendations to

7    replace the four sidecut with an upgraded,

8    inherently safer material of construction.

9    None of these recommendations were fully

10   implemented over the 10 years leading to this

11   incident.

12             The component that ultimately

13   failed due to low silicon was not inspected in

14   the past 10 years, and the piping was never

15   replaced.  While numerous, these

16   recommendations were not audited or enforced

17   by the regulator, in part because they were

18   not included in Chevron's process hazard

19   analysis.

20             A process hazard analysis, or a

21   PHA, is an element of OSHA's process safety

22   management program.  This is a regulation that

1    covers chemical processes containing a

2    threshold quantity of dangerous chemicals,

3    such as those at the Chevron refinery.  PHAs

4    have been required since 1992, 20 years before

5    the August 6th Chevron incident.  The PHAs

6    performed by the Chevron Richmond refinery are

7    enforceable by California's OSHA regulator,

8    Cal OSHA, and by the City of Richmond, who

9    designates their inspection authority to

10   Contra Costa County.

11              PHAs are performed by a team of

12   experts who are very familiar with the

13   process, and they are also required to be

14   updated every five years.  Using established

15   methodologies, PHAs systematically assess a

16   chemical process for potential hazards, and

17   they identify safeguards to protect against

18   those hazards.  Possible hazards can come from

19   considering process upsets, such as changes in

20   flow, changes in temperature and changes in

21   pressure.

22              During Chevron's PHAs, the PHA

1    team is tasked to identify possible causes and

2    consequences of hazards, and to identify

3    existing and needed safeguards to protect

4    against those hazards.  If the hazard is not

5    sufficiently protected against, the team then

6    makes recommendations for improvements.

7              In the most recent Chevron

8    Richmond refinery crude unit PHA, one of the

9    hazards analyzed was a leak or rupture of the

10   four sidecut line.  However, none of the

11   employees on the PHA team had knowledge of

12   sulfidation corrosion risks in the four

13   sidecut line.  Also, no individuals with

14   specific four sidecut corrosion expertise were

15   consulted during this process, and as a result

16   this damage mechanism was not identified as a

17   risk in the four sidecut piping circuit.  No

18   recommendations were made to improve the four

19   sidecut safeguards during this process by

20   increasing the metallurgy to an inherently

21   safer material of construction.

22             A damage mechanism hazard review

1    could have assisted the PHA team in

2    understanding sulfidation corrosion risks in

3    the four sidecut piping circuit.  Failure

4    mechanisms, such as corrosion and cracking,

5    that can weaken piping and equipment are

6    called damage mechanisms.  Damage mechanism

7    hazard reviews ensure that these potential

8    hazards are properly identified and analyzed.

9    They also ensure that safeguards are used to

10   control or eliminate this hazard.

11                In the United Kingdom, this type

12   of review is used in the offshore industry.

13   The Health and Safety Executive, and Chevron

14   as well, participated in the development of

15   the guidance document that establishes this

16   practice.  However, in the United States,

17   damage mechanism hazard reviews are not

18   required or recommended by Federal OSHA or Cal

19   OSHA.

20                Had a damage mechanism hazard

21   review been required as part of the PHA cycle,

22   the PHA team could have used the review's

1    findings when identifying hazards and issuing

2    safeguard recommendations.  These

3    recommendations could have included improving

4    the metallurgy of the four sidecut piping

5    circuit and upgrading it to an inherently

6    safer material of construction.

7              Reporting findings from damage

8    mechanism hazard reviews to California

9    regulatory bodies will allow regulators to

10   target their inspections and ensure

11   effectiveness of these process safety

12   programs.  The implementation of damage

13   mechanism hazard reviews can be used to create

14   leading and lagging indicators for the

15   regulator.  Leading indicators are used to

16   predict future performance and are a very

17   preventative tool, and on the other hand

18   lagging indicators are facts about past events

19   that have occurred.

20             Once hazards are identified via

21   damage mechanism hazard reviews and the PHA

22   process, it is necessary to ensure that

1    safeguards exist and that they will

2    effectively control the hazards identified.

3    The identification of safeguards is very

4    important.  It's necessary to determine

5    whether the safeguards will work, and it's

6    also necessary to determine if they will

7    reduce the risk of the hazard enough to

8    provide adequate protection.

9              There are methodologies for

10   consistently and objectively making these

11   determinations.  These methods can include

12   industry recognized tools, like layers of

13   protection analysis, or LOPA.  Chevron does

14   not employ a prescribed methodology for

15   determining whether a safeguard will be

16   effective.  Instead, Chevron relies upon the

17   judgment of the people on the PHA team, who

18   base their conclusions upon their experiences,

19   their beliefs, and their areas of expertise.

20             In its 2009 crude unit PHA,

21   Chevron simply cited nonspecific personal

22   judgment-based safeguards.  These included,

1    and I quote, "using metallurgy to minimize

2    corrosion, having effective maintenance and

3    inspection programs, and providing pipe wall

4    corrosion allowances," end quote.

5              However, the effectiveness of

6    these safeguards was not evaluated or

7    documented.  Instead, Chevron merely listed

8    the safeguards in the PHA.  Had a rigorous

9    analysis been performed to determine if

10   metallurgy actually was in place to minimize

11   corrosion, it could have been identified that

12   the four sidecut piping needed to be upgraded.

13   They could have then made a recommendation to

14   replace the piping with an inherently safer

15   material of construction.

16             Such a recommendation made during

17   the PHA process can then be enforced by Cal

18   OSHA and Contra Costa County.  The reason for

19   not implementing the recommendation can also

20   then be questioned by the regulator.

21             That concludes the technical

22   portion of the presentation, and I will now

1    turn it over to Investigator Roger Evans, who

2    will discuss inherently safer systems.

3              (Applause.)

4              INVESTIGATOR EVANS:  Thank you,

5    Lauren.  Regulations of Contra Costa County

6    and the City of Richmond require facilities to

7    look for opportunities to implement inherently

8    safer systems in both PHAs and during the

9    construction of new processes.  However, the

10   City and County regulations are currently

11   permissively worded.  The regulations only

12   require that analysis be considered by using

13   language that the company, quote, "shall

14   consider the use of inherently safer systems,"

15   end quote.

16             Contra Costa County provides a

17   checklist, as shown here, to companies to

18   provide the company to look for opportunities

19   to implement inherently safer systems.  One of

20   the prompts asks the company to analyze if

21   they are using corrosion-resistant material.

22   Chevron's response stated, and I quote,

1    "vessel specifications and piping

2    classifications include a conservative wall

3    thickness and an appropriate corrosion

4    allowance for each surface," end quote.

5                As part of their inherently safer

6    systems review, Chevron did not attempt to

7    actually look for opportunities to use more

8    corrosion-resistant materials, despite the

9    numerous recommendations made over the years

10    to replace the four sidecut piping with an

11    upgraded material.  The regulators indicated

12    to Chevron that it complied with the

13    regulation, even though Chevron made no

14    rigorous attempt to implement inherently safer

15    systems.

16                Contra Costa County and the City

17    of Richmond regulations are a positive step

18    forward in improving process safety to include

19    concepts of inherently safer systems.

20    However, while having a good intention, these

21    inherently safer system requirements were

22    performed as a check-the-box exercise by

1   Chevron.

2              Contra Costa County and the City

3   of Richmond require covered facilities to look

4   for potential opportunities to implement

5   inherently safer systems in the PHAs and in

6   new constructions.  In addition to PHAs and

7   new construction, companies have many

8   additional opportunities to implement

9   inherently safer design.  Companies currently

10  analyze unit designs, and could implement

11  inherently safer systems, during management

12  change, process unit rebuilds, major repairs,

13  and when developing corrective actions from

14  investigation recommendations.

15             Also, as we have discussed, there

16  were a number of opportunities in the 10 years

17  leading up to the incident to implement

18  inherently safer systems.  Had more rigorous

19  and encompassing requirements to find

20  opportunities to implement inherently safer

21  systems been required by the City of Richmond,

22  Contra Costa County, and the State of

1   California, this incident could have been

2   prevented.

3             We've talked about hazard

4   identification, safeguards, and inherently

5   safer systems.  All of these help to reduce

6   risk.  How can a company determine the amount

7   of safeguards required to control hazards to

8   minimize risk?  Hazard tools, such as LOPA,

9   can be used to help an organization decide if

10  a scenario or a hazard has been minimized.

11  The goal should be that the risk is reduced to

12  as low as reasonably practicable, or ALARP.

13  ALARP is a widely accepted risk reduction

14  goal.  Risk reduction efforts are continued to

15  the practical limit.

16            Using LOPA or other accepted

17  hazard analysis tools to achieve risks that

18  are as low as reasonably practicable can

19  confirm to the company that their safeguards

20  are adequate, inherently safer design is

21  optimally in place, and their process is as

22  low risk as practicable.

1        If Chevron had used LOPA or

2    similar methods to reduce risks to as low as

3    reasonably practicable, Chevron could have

4    prevented the August 6th incident.

5        To ensure all these hazard

6    identification and risk reduction tools are

7    used effectively, the patchwork of regulatory

8    systems in California need to work together.

9    A multi-agency approach is needed by

10   California.  By working together, the agencies

11   will improve the public accountability and

12   process safety performance of California

13   process facilities.  The sharing of

14   information and joint inspections will

15   increase the cumulative knowledge of these

16   bodies and can drive down the occurrence of

17   major accidents.

18       These groups will be able to

19   target inspections and coordinate operations,

20   working effectively and efficiently.  Not only

21   is it important that regulators work together,

22   there are other stakeholders that have an

1    interest in process safety and the impact on

2    the community.  There must be transparency so

3    that process industries are accountable to all

4    stakeholders.

5              There is currently a lack of

6    transparency of refineries to their regulators

7    and the public.  Transparency, or the public

8    disclosure of safety information, can be

9    successful in driving process safety

10   improvement.  The EPA Emergency Preparedness

11   and Prevention Office notes that, quote,

12   "information about hazards in a community will

13   allow local emergency officials and the public

14   to work with industry to prevent accidents,"

15   end quote.

16              In addition, process safety can be

17   further improved by fully involving the

18   experts, the workforce of the company, in risk

19   assessments, inspections, audits and

20   performance reviews.  This workforce

21   involvement leads to empowerment, management

22   responsiveness, and process safety performance

1    improvement.

2              This graph illustrates the type of

3    data that improved transparency could provide

4    stakeholders.  In the decades preceding the

5    incident, the sulfur content in this four

6    sidecut line increased by over 80 percent.

7    This major increase in sulfur and other

8    process changes sped up the corrosion rate of

9    the four sidecut piping.  With increased

10   transparency, this type of information would

11   be provided to regulators, to community

12   officials, and interest groups.

13             In summary, many factors

14   contributed to the August 6th Chevron

15   incident.  The immediate cause of this

16   incident was sulfidation corrosion.  Also,

17   Chevron failed to shut down the unit when the

18   leak was initially found.

19             But why was this extremely thin

20   pipe there to fail?  We have identified both

21   Chevron organizational and California

22   regulatory causal factors.  Despite many

1    recommendations from Chevron employees to

2    inspect and to replace the four sidecut line,

3    these recommendations were never implemented.

4    Also, in their PHA process, a regulated

5    analysis, sulfidation corrosion was never

6    identified as a hazard in the four sidecut

7    line.

8              California regulatory causal

9    factors also contributed to this incident.

10   We'd like to emphasize that Contra Costa

11   County is one of a very small number of

12   regulatory systems that has inherently safer

13   systems requirements.  Also, Cal OSHA is one

14   of the few states that has a PSM group.

15             However, in our investigation, we

16   found that despite the advances, the existing

17   regulations do not require damage mechanism

18   hazard reviews or the evaluation of safeguard

19   effectiveness.  Additionally, current

20   inherently safer system requirements in Contra

21   Costa County and the City of Richmond are

22   overly permissive and do not require rigorous

1    analysis.

2              There are also many opportunities

3    to implement inherently safer systems that are

4    not currently required.  Regulatory

5    enforcement can be improved by California

6    agencies working together and sharing

7    information.  Finally, enhanced transparency

8    will hold facilities accountable to the

9    regulators, the workforce, and the public.

10             The CSB investigation team is

11   working on a final report that we're planning

12   to release later this year.  We are analyzing

13   key issues, including California regulatory

14   effectiveness, Chevron's organizational

15   safety, Chevron's mechanical integrity system,

16   including the use of clamps on hydrocarbon

17   piping, and Chevron's emergency planning and

18   notification and response systems.  We will

19   also be investigating Chevron's use of process

20   safety indicators, which are an important part

21   of implementing a strong process safety

22   program.

1          This concludes our findings this

2     evening.  I will now turn the presentation

3     over to Investigator Steve Cutchen, who will

4     present our proposed recommendations.

5               (Applause.)

6               INVESTIGATOR CUTCHEN:  Thank you,

7     Roger.

8               Based on our analysis and

9     findings, the investigation team proposes to

10     the Board the following recommendations.

11     These first recommendations will improve the

12     analysis of damage mechanisms and process

13     safeguards in the required process hazard

14     analysis cycle.

15               Chevron did not perform a damage

16     mechanism hazard review with its most recent

17     crude unit PHA.  The PHA team missed a key

18     opportunity to identify corrosion hazards in

19     the four sidecut line.  The conduct of damage

20     mechanism hazards reviews will ensure the

21     identification of hazardous corrosion and

22     cracking present in refinery processes so that

1    preventative inherently safer systems may be

2    implemented.

3              To Chevron USA, this is an urgent

4    recommendation to Chevron, so this important

5    process must be immediately initiated at all

6    Chevron U.S. refineries.  Chevron has six

7    months to implement this recommendation.  This

8    recommendation is also to the California State

9    Legislature and the Governor of California.

10             Require all refineries to engage a

11   diverse team of qualified personnel to perform

12   a documented damage mechanism hazard review.

13   This review shall be an integral part of the

14   process hazard analysis cycle, and shall be

15   conducted on all PSM-covered process piping

16   circuits and process equipment.

17             The damage mechanism hazard review

18   shall identify potential damage mechanisms and

19   the consequences of failure, and shall ensure

20   that safeguards are in place to control

21   hazards presented by those damage mechanism.

22   Analyze and incorporate into this review

1    applicable industry best practices and

2    inherently safer systems to the greatest

3    extent feasible.

4                    To the Mayor and City Council,

5    City of Richmond, California.  To the Board of

6    Supervisors, Contra Costa County, California.

7    And to the California State Legislature and

8    the Governor of California: Monitor and

9    confirm the effective implementation of the

10   damage mechanism hazard review program, so

11   that all necessary mechanical integrity work

12   is identified and recommendations at

13   California refineries are completed in a

14   timely way.  Indicators are used to monitor

15   how well a company is performing in process

16   safety.  These recommendations focus on the

17   need for indicator reporting to the regulator.

18                   To Chevron USA: For Chevron, this

19   is a second, urgent recommendation, and this

20   recommendation is also to the California State

21   Legislature, Governor of California.  At all

22   California refineries, require the

1    identification and reporting of leading and

2    lagging process safety indicators, such as the

3    action item completion status of

4    recommendations from damage mechanism hazard

5    reviews to Federal, State and Local regulatory

6    agencies that have chemical release prevention

7    authority.

8                    It is vital that safeguards are

9    thoroughly evaluated and verified during the

10   process hazard analysis process.  These

11   recommendations aim to require this evaluation

12   and verification.

13                   To the Mayor and City Council,

14   City of Richmond, California.  To the Board of

15   Supervisors, Contra Costa County, California.

16   And to the California State Legislature,

17   Governor of California: Require that process

18   hazard analyses include documentation of the

19   recognized methodologies, rationale and

20   conclusions used to claim that safeguards

21   intended to control hazards will be effective.

22   This process shall use established

1    qualitative, quantitative and/or semi-

2    quantitative methods, such as layers of

3    protection analysis, or LOPA.

4              The use of inherently safer

5    systems can drive risks down to as low as

6    reasonably practicable.  A more rigorous

7    requirement for inherently safer systems

8    implementation is needed by California

9    regulators.

10             To the Mayor and City Council,

11   City of Richmond, California.  To the Board of

12   Supervisors, Contra Costa County, California.

13   And to the California State Legislature,

14   Governor of California: Require the documented

15   use of inherently safer systems analysis in

16   the Hierarchy of Controls to the greatest

17   extent feasible in establishing safeguards for

18   identifying process hazards.  The goal shall

19   be to drive the risk of major accidents as low

20   as reasonably practicable (ALARP).  Include

21   requirements for inherently safer systems

22   analysis to be automatically triggered for all

1   management of change and process hazard

2   analysis reviews, prior to the construction of

3   new processes, process unit rebuilds,

4   significant process repairs and in the

5   development of corrective actions from

6   incident investigation recommendations.

7               Regulatory enforcement can be

8   improved by California agencies working

9   together and sharing information.  Also,

10  enhanced transparency will hold process

11  facilities accountable to regulators, the

12  workforce, and the public.  There are four

13  parts to this recommendation.

14              To the California State

15  Legislature, Governor of California: Establish

16  a multi-agency process safety regulatory

17  program for all California oil refineries to

18  improve the public accountability,

19  transparency and performance of chemical

20  accident prevention and mechanical integrity

21  programs.

22              This program shall (1) establish a

1    system to report to the regulator the

2    recognized methodologies, findings,

3    conclusions and corrective actions related to

4    refinery mechanical integrity inspection and

5    repair work arising from process hazards

6    analysis, California oil refinery turnarounds,

7    and maintenance-related shutdowns;

8              (2) require reporting of

9    information, such as damage mechanism hazard

10   reviews, notice of upcoming maintenance-

11   related shutdowns, records related to proposed

12   and completed mechanical integrity worklists,

13   and the technical rationale for any delay in

14   work proposed but not yet completed;

15             (3) establish procedures for

16   greater workforce and public participation,

17   including the public reporting of information;

18             (4) provide mechanisms for

19   Federal, State and Local agency operational

20   coordination, sharing of data, including

21   safety indicator data, and joint accident

22   prevention activities.

1          The California Department of

2     Industrial Relations will be designated as the

3     lead state agency for establishing a

4     repository of joint investigative and

5     inspection data, and coordinating the sharing

6     of data in joint accident prevention

7     activities.

8               To the U.S. Environmental

9     Protection Agency: Jointly plan and conduct

10    inspections with Cal OSHA, California EPA, and

11    other State and Local regulatory agencies with

12    chemical accident prevention responsibilities

13    to monitor the effective implementation of

14    damage mechanism hazard review and disclosure

15    requirements under recommendations 9 and 10.

16               And in case you don't recall them

17    by number, recommendation 9 to the California

18    State Legislature, Governor of California,

19    requires that refineries perform a documented

20    damage mechanism hazard review.

21    Recommendation 10, also to the California

22    State Legislature, Governor of California,

1   requires that refineries identify and report

2   leading and lagging process safety indicators.

3            To the Board of Supervisors,

4   Contra Costa County, California.  To the Mayor

5   and City Council, City of Richmond,

6   California.  To the California Air Quality

7   Management Divisions.  And to the U.S.

8   Environmental Protection Agency, and to the

9   California Environmental Protection Agency:

10  participate in the joint regulatory program

11  described in Recommendation 11.  This

12  participation shall include contributing

13  relevant data to the repository of

14  investigation and inspection data created by

15  the California Department of Industrial

16  Relations and jointly coordinating activities.

17            And in case you don't recall,

18  recommendation 11 to the California State

19  Legislature, Governor of California, is the

20  four part recommendation that requires the

21  establishment of a multi-agency process safety

22  regulatory program for all California oil

1    refineries.

2              That concludes our investigation

3    presentation.

4              (Applause.)

5              CHAIRPERSON MOURE-ERASO:  Thank

6    you very much to the panel.  I thank you for

7    your work.  It has been more than six months

8    of very sleepless nights, I know, from all the

9    people here, and I really very much appreciate

10   all the effort that this panel has put into

11   this report.  Thank you.

12             Our next issue on the agenda is

13   statements by elected officials.  The first

14   statement I would like to invite, the

15   Congressman from California, George Miller, is

16   going to present a statement.  Congressman

17   Miller?

18             (Applause.)

19             REPRESENTATIVE MILLER:  Thank you

20   very much, Mr. Chairman.  Before I begin

21   speaking, maybe we can take a moment for a

22   sigh of relief that the second suspect in

1    Boston has been apprehended, and an expression

2    of gratitude to our first responders at all

3    levels of agencies and government.  That's

4    some good news.

5              (Applause.)

6              REPRESENTATIVE MILLER:  I want to

7    thank you, Mr. Chairman and Members of the

8    Board, for allowing us this time to speak to

9    you in response to the initial report.  And I

10   want to express our gratitude, I hope for our

11   whole community, for the professionalism and

12   the diligence and the persistence of your

13   investigative staff since the time of the

14   accident.  They've been remarkable in their

15   leadership and in their willingness to work

16   with our other agencies at the county and

17   state level.  So thank you very much for that

18   effort by the Chemical Safety Board.

19              The massive fire that occurred on

20   August 6th threatened the lives of workers who

21   escaped the vapor cloud, and had a direct and

22   tangible impact on the West County community.

1    The investigation by the CSB, Cal OSHA and

2    Chevron suggests deeper problems than whether

3    or not Chevron should have replaced a corroded

4    piece of pipe that eventually leaked.

5              First, we have learned that

6    Chevron's metallurgist and inspection teams

7    had put up a red flag since 2002, and as

8    recently as the 2011 turnaround, calling for

9    the replacement of the corroded piping.

10             Second, the investigation reports

11   indicate that Chevron had repeatedly failed to

12   implement its internal guidance, which called

13   for 100 percent inspection of all piping

14   components where there is potential for

15   sulfidation corrosion.  Chevron also failed in

16   the implementation of recommended practices

17   developed by the American Petroleum Institute,

18   even though they'd helped to develop these

19   guidances based upon numerous catastrophic

20   failures over the past 40 years.

21             Third, we have learned that over

22   the past 10 years Chevron has patched pipe

1    that was too thin or was leaking with over

2    2,000 clamps.  Nearly 400 of these were used

3    in hydrocarbon service, and in some cases when

4    clamps leaked Chevron slapped even bigger

5    clamps on top of the leaking clamps.  And when

6    Cal OSHA finally looked into this, they found

7    that the defective pipe had not been replaced

8    as required during the next turnaround.  I

9    must say that I agree with Member Beth

10   Rosenberg, that this begs a much larger set of

11   questions.

12              Chevron has pointed to its

13   operational excellence program as the

14   cornerstone of its safety culture.  It is

15   founded on two key principles.  One, and I

16   quote, "do it safely or not at all," unquote.

17   And the second one, "there is always time to

18   do it right."

19              What happened to these principles?

20   Are these principles something that was

21   discarded when it was inconvenient?  Someone

22   needs to answer this question.  How did the

1  management of a highly sophisticated

2  corporation lack the ability to connect the

3  expertise of its physical materials

4  scientists, located right here in Richmond,

5  with the practices of its business units

6  operating 300 yards away in its refinery?

7            Was there an organizational

8  failure?  Are there other cracks lurking in

9  Chevron's management systems?  Does Chevron

10  have the same problems at its El Segundo

11  refinery?  Is this an industry-wide refinery

12  problem?  I hope that the Safety Board's final

13  report gets to the bottom of these questions.

14  Why was Chevron's inspection team's advice to

15  replace the piping overridden during the 2011

16  refinery turnaround?  Was the decision not to

17  replace this piping driven by budget

18  considerations?  How much was saved?  Did

19  someone pencil whip the numbers to justify

20  keeping the corroding pipe in place a little

21  longer?

22            I urge the Safety Board to tackle

1    these unanswered questions in its final

2    report.  I am aware that Supervisor Gioia and

3    the County Health Department under Randy

4    Sawyer's leadership is also doing a

5    comprehensive audit of the Richmond refinery,

6    and hopefully this work will help shed light

7    on these questions.

8                    The need for effective regulations

9    -- because our second overarching concern is

10   the lack of the effective regulations to serve

11   as a check and balance.  Chevron cannot

12   currently guarantee the security of the

13   workers and our community.  Inspection by the

14   company alone is not enough, and it is

15   troubling that the regulators did not

16   recognize the magnitude of the problem and did

17   not bend Chevron back into compliance.

18                    We know that Cal OSHA is severely

19   underresourced, with a mere seven professional

20   staff in its process safety unit to tackle

21   1,600 facilities statewide, and I think that's

22   why we see some of the recommendations of your

1    staff.  We cannot tolerate these once-over

2    lightly programmed inspections at these

3    facilities.

4                    I have written to Governor Brown

5    asking that he submit a budget proposal that

6    would assess a process safety fee on

7    refineries and other chemical facilities so

8    that there is enough staff to oversee these

9    facilities in a more thorough manner.

10                   (Applause.)

11                   REPRESENTATIVE MILLER:  In case

12   anyone is worried about the added cost, it

13   amounts to less than one cent of every barrel

14   of crude that is fed through the refineries in

15   California.  That is far less than the

16   increased gasoline prices paid by consumers

17   due to the refinery outage.

18                   I want to commend Senators Loni

19   Hancock, Mark DeSaulnier, and Assemblymember

20   Nancy Skinner for their leadership and working

21   hard to get funding to hire more inspectors.

22   They recognize the status quo is unacceptable.

1    They have also been working on the

2    improvements to the State's workplace safety

3    laws and evaluating ideas for better

4    regulation systems for refineries, and I want

5    to help them get those improvements as soon as

6    we possibly can.

7                I would like to hear from the

8    Chemical Safety Board what the definitive

9    schedule will be for a final report that will

10   answer these big questions that your interim

11   report has raised, but does not answer: Were

12   the budget considerations a driver in the

13   failure to replace the piping?  Does Chevron

14   have a safety culture problem, as raised by

15   Board Member Griffon?

16               These are serious considerations.

17   It would be not the first time this Board has

18   considered that question.  We saw it in the

19   Alyeska Pipeline, where for almost a decade

20   the culture problem was admitted to and never

21   cured.

22               Were there organizational

1   failures, and are there other cracks in the

2   safety system?  What is broken in the current

3   regulatory system, and do we need to look for

4   a new way to regulate refinery safety?  I

5   think the presentation tonight goes a long way

6   towards answering that question, but we have

7   to answer it from the corporate side for the

8   safety of our community and our workers.

9               In light of the large backlog of

10  unfinished investigations at CSB and the

11  constant demand for work that you notice today

12  because of the Texas explosion and the burden

13  that that puts on your Board and staff, I

14  would also ask that you provide a clear date

15  when the community will get a final report

16  with the answers to these questions.

17              I look forward to hearing from

18  you, and a response in the near future.  I

19  have seen too many refinery accidents in my

20  years representing this community, and I want

21  to see some meaningful solutions emerge from

22  this discussion.

1                    Again, I want to thank you so very

2       much for your endeavor here, for your

3       professionalism, and again for the

4       professionalism and the diligence and the

5       expertise of your staff.  Thank you very much.

6       We look forward to your responses.

7                    (Applause.)

8                    CHAIRPERSON MOURE-ERASO:  Thank

9       you very much, Congressman Miller.  Now I

10      would like to call for a statement to John

11      Gioia, the Chairman of the Contra Costa Board

12      of Supervisors.

13                   MR. GIOIA:  Thank you.  I am not

14      chair this year, so let me just clarify that.

15                   CHAIRPERSON MOURE-ERASO:  Okay.

16                   MR. GIOIA:  I'm also a member of

17      the Bay Area Air Quality Management District,

18      and let me first start by saying we welcome

19      the Chemical Safety Board coming to Richmond.

20      Your investigation, report and recommendations

21      are thorough and comprehensive.  Personally,

22      I appreciate the attention, transparency and

1    professionalism that you have brought to this

2    investigation.

3              I know that all Richmond residents

4    care and have an interest in ensuring that our

5    safety and health come first and foremost when

6    it comes to the operation of an industrial

7    facility.  I personally know this well.  In

8    1999, I was forced to pick up my son from a

9    local elementary school near the Chevron

10    refinery while a release was going on and

11    while shelter in place was going on, and I

12    felt the same fear and uncertainty as I know

13    other Richmond residents felt at that time.

14              I think the most important

15    conclusion in your report is that this

16    accident is not about pipe corrosion, but is

17    about corporate decisionmaking.  It's about

18    the need to improve the safety culture and

19    decisionmaking at the refinery.  Things like

20    deciding in advance on which materials to use

21    which are safer, frequency of inspections and

22    maintenance, and when to replace equipment and

1    pipes.

2              So as you've said, while we're

3    fortunate that Richmond and Contra Costa

4    County have, in your own assessment, the

5    strongest local industrial safety ordinance in

6    the country, we also know that this ordinance

7    can be further improved.  Both the Contra

8    Costa Health Department and myself personally

9    welcome your recommendations, and especially

10   your two main recommendations to improve the

11   industrial safety ordinance, first requiring

12   the use of inherently safer systems prior to

13   the construction of new processes, prior to

14   process unit rebuilds, prior to significant

15   process repairs, or when implementing

16   corrective actions after an incident like the

17   one that just occurred.

18              This will give both Contra Costa

19   County and Richmond power to force refineries

20   to use inherently safer systems, a power that

21   we don't have today.

22              Second, requiring a process hazard

1    analysis conducted by refineries to use

2    quantitative and qualitative methods to

3    document that the refinery is using the safest

4    methodology to control hazards within its

5    facility.

6              Immediately after the Chevron

7    accident, the Contra Costa Board of

8    Supervisors formed an ad hoc Committee of the

9    Board, including myself and Supervisor Federal

10   Glover, to address the issue of the industrial

11   safety ordinance.  We have awaited your

12   recommendations, and now that you have made

13   these specific recommendations we will work

14   with Richmond to quickly implement these

15   changes in the local ordinance.

16             (Applause.)

17             MR. GIOIA:  Let me also say, we've

18   already taken action.  Several weeks ago under

19   the current ISO Contra Costa County ordered a

20   full safety culture audit of the Chevron

21   refinery to be conducted by an independent

22   professional entity.  An oversight committee

1    made up of community residents, workers at the

2    refinery, Health Department staff and City

3    staff will be established to ensure that the

4    safety audit is conducted in a transparent,

5    thorough and independent manner.

6              Under the industrial safety

7    ordinance, we have the authority to require

8    Chevron to pay for this study.

9              Finally, last year in my role as

10   Chair of the Bay Area Air Quality Management

11   District I proposed, and the Air Board voted,

12   to work with Senator Hancock and Assemblywoman

13   Skinner to carry a bill to increase the

14   maximum fines under State law for air quality

15   violations.  The current maximum fines are

16   nowhere near high enough to be an incentive.

17   They are too low.

18              (Applause.)

19              MR. GIOIA:  And we appreciate the

20   support of our local legislators in carrying

21   that bill.  We know we will face opposition

22   from industry.  And I think your

1   recommendations going forward, in your final

2   report, encouraging that would be helpful.

3                   So again, thank you, even under

4   these circumstances, for coming to Richmond

5   and setting a model in terms of how an

6   investigation should be conducted, in terms of

7   your transparency and your professionalism.

8   Thank you.

9                   (Applause.)

10                  CHAIRPERSON MOURE-ERASO:  Thank

11  you very much.  Thank you very much, Mr.

12  Gioia.  I would like to invite now one person

13  that has been a very gracious host for us

14  here, or I would say hostess, in the City of

15  Richmond.  I would like to invite Ms. Gayle

16  McLaughlin, the mayor of the City of Richmond.

17                  (Applause.)

18                  MAYOR McLAUGHLIN:  Hello.  Thank

19  you.  Thank you so much to the Chairman and

20  the entire Chemical Safety Board, and all the

21  staff of the Safety Board, for coming to

22  Richmond, for being here today to share with

1    us the interim results of your investigation.

2                   The August 6th fire was a

3    devastating experience for our community.  Not

4    only were 15,000 people treated at local

5    hospitals, but the workers had their lives put

6    at great risk.  We were forced to stay in our

7    homes and shelter in place for hours.  The

8    damage to our health, to our community, to the

9    image of our city, was massive.

10                  And this wasn't the first time

11   Chevron has wreaked havoc in our community.

12   There have been many, many incidents over

13   recent years and decades.  In fact, there was

14   a fire in the same crude unit that occurred in

15   2007.

16                  We need to have Chevron understand

17   that our community is not going to forget

18   about this.  We cannot afford to forget about

19   these incidents.  These incidents have been

20   harming us again and again.  There have been

21   around 14 incidents since 1989, 1990, and this

22   last incident, this 2012 incident, was the

1    last straw.

2              It reminds me of a metaphor.  You

3    know, I think we've all heard of the abused

4    spouse syndrome, where the abused spouse takes

5    the abuse and the next day, after the abuse,

6    the spouse comes and says to him or her that

7    "I'm so sorry, it'll never happen again."  And

8    it happens again.  And it happens again.  And

9    it happens again.  But sometimes abused

10   spouses wake up, and abused communities wake

11   up.  And that is going to happen, and is

12   happening in the Richmond community.

13             (Applause.)

14             MAYOR McLAUGHLIN:  Many of you

15   remember, many of you in the community

16   remember that it wasn't that long ago that we

17   had a majority of Chevron-influenced

18   officeholders on the Richmond City Council.

19   We used to call them the Chevron Five.  And we

20   still have some Chevron-influenced and

21   Chevron-backed officeholders on the Richmond

22   City Council, but we're pushing forward, and

1    we're going to continue to push forward.

2                   We have an organized, mobilized

3    community, and I call on all of our community

4    to continue to mobilize.  Call on your

5    neighbors.  Let people know we cannot and will

6    not forget this incident, and past incidents,

7    and we will not suffer a future incident,

8    because we will make sure that these wonderful

9    recommendations that the Chemical Safety Board

10   is presenting to us today will be put in

11   place.

12                   (Applause.)

13                   MAYOR McLAUGHLIN:  The political

14   will is here in this community, and I can tell

15   you that I stand side by side with this

16   community, and others on the City Council.  I

17   know we have City Councilmember Jovanka

18   Beckles in the audience today, who stands

19   right with me in making sure that it's

20   understood that Chevron needs to be regulated.

21                   (Applause.)

22                   MAYOR McLAUGHLIN:  You know, we

1    have often -- those of us who have stood up to

2    Chevron have often been called Chevron-

3    bashers, when in reality it is Chevron who has

4    been bashing our community.

5                    (Applause.)

6                    MAYOR McLAUGHLIN:  And we are

7    standing up.  And we are so grateful that this

8    independent board recognizes the injustices

9    that we have suffered, and is here helping us

10   today.

11                   I take your recommendations so

12   much internally to heart, and I can tell you

13   that as mayor I will be bringing to the City

14   Council a resolution on May 21st to revise the

15   industrial safety ordinance as per the

16   recommendations of the Chemical Safety Board.

17                   (Applause.)

18                   MAYOR McLAUGHLIN:  And I call on

19   the community --

20                   (Applause.)

21                   MAYOR McLAUGHLIN:  The Chemical

22   Safety Board proposes that Richmond strengthen

1    its industrial safety ordinance to require

2    inherently safer technology and a hierarchy of

3    controls that would eliminate hazards instead

4    of minimizing them when feasible, and would

5    prohibit companies from relying totally on

6    managing hazards that can be eliminated by

7    design through inherently safer technology.

8                So we know what you're

9    recommending.  I will be bringing it forward.

10   I know the community will be standing there,

11   speaking out at the City Council meeting,

12   because this community does hear the call when

13   a rational recommendation gets put forward, as

14   is being recommended by the Board today.

15               Lastly, I want to say that we are

16   transforming our city.  We are transforming

17   our city by way of creating a healthy city, a

18   sustainable city, an equitable city.  And

19   this, this incident has put such a negative,

20   if you will, shadow over us.  You know, we

21   have so much shadow over us based on Chevron:

22   the shadow of their pollution, the shadow of

1    the risk they create for us.  And I mean,

2    ultimately, it's the shadow over the image

3    that we're creating.

4                    But we will persist, and we will

5    continue to showcase Richmond as a 21st

6    century city, a city that's standing up for

7    itself, in its own interest.  So we will not

8    be satisfied until Chevron understands that

9    they have to stop polluting our air, stop

10   putting us at risk.

11                   (Applause.)

12                   MAYOR McLAUGHLIN:  And lastly,

13   because they influence our elections with

14   their millions and millions of dollars, we

15   will not be satisfied until they stop

16   polluting our elections as well.

17                   (Applause.)

18                   MAYOR McLAUGHLIN:  Thank you.

19                   CHAIRPERSON MOURE-ERASO:  Thank

20   you very much, Mayor McLaughlin.  We

21   appreciate your words.  The next elected

22   official is the representative of Senator

1 Skinner, who cannot be with us.  The person

2 representing the message of Senator Skinner is

3 Mark Chekal-Bain.  So Mr. Chekal-Bain, please.

4 MR. CHEKAL-BAIN:  Thank you.

5 Thank you so much for inviting Assemblymember

6 Skinner to speak today.  Unfortunately, she's

7 in Southern California on business, and asked

8 that I present for her this evening.

9 First of all, she wants to thank

10 the Chemical Safety Board's staff.  They've

11 done an incredible job of the work and

12 informing us along the way when they can.  And

13 as the U.S. Chemical Safety Board staff stated

14 at a press conference on Monday, and again

15 several times tonight, the Chevron refinery

16 fire was ultimately a preventable accident.

17 As Assemblymember Skinner found in

18 the draft report, it calls for the State of

19 California to have more technically competent

20 regulators, increased inspections, and much

21 better regulations to prevent future

22 incidents.  But these are not an excuse for

1    Chevron failing to follow their own internal

2    technical documents, to learn from failures at

3    Richmond and the other sites, to listen to

4    their own employees, or to replace corroded

5    and leaking pipes during routine turnarounds,

6    all things that Congressman Miller addressed

7    earlier.

8              But as far back as 2007, the CSB

9    had identified the need across the country for

10   OSHA units to have more highly trained and

11   experienced regulatory inspectors, and for

12   more comprehensive inspections at oil

13   refineries.  Yet, as of today, Cal OSHA does

14   not have any more inspection staff than

15   previously, nor any higher training

16   requirement.  And because of the small number

17   of refinery inspectors, what happens is that

18   we in California are unable to put adequate

19   hours into accident prevention.  Instead, the

20   vast majority of inspector time ends up

21   investigating, post incidents.

22             For example, Cal OSHA has spent

1    thousands of hours investigating the August

2    fire, but in the last six years Cal OSHA

3    inspected Chevron only three times, each time

4    for about 50 hours.  In contrast, refinery

5    inspections following federal guidelines last

6    year, roughly 1,000 hours each.

7              In the report, the CSB concludes

8    that issuing fines and prosecuting companies

9    post-incident are not acceptable substitutes

10   for prevention.  Therefore, after the CSB

11   report, this week Assemblymember Nancy Skinner

12   testified on behalf of additional staffing and

13   training levels for Cal OSHA before the

14   California State Assembly Budget Subcommittee

15   that decides on the Cal OSHA and California

16   Department of Industrial Relations budget.

17             At the request of Assemblymember

18   Skinner, the Budget Subcommittee on State

19   Administration is examining the process safety

20   management unit, which works to prevent or

21   minimize the consequences of catastrophic

22   releases of toxic, flammable, or explosive

1    chemicals.

2                As she stated at the hearing,

3    Assemblymember Skinner said the staffing

4    numbers are alarming.  Cal OSHA, the state

5    agency responsible for workers' safety, has

6    only one chemical engineer to regulate all

7    chemical processing facilities, and only seven

8    inspectors total to cover 15 refineries, as

9    well as 1,665 other facilities.

10               Explosions like the one here in

11   Richmond, as well as Wednesday's explosion at

12   a fertilizer plant near Waco, Texas, have

13   taught us all that California needs to ensure

14   that OSHA has enhanced funding and staffing,

15   and the technical training to enact precise

16   safeguards so that our chemical and refinery

17   facilities are not a disaster waiting to

18   happen.

19               Assemblymember Skinner looks

20   forward to working with the Chemical Safety

21   Board, and the community of Richmond, to

22   ensure that we have effective California

1    regulations and funding for OSHA to prevent

2    future incidents from happening.

3                   Thank you.

4                   (Applause.)

5                   CHAIRPERSON MOURE-ERASO:  The next

6    item on the agenda is that the Board is going

7    to have some questions to the investigative

8    team.  So I'll take the privilege of the Chair

9    to ask the first question.

10                   I would like to ask the team if

11   they consider that the changes in the

12   recommendations to the California Legislature

13   in this investigation could be considered for

14   adoption by the California Task Force on

15   Refineries in this state, and also if those

16   recommendations are also applicable to be a

17   standard nationwide.

18                   INVESTIGATOR TILLEMA:  To address

19   the first part of your question, whether this

20   could be adopted by the governor's task force

21   to write the report, we focus on three key

22   areas that are covered on the front cover of

1    the report: inherently safer design, damage

2    mechanism hazard reviews, and ensuring

3    effective safeguards, in this report.  We also

4    touch on some of the regulatory issues.

5                    So I think this would be a good

6    first step for the California Governor's Task

7    Force to utilize, but I want to reiterate

8    things that we've said already tonight.  This

9    is our interim report, and we still have a lot

10   of work to do to complete our final report.

11                   One of the key areas we want to

12   focus on that we haven't done much work on yet

13   is the safety case, which is a regulatory

14   regime that's been utilized in other countries

15   effectively, and we want to look at whether or

16   not that's an opportunity for California to

17   adopt that type of regime as a more effective

18   way, or a more effective approach, to prevent

19   major accidents.  So that's a key area that we

20   want to focus on that I think the Governor's

21   Task Force would be interested in that's not

22   covered in this report.

1                   And the second part of the

2      question was about the U.S.?

3                   CHAIRPERSON MOURE-ERASO:  Yes.

4                   INVESTIGATOR TILLEMA:  I guess one

5      thing that I'd like to make clear to everyone

6      is, these things that we've identified, these

7      damage mechanism hazard reviews, the use of

8      inherently safer design, ensuring that

9      safeguards are effective, these are not things

10     we went back to Denver and developed.  These

11     are all things that were developed by the

12     petrochemical industry as ways to prevent

13     major accidents, and they're just not being

14     effectively utilized in the industry.

15                  So I think absolutely that these

16     are things that could be -- that these

17     recommendations could apply to the U.S.  I

18     think we have some challenges we want to look

19     at as to how to best approach bringing those

20     type of recommendations to the entire nation,

21     but I think they would be applicable, yes.

22                  CHAIRPERSON MOURE-ERASO:  Thank

1    you very much.  I wonder if some of the Board

2    members have some questions.  Let's start with

3    Beth Rosenberg.

4              MEMBER ROSENBERG:  Nothing.

5              CHAIRPERSON MOURE-ERASO:  Mark

6    Griffon?

7              MEMBER GRIFFON:  I have just a few

8    questions, especially because we have a panel

9    still waiting to give us some great insights.

10   So I -- one question, just a couple on the

11   technical side of the report, though.  The

12   first thing that struck me in the write-up was

13   that we concluded that 19 people were caught

14   in the vapor cloud.

15             And I'm just wondering, this is in

16   the midst of a leaking pipe that they're

17   trying to patch or repair, and I'm wondering,

18   did we look at why there were so many people

19   near that situation and caught in that vapor

20   cloud?  It seems to me that's a lot of people

21   to be out in that area of the site when

22   there's a leaking pipe and there's a repair

1    going on.  I just wondered if you looked at

2    that.

3                INVESTIGATOR TILLEMA:  I'd say we

4    done some preliminary looks at that, and we

5    share the same concerns you do.  It's

6    definitely an area we want to focus on in the

7    second half of the report.  The rest of the

8    team has gone down to Texas A&M where there's

9    a world-renowned fire training school, where

10   they focus on emergency response.  We've done

11   some initial work with them, but we need to

12   continue that effort.  That's an area that we

13   definitely want to focus on in the second half

14   of our investigation.

15                I don't know if anyone wants to

16   add to that.

17                MEMBER GRIFFON:  Thanks.  Just two

18   more quick ones, I think.  This question about

19   -- there's a couple references in our report

20   to the pipe thickness.  And obviously I'm much

21   more interested in the higher-level

22   decisionmaking issues.  Having said that, we

1    mentioned this pipe, the nominal thickness of

2    .32 inches.  And I'm just curious, what was

3    the allowable thickness, and how is that

4    derived?  Or how did Chevron derive that, and

5    was it adequate in your opinion?

6                    INVESTIGATOR TILLEMA:  That's

7    actually a much more complicated question than

8    you might at first --

9                    MEMBER GRIFFON:  Well, if you can

10   give me the 30 second answer?

11                   INVESTIGATOR TILLEMA:  I think I'm

12   going to defer.  Steve and Roger have done a

13   lot of work in this area, and are probably the

14   best people to answer that.

15                   INVESTIGATOR EVANS:  One way to

16   try to describe it, there's a term that they

17   use at Chevron called flag thickness, and what

18   they mean by that is, that's kind of when you

19   raise the red flag.  When the pipe thickness

20   gets to that point, that's when you actually

21   have to start making decisions about what

22   you're going to do.

1              When they get to flag thickness,

2       they have three options according to their

3       internal procedures.  The first is, they can

4       shut down and replace the pipe.

5              The second is, they can do some

6       calculations -- the flag thickness is a book

7       number.  They can do some calculations to try

8       to determine, based on the pressure in the

9       pipe or based on the mechanical strength

10      necessary to keep it up in the air, they can

11      calculate an actual minimum thickness based on

12      those structural needs.  And if they haven't

13      reached that yet, then they can continue to

14      operate as long as they are looking at it

15      regularly.  They have to do a management of

16      change, that is a temporary management of

17      change with a date certain, usually the next

18      turnaround.

19             And then the third thing that they

20      can do is, that they can do a management of

21      change to install some type of a leak control

22      device, like the clamps that you've heard

1     referred to this evening.  And those three

2     options, when they hit flag thickness, they

3     have to do one of those three things.

4                    INVESTIGATOR TILLEMA:  Thank you,

5     Roger.

6                    I'd just like to add that the main

7     thing about this particular case, and this

8     piping that failed, we didn't have a flag

9     thickness on it because it wasn't inspected.

10    That's a key point.

11                   INVESTIGATOR EVANS:  Yeah, the key

12    there is that you have to, in a situation like

13    sulfidation corrosion that affects the entire

14    length of the pipe, you have to make sure

15    you're looking at the places that are the

16    thinnest part of the pipe.  And this pipe, had

17    they looked at it, had they known it was this

18    thin during the turnaround, they would have

19    replaced it.  But they didn't know.  I mean,

20    what you don't know is the devils in the

21    details sometimes.

22                   And so the flag thickness was

1    quite a bit thicker than what this pipe

2    actually was.  It was way beyond flag

3    thickness.  We've mentioned, about half the

4    thickness of a dime.  That's also a little

5    less than the thickness of a credit card, or

6    about the thickness of two business cards, to

7    give you just another couple of visuals.

8              MEMBER GRIFFON:  I'd like to have

9    that --

10             INVESTIGATOR EVANS:  One more

11   thing.  Mr. Sam McFadden over here from

12   Anamet, that's his poster over there, and he

13   has that sample that shows the thinning, the

14   thin sample, and he also has two rings.  The

15   rings he has are eight inch diameter pipe.

16   One of the rings is a .322 wall, which is the

17   thickness the piping is when you buy it.  The

18   other sample he has is a ring that is

19   indicative of what was at Chevron.  And you

20   can just feel the weight and see the drastic

21   difference.  Sam would be glad to show you

22   that.

1          INVESTIGATOR TILLEMA:  Maybe just

2     to summarize --

3          CHAIRPERSON MOURE-ERASO:  Where

4     are the rings right now, Roger?  If somebody

5     would like to examine the rings, they should

6     talk with Doctor McFadden there.

7          INVESTIGATOR TILLEMA:  And just to

8     summarize that question, we just touched on

9     the complications involved with this issue.

10    But the whole complication with this issue

11    highlights again the importance of using

12    inherently safer materials so that you don't

13    have as many details encumbered in your system

14    as you do with carbon steel in this surface.

15          MEMBER GRIFFON:  And one final

16    question.  We recently received a copy of

17    Chevron's investigation report on, I think,

18    April 12th.  And I was curious if you could

19    highlight just a few of the main differences

20    between sort of our causal analysis versus the

21    root causes they identified.

22          INVESTIGATOR TILLEMA:  Okay.  I'll

1    confess, I've only read the report one time,

2    and I think it was last Sunday.  We've been

3    quite busy preparing for this meeting.  We

4    talked about it briefly this week, and I think

5    in general we were encouraged that Chevron

6    also identified the need to properly identify

7    damage mechanisms.  Their report doesn't call

8    it a damage mechanism hazard review, but they

9    were getting at the same concepts, and we were

10   encouraged by that.

11             On the other hand, we were quite

12   disappointed that a lot of Chevron's focus was

13   on low-level administrative issues.  They

14   focused on inspector training and competency.

15   They talk about in 2002 that an inspector

16   identified this corrosion, and one of the

17   problems was that he only placed a comment in

18   the inspection file.  In 2009, when the ETC,

19   the technical report, came out and identified

20   the need for 100 percent inspection, it wasn't

21   entered into their management system.  In the

22   2011 turnaround, they didn't perform 100

1  percent component inspection because it had

2  not been placed in the inspection plan for the

3  turnaround.

4            All of these are very low

5  administrative failures.  However, I would

6  point you to paragraph 49, which we added to

7  the report this week, and it wasn't available

8  on the version that went out on the internet.

9  During our team meetings this week, we added

10 this section that talks about in March of

11 2012, a Chevron corporate review was done of

12 the Richmond refinery, and they found that

13 critical inspection recommendations were being

14 submitted by employees but were being denied.

15            So Chevron corporate identified

16 this problem back in March, five months before

17 the incident, and that same review focused on

18 Richmond refinery leadership as needing to

19 implement these 2009 recommendations.  And so

20 the corporation focused at a higher level than

21 what Chevron's investigation report does.

22            MEMBER GRIFFON:  Thank you.

1          CHAIRPERSON MOURE-ERASO:  Thank

2     you very much.  Thank you very much for the

3     panel, and I think we move to the next item on

4     the agenda.  We are very lucky, and we are

5     very thankful of having with us a very

6     important and wise panel that could address a

7     lot of the issues that were raised by this

8     accident.  I would like to name the panel

9     first on a list, and then I will call them in

10    the order of the agenda.

11              With us is Ellen Widess, who is

12    the Chief of California OSHA.  She's here on

13    the table.  Also we have Professor Paul

14    Amyotte, from the Department of Chemical

15    Engineering of Dalhousie University, from

16    Canada.  We have Randy Sawyer, the Chief

17    Environmental Health and Hazardous Materials

18    Officer of Contra Costa County.  We have

19    Tupper Hull, the Vice President for Strategic

20    Communications from the Western States

21    Petroleum Association.  We have Mike Smith

22    from the United Steel Workers Local 5, safety

1    representative.  We have Ron Espinoza, from

2    the United Steel Workers International Union.

3    He is the subdirector of District 1.  We have

4    also Greg Karras, from Communities for a

5    Better Environment, who is a senior scientist.

6    WE have Mike Wilson, who is the director of

7    the Labor Occupational Health Program for the

8    University of California at Berkeley.

9                    So I will call first on Ellen

10   Widess, the Chief of California OSHA.  Ms.

11   Widess?

12                    MS. WIDESS:  Thank you, Mr.

13   Chairman, Board and Staff of the Chemical

14   Safety Board for your thorough investigation

15   and productive collaboration with Cal OSHA.

16   And I also want to give thanks to our State,

17   Local and national legislators for their

18   leadership and commitment to improving

19   refinery safety for workers and communities.

20                    There are many, many lessons from

21   the August 6th fire, and chiefly the

22   importance of adequate preventive measures to

1    ensure no future incidents.  That requires

2    both a strong and informed regulatory system

3    to monitor refinery compliance, and a true and

4    genuine proactive commitment to an investment

5    in safety by the refineries.

6              I will briefly summarize Cal

7    OSHA's investigative findings, and I want to

8    kind of indicate that, while we were grateful

9    -- we are grateful -- that there were no

10   serious worker injuries and fatalities from

11   this preventable fire and explosion, our

12   investigation over the past six months

13   indicated many systemic, pervasive problems in

14   corporate management, in failure to follow not

15   only California's and national process safety

16   standards, but Chevron's own policies and

17   procedures.

18              As a result of our investigation,

19   we found and issued 25 citations, 23 of which

20   were serious or willful serious violations,

21   which indicates the degree of severity of the

22   hazards, the serious possibility, reasonable

1   possibility of death or injury of these

2   hazards, and the degree of knowledge and

3   intentional conduct on the part of Chevron in

4   ignoring those hazards and known safety

5   standards.

6           I might add that our citations

7   issued January 30th in many ways mirror

8   Chemical Safety Board's findings issued this

9   week.  We issued nearly 1,000,000 dollars in

10  penalties, the highest in Cal OSHA's history,

11  and the maximum allowed under current law.

12  Chevron has appealed all citations and

13  penalties, and the appeal has not yet been set

14  for hearing by the Independent OSHA Appeals

15  Board of California.

16          What is striking to us was that

17  there were many, many serious violations prior

18  to, during and after the fire.  This was

19  demonstrated in the video that Dan provided,

20  which helped me understand in ways I now get

21  much more clearly the many, many problems.

22  And as I mentioned, failure to comply not only

1    with the PSM standards but Chevron's own

2    policies put workers at risk at every point in

3    the process.

4              Just to summarize very, very

5    quickly, no effective process hazard analysis

6    of the crude unit, no corrosion monitoring, no

7    replacement of severely corroded pipe known,

8    as we've heard repeatedly now, for 10 years,

9    identified, ignoring the strong and repeated

10   recommendations of pipe inspectors and

11   Chevron's own metallurgists.  Failure to take

12   advantage of at least three opportunities to

13   replace this severely corroded pipe and

14   prevent the accident that did occur during

15   turnarounds at least three times, in 2002,

16   2007, and 2011.

17             We, too, were concerned that so

18   many workers were at grave risk in the zone of

19   danger, Chevron's own workers and contractor

20   workers brought in.  We were concerned and

21   cited for the failure to shut down despite the

22   obvious leak, putting workers at risk while

1    attempting to clamp the obviously dangerous

2    situation, not following Chevron's own

3    emergency procedures.

4              And then, in the course of this

5    investigation and through information provided

6    also by the workers and union at Chevron, the

7    identification of really failed leak repair

8    procedures throughout the refinery.  The use

9    of clamps throughout the refinery well beyond

10   allowable time limits, rather than

11   implementation of permanent and safe

12   correction of problems.

13             And most disturbing -- I think I

14   repeat what has been suggested before -- from

15   Cal OSHA's perspective, most disturbing was

16   the fact that Chevron knew for over a decade

17   of the hazardous conditions of severely

18   corroded and worn pipes and leaks, knowledge

19   that they uniquely had, knowledge not

20   available to Cal OSHA or other regulatory

21   agencies, of the highly corrosive high-sulfur

22   crude state of pipes in existence for 38

1    years.

2              Chevron had that unique knowledge

3    of hazards, the ability and ample opportunity

4    to act to prevent the fire that occurred, the

5    risk posed to workers and communities, and

6    frankly other accidents that could have caused

7    catastrophic consequences.  We can only wonder

8    what other hazards have been known and not

9    reported to us.

10             Frankly, running to failure rather

11   than following best practices, industry

12   guidance, and Chevron's own policies and

13   internal recommendations to replace, to

14   inspect more frequently, were conclusions that

15   we drew from our investigations.  The

16   consequence was putting Chevron's own workers

17   and their contractor employees, as well as the

18   community, at great risk of death or serious

19   injury, with the knowledge of the likely

20   consequences of this action and pervasive

21   violation of safety standards.

22             What may be lost in the aftermath

1    of the August 6th fire, and what I want to

2    emphasize, is the fundamental responsibility

3    of Chevron and other refineries to ensure the

4    safety of their workers and all other workers

5    on site at all times.

6                    Cal OSHA's mandate -- no matter

7    what resource level we have, our mandate is to

8    monitor the compliance of refineries to ensure

9    that they are maintaining safe and healthy

10   workplaces.  Our recommendations from this and

11   lessons learned are fourfold.

12                   First, again as has been

13   mentioned, the need for greater transparency.

14   At this point, we are operating without

15   sufficient information from Chevron and other

16   refineries, information that is often

17   technical, trade secret, proprietary, but

18   information that is desperately needed for

19   effective monitoring and enforcement.

20                   Given the size and complexity of

21   refineries, the changing technologies,

22   processes and materials, there is an

1    overwhelming need for more timely information

2    and reporting by refineries at such times as

3    turnarounds so that we can better target and

4    prioritize inspections, rather than look and

5    divine hazards that are well known to Chevron

6    and to other refineries.

7                   We need to be able to have that

8    kind of information to address most serious

9    and known hazards that refineries have

10   themselves identified, rather than guessing.

11   That is the most effective use of resources.

12   Even the most well-resourced agency alone

13   cannot act effectively without this type of

14   information in real time provided by

15   refineries.

16                  Second, prevention should be the

17   driving force, not reaction to accidents.

18   Continuous improvement is the best practice,

19   and that includes improvement in process

20   management, in refinery maintenance, in

21   standards and in regulatory strategies.

22                  As the CSB's report has

1    underscored, the industry has the knowledge

2    and the power to eliminate hazards in so many

3    ways, by using inherently safer designs and

4    materials, instead of relying on government

5    inspections alone, when possible and when

6    adequately informed, to detect problems known

7    to the refineries.

8              Again, the refineries are in a

9    unique position to have that information.  The

10   need for more investment by refineries in

11   infrastructure -- as pointed out, this is an

12   aging industrial system.  Pipes, the pervasive

13   use of clamps demonstrates this lack of

14   commitment at Chevron, and maybe as well

15   throughout our refineries in California.  That

16   will be the subject of our process quality

17   verification inspections this year.  That's

18   looking at only one of myriad issues we could

19   be looking at in the refineries.

20             I want to just remind the

21   community and the CSB, we spent a lot of time

22   as State and Local and national regulators

1   considering the appropriate pipe material to

2   rebuild the crude unit after the fire.  And

3   though there was a lot of attention to the

4   pipe material, frankly, the quality and the

5   frequency of maintenance was equally important

6   in this decision, and that requires a

7   commitment by Chevron.

8             They alone, again, have the

9   intelligence about the type of crude, the

10  silicon content, the temperature, the pressure

11  in those pipes, so the simple decision --

12  again, decisions which in some cases are being

13  foisted on local government without all of

14  this information to reach the best informed

15  decision, leaves us all, workers and the

16  community, at peril.

17            Thirdly, the culture of safety.

18  Frankly, I'd like to understand better what

19  that term means.  And I look forward to the

20  CSB's final report to provide more to that

21  mysterious title, which can belie many things.

22  But I want to indicate -- and much has been

1    said about corporate decisionmaking, decisions

2    to ignore the clear and repeated

3    recommendations by scientists, where business

4    management ignored those decisions.  I share

5    Congressman Miller's curiosity, frustration,

6    with that whole process, and we look forward

7    to those answers by Chevron and by the

8    Chemical Safety Board.

9                 I think, though, that one element

10   of a culture of safety that Cal OSHA believes

11   is absolutely imperative is empowered workers.

12   Workers are in the best position to identify

13   the hazards --

14                 (Applause.)

15                 MS. WIDESS:  -- and they need to

16   be part, an integral part, of policies and

17   procedures and decisionmaking at refineries.

18   I was equally concerned by the report we

19   received that indicated concern about

20   retaliation, fear of reporting hazards to

21   management at Chevron, as well as to Cal OSHA.

22                 The freedom and the necessity of

1    workers to report unsafe conditions and

2    concerns, both to us and to management, the

3    ability of workers to freely know that they

4    can shut down hazardous operations facing

5    imminent hazards, we feel was at fault, the

6    lack of that freedom was at fault in this

7    accident, which could have killed not only

8    many workers but many community members.

9              And then finally, I just want to

10   close with a comment about an agreement with

11   the CSB's recommendation for the need for a

12   more coordinated and collaborative inter-

13   agency regulatory approach to both worker,

14   community, and environmental protection from

15   refinery hazards.

16              I am proud to be part of this

17   administration, and want to note that the

18   Governor's Interagency Task Force was launched

19   well before CSB's recommendations and report.

20   We began very early in the process and

21   realized it was not only Cal OSHA's regulatory

22   insights and investigation, but the work of

1  our sister agencies at a local, state and

2  national level that are the only way to ensure

3  future protection.

4              We are hard at work, both looking

5  at better coordinated and effective and

6  responsive emergency preparedness, as well as

7  prevention measures.  This report will give us

8  new risks to consider.  The Governor's Task

9  Force is certainly looking at ways we can

10  share data about hazards, about enforcement

11  histories, consider joint or coordinated

12  enforcement actions, and certainly to improve

13  the transparency and clarity of the different

14  agencies' responsibilities, their laws, their

15  jurisdictions, and empower much more effective

16  enforcement actions, again to ensure the

17  protection of refinery workers and

18  communities.

19              We have been gathering the

20  perspectives of all stakeholders: labor,

21  industry, community and others, and will be

22  issuing a report and recommendations in May.

1    And I want to again just loop back to the

2    transparency and the critical ingredient of

3    information from refineries of their hazards,

4    of their processes.  A strong and well

5    informed regulatory system is certainly key,

6    and better systems for collaboration are in

7    the works.  But they will demand, ultimately,

8    more transparency from the refineries of key

9    information essential for worker protection

10   and community protection.

11              Thank you.

12              (Applause.)

13              CHAIRPERSON MOURE-ERASO:  Thank

14   you.  Thank you very much, Ms. Widess.

15              The next person is Professor Paul

16   Amyotte from the Department of Chemical

17   Engineering of Dalhousie University.  Doctor

18   Amyotte is one of the few experts in the world

19   on inherently safer systems.  Doctor Amyotte?

20              DR. AMYOTTE:  Thank you, Chairman,

21   Members of the Board, ladies and gentlemen.

22   I'd like to begin by offering my expression of

1  concern for the workers and the members of the

2  public who have been so adversely impacted by

3  the process incident that we're discussing

4  this evening.  I also want to thank the

5  Chemical Safety Board for inviting me to be

6  here and to give this presentation.

7             A little bit of legal business

8  here for a moment.  On the advice of the

9  California Board for Professional Engineers,

10  Land Surveyors and Geologists, I declare that

11  while I am registered as a licensed

12  professional engineer in the province of Nova

13  Scotia, Canada, I do not hold a similar

14  license in the State of California.

15             There are two main areas in which

16  I have focused my presentation.  First, I will

17  comment on the CSB's interim investigation

18  report from the perspective of inherently

19  safer design.  And secondly, I will comment on

20  the need for the adoption of a lessons learned

21  mentality in the process industries.

22             Let me start by saying that I

1    wholeheartedly agree with the analysis and the

2    conclusions on the above points which are

3    contained in the interim report.  I'm a strong

4    proponent of inherent safety and lessons

5    learned.  As a process safety educator and

6    researcher, both have figured prominently in

7    my teaching and in my research efforts.

8                The discussion in the interim

9    report on inherently safer design is perhaps

10   the most direct and extensive use of the

11   language of inherent safety that I've ever

12   read in a CSB report.  Inherently safer

13   design, ISD, or inherently safer processes,

14   ISP, or inherently safer technologies, IST, or

15   just plain inherent safety, is a proactive

16   approach in which hazards are eliminated or

17   lessened so as to reduce risk with a decreased

18   reliance on engineered or add-on devices and

19   procedural safety measures.

20                The concepts of inherently safer

21   design have been formalized in the process

22   industries over the past 35 or so years,

1   beginning, of course, with the pioneering work

2   of Trevor Kletz, largely in response to the

3   cyclohexane explosion at Flixborough in 1974.

4                   Trevor Kletz, and many others

5   worldwide, including key individuals here in

6   the United States, have formulated a number of

7   principles or guidewords that have gained

8   widespread acceptance.  These are familiar:

9   minimization, substitution, moderation and

10  simplification.

11                  The CSB interim report thoroughly

12  covers the issue of substitution of alternate

13  metallurgy to help address the problem of

14  sulfidation corrosion.  One also sees in the

15  report the need to moderate process

16  temperatures when these approach or exceed

17  design limits for existing pipe materials.

18                  And rather than continue with a

19  lecture on the principles of inherent safety -

20  - because I should warn you, as a university

21  professor, you know I'm programmed to speak in

22  increments of 50 minutes.

1                    (Laughter.)

2                    DR. AMYOTTE:  But I won't do that.

3    I'm simply going to state that numerous

4    resources on the topic of inherently safer

5    design are now available.  There are books,

6    including those by Trevor Kletz, and also the

7    Center for Chemical Process Safety, or CCPS,

8    of the American Institute of Chemical

9    Engineers.  There are journal articles,

10   conference presentations, trade publications,

11   and company guidance documents.

12                   And Dan referred to this in his

13   response to Board Member Griffon.  What's

14   noteworthy about all these resources is that

15   most of them have been written by industrial

16   practitioners, industry people, at all career

17   stages, from the newly arrived to those with

18   a full career already in hand.

19                   So the call for widespread use of

20   inherently safer design principles in industry

21   is being made largely by people in industry,

22   people like Trevor Kletz, formerly of ICI in

1   the United Kingdom, and Dennis Hendershot,

2   formerly of Rohm and Haas in the United

3   States.

4           Of the 18 committee members

5   responsible for the production of the 2009

6   CCPS book Inherently Safer Chemical Processes:

7   A Lifecycle Approach, 16 are listed as having

8   affiliation with industrial companies.  One is

9   affiliated with a municipal regulator, and I

10  believe I'm sitting next to him this evening,

11  and one is a federal regulator.  So again, the

12  call for expanded ISD usage in industry is

13  coming from within.

14          Earlier in my remarks, I referred

15  to myself as a strong proponent of inherent

16  safety.  That is true, but it does not mean

17  that I think inherent safety is a cure for all

18  ills, or that ISD principles can always be

19  fully implemented in all scenarios.  There are

20  some very practical issues related to

21  inherently safer design that should be

22  recognized by anyone either proposing or

1    regulating its use, and these issues, I

2    believe, are well addressed in the Chevron

3    interim report, as I'll now demonstrate.

4              First, there is clear recognition

5    in the report that inherent safety works with

6    other means of reducing risk, namely passive

7    and active engineered safety and procedural

8    safety, within a framework commonly known as

9    the hierarchy of controls.  Inherent safety,

10   being the most effective and robust approach

11   to risk reduction, sits at the top of the

12   hierarchy, and it's followed in order of

13   decreasing effectiveness by passive engineered

14   safety devices, such as explosion relief

15   vents, and then active engineered safety

16   devices, like automatic fire suppression

17   systems, and finally procedural safety

18   measures, such as inspections, corrosion-

19   related or otherwise.

20             This hierarchical arrangement,

21   however, does not invalidate the usefulness of

22   engineered and procedural safety measures.

1   Quite the opposite.  The hierarchy of controls

2   recognizes the importance of engineered and

3   procedural safety by highlighting the need for

4   careful examination of the reliability of both

5   mechanical devices and human actions.

6                  Second, inherent safety is

7   referred to as being hazard-specific, meaning

8   the risk of any new hazards that might be

9   introduced must be adequately managed.  The

10  interim report makes ample reference to the

11  use of management of change, or MOC, for this

12  purpose.

13                 Third, the report comments that

14  ISD principles should not be restricted to

15  only process hazard analysis, but should be

16  implemented wherever it is possible to make

17  improvements in the process safety management

18  system.  Examples would include the just-

19  mentioned management of change, as well as

20  incident investigation, training and human

21  factors.

22                 Fourth, the interim report

1 references the need to provide thorough

2 documentation of process hazard analysis

3 results and implementation of the findings.

4 Dennis Hendershot reminds us that this is

5 especially critical when dealing with ISD

6 features that could be put at risk because the

7 reasons they were implemented were not clearly

8 and adequately documented.  Facility safety

9 could then be compromised when future

10 modifications are made by people who do not

11 understand the intent of the original

12 designer.

13     Fifth, the report makes clear

14 reference to inherent safety being most easily

15 and effectively introduced early in the

16 process lifecycle, for example at the design

17 build stage.  Extended turnarounds, such as

18 would be required to replace process piping,

19 also afford excellent opportunities in this

20 regard.

21     And finally, the report introduces

22 the concepts of LOPA and ALARP in the section

1    on inherently safer systems.  LOPA, or Layer

2    of Protection Analysis, can indeed be used to

3    determine the adequacy of safeguards or layers

4    of protection for a given scenario.  And it's

5    interesting to note that the classic CCPS

6    depiction of LOPA has inherently safer process

7    design sitting at the central core of the

8    layers.

9              As explained in the interim

10   report, ALARP, or As Low As Reasonably

11   Practicable, involves the implementation of

12   risk reduction efforts until the incremental

13   effort to further reduce risk becomes grossly

14   disproportionate to the level of additional

15   risk reduction achieved.  ALARP is, therefore,

16   a risk reduction goal that can be assessed by

17   tools such as LOPA and other tools such as the

18   combination of a fault tree and an event tree,

19   in what is now known as bow tie analysis.

20             So the general point here is that,

21   in addition to more qualitative tools, such as

22   ISD checklists, some form of barrier analysis

1    is highly beneficial, so long as the barriers

2    cover the full spectrum of the hierarchy of

3    controls.

4              So I spent considerable time in my

5    presentation on the matter of inherently safer

6    design, and as for the second topic, that of

7    the importance of learning from previous

8    incidents, I'm going to leave that discussion

9    to my written presentation, which I'll make

10   available, and that I request be entered into

11   the official record of this meeting.

12             To conclude, I'd like to quote

13   from a letter that will be published in an

14   upcoming issue of the Journal of Process

15   Safety Progress.  It's not confidential; it's

16   just an early view on the PSP website.  This

17   letter was written by John Murphy, an

18   industrial practitioner and a well known

19   figure in the loss prevention community.  John

20   writes:

21             "So why should chemical

22        engineering professors take the

1           time to teach the basics of hazard

2           evaluation procedures and the

3           concept of inherent safety to

4           undergraduates?  For those of us

5           who have spent our careers in

6           process safety, the answer is

7           obvious: to prevent future

8           catastrophic process safety

9           incidents that will result in

10          fatalities, injuries, property

11          damage, business interruption, and

12          loss of respect from the chemical

13          industry stakeholders."

14                Well, I can tell you that I agree

15     with John.  In fact, he very nicely describes

16     why I do what I do as a chemical engineering

17     professor, and what people like me in this

18     profession do.  I would suggest, though, that

19     if there is an obligation for people like me

20     to educate the next generation of engineers in

21     matters of inherently safer design, an equally

22     strong argument can be made for the obligation

1    on industry to implement inherently safer

2    design principles to the greatest extent

3    reasonably practicable.

4              Thank you, Mr. Chairman.

5              (Applause.)

6              CHAIRPERSON MOURE-ERASO:  Thank

7    you very much, Professor.

8              Our next speaker is Mr. Randy

9    Sawyer from Contra Costa County.  He's the

10   Chief Environmental Health and Hazardous

11   Materials Officer.  Mr. Sawyer?

12             MR. SAWYER:  Chairman Moure-Eraso

13   and Honorable Members of the Board, thank you

14   for inviting me to participate in today's

15   hearing.

16             The Chemical Safety Board

17   investigators have been very thorough and

18   professional in their investigations, and it's

19   been really good to work with them in their

20   process, and we appreciate the work they've

21   done.

22             I know our Board and the City of

1    Richmond was eager to see the recommendations

2    come forward, especially on how we could

3    improve the industrial safety ordinance.  The

4    Contra Costa County Hazardous Materials

5    Program administers the Contra Costa County

6    and the City of Richmond's industrial safety

7    ordinance.  The industrial safety ordinance

8    expands the requirements of the federal and

9    state OSHA process safety management and the

10   EPA and state accidental release prevention

11   programs.

12            The industrial safety ordinance

13   covers all of the processes at a facility, and

14   requires that facility to submit its safety

15   plan, address human factors issues beyond what

16   is required under process safety management

17   and the risk management program, determine the

18   root cause or root causes of an incident,

19   consider inherently safer systems, perform

20   management of organizational changes, perform

21   safety culture assessments, and perform

22   security vulnerability assessments.

1           There are four engineers and

2    engineering supervisors who work on the

3    County's accidental release prevention

4    programs.  That includes the California

5    Accidental Release Prevention Program and the

6    Industrial Safety Ordinances.  Engineers audit

7    and inspect each of the facilities covered

8    under these programs at least once every three

9    years.

10              The Contra Costa Hazardous

11   Materials Program has a hazardous materials

12   response team that is a primary hazardous

13   response team for the County.  During the

14   evening of August 6th, the hazardous materials

15   response team responded to the refinery and to

16   the surrounding community.  The team took six

17   air samples that evening, as well as direct

18   monitoring reads.

19              The team also activated the

20   hazardous materials operations center and

21   worked with the media and the Health Services

22   Department's public information officer on

1  getting the information about the incident out

2  to the public, kept track of what the

3  different teams were finding in the field and

4  at the refinery, communicated with the

5  County's health officer and worked with him on

6  determining if the shelter in place could be

7  lifted.  The team also resounded sirens around

8  the refinery every 30 minutes until the

9  shelter in place was lifted.

10              One of the shortcomings of the

11  response on August 6th was the telephone

12  emergency notification system.  The telephone

13  emergency notification system makes telephone

14  calls to the landlines in the area designated

15  and to the cell phones that have been

16  registered.  Telephone calls that were

17  initiated took far longer than expected during

18  that evening.

19              The community warning system is

20  operated through the County's Office of the

21  Sheriff.  Since the incident, the community

22  warning system staff have contracted with a

1    new telephone emergency notification system

2    provider and is developing a test for a second

3    telephone emergency notification provider.

4    When that test is completed, if the second

5    provider is successful, that provider will

6    become the primary provider and the provider

7    that is now under contract will become the

8    backup provider.

9               Other changes that have occurred

10   since the fire with the community warning

11   system include that individuals can now not

12   only register their cell phones, they can be

13   able to state if they would like to receive

14   text messages and/or emails when an event

15   occurs in the area they have asked to be

16   notified about.

17               FEMA has a system that can send

18   text messages to all cell phones within the

19   County.  Before the incident, the message

20   would be one message that would be based on

21   the type of incident.  So for a hazardous

22   materials incident, the message would be

1    shelter in place, with no indication of where

2    the incident is occurring and what to do to

3    shelter in place successfully, and every cell

4    phone in the County would receive this

5    message.

6              Since the incident, FEMA is now

7    allowing customized messages, and the

8    community warning staff is able to tailor the

9    message to include where we are asking people

10   to shelter in place, and to have a link to a

11   webpage to get directions on how to shelter in

12   place.  Social media, including Twitter and

13   Facebook, is also being used to push out

14   information about the incident.  Another

15   change is that text, email and social media

16   messages would direct people and the media on

17   where to get additional information on the

18   incident, including a map that shows the area

19   where people are being asked to shelter in

20   place.

21             Finally, since the incident, the

22   community warning system has become a web

1  based system that can be accessed from

2  anywhere by emergency response personnel.

3  Most of these changes were already started

4  before the incident.

5           One of the shortcomings from the

6  response that is in the process of being

7  addressed is a direct means to determine the

8  amount of particulates that are in the air to

9  assist in determining the impact of the smoke

10  from a fire.  The Hazardous Materials Program

11  staff is working with the Bay Area Air Quality

12  Management District on a means to do this on

13  a real time basis.

14           As Supervisor Gioia mentioned

15  earlier, the County Hazardous Materials

16  Program is contracting with a third party

17  consultant to perform a safety inspection

18  audit of the Richmond refinery.  The process

19  will include an oversight committee made up of

20  community members representing United Steel

21  Workers Local 5, the Building Trades Union,

22  Contra Costa Health Services, and the City of

1  Richmond.

2          The safety inspection audit will

3  look at the safety culture of the refinery,

4  the management systems that are in place to

5  implement process safety and the human factors

6  within the refinery.  The Hazardous Materials

7  Program's staff is working with the facilities

8  that are covered by the industrial safety

9  ordinance within the City of Richmond and the

10  County, and the United Steel Workers, on

11  developing indicators or metrics on process

12  safety that will give an overall indication of

13  how healthy a process safety program a

14  facility has in place and make some of these

15  indicators public.

16          One of the issues that the

17  Chemical Safety Board investigators have found

18  to be a concern is the implementation of

19  inherently safer systems.  I believe the

20  County's Board of Supervisors and the Richmond

21  City Council will adopt the recommendations

22  made by the Chemical Safety Board into their

1    ordinance.  I believe that the recommendations

2    will improve the safety of the facilities

3    covered by the ordinance.

4              I do caution what the Chemical

5    Safety Board considers inherently safer.  In

6    my experience, if a very clear definition of

7    inherent safety is not followed, then anything

8    that may improve safety will be considered

9    inherently safer, including improving

10   procedures or adding relief devices.

11             The Chemical Safety Board

12   investigation report on public safety at oil

13   and gas storage facilities states that passive

14   and active means to prevent accidents, such as

15   internal loading roofs, pressure vacuum relief

16   valves, flame arrestors and vapor recovery

17   systems are inherently safer tank designs.

18             These active and passive

19   mitigations do reduce the likelihood of an

20   accident -- and are pretty good risk reduction

21   measures -- from occurring, but does not

22   decrease the hazard, and these mitigations add

1    layers of protection but are not inherently

2    safer designs.

3                The Center for Chemical Process

4    Safety Inherently Safer Chemical Process

5    Lifecycle, Second Edition, Book defines

6    inherent safety as a concept and approach to

7    safety that focuses on eliminating or reducing

8    the hazards associated with a set of

9    conditions.  A chemical manufacturing process

10   is inherently safer if it reduces or

11   eliminates the hazard associated with

12   materials and operations using a process, and

13   the reduction or elimination is permanent and

14   inseparable.

15               The process of identifying and

16   implementing inherent safety is a specific

17   concept called inherently safer design.  A

18   process that will reduce hazard is described

19   as inherently safer compared to a process with

20   only passive, active or procedural controls.

21   By improving the materials and construction of

22   piping, or of equipment that is more resistant

1    to corrosion, is a passive and a good means,

2    and should be done, of reducing risk of

3    release, but does not reduce the overall

4    hazard, and as such that is not considered

5    inherently safer.

6              Contra Costa Hazardous Materials

7    do include passive means to reduce the overall

8    risk as a part of inherently safer systems

9    review, specifically where the passive means

10   reduces the possibility of release impacting

11   the public.  This includes moving the

12   processing and storage of the chemicals

13   further away from the community.  It also

14   could include the design of equipment and

15   piping such that the equipment and piping

16   could not be overpressured where a loss of

17   containment would occur.

18             But overall, I think the thought

19   process that goes behind implementing

20   inherently safer systems can be used for all

21   different management strategies, including

22   passive, active and procedural, and should be

1    used.

2              The County guidance states that

3    facilities should use an inherent safety way

4    of considering how to handle mitigations, or

5    use the different strategies of minimize,

6    substitute, moderate and simplify, and to move

7    up the risk management strategies from the

8    lower level of procedure all the way up to the

9    inherent safety risk management strategy.

10             I believe this process could also

11   be used in the MOC process and recommendations

12   from audit results, or from incident

13   investigations.  I think it could be used for

14   any mitigations that come about through the

15   process, and especially for new facilities or

16   modified facilities it should be considered

17   that way, too.

18             It's really a different way of

19   thinking than just the way many engineers --

20   and I can speak because I've been an engineer,

21   a project engineer, and stuff -- were thinking

22   in the past.  It's a different way of

1    thinking, and I think it's a pretty good way

2    of thinking, and it should be implemented.

3                   Again, I thank you for allowing me

4    to testify today.

5                   (Applause.)

6                   CHAIRPERSON MOURE-ERASO:  Thank

7    you very much, Randy.  We appreciate your

8    work.

9                   Our next speaker is Tupper Hull,

10   from the Western States Petroleum Association.

11   Mr. Hull?

12                  MR. HULL:  Mr. Chairman and

13   Members of the Board, we are very appreciative

14   of the invitation you extended for us to

15   address the Board tonight on an industrywide

16   perspective on safety.  By way of background,

17   our association represents the major

18   integrated oil companies, as well as

19   independent produces and refiners in the

20   Western United States, certainly including

21   California as well.

22                  Notwithstanding the reason we are

1    here tonight, I want to communicate that

2    safety is an extraordinarily high top priority

3    of refiners in California.  Protecting the

4    safety of employees, communities and the

5    environment receive an extraordinary amount of

6    attention and resources within the refining

7    community, because everyone is harmed by

8    accidents.  The goal of their operations is

9    zero accidents.

10                We're here tonight because that

11   goal was not met and has not been met, but it

12   still remains the overarching objective and

13   the focus of the companies that operate

14   refineries in California, and the men and

15   women who work in those facilities.  We

16   understand, and the industry understands, that

17   when accidents occur it is vital to undertake

18   a thorough and impartial review of what went

19   wrong, and what can be done to ensure that it

20   won't happen again.

21                Our members currently are working

22   closely with the California Division of

1    Industrial Relations, the Governor's Refinery

2    Task Force, and other agencies to review

3    safety practices and responses in California.

4    That review and assessment is being conducted

5    in a very thorough and thoughtful manner, and

6    any gaps or deficiencies that are identified

7    by that process will carefully be considered,

8    and very likely incorporated into refinery

9    operations.

10                   And certainly, refineries will

11   also carefully review and consider the

12   recommendations that you have made and will

13   make in your final report, and our association

14   will facilitate that consideration.

15                   As was noted, last Friday, April

16   12th, Chevron released its report on the

17   incident.  And I think it's worth noting that

18   much of what was contained in that report is

19   in agreement with the Chemical Safety Board's

20   report, and it outlined the very vigorous

21   steps Chevron undertook and continues to

22   undertake to implement changes within its

1    global refining system and other operations

2    worldwide.

3              This type of response is an

4    example of the priority refineries place on

5    safety, and of their commitment to identify

6    areas needing improvement and quickly

7    implementing changes to address those areas,

8    and sharing their conclusions with other

9    refiners, regulators and the public.

10             The one area that I did want to

11   just touch upon, which has not been addressed

12   here, and gets to an issue of transparency and

13   information sharing, is the area of risk

14   management plans, which all refineries, in

15   California and elsewhere, prepare, that look

16   exhaustively at the risks present in the

17   refineries and develop plans for response

18   which are then shared with the local

19   governments.  That is an area where the

20   refiners feel a lot of attention is paid and

21   those plans have proved very effective.

22             And with that, I just would like

1    to thank you again for the opportunity to

2    speak to you this evening.  Thank you.

3                    CHAIRPERSON MOURE-ERASO:  Thank

4    you very much, Mr. Hull.

5                    The next person that is addressing

6    us is Mr. Mike Smith, the safety

7    representative of the United Steel Workers

8    Local 5.  Mr. Smith?

9                    MR. SMITH:  Hello.  Thank you for

10   the opportunity to speak as part of this

11   panel.  USW Local 5 would like to thank the

12   CSB for coming out and doing the

13   investigation.  While here, the investigation

14   team has been great, and the interim report is

15   a sign of how hard they have worked and how

16   deep they have dug into this incident.  We

17   look forward to the final report, as well as

18   the recommendations to follow.  We as workers

19   rely on that depth to find all root causes

20   which, identified and corrected, lead to a

21   safer workplace and community that surrounds

22   it.

 1              We support the recommendations

 2   presented this evening.  We believe that there

 3   are City, County and State laws that are in

 4   place, that can be enforced as well as

 5   strengthened to prevent these types of

 6   incidents from happening.  The current

 7   environment, one which relies too heavily on

 8   the industry or API making its own rules and

 9   then failing to follow those rules, is not

10   working.  Strengthening the oversight on the

11   refining sector is a must.

12                   (Applause.)

13              MR. SMITH:  This is not just a

14   Chevron Richmond issue.  Local 5 also

15   represents workers at the Shell and Tesoro

16   refineries here in the Bay Area.  We want to

17   stress that this is an industrywide problem.

18                   (Applause.)

19              MR. SMITH:  These management

20   system failures are present at all refineries

21   across California.

22                   (Applause.)

1          MR. SMITH:  We also support and

2     appreciate the local legislators, such as

3     Assemblymember Skinner, Congressman Miller,

4     Senators Hancock and DeSaulnier, in their

5     quest to improve refinery safety.  We are

6     hoping that these recommendations are taken

7     seriously by all parties and that we can learn

8     from this incident.  We look forward to

9     working with industry, legislators and the

10    community to get to a better place.

11          Thank you.

12          (Applause.)

13          CHAIRPERSON MOURE-ERASO:  Thank

14    you very much, Mr. Smith.

15          Our next speaker is Mr. Ron

16    Espinoza.  He's the subdirector of District 1

17    of the United Steel Workers International

18    Union.  Mr. Espinoza?

19          MR. ESPINOZA:  Thank you.  I

20    appreciate the opportunity to speak.

21          I have worked in this industry for

22    over 25 years, and then I went to work for the

1    international union.  Through those years, and

2    every year, you hear of deaths from employees:

3    explosions, injuries, that continue to happen

4    in an industry that prides themselves on

5    safety.

6                    I want to talk for a second about

7    API 754, Leading and Lagging Indicators.  We

8    do not think that it, as it is currently, is

9    adequate.  It needs worker and regulator

10   participation, and community participation

11   with industry in identifying these indicators.

12                    (Applause.)

13                    MR. ESPINOZA:  And what I would

14   like to say, and I'm listening to everyone on

15   this panel, and I certainly don't feel quite

16   as capable as they are, but I want to talk

17   about the fact that we call on Chevron to lead

18   in setting a premier standard for

19   environmental and safety excellence.  And in

20   the refinery manufacturing that they do, for

21   too long that has not occurred, and we want

22   them to put an end to the lagging that has

 1   happened in the past.

 2              (Applause.)

 3              CHAIRPERSON MOURE-ERASO:  Thank

 4   you, Mr. Espinoza.

 5              Our next speaker is Greg Karras,

 6   who is the senior scientist of the Communities

 7   for a Better Environment.  Mr. Karras?

 8              (Applause.)

 9              MR. KARRAS:  Thank you, Mr. Chair.

10   I've submitted written testimony.  I will

11   summarize it to be brief.  And I have two

12   slides to show.

13              Thank you for including community

14   expertise on this panel.  I have 30 years

15   practical experience in pollution prevention

16   engineering and industrial environmental

17   investigation, focused in the energy sector

18   and oil refining in particular.  I've

19   published peer-reviewed work, and have the

20   honor to work with the disproportionately

21   impacted, deeply motivated and highly

22   organized communities of Richmond and West

1  Contra Costa County.

2          I believe the findings of your

3  draft interim report and strongly support,

4  more than support, each of your

5  recommendations.  CBE believes each

6  recommendation is urgently needed, and

7  respectfully urges you to adopt all of them

8  tonight.

9          However, I hope you will consider

10  two additional actions.  First, your interim

11  findings, we believe, support an urgent need

12  to require inherently safer systems based on

13  a hierarchy of controls at the Richmond

14  refinery.  Additional evidence from Chevron's

15  post-incident repair permits -- and I'm

16  summarizing this chart -- further supports

17  this urgent need.  Note, if you can see them,

18  points 1, 2 and 12 in this chart.  There are

19  20 points of known publicly disclosed

20  corrosion damage in the crude unit as of last

21  year, before Chevron repaired it, and these

22  are from Chevron's data.

1            Point 1 indicates the four sidecut

2     pipe section that failed in this incident,

3     where your findings demonstrate that an

4     inherently hazardous combination of more

5     corrosive feed stock and less corrosion

6     resistant pipe metal that was involved in this

7     incident was, at best, extremely difficult to

8     manage.

9            Points 2 and 12 indicate sections

10    of atmospheric overhead piping where Chevron

11    reported finding internal corrosion pitting

12    severe enough to indicate -- now, this is

13    piping that was damaged in the fire, and cut

14    out and removed, and only then was it

15    inspected thoroughly and internally.

16    Apparently, only then could it be inspected

17    for this kind of internal pitting damage.

18            Each of these pipes, according to

19    Chevron's documents, the internal corrosion

20    was severe enough to indicate a potential

21    failure risk before the next scheduled

22    turnaround.  Had the fire not occurred because

1    of one pipe in this area, this one small area

2    of the refinery, it might have occurred from

3    at least two others soon.

4              And this is an example in a small

5    part of a refinery with thousands of miles of

6    piping and thousands of pieces of equipment,

7    where there were a few places, at least three

8    before this incident occurred, that were a big

9    hazard apparently.  And two of them may have

10   been not just extremely difficult, but

11   impossible to completely safely manage.

12             So the point here is that there is

13   an urgent need, at least at this refinery, and

14   we believe industrywide, for your inherent

15   safety recommendation.  I'd like you to

16   consider, tonight, classifying it as urgent.

17             Second, in your ongoing

18   investigation and final report on this

19   incident, I hope you will consider completing

20   your analysis on material input substitution.

21   The second slide shows evidence for this.  It

22   shows the increase from 1989 to the incident

1    last year in -- the black is the -- well, I'll

2    start with the red.  That's sulfur content, or

3    the percentage increase in sulfur content, in

4    the crude oil.  Black is in the gas oil

5    derived from the crude.  And the gray

6    background that starts to disappear as you

7    move towards the right of the chart, that

8    depicts your own staff's findings on the data

9    of the corrosion of the pipe wall of the four

10   cut pipe section that failed.

11             As sulfur increased in the crude,

12   it increased in the gas oil distilled from

13   that crude and running through the pipe, and

14   sulfitic corrosion began to thin the wall of

15   the pipe more than four times faster than

16   before that dramatic sulfur increase around

17   1998,'99.

18             Thus Chevron's feed stock switch

19   played a key role in this incident.  The

20   material input substitution, technical term

21   for this causal factor, is central to inherent

22   safety and is at or near the top of pollution

1    prevention safety hierarchies of controls.

2    And this evidence demonstrates specifically

3    for this incident what I think is a

4    universally applicable principle, that feed

5    stock quality must be considered if we hope to

6    drive catastrophic incident risk as low as

7    reasonable possible.

8                 Now, in case you've heard from

9    what I've heard from the industry, at least

10    informally, that "Oh, no, we can't even talk

11    about changing our crude, because the only

12    choice is to close all the refineries and take

13    everyone's jobs and devastate the economy," I

14    want to say a couple words about that.

15                 First, the idea that we can't even

16    investigate this because something terrible

17    will happen is like saying the world is flat.

18    "If we go check out whether that's true, we'll

19    fall off the edge, so don't even investigate

20    it," right?

21                 In my opinion, if the industry

22    really believed that it would have no reason

1      for calling cheaper, lower quality refinery

2      feed stock, quote "opportunity crudes," close

3      quote.  Instead, a more reasonable analysis

4      and a more holistic one would look at the

5      substantial evidence that preventing

6      catastrophic climate change may, in fact,

7      require leaving about half of currently

8      recoverable known reserves in the earth.

9                    And that raises a question that we

10     in this community have been rasing explicitly

11     and repeatedly: Why not refine the least

12     polluting and least hazardous part of what's

13     left?

14                    (Applause.)

15                    MR. KARRAS:  So why is this

16     important?  You know, flat world theories

17     didn't stop us before.  We investigated.

18     Among other things, Columbus discovered the

19     New World.  And when Bay Area refineries

20     claimed that it would be so unsafe that they

21     would just blow up if we controlled their

22     flaring, we investigated, workers and

1    communities together.

2              And we ended up with a finding

3    that by preventing unnecessary flaring, we

4    would make refineries safer.  And now we have,

5    since 2005, the first comprehensive flare

6    prevention rule in the country, which is

7    spreading nationwide.  Workers and communities

8    did it here together because we stood up to

9    and investigated, in that case, the concern

10   that the refinery would blow up instead of

11   shut down.

12             Now we're finding, here and also

13   in the L.A. area, communities and labor

14   leaders are finding that we should be -- and

15   we're beginning to -- work more closely

16   together than ever.  We're stronger together,

17   and we believe that will be necessary to,

18   among other things, get the CSB's

19   recommendations implemented here.

20             But we can't duck.  If we're going

21   to do that, and build trust among communities

22   and workers, we cannot duck the crude quality

1    issue.  It's coming here to us.  It has come

2    here to us, and it's not gone.  Help us by

3    standing with us and saying "Let's check it

4    out.  Let's talk about it.  Let's have a

5    public discussion."

6                    (Applause.)

7                    MR. KARRAS:  In my opinion, in its

8    ongoing investigation and final report

9    regarding this incident, the Chemical Safety

10   Board should consider completing its analysis

11   of inherently safer chemical inputs for

12   refineries.

13                    (Applause.)

14                    MR. KARRAS:  Thank you.

15                    CHAIRPERSON MOURE-ERASO:  Thank

16   you very much, Mr. Karras.  We appreciate it.

17                    The next person that we have

18   addressing the meeting today is Doctor Mike

19   Wilson, who is the director of the Labor

20   Occupational Health Program of the University

21   of California in Berkeley.  Dr. Wilson?

22                    DR. WILSON:  Doctor Chairman and

1     Members of the Board, thank you for the

2     opportunity to provide some brief remarks this

3     evening.  And again, thank you for your

4     thorough and, I think, far-reaching report.

5                    Our program, the Labor

6     Occupational Health Program, is part of the

7     Center for Occupational and Environmental

8     Health at U.C. Berkeley that was established

9     30 years ago by the Legislature to engage the

10    University in health and environmental

11    problems facing the State of California.  This

12    is certainly one of them.

13                    In studying your report, and in

14    hearing from labor, community, and emergency

15    services stakeholders on behalf of the

16    Governor's Refinery Task Force over the last

17    several months, I would like to convey one

18    overarching point in my comments this evening,

19    which we've heard actually many times.  And

20    that is that we have before us, I think,

21    convincing evidence that California and the

22    nation are in imminent need of a modern,

1    fully-funded comprehensive regulatory

2    framework to oversee the refinery industry.

3              (Applause.)

4              DR. WILSON:  You have presented

5    evidence here that that framework would be

6    most effective if it motivated investment by

7    the industry in doing three things in order.

8              First, characterizing and publicly

9    reporting on the nature of sulfidation

10   corrosion damage throughout the industry.

11   Second, rebuilding major sections of our

12   refineries using inherently safer, more

13   energy-efficient technologies that are readily

14   available.  And three, integrating continuous

15   improvements in plant safety into the core

16   business operations of the refineries.

17             Your report, I think, has provided

18   the factual justification for California to

19   develop such a regulatory framework.  You've

20   done this by demonstrating convincingly that,

21   first, we have a corrosion problem in this

22   industry that I believe is imminent, and that

1    that problem presents an imminent threat to

2    public safety because management, at least at

3    Chevron, has largely chosen to ignore that

4    problem despite 10 years of urgent and

5    repeated warnings from Chevron's own technical

6    personnel, from the United Steel Workers

7    Union, and I would add from the Communities

8    for a Better Environment.  Meanwhile, major

9    sulfidation failure incidents have continued

10   to occur regularly at Chevron facilities in

11   California, Utah, Texas and Mississippi.

12             You've pointed out that we have a

13   physical engineering problem in the industry,

14   but of even greater concern is that you've

15   shined a light on a deeper cultural problem in

16   the industry's management, and on that I would

17   point out that since August 6th and up until

18   January 15th, where we have the data, the

19   State's refineries have experienced another 41

20   less publicized upset events that include

21   fires, spills, accidental releases and others,

22   some of which endangered workers and members

1    of the public.

2                    I would suggest to you that

3    Chevron's management, and most likely that of

4    the other refineries in the State, based on

5    the evidence, is responding as a rational

6    economic actor to the legal framework in which

7    it operates.  That framework, as we've heard

8    this evening, and as you've characterized in

9    your report, at present is overly permissive.

10   It requires very little, if any, genuine

11   transparency or accountability to the public.

12   It doesn't engage the expertise of workers or

13   the community, nor does it motivate the kinds

14   of investments that are needed to apply

15   inherently safer technologies.

16                   In a more rigorous regulatory

17   framework, I would expect that Chevron's

18   management would begin to respond in a timely

19   and competent way to the safety problems that

20   are identified by their own personnel, by the

21   steel workers, and by the community.  Your

22   report touched on the importance of

1    transparency, on accountability and meaningful

2    worker and community engagement as key

3    elements of a comprehensive regulatory

4    framework, and I would say that those elements

5    need to develop in concert with each other.

6                We know that transparency alone is

7    not enough, and that safety performance needs

8    to be required, not simply encouraged, as you

9    have articulated.  I would argue, however,

10   that transparency is a good place to start.

11   It raises the stakes for poor management.  It

12   makes regulatory oversight more effective, as

13   we heard from Chief Widess of Cal OSHA, and it

14   sets the bar for industry.  It puts pressure

15   on the laggards, and it allows the best

16   performing companies to make their successes

17   public.

18                I would point out that

19   transforming industrial sectors is not new to

20   California.  As a single example, over the

21   last 40 years California's per capita

22   electricity use is now 50 percent compared to

1    that of the rest of the U.S.  The California

2    Energy Commission reports that that flattened

3    trajectory over the last 40 years has

4    prevented the construction of 25 coal-fired

5    power plants in the midwest.

6              That is the result of California

7    regulations, of incentives, of manufacturing

8    specifications over many years, along with

9    other government actions.  And I think we are

10   fully capable of embarking on a similar

11   trajectory, a much more rapid trajectory, in

12   the refinery industry.  And as Chairman Moure-

13   Eraso noted in his opening remarks, build a

14   regulatory program that could serve as a

15   national model.

16              I'll close by saying that ensuring

17   industrial safety in dangerous industries is

18   a basic and necessary function of government,

19   and doing so requires government to assert the

20   full force of its regulatory authority.

21              (Applause.)

22              DR. WILSON:  We have seen in

1    multiple settings that doing so in nearly all

2    cases also improves the efficiency and

3    competitiveness of the effective industry.  So

4    again, I want to thank you for your work, and

5    for your presentations tonight, and for your

6    professionalism.

7              (Applause.)

8              CHAIRPERSON MOURE-ERASO:  Thank

9    you very much, Doctor Wilson.  In the

10   interests of time, I think we would like to

11   move directly to public comments.  I would

12   like to ask that this be moderated by the CSB

13   Managing Director, Doctor Horowitz, who has

14   been coordinating and managing the CSB

15   investigations, specifically this

16   investigation of Chevron.  So I'm going to ask

17   him to basically moderate the public comment.

18   So, Doctor Horowitz.

19              DR. HOROWITZ:  Thank you, Mr.

20   Chairman.  We ask our commenters to adhere to

21   a limit of one minute each, please, in the

22   interests of time.

1          PARTICIPANT:  What the hell, man?

2     We've got to sit here all night?

3          DR. HOROWITZ:  All right.  Well,

4     we'll do the best we can.  We'll see if we

5     have everybody.  Who's here?  And the first

6     commenter is Doctor Henry Clark.  Doctor

7     Clark, are you here?

8               (Applause.)

9          DR. CLARK:  Thank you.  Doctor

10    Henry Clark, Executive Director of the West

11    County Toxics Coalition that works with

12    communities living with refineries from

13    Richmond to Texas, Louisiana, Nigeria, Africa,

14    internationally.  So we know these issues and

15    problems.

16          I live in North Richmond, next to

17    the Chevron refinery, on the front line of the

18    chemical assault as we say, some of the

19    problems, experiences, that people experienced

20    with this August the 6th fire, and you heard

21    our Supervisor John Gioia mention.

22          Well, I was born and raised next

1    to the refinery.  I can remember clearly the

2    flaring situation that Greg Karras referred

3    to.  Those energy waves from the flares would

4    hit my house and my community and rock our

5    houses like we were caught in an earthquake.

6    Going back to 1991, we were engulfed in black

7    toxic smoke for an entire week over the North

8    Richmond community, which is primarily Afro-

9    Americans and Latinos.

10              Now, if you don't understand what

11   environmental justice is all about, then

12   you're really not going to come to totally the

13   right conclusions.  Environmental justice, or

14   environmental justice, environmental racism --

15   President Clinton signed an Executive Order,

16   12898, on environmental justice, which most of

17   the laws, city and state laws, about these

18   issues are based on, basically saying that

19   nobody, no people, regardless of race, class

20   or whatever, should bear a disproportionate

21   impact from environmental policies and so

22   forth.

1          Well, the fact is, is that it's a

2    little too late, because we are already

3    disproportionately impacted.  We are already

4    overburdened.

5               (Applause.)

6               DR. CLARK:  And so to protect us

7    now, you have to take some serious actions.

8    And all of these measures that you're talking

9    about, inherently safer processes, and this

10   and that?  Well, I can remember, and Greg

11   Karras from CBE can remember this.  Over about

12   30 years ago, we made some recommendations,

13   similar recommendations to the refinery and

14   the industry, pretty much saying the same

15   things that you're saying today, here.  Okay?

16               (Applause.)

17               DR. CLARK:  Saying pretty much the

18   same thing.  But you know, they weren't

19   listened to.  And so the bottom line is this,

20   here.  It's that you can have all of these

21   recommendations, which is all good, you know.

22   But it sounded like anything, any laws, or

1    scripture, or whatever, that says some great

2    things, but they mean nothing if you don't put

3    them into practice.

4                    (Applause.)

5                    DR. CLARK: And that's the main

6    thing right, that industry has not put these

7    measures into practice.  Why?  Because of the

8    fact that -- it was said -- there's no

9    punishment behind it.  A few dollars for a

10   fine and penalty out of a company that's

11   making billions of dollars?  Come on, now.

12                    (Applause.)

13                    DR. CLARK:  You know, this issue

14   has been going on for a very long time.  Yes,

15   the industry, Chevron and all the rest of

16   them, say that "Yeah, workers have the

17   authority to shut down a unit if they see it's

18   problematic."  Sure, that may be in theory.

19   But that doesn't happen, because those workers

20   know that the company's main concern and

21   bottom line is making those profits.  And just

22   like in this case here, that you see, that the

1    workers knew about it and could have closed it

2    down, but they didn't, because they know that

3    management was not going to like that.

4              So we need to get serious, period,

5    about holding these companies accountable.

6    And a few pennies is not going to get to the

7    issues right here.

8              (Applause.)

9              DR. CLARK:  These companies like

10   Chevron and many others, they want to be

11   considered to have some personhood.  Well, if

12   they want to be a person, then send them to

13   jail when the violate the law, just like

14   anybody else.

15             (Applause.)

16             DR. CLARK:  Then you'll have some

17   real accountability.  And like Mr. Karras

18   said, it's that you need to consider the type

19   of oil, or the product that's being processed

20   in that refinery.  Because we sounded the

21   alarm a long time ago about that.  We sounded

22   the alarm when Chevron was proposing their

1    reformulated fuel project.  We told them about

2    the higher sulfur content.  They denied it,

3    and said they weren't using it, didn't plan to

4    use it.  But we come to find out, the cat is

5    out of the sack now, they were already using

6    it.

7              So we need to get serious.  We're

8    talking about life and death issues here,

9    period.  You need to put that in the mix.  You

10   need to consider that in the context of

11   environmental justice, these companies like

12   Chevron, they are already violating the spirit

13   and the principles of Executive Order 12898.

14   You need to hold them accountable, because

15   they are killing people, period, and making

16   people sick.

17              (Applause.)

18              DR. CLARK:  And we're not going to

19   take it no more, and we want our City and

20   County officials to have some backbone.  You

21   can close down liquor stores in our community

22   when they're posing a threat or a nuisance.

1    Why can you have this authority with the small

2    businesses, but when it comes to these big

3    companies you can't do nothing about them?

4    You can't hold them accountable to the law?

5    It's because they have bigger dollars, huh?

6    Is it because they buy politicians like you

7    heard before?

8                    The same thing that communities

9    are saying with the Keystone Pipeline, that

10   you're going to have problems with destroying

11   Native American land and polluting those

12   communities that we work with in the Houston

13   area and Louisiana.

14                   Because the bottom line is, is

15   that what that's all about, just like here, is

16   corporate control over politicians, like the

17   Koch Brothers that you've heard about that own

18   refineries in the Houston area, and they're

19   paying 100 dollars a barrel now for oil from

20   Venezuela, and they could get the oil for 25

21   dollars a barrel from this dirty crude oil

22   coming from Alberta, Canada and other places.

1          So you know, the cat is out of the

2     bag.  When you want to be serious, you include

3     those recommendations that Greg Karras

4     mentioned about the crude, and really protect

5     our communities.  Otherwise, you know, it's

6     just another dog and pony show.

7               (Applause.)

8               CHAIRPERSON MOURE-ERASO:  Thank

9     you very much.

10              DR. HOROWITZ:  All right.  Thank

11    you.  Next is Mr. Kim Nibarger of the United

12    Steel Workers.

13              MR. NIBARGER:  Good evening.  My

14    name's Kim Nibarger, and I'm a health and

15    safety specialist for United Steel Workers,

16    and I will abbreviate my comments in light of

17    the time.

18              First, we don't view this as a

19    Chevron problem.  It's an industry problem.

20    Second, the broken widget, the sulfidation

21    corrosion of the pipe, is a long-known problem

22    in the refining industry, as you pointed out

1    in your report.  The problems allowing this

2    event to happen seem to be underlying in

3    nearly every refinery in the country.

4              We need to identify not just the

5    cause, but what allowed these events to

6    happen.  If we recall the report that the

7    Chemical Safety Board did on the Texas City BP

8    refinery, we will find numerous of those

9    events also took place in this accident.

10             It appears from your report that a

11   number of people tried to alert Chevron to the

12   fact that this pipe needed to fall under

13   increased scrutiny or have the metallurgy

14   upgraded.  Although a management of change

15   process was completed for the initial crudes

16   containing higher sulfur content, it does not

17   appear that a question of concern about

18   increased corrosion over time from the use of

19   a higher sulfur crude was raised or addressed.

20   More recommendations were made, from 100

21   percent component inspection to replacing the

22   line, all rejected by Chevron management.

1           This is the same as operators

2  raising the issue of shutting the unit down

3  when the leak was first discovered, and being

4  overruled by Chevron management.  We often

5  hear of, and speak about, safety culture.  But

6  as you can see from these examples, it does no

7  good to have the authority without the power.

8  A safety culture works when there is a

9  harmonious environment.  It does not work

10  where one entity holds the power over the

11  other participants.

12           Currently, the process safety

13  management standard governing oil refineries

14  says that its purpose is to prevent or

15  minimize the consequences of catastrophic

16  releases of toxic, reactive, flammable or

17  explosive chemicals.  Really, all it requires

18  you to do is develop a written plan on how you

19  will meet the element challenges in the

20  standard.

21           There is nothing requiring you to

22  do it well, or to really define what you

1    intend to accomplish, so meeting the

2    requirement of the standard, having a written

3    plan and following it, may serve no benefit

4    other than to avoid penalties.  If you are

5    following your plan even though it is a poor

6    plan, you have done nothing wrong, or at least

7    citable, in the eyes of the regulators.

8              Unless the regulator is well

9    versed in process safety, they may not

10   recognize how poor the plan is or what RAGAGEP

11   for a particular operation or equipment may

12   be.  Even if they do, it's not a violation of

13   the standard.  It's not enforceable to require

14   an employer to develop and follow an effective

15   plan.

16             It would really make the standard

17   more productive if employers were required to

18   comply with a level based on described,

19   recognized and generally accepted good

20   engineering practices, RAGAGEP, to ensure that

21   operating risks were as low as reasonably

22   practicable, ALARP -- and we've heard a lot of

1  talk about that tonight -- and hazards are

2  identified and eliminated or mitigated.  When

3  the practice improves, the plan improves to

4  meet the current practice.

5              But it must be mandatory.  It must

6  be regulated.  It cannot be undefined in any

7  way, or it will not get done.  It also needs

8  to be transparent with employee involvement,

9  regulated, enforced participation, not the

10  consult language that's in the standard now.

11             The Norwegian Petroleum Safety

12  Authority, the PSA, has a safety case in

13  place, and they have had it in place since the

14  mid-1970s.  This tripartite model of industry,

15  regulator, and union share authority in making

16  decisions that govern the safety of the

17  offshore oil industry.  They also require that

18  risk must be managed to ALARP.

19             It's time for us to stop trying to

20  tweak a standard that is not working as it was

21  intended, or at least hoped.  It's time for a

22  system overhaul, and that will require

1    regulator, labor and industry working

2    together.  It will require involving the

3    communities around these facilities.  It will

4    require a true commitment to make the industry

5    safer, not just different.

6              You have the ability to fund this

7    through the language in the California Labor

8    Code 7870.  You just need to have the

9    Legislature approve the expenditures from the

10   fees that will be put into place, or can be

11   put into place, from this practice.

12             We encourage and welcome the

13   opportunity to work toward that change, and we

14   also look forward to the final version of the

15   report including the follow-up elements

16   highlighted at the end of this report.

17             Thank you.

18             (Applause.)

19             DR. HOROWITZ:  Thank you, Mr.

20   Nibarger.  Next is Andre Soto.

21             MR. SOTO:  Good evening, Members

22   of the Board, as well as the staff, for coming

1    out here to our community in Richmond.  It's

2    really been critical to our community that you

3    have been here, because much of what you've

4    heard tonight are that we in the community

5    have known or suspected much of this stuff for

6    many years.

7              But you have finally shined a

8    light on it with incontrovertible evidence

9    that Chevron is not a good actor in our

10   community.  They're not taking care of this

11   refinery.  They're running it into the ground.

12   They're putting workers at risk.  They're

13   putting the community at risk.  And at the

14   same time, they're corrupting our politics and

15   trying to buy off individuals in the community

16   and non-profits in our community by spreading

17   around cash.  And we all know.  All those of

18   us who live in the community know this.

19             But what I really wanted to thank

20   you about is some of the recommendations

21   you've already started to provide for us.

22   Because you're providing a light on the path

1    that we as a community need to take to hold

2    our elected officials accountable and

3    implement these kind of changes.  Because the

4    failure to implement these changes means our

5    community is going to continue to be at risk.

6              As we speak here right now, we are

7    at risk because of all those clamps out there.

8    You've heard tonight all the citations of Cal

9    OSHA.  Chevron is appealing all these, and

10   it's expected to take four years before they

11   make any of these changes recommended.  So you

12   know, I want to thank you publicly, and I look

13   forward to your final report.

14             But more importantly, it's really

15   that this incident has brought you guys here.

16   It's brought the panelists, all the interests

17   and the panelists, including the workers and

18   the community, together, and that's how we're

19   going to really solve this problem.  And I

20   think that one of the things that really give

21   me a lot of pride from being here in Richmond

22   is that, because of the pains that we have

1    suffered for 100 years by being next to this

2    refinery, we are on the front lines of trying

3    to change the way refineries operate, the way

4    refineries are regulated, and empower

5    communities and the people, and not just cave

6    in to corporate power.

7                You guys are helping us to get

8    there, so thank you very much.

9                (Applause.)

10               DR. HOROWITZ:  Thank you.  Cho

11   Culeo?  No.  Robin Lappe?

12               MS. LAPPE:  Thank you.  I

13   appreciate all of the information that the CSB

14   and Cal OSHA and the other members here have

15   given to the community.  My concern is what is

16   going to happen to our health.

17               We now know in the community,

18   we're distributing a paper on dioxin, which is

19   one of the severe chemicals that was emitted

20   from this fire.  I myself had cataracts that

21   did not need surgery for four years until I

22   came in contact with this cloud, with these

1    particulates of crude oil.

2              I've had two surgeries, and yes I

3    have better eyes, but how long they'll last

4    me, I don't know.  I've had stomach problems.

5    I know many people in the area -- I know my

6    blood pressure went sky high, my 14 year old

7    grandson had high blood pressure after contact

8    with this cloud.

9              There's a lot the community does

10   not know about our physical well-being.  We're

11   hearing so much about Chevron.  We're hearing

12   about how they're going to be fined, and how

13   they're going to change, and this and that,

14   but we're not hearing about our health.  We're

15   not hearing about where we can go to get all

16   the help that we need.

17             The doctors didn't really help us

18   in this thing.  I do know that Kaiser is

19   backed by Chevron, and those doctors did not

20   really want to help us.  Many of us that I've

21   talked to -- and I've talked to hundreds of

22   people in this community, and we did not get

1    the care that we really, really needed.  This

2    is what the community needs to hear.

3              What can you do to help us now?

4    Yes, we can fix the pipeline.  Yes, we can put

5    regulations and regulatory committees out

6    there.  But what is going to happen to the

7    people of Richmond and the people that were

8    underneath this massive cloud that reached all

9    the way to Livermore?  There's more people

10   affected in this thing than you can imagine.

11   There are still people coming forward now that

12   don't even realize what's going on in our

13   bodies.

14              (Applause.)

15              MS. LAPPE:  They have these blood

16   pressure and cholesterol things.  Some are

17   developing cancers already because they had

18   preexisting conditions.  We've got to hear, in

19   the community, what can you do to help us?

20   What can you do now, CSB and Cal OSHA, to set

21   in place either clinics or someplace where we

22   can get the absolute help that we need?

1            Because I've been told by my own

2     doctor, when I finally got to see him, that

3     I'm going to die in less than 30 years,

4     probably, from cancer, but there's nothing in

5     this cloud that is going to affect me or hurt

6     me.

7            Kaiser told us, not from the

8     beginning of this thing but three weeks into

9     it, they distributed a paper into the

10    community: "These chemicals will only last for

11    24 hours in your body."  Twenty-four hours.

12    They sent that paper out three weeks later.

13    What did that do to me?  It put me at a big

14    risk.  It put my faith in my own doctors at

15    risk.

16            My own doctor did not even want to

17    see me for almost two to three weeks.  When I

18    went to the emergency room at Kaiser, they

19    told me "Your blood pressure is elevated."

20    They signed a paper and sent me out.  I needed

21    a breathing treatment that I couldn't get.  I

22    was told a week later by the allergy

1    department at Kaiser "Did they give you a

2    treatment, Robin?"  And I said "No."  She said

3    "Your breathing is down by two thirds."  She

4    said "I'm amazed that you're still up and

5    walking."

6                    I've had swollen vocal cords from

7    this.  I was an avid singer.  I can't sing

8    now.  If I wanted to, I can't.  Because I can

9    do maybe one song, and that's it.  There goes

10   whatever I had.  It's heartwrenching to me.

11   It's heartwrenching that my health has been so

12   affected, and the community has been so

13   affected by this.

14                    I plead with the CSB and with Cal

15   OSHA, and anybody involved in this, do

16   something more for us, for the community, to

17   help us understand the dioxin chemical and the

18   things that we're going through ever since

19   we've come in contact with this.

20                    Thank you so much.

21                    (Applause.)

22                    DR. HOROWITZ:  Thank you.  Dorothy

1   Wigmore?

2              MS. WIGMORE:  So my name's Dorothy

3   Wigmore.  I'm here representing an

4   organization called Worksafe, which is a non-

5   profit advocacy group that speaks on behalf of

6   and with and in coalition with workers and

7   community groups around occupational health

8   and safety issues.

9              And in the training that I've had

10  as what they call an occupational hygienist,

11  as well as an ergonomist, I've learned a

12  variety of things that take me back, perhaps,

13  to my interest in books.  And that is, I pay

14  attention to history.

15             And I happen to have in my hand a

16  little booklet called Our Lives Are At Stake:

17  Workers Fight For Health And Safety from the

18  Shell strike of 1973.  And I'd like to read

19  you two things that are in there, and we're

20  using them in our workers' Memorial Day report

21  this year, at least this one quote.

22             Remember, this is from 1973, and

1    it's about a different refinery, but it's a

2    refinery in this part of the world.  And a

3    worker says:

4              "They run the plant until it

5         falls apart.  They operate on the

6         theory of running the calculated

7         risk.  By calculated risk, they

8         mean that they will run a unit

9         until it falls apart, then repair

10        it fast.  This is cheaper to do

11        every six months or three months

12        than preventive maintenance.  And

13        they also run the risk of

14        shortmanning units, not having

15        enough men" -- because usually

16        it's men -- "on a unit to operate

17        it properly, but just enough so

18        that they can correct an upset

19        condition without going off-

20        specification.  They feel they can

21        run with fewer people."

22             And in the paragraph below that,

1    they refer to a January 1968 explosion at

2    another Shell Chemical plant in Texas, where

3    the investigation revealed that the pipe

4    carrying sulfuric acid and -- this should

5    probably be polypropylene.  It doesn't have

6    the right word here -- under 450 pounds of

7    pressure per square inch had been allowed to

8    corrode to the point that its walls were as

9    thin as beer cans.

10              I want to make a number of points

11   here that are linked, and the first is this

12   was no accident, from everything I've heard.

13   And in fact, I would urge the Board to be very

14   careful about the language that it's using.

15   I hear the word "risk" used when we're really

16   talking about hazards.  I hear the word

17   "control" used when we're really talking about

18   prevention.

19              And as an occupational hygienist -

20   - I may have a falling out with some of my

21   colleagues on this -- I don't use the term

22   hierarchy of controls.  I talk about

1    prevention, because it gets to the hazard.  If

2    you're controlling something, it means the

3    hazard is still there.  And if we're really

4    going to deal with some of the issues that

5    have come up here, I think the Board has to

6    start making sure that it's using the word

7    "prevention" more than I saw it in the

8    document from the quick look that I've had at

9    it.

10              The second thing that I wanted to

11   say is that, in going back to the history

12   stuff, what's happening here is not unique to

13   Chevron.  It's not unique to refineries.  It's

14   something that, in my almost 35 years of

15   occupational health and safety work, is

16   something that I hear all the time: preventive

17   maintenance isn't done.  You keep the line

18   working despite whatever the hazards are, and

19   you ignore the warnings and the advice of the

20   people who know most, the workers on the job.

21   It also combines with what I have

22   unfortunately come to see as a real arrogance

1    of managers and industry.  And I think that's

2    part of what we've heard about in the report

3    here.

4              I would suggest that the Board, in

5    the report that it puts together, particularly

6    for the final report, that it looks at some of

7    the history of these kinds of things.  It

8    looks at things like the EPA report about the

9    ExxonMobil Baton Rouge refinery which came out

10   earlier this year.  Exactly the same issues,

11   inspections not done, and issues of thickness

12   of the pipes.  I think that that's important,

13   both to build your case that something has to

14   be done and to make it clear that this is at

15   least an industry kind of issue, and not just

16   something that has to do with one particular

17   player in the field.

18             Thirdly, I would like you to -- in

19   terms of paying more attention to prevention,

20   I'd recommend a paper that we wrote,

21   Prevention Pays, and I would recommend also

22   that you look at what is called the Injury and

1    Illness Prevention Program regulation here.

2    With my experience on the Canadian side of the

3    border, both in terms of writing regulations

4    and enforcing them, it's great that California

5    has an IIPP, but I recommend you look at some

6    of the regulations about prevention programs

7    in other jurisdictions.  And I'd be happy to

8    point you to some of them.  One of them I

9    helped to write, in Manitoba.

10                   And one of the things that I think

11   is missing is a requirement for evaluation.

12   But you might want to look at the California

13   one itself, and see where -- and just, as I

14   say, compare it with some others.

15                   I would refer you, if you're going

16   to do work around leading indicators and

17   lagging indicators, it's a term that I've run

18   across in meatpacking plants and discussions

19   of ergonomics, and all kinds of other places.

20   They get used, but they don't get paid

21   attention to.  And I would recommend you look

22   at the work of the Institute for Work and

1    Health in Ontario that's done a lot of good

2    research around this.

3               I also recommend that, if you're

4    going to use the term "as low as reasonably

5    practicable," the original term is "so far as

6    is reasonably practicable."  It comes from the

7    1949 case of Edwards v. The National Coal

8    Board in England.  And I learned this in my

9    occupational hygiene training, and it has a

10   very specific legal meaning that I don't think

11   you really appreciate, and I'm going to try

12   and -- excuse me, can I ask you to -- as a

13   former Dalhousie graduate, could I get someone

14   to hold this for me?  Because I can't talk and

15   do the demonstration at the same time.

16               It won't hurt.  Thank you.

17               DR. AMYOTTE:  Dalhousie?

18               MS. WIGMORE:  I'm a Dalhousie

19   grad, 1972.  Political Science.

20               So what "as low as reasonably

21   practicable" means is that there has to be a

22   gross disproportion between the hazard, and

1    the cost of the hazard, or the cost of the

2    problem, and the cost of fixing it.  It cannot

3    be an even balancing that often is used.  So

4    there has to be both a gross disproportion.

5    And the greater the hazard, the greater the

6    distance between the cost of fixing something

7    and the cost of leaving it as it is before it

8    is not reasonably practicable to do something.

9    It's an economic argument for fixing hazards.

10                So I would recommend that you look

11   at that.  And as for safety culture, I would

12   recommend that you look at the work of Kaj

13   Frick, Michael Quinlan and Per Jensen, who

14   talk about occupational health and safety

15   management systems.  I think that that is --

16   there is just as much disagreement about what

17   those are as there is about what a so-called

18   safety culture is, but I think that they're on

19   the right track in terms of looking at the

20   essential ingredients of these things.

21                And finally, I would suggest that

22   you look at the literature that says that

1    enforcement is actually what leads to change

2    in terms of occupational health and safety in

3    workplaces.  And on that, I would refer you to

4    the work of Emile Tompa, for one.

5              If the laws aren't -- and the

6    other thing, I guess, is that the laws are

7    great, but if the agencies that are supposed

8    to be enforcing them either are not allowed to

9    or are unable to enforce the law, the workers

10   that rely on them and the communities that

11   effectively rely on them won't be getting much

12   satisfaction and won't be getting what they

13   deserve.  Cal OSHA needs resources to do this,

14   not just for these hazards but for a lot of

15   others.

16             (Applause.)

17             MS. WIGMORE:  And I have one other

18   note here.  Oh, yes.  In terms of worker

19   participation, I recommend that you look at

20   the model of committees, and where the joint

21   health and safety committees have to get

22   responses back from management about why

1    things are not being done within -- in

2    Manitoba, it's within 30 days.  There have to

3    be reasons why, that kind of thing.

4              And there are other examples in

5    this country of links between joint health and

6    safety committees and community groups, and I

7    suggest you might want to look at New Jersey

8    as one place where that kind of thing has been

9    looked at.

10             My last question is -- these are

11   just off the top of my head based on what I've

12   heard, and I haven't really been able to read

13   the report.

14             DR. HOROWITZ:  Thirty seconds,

15   ma'am, please.

16             MS. WIGMORE:  I'm just asking, can

17   I submit written comments, and by when?

18             DR. HOROWITZ:  Yes.  Submit them -

19   -

20             MS. WIGMORE:  By when?

21             DR. HOROWITZ:  Any time you like.

22   You can send them right to me.  I'll give you

1    my business card.

2             MS. WIGMORE:  Okay.  That's the

3    best I can do at the moment.

4             DR. HOROWITZ:  Thank you.

5             (Applause.)

6             DR. HOROWITZ:  There are about 30

7    folks who are signed up, so I ask you to keep

8    your comments as brief as possible. Next is

9    Diane Bailey.  Diane Bailey, are you here?

10            Diane Bailey is not here.  Julia

11   Max?  Julia Max, are you here?

12            MS. MAY:  May.

13            DR. HOROWITZ:  Julia May, sorry.

14            MS. MAY:  I'm Julia May.  I'm one

15   of CBE's senior scientists, and I want to

16   thank you, because this investigation is the

17   most excellent one I've seen in the 25 years

18   of engineering analysis I've done in both

19   Northern and Southern California, or across

20   the country in other regions.

21            Thank you.  Also thanks to the

22   steel workers and the refinery firefighters

1   who are fighting to keep us all safe without

2   the support of Chevron corporation and the

3   other refineries.  They deserve a lot of

4   credit.

5                    (Applause.)

6                    MS. MAY:  I've worked for a number

7   of years, through the '90s, in the Bay Area.

8   Right now I'm working for CBE on Southern

9   California refineries, and I'm here to tell

10  you that our members in Southern California

11  are listening tonight to your hearing.  This

12  is important to them, too.  They're watching

13  on the web.

14                   And the risks you've identified,

15  community members in Wilmington, where there

16  are five refineries and the highest

17  concentration of refineries in the State of

18  California, they're appalled at the risks that

19  you've identified and they have the same

20  problems that people are talking about here in

21  Richmond.  They really want you to adopt this

22  report and support the communities statewide.

1                      On inherently safer systems, in

2          the Bay Area CBE and labor and the community

3          members worked on many different inherently

4          safer systems, including a phase-out of

5          anhydrous ammonia at Chevron here in the early

6          '90s.  That's a familiar chemical nowadays

7          with what happened in Texas.  In Southern

8          California, about 10 years later, a phase-out

9          of anhydrous hydrogen fluoride, an unnecessary

10         and deadly chemical.

11                     So communities are fighting for

12         very specific inherently safer systems, as

13         well as the flare minimization that Greg

14         talked about.  Now we're seeing a backsliding.

15         We're very concerned.  We're hearing about a

16         cutting of the trained workforce that is

17         needed desperately right now to deal with the

18         backlog of maintenance problems.

19                     And we're also at the same time

20         seeing, for example, Valero wants to bring,

21         right now, tar sands crude oil into L.A. and

22         the Bay Area by rail.  We're not waiting for

1    the Keystone pipeline; they want to do it now.

2    That could mean a doubling of sulfur content

3    in the crude oil and an increase of the

4    corrosion risk.

5              So I have those comments, and a

6    couple of questions.  I don't know if I may

7    ask a question.  If I cannot, then I'll just

8    ask you to please take this into

9    consideration.

10             Number one, has the Chemical

11   Safety Board considered that, in addition to

12   these imminent dangers, we're also facing, at

13   any moment, major earthquakes in both the Bay

14   Area and L.A.?  You know, in your beautiful

15   presentation, you were showing the poking of

16   the pipe as a danger for those fragile,

17   corroded pipes.  Imminent earthquake danger

18   makes this risk even more urgent.

19             Secondly, I would say that we

20   wanted to know if you were considering

21   requiring, as an inherently safer system, an

22   increase of the workforce so that the steel

1    workers could deal with this backlog of

2    maintenance problems, another imminent hazard.

3                    (Applause.)

4                    MS. MAY:   Thank you very much.

5                    (Applause.)

6                    DR. HOROWITZ:   Thank you.   Joel

7    Britton?   Joel Britton?

8                    Joel Britton?   No.   Mike Parker?

9                    MR. PARKER:   Good evening, ladies

10   and gentlemen.   My name's Mike Parker.   I'm a

11   member of the Richmond Progressive Alliance.

12   I first wanted to thank the Board for bringing

13   an incredible sense of hope to the community

14   of Richmond.

15                    For years, people in Richmond have

16   struggled trying to improve the safety and

17   health of the community, and particularly in

18   dealing with the impact of Chevron, and have

19   been met with a phalanx of experts hired by

20   Chevron's money to tell us that we were wrong,

21   that the refinery was run as safely as

22   possible, that there was really nothing more

1    that could be done, and that people would

2    either have to accept the loss of jobs or they

3    would have to live with what they have.  And

4    you've given the lie to that, and I want to

5    thank you.

6                    I also want to thank you for your

7    introducing the notion of root cause analysis,

8    the idea that it isn't just enough to say

9    "Well, the pipe was corroded."  We have to ask

10   "Why was the pipe corroded?"  We have to ask

11   "Why wasn't the pipe replaced?"  "Why didn't

12   Chevron figure out what to do before?"  Et

13   cetera.

14                   I think we have to apply, though,

15   the root cause analysis to other things that

16   affect this situation.  So for example, we are

17   told that there are only seven OSHA inspectors

18   for 1,600 locations.  Why is that?  Did nobody

19   notice earlier that there were only seven OSHA

20   inspectors for 1,600 locations?  Well, of

21   course people noticed, and of course nothing

22   ever got done.

1                 Why is it that the City of

2      Richmond allowed, for years, Chevron to do

3      whatever it wanted to do at that refinery?

4      And even recently, after this fire, Chevron

5      decided on its own that it would rebuild the

6      crude unit exactly the way it was using a 25

7      year old process, rather than listening to the

8      community demands that, if they were going to

9      rebuild that crude unit, it should be rebuilt

10     to new, safer standards.

11                 (Applause.)

12                 MR. PARKER:  Why could they get

13     away with that?  The reason that they could

14     get away with that was because they

15     intimidated the City under the law, saying

16     that because they weren't changing the process

17     the City only had ministerial powers, and if

18     they tried to do anything else in terms of

19     regulations of Chevron, and in terms of how it

20     rebuilt this refinery, there might be a

21     lawsuit.

22                 And believe me, a Chevron lawsuit

1    is something for every city and county to

2    fear.  That's why regulations aren't enforced.

3    The truth is that the reason that we don't

4    have a strong OSHA, the reason that we don't

5    have a city which is able to use the tools it

6    has, is because Chevron spends millions,

7    millions of dollars, buying politicians.  They

8    buy them in the City of Richmond, and they

9    pay the money to support those politicians

10   statewide and nationally who will underfund

11   any regulatory agencies.

12              That's why.  So let's use the root

13   cause analysis and say if we're going to solve

14   this problem, we also have to deal with the

15   fact that Chevron has political and social

16   power, and that the only way to counter that

17   is to do the things that Mayor McLaughlin

18   talked about, which is, we mobilize the

19   community.  We mobilize this nation to say

20   that people must come first.

21              And if we don't do that, if we

22   don't do that, then I'm afraid that all of

1 these excellent recommendations, which I fully

2 support, by the Chemical Safety Board will

3 essentially go the same way as the

4 recommendations of those great Chevron

5 engineers and workers who told Chevron "Hey,

6 we got a problem here," and they chose to

7 ignore them.  These will end up getting

8 ignored too, unless we attack the question of

9 Chevron's political and social power.

10                 Thank you.

11                 (Applause.)

12                 DR. HOROWITZ:  Thank you.  Andy

13 Katz, are you here?  Andy Katz?

14                 MR. KATZ:  Good evening, Board

15 Members.  My name is Andy Cats.  I'm a clean

16 air attorney for Breathe California.  We're a

17 lung health organization.  And I want to thank

18 you for the Chemical Safety Board's very

19 serious and diligent response in investigating

20 this incident and in presenting the community

21 and government agencies with some very

22 important recommendations.

1          I think what is very important

2    about those recommendations is the emphasis on

3    prevention, the emphasis on improving the

4    culture of safety and introducing an improved

5    culture of safety.  And I'd like to comment

6    about some of the most important aspects to

7    improve prevention of future hazards.

8          I think corrosion audits and the

9    urgency of those audits cannot be

10   underemphasized.  There has to be an

11   increased, and very urgent, corrosion audit

12   done at refineries.  I think there's a very

13   important need to ensure that these corrosion

14   risks are found and fixed before another

15   catastrophic incident occurs.

16          I think that we've heard a lot

17   about the culture of safety and the problems

18   around that.  It's very important that workers

19   be empowered to report what they see around

20   them.  Workers are on the front lines, and are

21   in the best position to be able to report

22   those incidents to their management and to Cal

1    OSHA, and there has to be a culture

2    industrywide to make sure that incidents are

3    reported before another catastrophic incident

4    occurs.

5              Likewise, that means that

6    emergency shutdowns have to be a part of that

7    ability, for workers to be able to report the

8    need to do emergency shutdowns, or be

9    empowered in the right protocols to be able to

10   institute those on their own with the right

11   protocols.

12             The deferred maintenance issues

13   are very serious, and like those corrosion

14   audits we need to have a direct responsibility

15   for implementing those.

16             Inherently safer technology has to

17   be required, and in that regard I commend the

18   Chemical Safety Board for recommending that

19   the industrial safety requirements be required

20   on both the local and state levels.

21             Finally, I want to commend the

22   Board for including feed stock in inherently

1       safer technology.  Some of the data around

2       corrosion and the relationship between feed

3       stock is very, very informative about how to

4       prevent future incidents from occurring.

5                   For recommending for the Chemical

6       Safety Board on how to direct some of these

7       interagency groups, I think the Chemical

8       Safety Board's recommendation about the

9       interagency collaboration, especially about

10      the role of Air Districts, is very vague.  And

11      while the need for more OSHA inspectors is

12      very clear, the need for the Legislature to

13      take action to require inherently safer

14      technology, more direction is needed.

15                  What happens when agencies come

16      together to collaborate?  I urge the Chemical

17      Safety Board to spell out what that

18      collaboration looks like.  What are the

19      deliverables?  What are the outcomes?  And how

20      is transparency improved from doing this?

21                  Sometimes when agencies come

22      together in interagency working groups,

1    transparency gets lost because when they come

2    out with a decision, they're not reporting in

3    the normal process.  How will interagency

4    collaboration improve transparency rather than

5    obfuscate it?  So I'd encourage the Chemical

6    Safety Board to take that seriously and

7    encourage public participation in that

8    process.

9                   Thanks again.

10                   DR. HOROWITZ:  Thank you, Mr.

11   Katz.

12                   (Applause.)

13                   DR. HOROWITZ:  Bishop Andre

14   Jackson, are you here?

15                   BISHOP JACKSON:  I'd like to say

16   good evening to everyone, to the Board, and to

17   the public, and to the community.  It's just

18   a blessing to be here today.

19                   You know, I had a lot to say, and

20   I wrote down some things, but I really feel

21   like I'm standing in the gap for the 25 or 30

22   thousand people that don't have the time to be

1    here, and that are not here, and I think a

2    little documentation is better than

3    conversation.

4              I have documentation here to where

5    when you talk about the 15,000 who went to the

6    hospital, mainly you're talking about maybe

7    Doctors Hospital or Kaiser and the County.

8    But I have records of over 113 different

9    doctors and different hospitals where people

10   went to that basically you're probably not

11   even counting.  The number might be 30,000, or

12   35,000 people that actually went and saw

13   doctors in different places.

14             So you know, it's one lady, I'll

15   just call her name Miss M, she had reported

16   that she hadn't heard the shelter in place.

17   She evaluated her health being at 6 between a

18   scale of 1 and 10, and after the fire her

19   health went down to a 2.  Ringing in the ears,

20   eye irritation, sinus draining, irritation,

21   shortness of breathing.

22             Mr. B, he heard the siren ringing,

1    and he was at a scale of 1 to 10, he had prior

2    existing conditions.  His rate after the fire

3    went down to a 2 with chest pains, loss of

4    appetite, dizziness, fatigue, sleeping,

5    chronic coughs.

6              On, and on, and on, and on.  So

7    you know, we can fix these pipes and the

8    regulations and whatever, but how can you fix

9    what's already happened?  Prevention is one

10   thing, but I mean, it's already happened.

11             (Applause.)

12             BISHOP JACKSON:  And I could

13   mention one name of Miss Sherry, because she's

14   a personal friend of mine, she's been to the

15   hospital 15 times.  She'll never be the same.

16   She'll never be able to function the way that

17   she used to function.  And just like I said,

18   we can fix these pipes, but when people get

19   sick, people die, how can you fix that?

20             So I would like just to see the

21   time that you guys spend on bringing all this

22   here, and what did it cost?  You know, the

1    cost to be here?  Why don't we maybe have --

2    you know, where we kind of like turn it around

3    and have some respect for the community.  And

4    you guys might have to stay here maybe two or

5    three days to hear just the community, just

6    spill on you, and hear the pure facts of

7    what's going on here in the City of Richmond.

8              And we thank you.  God bless you.

9              (Applause.)

10             DR. HOROWITZ:  Thank you.  Sylvia

11   Greywhite?

12             MS. GREYWHITE:  Good evening.  My

13   name is Sylvia Greywhite, and I'm a member of

14   CBE and Local 350.  And my voice is kind of

15   rough today, and it's been like that for a

16   while.  And we know why.  Usually my voice is

17   very loud, but now for some reason I can't

18   really talk the way I want to talk.

19             But I do want to say, first of

20   all, that I'm very, very happy that you're

21   here.  I'm really thankful that you're here.

22   I have prayed to our creator YHWH that he

1    would see and have pity on us.  Because we

2    need help here.  We really need help.  We have

3    been held hostage by a community's government

4    that has not responded to our needs.  We have

5    just been ruined.  Our community has been

6    ruined because of what has gone on here, and

7    nobody seems to want to take a stand to

8    correct anything that has gone on.  That's why

9    I'm really, really thankful.  My prayers have

10   been answered, that you've come to help us,

11   because we do need help.

12              And I've looked at the emergency

13   planning and reporting, and I saw where you

14   have this statement that says "the California

15   Code of Regulations requires that owners and

16   operators of hazardous waste facilities make

17   arrangements to familiarize local hospitals

18   with the properties of hazardous waste handled

19   at the facility and the types of injuries or

20   illnesses which could result from fires,

21   explosions or releases at the facility."

22              Now, that has not happened.  That

1   has not happened.  I, myself, had to go to an

2   emergency facility, not the first day of the

3   fire but three days after the fire.  We had

4   bad days.  This was the term for it, when they

5   have -- anyways.

6            On the third day after the fire, I

7   had to go to take my friend to the hospital,

8   and I got sick on the way there.  And I had to

9   go myself to see the doctor.  And you know

10  what they did for me?  They took my blood

11  pressure, told me to take an aspirin and a

12  cough drop, and that was it.  They had no idea

13  of what was in my body, or what was causing me

14  to feel the way I was.

15           So that information has not been

16  shared with the hospitals.  And I'd like to

17  really emphasize that I'm really, really happy

18  that we are addressing the safety issues,

19  okay?  But I got sick before the fire

20  happened.  I was working for a company in

21  Oakland, and this is like -- I had to retire

22  in 2011 because of this.  I would get up every

1    morning and leave home at 7:00.  I had to be

2    at work at 8:00.  And by 7:15, I would be

3    sick, just from driving and breathing in my

4    car.

5                   I'd have to stop -- at that time,

6    because I was employed, I had to stop, I would

7    stop at Kaiser Hospital for attention.  They

8    would keep me there for probably half the day.

9    I'm just letting you know how they take you in

10   emergency.  They let you lay down for all day

11   long, and they watch you.  They may give you

12   an EKG, and if that's okay, they think you're

13   okay.

14                  So at 12:00, I'd go to work.  And

15   I'm sure my work got tired of that, too,

16   because I certainly did.  But they never found

17   any reason for my problems, because they never

18   did test me for what was going on.  There has

19   been no communication between the hospitals

20   and Chevron.  They have just hidden this from

21   us, so we're not being taken care of.

22                  So the CSB is currently evaluating

1  ways to ensure that hospitals have the

2  information necessary to properly evaluate and

3  treat individuals that may be exposed to

4  releases from facilities in Contra Costa

5  County.  What I would suggest, first of all,

6  is to have a test.  Because when you ask for

7  tests, they don't give you tests.

8              I asked Kaiser for a test for

9  toxicity, because I was aware at that point

10  that there was a problem with the

11  environmental toxins and things in our food

12  and our water and everything.  They told me --

13  they had a board meeting, in fact, and sent me

14  a five page letter saying that it was not

15  justified.  There was no reason for me to have

16  a test of that kind.

17              And even recently, I asked for a

18  test from Doctors Hospital.  They don't have

19  that in their lab.  They don't have those kind

20  of tests.  So we need to have testing done so

21  that people will know what is in our bodies.

22  We are testing Chevron's pipes, we are testing

1    everything with Chevron, but who is testing

2    us?  Nobody knows what we're suffering and

3    going through.

4              (Applause.)

5              MS. GREYWHITE:  And we're not

6    being healed, because the hospitals and

7    doctors are not aware, or don't know how to do

8    it, or know what to do.  So they treat you for

9    a symptom, and that's what happens.  But if we

10   had naturalpathic, homeo, holistic doctors,

11   then they would detox you.

12             And that's the only reason I'm

13   still standing here, is because I did have a

14   friend who turned me on to a naturalpathic

15   doctor who did start a detoxification process

16   on me and sort of helped me to deal with it.

17   But because I am old, I'm 71 years old, I'm

18   not able to deal, my immune system's not able

19   to deal with the situation.  And you're going

20   to find that.

21             Now, I had a job, but what good is

22   a job if you can't go to it?  And there are a

1    lot of people here in Richmond who have that

2    same problem.  They have been employed, or

3    they're able to be employed, but they're too

4    sick to get to work.

5                So we've got to do something, and

6    we need to do it right away.  And judging from

7    what has happened, you know, Chevron's been

8    there for over 100 years.  And if they're

9    still -- we're still in a situation where

10   we're trying to make them do something

11   correctly and right, then to me that means

12   that there's no point.  And at this point,

13   I've had enough.  And so my slogan now is

14   "Chevron, stop the fracking and start packing.

15   Get on out of here.  We don't need you."

16                (Applause.)

17                MS. GREYWHITE:  There are a lot of

18   cities in America who don't have Chevron in

19   their backyard, and they are doing marvelous.

20   And their people are healthy.  We can do the

21   same thing.

22                DR. HOROWITZ:  All right.  Thank

1    you, ma'am.

2              (Applause.)

3              DR. HOROWITZ:  Next is Steve

4    Zeltzer.

5              MR. ZELTZER:  My name is Steve

6    Zeltzer.  I'm with United Public Workers For

7    Action and California Coalition for Workers

8    Memorial today.  And it's very interesting

9    we're having this forum tonight, this

10   presentation, because of what happened not

11   only in Boston but in Waco, Texas, where there

12   was another explosion and there had been no

13   investigations of that plant for decades.

14             And the workers there were too

15   terrified to say anything.  They're non-union,

16   so they're afraid to stand up for their

17   rights.  So there's terrorism in this country,

18   but the corporate media doesn't talk about the

19   Chevrons and these other companies that are

20   terrorizing people in this country.

21             Because it's organized terrorism.

22   They knew that plant was going to blow up,

1    because they weren't doing the proper

2    maintenance.  They're criminally negligent.

3    It's criminal malfeasance.

4              (Applause.)

5              MR. ZELTZER:  Nobody's talking

6    here on this panel about criminal penalties

7    and putting these executives in jail.

8              (Applause.)

9              MR. ZELTZER:  If you or I did

10   this, we would go to jail.  But Chevron and

11   the executives apparently have freedom,

12   freedom to get away with this.  We'll put it

13   off for another study.  Maybe in 20 years we

14   can have another study.

15             Well, actually, the question of

16   criminal prosecution is critical, and

17   California OSHA can criminally prosecute.  And

18   Chief Widess doesn't mention that.  In fact,

19   she said that they have a problem with

20   inspectors, there are only seven inspectors

21   for the oil industry in California.  Well, I

22   have a question.  Why the Hell is she giving

1    them a license to reopen that if they don't

2    have enough inspectors to inspect it?

3              (Applause.)

4              MR. ZELTZER:  Question: if you

5    don't have enough inspectors, there are only

6    160 inspectors in California for 18 million

7    workers.  Governor Brown is very concerned

8    about jobs.  He went to China.  How about

9    hiring some workers to inspect these

10   facilities?

11             (Applause.)

12             MR. ZELTZER:  And make the oil

13   companies pay.  But I, frankly, don't believe

14   that we're going to make Chevron a better oil

15   company.  Chevron, like the banks, are in the

16   business of making a profit.  They're not in

17   business of taking care of the sick people in

18   Richmond.  We should require that they build

19   a hospital, a public hospital in Richmond, for

20   anybody who's been sick.

21             (Applause.)

22             MR. ZELTZER:  They have the money

1    to do that.  Instead of giving crumbs to some

2    non-profit agencies, 50 million dollars for a

3    hospital for the people in Richmond who

4    they've contaminated and poisoned, and the

5    children here in the schools, where you have

6    50 percent asthma.  What are they doing about

7    that?

8              Well, I think your board needs to

9    investigate that.  These hospitals in Northern

10   California where people are being contaminated

11   and sickened are not doing studies,

12   epidemiological studies, about where people

13   live and how they get sick and why they're

14   getting sick.  We need to have liability for

15   these companies, so they have to pay for the

16   people who they're sickening.

17              (Applause.)

18              MR. ZELTZER:  The fact of the

19   matter is, this should be part of your study.

20   But frankly, the industry controls that.  And

21   that's why the accident in Waco and what

22   happened here will happen again and again,

1    until, frankly, we have public control of the

2    energy industry.  We need to have the working

3    people and the public in charge of the energy

4    industry, and not these criminals that are

5    really destroying the world.

6                    (Applause.)

7                    MR. ZELTZER:  Thank you.

8                    (Applause.)

9                    DR. HOROWITZ:  Thank you.  Next is

10   Roger Lynn, CBE.  Mr. Lynn?

11                   MR. LYNN:  Good evening Chairman,

12   Members of the Board.  My name is Roger Lynn.

13   I'm an attorney with Communities for a Better

14   Environment.  I'll keep this quick, just three

15   things.

16                   First, I want to highlight one

17   recommendation from the interim report, and

18   that is the requirements for inherently safer

19   systems.  Over here, the industrial safety

20   ordinance has too many shoulds and considers.

21   It doesn't have enough shalls.  The industrial

22   safety ordinance has to be amended to require

1    inherently safer systems.

2                    (Applause.)

3                    MR. LYNN:  Second, higher sulfur

4    crude.  We all know more sulfur means more

5    corrosion, more corrosion means more refinery

6    incidents.  Going forward, please focus on the

7    feed stock quality, what refineries refine and

8    what they should not refine.

9                    And third, finally, last but not

10   least, to the investigative staff, thank you.

11   You folks have been here since day one of this

12   incident.  You've been willing to listen to

13   all the other agencies, community and the

14   workers.  And your recommendations are top

15   notch.  Board, please accept their

16   recommendations, all of them.

17                    Thanks.

18                    (Applause.)

19                    DR. HOROWITZ:  Thank you.  Jeff

20   Ritterman.  I think he left.  I saw him

21   earlier.  He's gone, okay.  Off to treat some

22   patients, I guess.  All right.  Llana Garcia?

1           MS. GARCIA:  Good evening,

2    Chairman, Board Members and staff.  My name is

3    Llana Garcia.  I'm an attorney and legal

4    fellow with Communities for a Better

5    Environment, and I'm coming here tonight from

6    Huntington Park in Los Angeles County.  I'm

7    here representing our community members in the

8    Southern California region, and in particular

9    in Wilmington.

10          Wilmington is a community which,

11   as my colleague Julia May mentioned, is home

12   to not just one but five refineries.  And it

13   is a community that, I'd also have you know,

14   has 30 percent of its residents fall below the

15   poverty line, and it's 85 percent Latino.

16   It's this community that I ask you to keep in

17   mind when adopting your staff's

18   recommendations this evening, and in

19   maintaining transparency from this point

20   forward and making public the final report and

21   recommendations.

22          And we want to thank the staff for

1   its very keen process-oriented safety

2   recommendations, which address many of the

3   shortcut problems, like the overuse of clamps,

4   the lack of documentation and accountability

5   regarding whether or not to address or ignore

6   maintenance and preventative safety

7   recommendations made from front line laborers.

8   We've heard from many of the workers in the

9   Southern California refineries that these are

10  critical problems, so we want to thank you for

11  those recommendations.

12              And tonight, as my colleagues have

13  mentioned, I also want to stress that you

14  consider the imminent threat that's presented

15  by higher sulfur crudes like tar sands, and I

16  want to draw attention to the fact that this

17  is a pressing issue for community members in

18  Southern California, and has actually been the

19  subject of a lot of recent media coverage in

20  the Los Angeles Times and other sources.

21              Our Southern California workers

22  and communities, like many throughout the

1    state and across the country, urgently need

2    protective measures to ensure that the safety

3    recommendations that have been made are not

4    weakened by the absence of an adequate focus

5    on the feed stock crude quality.  This is an

6    integral part of a truly inherently safe

7    systems approach to refinery safety, and it

8    would be a tragic missed opportunity to ignore

9    the issue of tar sands.

10                   Our members in Wilmington are

11   incredibly concerned with recent statements by

12   corporate leaders, such as those at Valero,

13   that they plan to bring tar sands crude for

14   refining in the Southern California

15   refineries.  To reference the call to action

16   that was made by the Richmond Mayor earlier,

17   these are community members who are presently

18   going door to door to alert family members,

19   residents, neighbors of ExxonMobil,

20   ConocoPhillips, Tesoro, and Valero of the

21   hazards that are coming their way.

22                   Now, we know, based on the staff's

1    own investigations into other Chevron

2    facilities, like that at El Segundo, that the

3    same sulfidation issues that caused the

4    Chevron fire here are already present in our

5    Southern California refineries as well, and

6    therefore we cannot stress enough the

7    importance of integrating the feed stock

8    quality assessments as part of the inherently

9    safer systems in the recommendations that have

10    been made by the staff.

11              Our communities already suffer

12    from consistent black smoke plumes in their

13    neighborhoods, close to their homes, their

14    schools, and the areas where the public

15    gather.  We simply cannot afford a fire such

16    as that which occurred here in August.

17              I want to thank you for seriously

18    considering our community concerns and

19    adopting your staff's recommendations this

20    evening.  Thank you.

21              (Applause.)

22              DR. HOROWITZ:  Thank you.  Marilyn

1    Langlois.  I think I saw her earlier.  Yes,

2    there she is.

3                    (Applause.)

4                    MS. LANGLOIS:  Good evening.  I'm

5    a member of the Richmond Progressive Alliance.

6    My name is Marilyn Langlois.  And we met with

7    members of the investigation team shortly

8    after the fire.

9                    I really want to thank you all for

10   being here.  I know it's late.  We're all

11   tired.  But this is really important to us,

12   both to those of us who are still here and

13   also to those who couldn't come tonight.  I

14   live here in the community, and really we need

15   to take a look at this.

16                    I want to thank the investigative

17   team for its really excellent investigation

18   and report, and I really like that animated

19   video you did of a reenactment of the

20   incident.  Maybe you could put that on YouTube

21   for everybody to see at home.

22                    (Applause.)

1             MS. LANGLOIS:  Thank you.  It

2    really helps to envision --

3             INVESTIGATOR TILLEMA:  We already

4    did, actually.

5             MS. LANGLOIS:  -- what it was

6    actually like.  And to the Board Members, I

7    urge you to accept and adopt this report.

8    It's an excellent report which paves the way

9    for making a major and necessary shift in the

10   way refineries are operated and regulated

11   throughout the country, not just here in

12   Richmond.

13             There are four themes I've heard

14   this evening that I just want to emphasize

15   briefly.  Number one, prevention.  And in

16   terms of prevention, I urge you to include in

17   the report, in your recommendations, one of

18   the really inherently safer systems from a

19   preventive standpoint of view, which would be

20   to limit the quality of crude oil, limit the

21   sulfur content from the outset.

22             (Applause.)

1              MS. LANGLOIS:  Then you wouldn't

2   have as much corrosion.

3              The theme of transparency.  We

4   heard tonight that the pipe that failed, over

5   the last 10 years there had been six times

6   there had been recommendations for inspections

7   that were ignored.  There were four times

8   recommendations for upgrade that were ignored,

9   just on that pipe alone.  So how many other

10  pipes are there in the refinery where the same

11  thing has happened?  There have been ignored

12  inspections, ignored upgrades.  And they're

13  out there, operating, ready to blow.  Let's

14  stop that.

15             The other theme, worker

16  empowerment, very, very important.  We've

17  heard from the steel workers and others that

18  the workers alerted management to a lot of

19  problems before incidents happened, and they

20  were ignored.  We need to have the workers

21  heard.  They are clearly the experts, as many

22  have said.

1              And finally, enforcement.  We have

2    to now get the corporate dollars out of

3    politics, so that we'll have elected officials

4    at all levels who will have the guts to put in

5    place a robust and well-funded regulatory

6    framework that includes criminal prosecution -

7    -

8              (Applause.)

9              MS. LANGLOIS:  -- for cases like

10   this where there's been willful negligence.

11   There's no excuse for a multi-billion dollar

12   corporation to put the lives of Richmond

13   residents at risk by its failure to adopt and

14   implement inherently safer systems at all

15   times.

16              Thank you very much.

17              (Applause.)

18              DR. HOROWITZ:  Thank you.  And

19   that video you mentioned is available on

20   YouTube.com/USCSB, and also on CSB.gov, along

21   with our report, that's on CSB.gov.  That's

22   YouTube dot com, forward slash, U-S-C-S-B.

1   And you can get our full report -- it's at the

2   front, but you can also download it and send

3   it to your friends from our website, CSB.gov.

4               All right.  Why don't we try --

5               (Off-mic comment.)

6               DR. HOROWITZ:  Yes.  There will be

7   a transcript made, ma'am, and that will be on

8   our website in a few weeks.  You can access

9   that at CSB.gov.

10              I think the -- my understanding is

11  that the television station is going to make

12  an archive of the actual broadcast, and that's

13  KCRT, I believe.  Is that correct?  Okay.

14  Thank you.

15              (Off-mic comment.)

16              DR. HOROWITZ:  Go ahead, sir.

17              MR. CAMPBELL:  I know it's late,

18  so I don't want to hold everybody up, but --

19              DR. HOROWITZ:  Just say your name,

20  because I don't have it on the list.

21              MR. CAMPBELL:  David Campbell,

22  Secretary and Treasurer for Steel Workers

1    Local 675 in Southern California.  I want to

2    say that I agree with my steel worker brothers

3    and some of the community members who have

4    explained that this is an industrywide

5    problem.  It's not just a problem in

6    California; it's a problem nationwide.

7              (Applause.)

8              DR. HOROWITZ:  Okay, thank you.

9    Mr. Campbell, thank you for traveling up for

10   the meeting.

11             How about Alexandria Anderson?

12             (Applause.)

13             MS. ANDERSON:  U.S. Chemical

14   Safety Board, distinguished panel members, my

15   name is Alexandria Samantha Anderson.  I'm a

16   resident of the City of Richmond.  I'd like to

17   thank you all for being here tonight, and for

18   your thorough and professional work.  It has

19   been an honor to be here and to listen to your

20   recommendations.  I hope that you adopt them

21   tonight.

22             I have a message more for the

1    people of the City of Richmond.  That is that

2    the U.S. Chemical Safety Board is not

3    necessarily a traditional regulatory body.  If

4    we want to see changes made, then we need to

5    go to the Richmond City Council, the Contra

6    Costa County Board of Supervisors, but these

7    individuals are not the people to go to.  We

8    have to put political pressure on our local

9    government.

10              (Applause.)

11              MS. ANDERSON:  That's what we have

12    to do, as well as our state and our national

13    government.  But in particular, our local and

14    our state government.  And we understand that

15    Chevron's a multinational corporation, and

16    multinational corporations in this day and age

17    have a thing about regulatory capture.  I

18    won't go into it, but -- excuse me, I'm a

19    little nervous.

20              But we need to ensure that we are

21    putting the maximum amount of pressure on the

22    Richmond City Council and on Contra Costa

1    County.  Thank you very much.

2              (Applause.)

3              DR. HOROWITZ:  Thank you.  How

4    about Inn Vilayngeun?  Sorry, it's not very

5    clear.  I-N-N, V-I-L-A-Y-N-G-E-U-N, perhaps?

6    No?  Okay.  All right.  Rose Cuelo?

7              MS. CUELO:  I'd like to thank you

8    for coming and listening to us.  I'm a

9    resident of San Pablo, but I did live in

10   Richmond for a long time.

11             My concern is that if you have an

12   accident, you do something to correct it so it

13   doesn't happen again.  August the 6th was not

14   the first accident that Chevron had.  They've

15   had several.  So going back to the latter part

16   of '99, or the early part of 2000, they had

17   accidents then and they haven't done anything.

18   The community has suffered.

19             You talk about -- you can't -- I'm

20   not saying you, but they can't shut the

21   refinery down to make the repairs as needed,

22   because it would be a hardship on them, but

1   what about the community?  Chevron is shutting

2   us down, because they're killing us.  I've

3   gone from a size 16 down to an 8, and I don't

4   know whether I'm dying or what, you know?  And

5   like the lady said, she's concerned about her

6   health, too.

7               But what is Chevron doing about

8   it?  Nothing.  And maybe now that you're here,

9   they'll listen to you guys.  Because they're

10  not listening to us, as a community.  They're

11  doing what they want to do, and all they're

12  doing is getting fined, getting a slap on the

13  wrist, and doing the same thing that they've

14  been doing for years.  And they're killing us.

15              That's all I have to say.

16              (Applause.)

17              DR. HOROWITZ:  How about Kenji

18  Warren?  Is he here?

19              MR. WARREN:  Good evening,

20  everybody.  One, I would like to thank as well

21  the investigators for your work.  It seems

22  that it was done with great integrity, and I

1    appreciate it as a resident of San Pablo and

2    someone who works in Richmond, and I would

3    urge the Chemical Safety Board to adopt the

4    recommendations, and furthermore the

5    recommendations from Communities for a Better

6    Environment.

7              The only thing that I would maybe

8    ask is the recommendation that the plant, the

9    refinery, be shut down immediately --

10             (Applause.)

11             MR. WARREN:  -- and that the

12   workers be allowed to make the changes that

13   you're recommending.

14             Thank you very much.

15             (Applause.)

16             DR. HOROWITZ:  Okay.  Next is

17   Frank Cambra.

18             MR. CAMBRA:  Thank you for the

19   opportunity to speak to the Board and the

20   panel tonight.  My name is Frank Cambra, and

21   I'm a former employee of Chevron.  I worked

22   for Chevron for 25 years, and I feel obligated

1    to be here tonight as I was here eight months

2    ago at the onset of the study.  Some of you

3    may have been at that meeting, and at that

4    meeting I gave some of my background, and I'd

5    like to do that.  At the sake of being

6    repetitive, I'll tell you a little bit about

7    myself.

8              I would like to address the

9    incident that occurred, and I would like to

10   make two predictions and three

11   recommendations, and then I'll be done.

12             Frank Cambra, graduate of U.C.

13   Berkeley with a Master of Engineering in

14   structural engineering.  While I was attending

15   Berkeley, I was working for Chevron as a co-

16   op, and I did an investigation of cooling

17   towers that were subject to collapse.  One had

18   just collapsed in Pascagoula.  A second we had

19   repaired in El Paso, Texas.  And then the

20   third in El Segundo, which was subject to

21   collapse, and I investigated it and made

22   recommendations to repair it.  And on the

1    recommendations to the chief of engineering at

2    El Segundo, I was told point blank "Son, you

3    don't understand oil field economics.  There's

4    no money to repair this tower.  Maybe next

5    year."

6              And a year later, while I was in

7    graduate school at Berkeley, the tower

8    collapsed.  It was an Ecodyne Redwood cooling

9    tower, and pieces of the tower went for 100

10   yards in all directions.  And it was at that

11   point that I decided that, following my Master

12   of Engineering, I would get a Master of

13   Business Administration with an emphasis in

14   economics.  I was not going to have a Chevron

15   manager tell me I didn't understand economics

16   again.

17             And that was the onset of 25 years

18   with Chevron.  Sadly, it didn't get better.

19   I was discharged from Chevron in Kazakhstan on

20   the Second Generation Project where we were

21   building the largest oil plant of the day in

22   the world.  I think it was 200,000 barrels of

1    oil per day of sour crude.  And there were

2    many problems, but among them was the

3    compaction of roadways, and I wanted to comply

4    with API standards.  And I was told "This is

5    not California.  This is Kazakhstan.  We do

6    not have to comply with API standards."  And

7    I was appalled.

8                 And that was one of a number.  I

9    don't have enough time to go into some of the

10   others.  And that's why I'm here tonight.

11   Now, in respect to your work, if you recall,

12   eight months ago, I asked you one question:

13   will you do your job?

14                 And I'm here to say that the U.S.

15   Chemical Safety Board has done their job, and

16   I commend you.  I think your recommendations

17   are outstanding, and I can only hope that they

18   will be endorsed and embraced by Chevron

19   management.  I have some doubts.  I think they

20   will be resistant.  They will try to spin it

21   and change it to accommodate their own

22   requirements.

1        But I do commend you, and I

2   commend others that have also made

3   presentations tonight on their assessments,

4   and I feel that I am being a bit redundant in

5   what they had to say.  But as I see it, your

6   technical assessment and your regulatory

7   recommendations are excellent.

8        We have a case of they built the

9   plant, they connected it to a pipeway.

10  Somewhere in the connection between plant and

11  pipeway, an eight inch piece of carbon steel

12  was utilized in a jumpover, a connection of

13  two plants, that was in effect inadequate for

14  that type of service.  Carbon steel in

15  hydrogen sulfide service.  I said this eight

16  months ago.  Really?  Carbon steel in hydrogen

17  sulfide service is not acceptable, and that's

18  kind of known throughout industry.

19       Well, we talked about flagging on

20  inspection.  I heard about that.  Yes,

21  flagging on inspection, "We test wall

22  thickness and we have to make repairs, we have

1    to do maintenance."  Why wasn't that pipe

2    flagged for its age?  The pipe was 40 years in

3    service.  It was known to be carbon steel.

4    And yet I don't hear anything in our safety

5    management of flagging for age.  Take that

6    into consideration, if you will.

7              I'd like to make two predictions.

8    The first prediction, sadly, and it's been

9    alluded to earlier, we live in a seismically

10   active area.  We know, USGS is telling us, we

11   have a Hayward Fault, and we're on it right

12   now.  When that fault erupts, we will have a

13   magnitude 7 earthquake in this Bay Area.  It's

14   going to happen.

15             And Chevron knows that their tank

16   farm on the Richmond hill is inadequate to

17   sustain that type of an earthquake.  Those

18   tanks are going to rupture.  Those tanks are

19   going to spill their contents.  The crude, the

20   product and everything in that tank, every

21   full tank in that farm is going to fail.  And

22   they know that.  And there's reasons to

understand that going back to the Richmond field studies where earthquake simulation was conducted back in the 1980s, okay?

Second prediction, and I'm speaking from my knowledge of working for Chevron on these activities. There's going to be a hydrogen sulfide release in Kazakhstan from their rich sour gas injection in the next 10 years. It's going to happen, and it's going to be horrific, the amount of hydrogen sulfide that's going to get released from the sour gas injection system. The injection pipe operates at 9,000 psi. It's already been compromised once during its commissioning, okay?

To conclude, three recommendations, and I think they've already been discussed, for the most part.

One, there's no need for sour crude at Richmond. Stop placing sour crude through the Richmond refinery. That should be a recommendation.

1                    (Applause.)

2                    MR. CAMBRA:  Certainly until they

3     have proven without a doubt that there is no

4     other piping risk that exists at Richmond.

5                    Second, a million dollar fine from

6     OSHA is a slap on the wrist.  Chevron's net

7     profit per hour is a million dollars.  And

8     they're going to fight that fine of one

9     million dollars with five or ten million just

10    to get it off the books.  Imagine.  That's

11    going to happen.

12                    DR. HOROWITZ:  Just briefly, if

13    you will?

14                    MR. CAMBRA:  Thank you.  And the

15    last recommendation I have, or second

16    recommendation I have, is to shut down this

17    crude unit number four.

18                    (Applause.)

19                    MR. CAMBRA:  We do not need

20    processing of distillate at crude unit number

21    four.  That's how you get management's

22    attention.  We talked about -- I'll be brief -

1    - inherently safer systems.  What we need is

2    inherently safer management.  That's what's

3    missing.  Management hasn't endorsed the

4    people like myself or the people from the

5    steel workers who come in and identify a

6    problem.  No, they fire them.  Got rid of the

7    problem, didn't I?

8                    (Laughter.)

9                    MR. CAMBRA:  And the last

10   recommendation, and this is really for the

11   City's consideration.  We should -- you know,

12   Richmond refinery built in 1902.  This was a

13   wilderness.  This was the end of civilization.

14   Today, it's the center of a metropolitan area.

15                   (Off-mic comment.)

16                   MR. CAMBRA:  Thank you.

17                   And as the center of a

18   metropolitan area, our risks are much greater

19   than they were in 1902.  So my recommendation

20   is, we need to move with the times.  We need

21   to convert Richmond from a refinery to a

22   blending and marketing plant.

1                    (Applause.)

2                    MR. CAMBRA:  We need the energy,

3     but the times demand change away from refining

4     here in this community.

5                    Thank you.

6                    DR. HOROWITZ:  Thank you.  Paula

7     Shields, perhaps?  I'm not sure about that.

8     Victoria Sawicki?  Maybe you could say that

9     for me.

10                    MS. SAWICKI:  Okay.  Victoria

11    Sawicki.  I am a resident --

12                    DR. HOROWITZ:  Thank you.  How do

13    you spell that, ma'am?

14                    MS. SAWICKI:  S-A-W-I-C-K-I.

15                    DR. HOROWITZ:  Okay.

16                    MS. SAWICKI:  I'm a resident of

17    Richmond.  I'm also on the Meiklejohn Civil

18    Liberties Institute.  It's a human rights

19    organization.

20                    You know, I've been to so many

21    community meetings about Chevron in the last

22    10 years.  I have seen and read different

1   studies, reports have been made.  Your report

2   was fantastic.  I appreciate the honesty and

3   the straightforwardness.  I've heard about

4   regulations that have been violated, safety

5   procedures that have been ignored, and workers

6   that have not been listened to.  It's not only

7   in the United States.  I believe it's all

8   over.

9               And you know, on the one hand when

10  I hear a Henry Clark, or a Marilyn, or the

11  young gentleman that stood up and said he

12  wants to close the plant, the youth speaking

13  up like that, I'm inspired.  But then, when I

14  hear OSHA, the woman from OSHA, you know, what

15  can she do?  She can't do anything.  EPA has

16  not done anything.  All of the departments

17  have failed the citizens of Richmond.  They

18  have failed the citizens of West, Texas.

19              (Applause.)

20              MS. SAWICKI:  When Steve Zeltzer

21  got up and said the corporations have the

22  right to do this and do that, they had the

1   right to kill.  And they could have killed

2   those 19 employees that we saw in that video.

3   They could be dead now.  They have the right.

4   They have the right.  What can you do?  You've

5   worked hard, you did your best, you put the

6   truth out there.  Now, what are you going to

7   do?  You can't do anything.  It's up to us.

8   You know, and I feel like --

9               (Applause.)

10              MS. SAWICKI:  You know, it's

11  frightening.  Because I know Henry Clark has

12  been fighting for decades, decades, and

13  there's been some improvement but really

14  things are getting worse right now.  And you

15  know, you hear Chevron, they send out all this

16  literature in the mail about what a great

17  neighbor they are.  Lies, lies and lies.

18              You know, the first community

19  meeting, you guys weren't here.  The one right

20  after the big cloud and the big fire.  People

21  -- this place was packed.  And this one woman

22  -- you know, Chevron was up there with all

1    their suit coats and their ties, and they're

2    giving their little spiel.  And the community

3    kept saying "There was an explosion, there

4    was," and they're "No, no, no."

5              But we were right.  They were

6    wrong.  We've been lied to and lied to so

7    much, it's just -- we've had enough.  It's

8    just ridiculous.  And I don't know what this

9    is going to accomplish, what this meeting here

10   is going to accomplish.  Chairperson Rafael,

11   you eloquently said, twice I believe, that

12   human beings are precious.  Really, they are.

13   I believe this woman here that spoke was in

14   tears, and the other woman that doesn't know

15   what's happening within her body.  How many

16   children couldn't breathe and had to be rushed

17   to the hospital?

18             But you're not seeing that today,

19   see?  We're all here, and we're all tired

20   right now.  And you know, how are we going to

21   -- I agree with you that people are precious.

22   What do we do with people that don't think the

1  way that we do?  Does Chevron think this woman

2  is precious?  Do they think that the community

3  is precious?  What about the workers?  The

4  workers that were ignored, are they precious?

5  Do they matter?  Are they listened to?  No.

6  Nope.

7            So the point is, actions speak

8  louder than words.  I'm tired of Chevron's

9  words.  I'm sure the rest of the community is,

10  too.  What does Chevron really care about?

11  You know, it's not about -- you've had some

12  sort of -- I don't know, the way you put it,

13  some upper management decisionmaking process

14  has to be examined.

15            Well, you know what it is?  They

16  don't care about the community.  They care

17  about one thing, and that is money.  They care

18  about profit.  They could have fixed that

19  pipe, but they chose not to because they

20  didn't want to spend the money.  And all the

21  other pipes that are in there, they do not

22  want to spend the money.  And the only way

1    that we're going to change things is not by

2    trying to kind of talk them into being a good

3    oil company, which I believe is impossible.

4    And I just want to -- last thing.  The right

5    to breathe clean air is one of the most basic

6    human rights.

7              (Applause.)

8              MS. SAWICKI:  Thank you.

9              (Applause.)

10             DR. HOROWITZ:  Thank you.  Roberta

11   Spruckerman, or Speakerman?  What was that,

12   ma'am?  Speakerman.

13             MS. SPEAKERMAN:  Hello.  I did

14   want to thank you for what you put out, partly

15   because I would get -- this is not my field,

16   and I would get so frustrated with what I knew

17   was happening but I couldn't put my finger on

18   it.  And now I'll have a way to do some of

19   that.

20             One of the things -- I thought

21   about the Pinto.  Remember the Ford Pinto?

22   There it was.  You know, cost-benefit

1   analysis.  And that's what this feels like.

2   And it's everywhere within the system.  And

3   for you, if there's any place that you are

4   thinking you might soften your word or couch

5   your terms diplomatically, the industry's

6   response should make you aware that it's going

7   to be denied.  "No, safety is our first, most

8   important thing."  I mean, so make it as

9   strong as you can.  And I never had an

10  breathing problems until I moved to Richmond,

11  and now I do.

12              And the last thing is the

13  transparency issue.  Because nothing was

14  shared with Kaiser, they had no idea what to

15  tell the people who were coming there.

16              That's it.  Thanks again for your

17  work.

18              (Applause.)

19              DR. HOROWITZ:  Thank you.

20              CHAIRPERSON MOURE-ERASO:  Mr.

21  Horowitz, do you think that we could find by

22  a show of hands how many more statements we

1   have?  Because we need to take the vote before

2   the day is over.

3                  DR. HOROWITZ:  Mr. Chairman, I

4   have about 10 who are still signed up, sir.

5   Let me just take a -- I'll call the names that

6   are here, and if you show your hand, okay?

7                  Michael Leedy, are you here?

8                  Okay, he is here.

9                  And Bill Pinkham, are you here?

10                  Bill Pinkham is not here.  Okay.

11                  And how about Eduardo Martinez,

12   are you here?

13                  (Off-mic comment.)

14                  DR. HOROWITZ:  Okay.  How about

15   Sylvia Hopkins?

16                  She is here?  Okay, you are here.

17   Great.

18                  And Mary Flanagan?

19                  You are here.  Okay.  And Steve

20   Ongerth?

21                  You are here.  We just spoke a

22   moment ago.  Sorry about that.

1          Melvin Willis?

2          Melvin Willis is here.  Sandy

3   Satyrn?

4          She left, okay.  How about Dan

5   Berman?

6          Dan Berman is here.  And so, Mr.

7   Chairman, we have one, two, three, four, five,

8   six.  That's seven.

9          CHAIRPERSON MOURE-ERASO:  Let's go

10  for it.

11         DR. HOROWITZ:  Okay.  All right.

12  Michael Leedy, why don't you go first?

13         CHAIRPERSON MOURE-ERASO:  I will

14  beg that the speakers please look at your

15  watch and just put a limit of three minutes to

16  your remarks.  We will be happy, and the

17  people behind you will appreciate it.

18         MR. LEEDY:  Good evening,

19  everyone.  I'm a 34 year Richmond resident.

20  I was a board member on the West County Toxics

21  Coalition, and I served on the local Emergency

22  Planning Committee in the '90s.  I was also a

1    staff member of CBE.  I made recommendations

2    for the RMPP, the risk management prevention

3    plan, concerning anhydrous ammonia and

4    hydrogen sulfide.

5              I wholly endorse the

6    recommendations of the Chemical Safety Board

7    staff, and in addition I'd like to ask that

8    you put in the recommendations from Mr.

9    Espinoza, Mr. Karras, Mr. Wilson and Ms. May,

10   in particular concerning threats with respect

11   to the earthquake hazards that we have in this

12   area and the release of dangerous chemicals.

13             So the incident that we had on

14   August 6th was pretty symptomatic of what

15   happens with multinational corporations, and

16   they're putting our communities at risk to

17   drive their corporate profits.  And basically

18   what they did, they took a gamble and they

19   rolled the dice in our community, and they put

20   our community at risk.

21             They took a calculated risk that

22   the accident would not occur, and they ignored

1    a lot of recommendations, recommendations by

2    experts in their environs, their workers.  And

3    they presented these recommendations, and they

4    ignored them.  So they rolled the dice again,

5    but they got caught this time.

6              And they made the calculated risk

7    that, even if they got caught, that they'd be

8    able to bully the public officials and the

9    regulators to manage this, using their high

10   priced lawyers and their expensive public

11   relations folks.

12             So after all this, basically what

13   it came down to is money.  They took a risk

14   that, if they didn't need to -- even if they

15   had a spill and they had to do the public

16   relations cleanup and the other things that

17   went along with it, all of the money that they

18   had to spend with that, they would still be in

19   a situation -- they felt that they could still

20   take that risk and, even with the potential

21   risks -- and by the way, it wasn't the kind of

22   risk that -- the risk could have been a lot

1    worse because of the wind factor -- let me

2    just settle down a little bit.  Let me just

3    settle down.

4                  They didn't think that, even with

5    all of the potential risks that we had with

6    the incident in Richmond, and with the

7    problems that we had because -- all right.

8                  DR. HOROWITZ:  Take your time.

9                  MR. LEEDY:  I'll stop.

10                 DR. HOROWITZ:  All right.

11                 MR. LEEDY:  One second.  What we

12   need is to institute fines and penalties that

13   will -- at a magnitude that will give the

14   corporate managers pause before they roll the

15   dice on our community.  And secondly, it's

16   high time that we install and enforce severe

17   criminal penalties for the corporate criminals

18   that put our communities at risk.  We need to

19   have enforceable rules and criminal penalties

20   and fines that make it much more risky for

21   them to even consider taking these kinds of

22   risks in our community.

1          Sorry about the -- thank you very

2   much.

3          DR. HOROWITZ:  All right.  Thank

4   you.

5          (Applause.)

6          DR. HOROWITZ:  And we go to

7   Eduardo Martinez, please.

8          MR. MARTINEZ:  Since my time is

9   limited, I will skip all the preamble and get

10  down to the points that I want to make.  And

11  one of them is that, well, I own an old '87

12  Chevy pickup truck, and it has to go to a

13  special place to be smogged.  If it doesn't

14  pass, I can't drive it.

15          (Applause.)

16          MR. MARTINEZ:  Even if I were to

17  take it to court and say "You know, this smog

18  test was bogus and I want to drive it anyway,"

19  I can't do it.  Likewise, Chevron should not

20  be able to operate their plant --

21          (Applause.)

22          MR. MARTINEZ:  -- just because

1    they want to contest your findings.  So you

2    should recommend that Chevron not operate the

3    plant, even if it's in litigation, until it's

4    repaired.

5              (Applause.)

6              MR. MARTINEZ:  Just the same way I

7    have repaired my truck.

8              The other thing is that Chevron

9    loves litigation.  They have tried to rob our

10   community of thousands, millions of dollars

11   through asking for property taxes back.  We

12   need to make it difficult for them to waste

13   our money in litigation, somehow, and we also

14   need to make them responsible for the health

15   impacts that they make on our citizens.  We

16   need to put into the recommendations a

17   community benefit agreement in which Chevron

18   puts money into the community so that we can

19   take care of the damage that they caused.

20             Thank you.

21             DR. HOROWITZ:  Thank you.  Next is

22   Sylvia Hopkins.

1          MS. HOPKINS:  Yes, I live in

2    Atchison Village, close to Chevron.  I'm a

3    member of CBE and RPA.

4              I have heard that there's been, in

5    the industry, a style adopted recently, a

6    practice, where managers of refineries are

7    there for two years.  And they get a promotion

8    next time if they do well while they're there,

9    and that includes keeping costs down.

10             I wonder if you could, somewhere

11   in your report or in your recommendations, if

12   part of safety could be that the manager needs

13   to live nearby and be there for a much longer

14   period of time, like they used to be.  I think

15   that might help things.

16             (Applause.)

17             MS. HOPKINS:  Thank you.  And my

18   next recommendation is that Chevron be caused

19   to build a hospital here and everybody gets

20   health care.

21             (Applause.)

22             DR. HOROWITZ:  Thank you.  Mary

1    Flanagan is next.

2              MS. FLANAGAN:  Hi.  I urge the

3    Board to accept the report.  And I'm a

4    teacher.  I've been in this district eight

5    years.  I'm a proud member of United Teachers

6    of Richmond.  And I'm particularly concerned

7    about the daily effects of Chevron emissions

8    on the children.  Teachers are aware that just

9    one byproduct of the refinery process, which

10   includes mercury, benzene, et cetera, just one

11   byproduct, lead, seriously affects infant and

12   child development.

13             Children are affected by even

14   small amounts of lead, and the lead's already

15   in the soil.  And lead ingested by children

16   can cause lifelong learning disabilities,

17   issues of aggression.  And that's not really

18   documented in our district.  It's very, very

19   hard to get the kids through the process of

20   being diagnosed and identified.

21             Richmond still has lead in the

22   soil from lead additives in the gasoline

1    process that was discontinued in the '70s.

2    The lead doesn't dissipate, it doesn't go

3    anywhere, and there's a long Mother Jones

4    article about this massive issue of

5    contamination, and another issue is that 30

6    percent of the kids at my school have asthma

7    medication.  We're about a mile from the

8    refinery.

9              It's essential to have outside

10   regulation on the Chevron refinery.  Richmond

11   has had many, many explosions, fires and leaks

12   over the last 40 years, and Antonia Juhasz

13   documents this in her book, The Tyranny of

14   Oil.

15             And isn't it true that Chevron

16   minimally updated and renovated their refinery

17   over the last 40 years?  The refinery's over

18   100 years old, but if Chevron did extensively

19   renovate they would have been subject to the

20   criteria written into the 1972 Federal Clean

21   Air Act, and that act stipulates that

22   particular safety and filtering improvements

1   be put in place when Chevron or a corporation

2   spends money renovating, as soon as the

3   refinery is rebuilt or extensively renovated.

4               But Chevron did not extensively

5   renovate or rebuild the refinery.  They

6   continued to use the old refinery, minimally

7   renovating, so that they avoided being subject

8   to the provisions of this 40 year-old Clean

9   Air Act.  And they would not invest that

10  money, and thereby they seriously endangered

11  and harmed the residents of Richmond, and the

12  children, more than one generation of

13  children.

14              Chevron must not be allowed to

15  self-regulate.  Children's health is not their

16  priority.  Safety is not their priority.  I

17  urge you to adopt the CSB report and

18  recommendations.  Thank you.

19              (Applause.)

20              DR. HOROWITZ:  Thank you.  Steve

21  Ongerth?  Spell it for me one more time, if

22  you would?

1              MR. ONGERTH:  Why don't I just

2      pronounce it for you?  My name is Steve

3      Ongerth.

4              DR. HOROWITZ:  Can you give me the

5      spelling for the court reporter?

6              MR. ONGERTH:  O-N-G-E-R-T-H.

7              DR. HOROWITZ:  O-N-G.  Okay, thank

8      you.  Sorry about that.

9              MR. ONGERTH:  Okay.  Well, I am a

10     union member and an environmentalist.  I'm a

11     member of the Industrial Workers of the World.

12     I'm also a union ferryboat deckhand.

13              I grew up in this community.  I

14     graduated from high school, and our ceremony

15     was held in this very auditorium in 1989.  And

16     the issues at Chevron were issues then.  I'm

17     also a graduate of U.C. Berkeley, but I think

18     I really got my education in the campaign to

19     save Headwaters Forest.

20              And I just recently wrote a book

21     which is about to be published about very

22     similar conditions that existed in the timber

1  industry, where timber corporations were

2  exploiting workers and destroying the

3  environment, and the conditions in the timber

4  mills were atrocious.

5                I think it's kind of an

6  interesting coincidence that this incident

7  happened in West, Texas because before I lived

8  here, I lived in Ennis, Texas, which is not

9  too far away from West, Texas.  And while

10  we're having this discussion tonight, a worker

11  was killed in Santa Rosa when glass fell on

12  him.

13                And I have to say that I do

14  appreciate the work that the Board has done.

15  I think it's a tremendous step forward, and I

16  think the recommendation should be adopted.

17  But it's very interesting.  Almost 99 percent

18  of the people here agree.  The only person who

19  doesn't agree is the person who's saying that

20  the industry should regulate itself.  I think

21  we've seen the results of that.  It's not very

22  good.

1              But I think, as much as I think

2     these recommendations are a good start, I

3     think we need to really look at the elephant

4     in the room, and that is the fact that we have

5     an economic system where the wealth is

6     privatized and held by the few, and the costs

7     are outsourced to the community and to the

8     environment, and it is not working.  In fact,

9     it is killing the planet.  So I think this

10    cannot continue.

11             It's about time, and I think it's

12    great to see that we are finally starting to

13    evolve and develop a backbone.  We need to do

14    more than that.  We need to put an end to this

15    murderous system.  We need to be in control,

16    not the industry.  Because the results are not

17    only dangerous, they're killing us, and

18    they're killing us every day.  And it hasn't

19    stopped in 100 years, and until we get

20    stronger and more organized it's going to

21    continue.

22             So once again, I think it's time

1    that these recommendations be a start, but we

2    have a lot more work to do.  Thank you very

3    much.

4                    (Applause.)

5                    DR. HOROWITZ:  Thank you.  Melvin

6    Willis?

7                    (Applause.)

8                    MR. WILLIS:  Good evening.  My

9    name's Melvin Willis.  I'm out here

10   representing ACCE.  It stands for Alliance of

11   Californians for Community Empowerment.

12                   First, to start off with, I love

13   all the recommendations that were made.  It's

14   finally good that this is being realized, not

15   only just at a local level but from a national

16   standpoint, for people to come all the way

17   from Washington, DC just to come here and do

18   a thorough investigation and see what the

19   problem is, and not only apply it to this

20   situation over here, but recommendations that

21   should be applied to refineries all across the

22   United States.  And I really appreciate that

1    we can get some sort of blessing out of this

2    curse.

3                But I just want to say that, you

4    know, just echo the fact that 10 years ago, on

5    the date of the refinery fire, they had a

6    recommendation that it should be replaced.  I

7    was 12 years old then.  I've kind of sprouted

8    up since then.

9                (Laughter.)

10               MR. WILLIS:  So we can see how

11   time can really play a factor when it comes to

12   many things, including wearing and tearing.

13   And you can imagine, if that's happening in

14   that crude unit, how many other -- actually,

15   there's 2,000 clamps, so we've got 2,000 other

16   units that need to be addressed as well.

17               So this is a great step for things

18   to get done.  I appreciate you guys coming out

19   here.  I think you should accept these

20   recommendations.  They're great

21   recommendations, with Greg Karras's

22   recommendation that you put it as urgent.

1    Because if we've got 2,000 clamps, and Mayor

2    McLaughlin said there were about 14

3    explosions, this is an urgent matter that

4    needs to be addressed quickly, and we can't

5    let time go by.  Because weather conditions

6    made it to where nobody died, but who knows

7    what will happen the next time, if there is a

8    next time.  Hopefully there's not.

9              Thank you.

10             DR. HOROWITZ:  Thank you.  Dan

11   Berman?

12             MR. BERMAN:  Hello.  My name is

13   Dan Berman, and I've worked on and off in the

14   area of occupational health and safety,

15   including with Brother Rafael.  We both worked

16   for the Oil, Chemical and Atomic Workers,

17   closely with Anthony Mazzocchi.

18             And I think that's where he gets

19   some of his ideas of holding these open

20   sessions.  Because that's how the Oil,

21   Chemical and Atomic Workers first got the

22   Occupational Safety and Health Act passed.

1    They had these open sessions for people

2    throughout the union, in each of the ten

3    districts of the union.

4              In any case, I wanted to speak on

5    two things.  I think what we're really talking

6    about is about democracy.  And I don't mean

7    just democracy in the sense of elections and

8    so forth, but also democracy at the place

9    where people work.  And what happens if people

10   don't have the right to protest, the right to

11   raise hell, the right to blow the whistle as

12   workers and as intelligent people in the

13   plant?  Nothing gets done.

14             I want to cite one case that Steve

15   Zeltzer, who testified here earlier, he's gone

16   home, but he put it on Labor Video Project.

17   There's a woman named Becky McClain who worked

18   for Pfizer.  She was a molecular biologist.

19   She noticed she was getting sick.  She was

20   also on the safety committee.  A non-union

21   shop in Deep Water, Connecticut.

22             So they said "Don't keep listing

1    these hazards."  She couldn't help herself,

2    because it was so blatant.  So she filed an

3    OSHA complaint.  She wanted some sort of

4    response.  The lady from Federal OSHA came

5    down from Boston -- and then she got fired

6    immediately.

7              So the lady from Federal OSHA said

8    "I don't think you're going to win this case."

9    They only deal with one case in 200.  They

10   just have no -- "we have no staff, no way to

11   deal with this."

12             Well, what happened is, she took

13   the company to court in April of 2010.  She

14   won a 1.4 million dollar judgment in the

15   federal court.  It was upheld in the Second

16   Circuit last October, so the company's going

17   to have to pay up.

18             Now, of course, Pfizer is the

19   biggest pharmaceutical company in the land, or

20   in the world, and so it doesn't really mean

21   much to them except as a matter of principle.

22   But she stood up for her rights.  Her husband

1  supported her completely.  They don't have any

2  kids, so they didn't have to worry as much

3  about where the next meal was going to come

4  from, although -- and so that's what happens

5  sometimes.

6            And as fewer and fewer workers

7  have unions to represent them, and it's down

8  to seven percent in the private sector, which

9  is the sector she was in, they don't even have

10  the semblance of protection.  And so that's

11  something to worry about: democracy.

12            And the second thing is, I was

13  wondering about -- this is what Tony Mazzocchi

14  said one time.  We were having this

15  discussion.  The refinery industry and Oil,

16  Chemical and Atomic Workers had refineries all

17  over the country.  They used to have

18  turnarounds that lasted a month just every

19  year, and they would shut everything down and

20  they'd work on it when the refinery wasn't in

21  operation.  That's why they had fewer

22  explosions in those days: they took the time

1    out.

2              The second issue was, the people

3    who worked on the refinery every day did the

4    turnaround, so they knew where the problem

5    was.  They wouldn't allow the company to bring

6    in, you know, non-union, ignorant workers that

7    don't know very much about the process just

8    because it was cheaper.  And this has always

9    been an issue in that industry.

10             DR. HOROWITZ:  Just briefly,

11   please, Mr. Berman.

12             MR. BERMAN:  I'll let you --

13   that's enough.  I'm done.

14             DR. HOROWITZ:  You can finish your

15   comment.

16             MR. BERMAN:  My only point is you

17   need trained people.  Just as you need to be

18   trained to drive a bus, you should be trained

19   to sit in the control room, and you shouldn't

20   have to sit in there for 12 or 14 hours in a

21   row, because you're going to get tired, and

22   it's a fatigue problem.

1             Thank you.

2             (Applause.)

3             DR. HOROWITZ:  Thank you.  Elliot

4  Hughes, and he is the last.

5             MR. HUGHES:  Hi.  My name's Elliot

6  Hughes.  I used to live in Richmond, but I

7  moved to Oakland.  I was kind of -- I have

8  lung problems, and I was badly affected by the

9  refinery fire.

10            I just wanted to make this point.

11 And I'm really nervous, actually.  I don't

12 ever really speak in front of large crowds.

13 But I'm also a member of the Industrial

14 Workers of the World, and I'm an

15 environmentalist and a unionist.

16            What I see, the negligence that

17 Chevron has had over this refinery, is just

18 atrocious.  And I want to say, if it comes to

19 that they want to start this refinery back up

20 with 2,000 clamps on it, the community and the

21 workers need to unite together and even take

22 direct action to make sure that this refinery

1    does not run conditions that may be unsafe for

2    the workers, the communities, or the

3    environment as a whole.

4                    So, thanks.

5                    (Applause.)

6                    DR. HOROWITZ:  Thank you.  That's

7    it, Mr. Chairman.

8                    CHAIRPERSON MOURE-ERASO:  Thank

9    you, Doctor Horowitz.

10                    So I would like to pass the gavel

11    to Richard Loeb, the General Counsel of the

12    CSB, to conduct the vote for us.

13                    MR. LOEB:  I need a motion.  But

14    would you like me to take the --

15                    CHAIRPERSON MOURE-ERASO:  The

16    whole thing.  You're the lawyer.

17                    MR. LOEB:  Well, then, I guess the

18    question then, which the Board -- would you

19    like to make the motion?

20                    MEMBER GRIFFON:  I can make a

21    motion, yes.

22                    MR. LOEB:  Thank you.

1                    MEMBER GRIFFON:  I would move that

2    the Board approve the interim investigation

3    report on the Chevron Richmond refinery fires,

4    and all the recommendations, and the

5    associated video.

6                    MEMBER ROSENBERG:  I second that

7    motion.

8                    (Applause.)

9                    MR. LOEB:  I will call the vote.

10   Doctor Rosenberg?

11                   MEMBER ROSENBERG:  Aye.

12                   MR. LOEB:  Mr. Griffon?

13                   MEMBER GRIFFON:  Aye.

14                   MR. LOEB:  Doctor Moure-Eraso?

15                   CHAIRPERSON MOURE-ERASO:  Yes.

16                   (Applause.)

17                   MR. LOEB:  In that case, we have

18   three votes in favor, and it is unanimously

19   passed.

20                   (Applause.)

21                   CHAIRPERSON MOURE-ERASO:  I have

22   some very fast closing remarks.  I only have

1    thanks to give.  Thanks to the public that has

2    stayed here to the last minute and accompanied

3    us, and we hear from your wisdom and listen to

4    what everybody says.

5                    I would like also to thank the

6    wonderful panel that we have, and the

7    presentations that they make.  And also, I

8    would like to thank again the CSB

9    investigation team and the communications

10    department, who were the ones to set up this

11    meeting and allow us to be here.

12                    So thank you very much, and good

13    night.

14                    (Applause.)

15                    (Whereupon, the meeting was

16    concluded.)

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