MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

JOE SERNA, JR. BUILDING

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY

BYRON SHER AUDITORIUM, SECOND FLOOR

1001 I STREET

SACRAMENTO, CALIFORNIA

THURSDAY, NOVEMBER 18, 2010

9:00 A.M.

TIFFANY C. KRAFT, CSR
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APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Dr. John R. Balmes

Ms. Sandra Berg

Ms. Doreene D'Adamo

Ms. Lydia Kennard

Mrs. Barbara Riordan

Mr. Ron Roberts

Dr. Daniel Sperling

Dr. John G. Telles

Mr. Ken Yeager

STAFF

Mr. James Goldstene, Executive Officer

Ms. La Ronda Bowen, Ombudsman

Mr. Tom Cackette, Chief Deputy Executive Officer

Mr. Bob Fletcher, Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Ms. Lynn Terry, Deputy Executive Officer

Ms. Mary Alice Morency, Board Clerk

Mr. Nicholas Berger, Staff, Technical Evaluation Section, SSD

APPEARANCES CONTINUED

STAFF

Mr. Rodney Hill, Staff Air Pollution Specialist, Process Evaluation Section, SSD

Mr. Wes Ingram, Alternative Fuels Section, SSD

Mr. Todd Sax, Chief, Mobile Source Analysis Branch, PTSD

ALSO PRESENT

Mr. Will Barrett, ALA

Ms. Nidia Bautista, Coalition for Clean Air

Mr. Peter Bransfield, Rypos, Incorporated

Mr. Luke Breit, Forests Forever

Mr. Hank de Carbonel, CA Pumpers

Mr. Luis Cabrales, Coalition for Clean Air

Mr. William Davis, Southern California Contractors Association

Mr. Todd Ellis, Imperium Renewables

Mr. Michael Endicott, Sierra Club California

Mr. D. Douglas Fratz, Consumer Specialty Products Association

Mr. Pedro Guzman, Clean Carwash

Mr. Henry Hogo, SCAQMD

Ms. Bonnie Holmes-Gen, ALA

Mr. Gregory Johnson, Sherwin Williams

Mr. Joseph Kubsh, Manufacturers of Emission Control Association

APPEARANCES CONTINUED

ALSO PRESENT

Ms. Barbara Losey, APE Research Council

Mr. James Lyons, Sierra Research

Mr. Dan Miller, Save Mart

Mr. Larry Milton, 21 Eagle

Mr. Simon Mui, NRDC

Mr. Brian Nowicki, Center for Biological Diversity

Ms. Betty Plowman, CDTOA

Senator Richard Polanco, Rypos Incorporated

Mr. Doug Raymond, National Aerosol Association, Radiator Specialty, CRC, Ecolab

Ms. Catherine Reheis-Boyd, WSPA

Mr. Ralph Schulhe, 21 Eagle

Mr. Matt Scrap, California Trucking Association

Mr. Tom Sem, Proventia Emission Control

Mr. John Shears, CEERT

Mr. Mik Skvarla, Lucas Associates

Mr. Patrick Smith, Harris Ranch

Mr. Mike Shuemake, CVTR

Mr. Bob Sweger, Stoner, Incorporated

Mr. Mike Tunnell, American Trucking Association

Dr. Barry Wallerstein, SCAQMD

Ms. Morgan Wyenn, NRDC

Mr. Joseph Yost, Consumer Specialty Products Association

Mr. Harry Zechman, Stoner, Incorporated

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PROCEEDINGS

CHAIRPERSON NICHOLS: Welcome, everybody. We are pleased to welcome you to the November 18th, 2010, public meeting of the Air Resources Board.

And I will ask you to come to order, please.

We customarily begin our meeting by saying the Pledge of Allegiance to the flag, so if you could please rise and join me, I would appreciate it.

(Thereupon the Pledge of Allegiance was Recited in unison.)

CHAIRPERSON NICHOLS: Thank you.

The Clerk will please call the roll.

BOARD CLERK MORENCY: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK MORENCY: Ms. Berg?

Ms. D'Adamo?

BOARD MEMBER D'ADAMO: Here.

BOARD CLERK MORENCY: Ms. Kennard?

BOARD MEMBER KENNARD: Here.

BOARD CLERK MORENCY: Mayor Loveridge?

Mrs. Riordan?

BOARD MEMBER RIORDAN: Here.

BOARD CLERK MORENCY: Supervisor Roberts?

BOARD MEMBER ROBERTS: Here.

BOARD CLERK MORENCY: Professor Sperling?

BOARD MEMBER SPERLING: Here.

BOARD CLERK MORENCY: Dr. Telles?

BOARD MEMBER TELLES: Present.

BOARD CLERK MORENCY: Supervisor Yeager?

BOARD MEMBER YEAGER: Here.

BOARD CLERK MORENCY: Chairman Nichols?

CHAIRPERSON NICHOLS: Here.

BOARD CLERK MORENCY: Madam Chair, we have a quorum.

CHAIRPERSON NICHOLS: Thank you very much.

I need to make the announcements about the logistics here.

In case there is anyone who's planning to speak who has not yet signed up and isn't familiar with our procedures, we have a table outside the auditorium and you can fill out a card. We appreciate it so we know how many speakers we need to accommodate.

We will impose during the regular comment period a three-minute time limit and ask people to just state their name when they come up to the podium. And if you have written comments, please submit them in writing and just summarize them when you speak so we can save time. And we can all learn better from reading than we can from listening.

For safety reasons, I would appreciate it if you

would note the exits, the signs at the back of the room. In the event of a fire alarm, we are required to exit this room immediately, go down stairs, and out of the building until the all-clear signal is given.

I think that's it as far as housekeeping is concerned.

And we do have a number of items on our agenda today, but before we get to them, I want to take just a couple of minutes. It's been an amazing week for us with the Governor's third climate summit taking place at U.C. Davis in addition to meetings of ICAP, the International Carbon Group, and the Western Climate Initiative. And I think it's fair to say that the focus has been on California this week for many reasons; obviously, the results of the November election and the very large victory for the no on 23, of course, has generated a lot of excitement. Some people are immediately spinning it as signs that California is about to fall into the ocean and we've really taken leave of our senses.

But I think the greater majority of people who commented on this have recognized that what happened here was not necessarily a vote of endorsement for any particular policy but a rejection of a campaign that was designed to reverse or completely deviate efforts that California has been making for many years to make our

energy system more efficient and more clean and I think a recognition on the part of the people of California that our future lies in the direction of clean technologies and greening our economy. So all of those things are very positive.

Obviously, it was a tremendous victory for Governor Schwarzenegger and for the bipartisan coalition that he helped to put together to run that campaign.

But what was interesting about the summit was the collection of international leaders who came from every continent on the planet to share stories of actions that they are taking within their own jurisdictions to try to make them more sustainable and just the really tangible recognition that there are benefits to not only sharing these stories, but to finding both policy and business solutions that people can work on together. And the blending of those two is really very dynamic, very interesting, and culminating in signing of a Memorandum of Understanding among about 30 of these leaders saying they are going to continually work together under the osmosis of a group called R20, which will focus on regional solutions, not just highlighting the need for action or some of the other international entities that have been created; a new body really designed to work from the grassroots up to try to demonstrate what can be done at

the State and local level. So that's pretty exciting.

But there is a lot of other exciting stuff going on. And because we have in town here several people who are coming to us from the other groups they're working on, I want to just introduce. You've heard about all of these folks before. I'm going to ask a couple of them to speak. But I would just like to recognize and ask you to just stand for a minute, a long-time friend and colleague from the European Commission, Jill Duggan. Jill, where are you? There's Jill in the back there. Currently based in Brussels, but spends a lot of time in California. From ICAP, we have Steve Anderson, the Chair. And from I think -- Steve, there he is. There you go, sorry. And then from the Western Climate Initiative, we have Robert Noel de Tilly there. Not Robert. Excuse me. And Tim Leslie of British Columbia who's worked with the Climate Secretariat. And these are folks who have been working with our staff for many, many months now crafting some of the details of programs that I know you're all going to be hearing more about as time goes on.

But I'd like to ask if you would, Robert and Tim and Steve, to just come forward for share a few thoughts with us, if you would, as we kick off our meeting.

MR. NOEL DE TILLY: Good morning, Ms. Chairman Nichols and Board members.

So it's an honor and a privilege for me to be here this morning and to address such a distinguished audience. You know, twice in my life I've had the chance to speak to policy makers outside of my country. And twice it happened in California. Couple of years ago, I had the chance to go to the State Capitol and address policy makers and Senators and representatives. And today, I'm meeting with the CARB Board members. So thank you very much.

I've been involved in climate change policies now for more than ten years, and collaboration is very important for us, collaboration within our states and provinces, but also our country and with the rest of the world. And this is what California is doing here. And we really like -- I had a chance twice in the last three years to attend the Governor's Summit. And I can tell you that your Governor has understood that collaboration and partnership in climate change issues are very, very important.

In Quebec, it's a small society, about eight million people. But we already feel climate change. In the northern part of our province that we call the Nunavik where the Inuit live, it used to be the permafrost country. But it's not permafrost anymore.

So we have invested -- the government of Quebec,

we have invested in housing there for 50 years. So these people do not live in tents anymore. They live in modern houses. But these houses were built on permafrost. In the last 10, 15 years, the foundation of these houses have been cracking so we have had to rebuild all the foundations. So we have been investing in more than $10 million for these population of about 15,000 people that live in a very, very large territory. So climate change is being felt everywhere in our society. And partnerships is very, very important for us.

And now when we develop policy, you know, in our country, in Quebec, we used to turn to the U.S. EPA for inspiration, but we do not turn to them very much these days. In the last six or seven years, we turn to California. This is why. There is a big base here of ideas and of very modern policies for climate change. And it's important for us in Quebec to have this collaboration and this dialogue of California.

And this is why we join WCI. I happen to have the honor now of being the co-Chair with James of this important organization. And we will be implementing a program as of 2012.

So thank you very much, California, for giving me the chance to talk to such a distinguished audience.

CHAIRPERSON NICHOLS: Thank you for being here.

Steve.

MR. ANDERSON: Thank you, Chairman. And thank you for the opportunity as well.

I'd like to just echo much of what Robert mentioned around the importance of partnership and collaboration. That is the essence of the genesis of the International Carbon Action Partnership. It was formed in 2007 largely to a great deal of the leadership and support from the state of California. And there was a formal launch in Lisbon in 2007. And the mandate for the International Carbon Action Partnership are for those jurisdictions both at a national and sub-national level looking at developing cap and trade programs who already have cap and trade programs actually implemented, such as in European Union, or on the eastern coast of the United States with RGGI. And we're sharing experiences and best practices. And we're listening and learning from one another, which helps inform our discussions and our deliberations in our own respective jurisdictions, for example, in British Columbia in the Western Climate Initiative. So this ongoing dialogue has been instrumental and continues to be instrumental as the world moves forward and transition to a low carbon economy.

We've had a number of successes over the last few years. We now regularly host ICAP summer schools for less

developed countries. We have students in on a two week curricular program. We hosted one in Berlin, Germany this year. We hosted one in Hague. After I finish the meeting today, we're going to have our member meeting and work program on what you want to continue building on the momentum that we've had since 2007.

So I will keep my remarks brief, but again thank you for the opportunity. I think it's important the state of California has been doing this as it relates to climate action. And it's been an inspiration for many other jurisdictions as we move forward and continue in the partnership.

CHAIRPERSON NICHOLS: Thank you. I believe the origin of ICAP was in Lisbon when Portugal had the residency of the European Union. And the first trip that I got to go on when I came to this Board was to be at that meeting with Secretary of Cal/EPA Linda Adams. And it was amazing to see the array of world leaders who were there and participated in that discussion. Every time we begin to feel that we're alone or isolated in this effort, it's always exciting to realize that we have a lot of help and a lot of competition, but also very healthy and supportive kind of competition.

Okay. Tim.

MR. LESLIE: Thank you, Madam Chair and Board

members. Thank you for giving me the opportunity to briefly address you this morning.

The purpose of the WCI this week in meeting in California I think carries on that spirit of collaboration that we've seen. It has been an inspiration and all the other activities that have been taking place as well as seeing the progress that you're going to make today and in the coming weeks in California on some of the issues that we have been collaborating on over the last three and four years, seeing it come to fruition and really begin to pay off.

The collaboration continues within the WCI and was very evident this week during our meetings. The differences in opinions, some stronger, some coming closer to consensus, but the spirit of collaboration and the necessity of acting as a group is still strong within the Western Climate Initiative. And I think that enabled us to make significant progress.

This week, we addressed some foundational pieces related to the original MOU between the Governors and Premieres of the Western Climate Initiative. We had the opportunity to look at the entire scope of that MOU and begin to expand our thinking beyond what has occupied our minds, as I'm sure you know, over the last few years, the design of a retail market-based system. As that gets

closer and closer to reality, it gives us and our staff an opportunity to look at what else can we do to make sure that the MOU and our actions to address climate change are truly regional and not just focused on a few sectors of our economy.

We made significant progress on the mechanics of the emissions tradings systems and have moved forward in the area of offsets. As well, we continue to expand our discussions with the Regional Greenhouse Gas Initiative, some members of which were able to join us here in California as well. So the collaboration is continuing to expand and I think pay off, driven by your leadership and our Governors and Premieres. I thank you for that and the opportunity today.

CHAIRPERSON NICHOLS: Thank you for joining us this morning.

Would any of the Board members like to ask any questions of this group? Just nod.

Thank you for being here. And we will continue to get reports from James as to the progress that's going on here.

I get asked questions all the time about whether any of this stuff is real. People can say yes, it's real. Thank you.

Okay. Our first item of business here is a

consent calendar. We have several different items that are on the consent where we had no indication of anybody wishing to speak on these items and no particular controversy. And I told the staff not to make a presentation. But if any Board member has a question, they're certainly welcome to raise it.

So we have the PM10 implementation and maintenance plan and redesignation request for Sacramento County. We have the approval of proposed Imperial County 8-hour ozone modified Air Quality Management Plan 2009 SIP. And we have two research proposals all in front of us.

Is there any discussion on any of these items?

If not, I think I can ask for a motion to move all three of them at the same time.

BOARD MEMBER RIORDAN: So moved.

BOARD MEMBER BERG: So moved.

BOARD MEMBER ROBERTS: Second.

CHAIRPERSON NICHOLS: Thank you very much. We'll take care of those.

That moves us to the proposed amendment of the ATCM for in-use diesel fuel ACTM TRU. We're talking about airborne toxic control measures for transport refrigeration units. Staff is proposing three amendments to this regulation. These proposed amendments address two

key provisions that require action by December 31st, 2010. Obviously, it's important that we take action on them today.

And I will now turn over this item to our Executive Officer, James M. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols. Good morning, Board members.

Today, we're proposing for your consideration amendments to the TRU regulation that address time-critical issues for the implementation of the issue. As you know, TRUs can operate at distribution centers in significant numbers, exposing nearby residents to unhealthy levels of diesel PM.

These changes are needed because they address compliance requirements that became effective at the end of the year. Staff plans to return to you midyear 2011 with additional proposed amendments that are not quite ready but are time critical, but not as time critical as the amendments before you today.

I'd now like to have Mr. Rod Hill of our Stationary Source Division present staff's proposal for the amendments to the TRU regulation.

Mr. Hill.

(Thereupon an overhead presentation was presented as follows.)

STAFF AIR POLLUTION SPECIALIST HILL: Thank you, Mr. Goldstene, Chairman Nichols, and members of the Board.

Today, we're proposing amendments to the Transport Refrigeration Unit Airborne Toxic Control Measure, otherwise known as the TRU ATCM.

Today's proposed amendments are to address the most immediate issues. There are additional issues related to the TRU ATCM that will be addressed in a later rulemaking.

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STAFF AIR POLLUTION SPECIALIST HILL: This slide shows an overview of what will be discussed today.

First, we will provide some background.

Then I'll explain the proposed amendments including the rational and associated impacts.

Finally, I'll make staff's recommendation.

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STAFF AIR POLLUTION SPECIALIST HILL: In October 2000, the Board adopted the Diesel Risk Reduction Plan which included a provision for the TRU control measure. The TRU regulation which applies to both TRUs and TRU gensets was adopted in February of 2004 and became effective in December 2004.

In March 2005, we applied for a waiver from the U.S. Environmental Protection Agency to authorize ARB to

enforce the regulations of in-use performance standards. Requesting this authorization is required by the Federal Clean Air Act, and it was approved January 16, 2009.

This approval came after the first in-use compliance deadline, so ARB delayed its enforcement until December 31st, 2009.

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STAFF AIR POLLUTION SPECIALIST HILL: TRUs are refrigeration systems that are powered by an integral diesel engine used to control the environment of temperature-sensitive products that are transported in trucks, semi trailers, rail cars, and shipping containers.

Pictures of each of these types are shown here.

The engines in the truck TRUs shown in the right picture are generally rated at less than 25 horsepower. The engines in the trailer, rail car, and shipping container TRUs are generally rated in the 25 to 50 horsepower category.

TRUs often congregate in large numbers at distribution centers, such as those owned by major retailers and grocery stores. The exposure of nearby residents to diesel exhaust was a key driver in developing this regulation.

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STAFF AIR POLLUTION SPECIALIST HILL: Another

type of refrigerated transport system is refrigerated shipping containers and trailers that go on ocean-going ships. On ship, the refrigeration system is powered by the ship's electricity. When these refrigerated shipping containers and trailers come off the ship, they need electrical power to run the refrigeration system.

To provide this power, a TRU genset is attached to the shipping container or trailer when it is not on board an ocean-going ship. The electrically-driven refrigeration system can then be plugged into the generator on the land leg of the trip.

TRU gensets are also affected by this regulation. For the remainder of the presentation, when I use the term "TRU", I'm also referring to both TRU units and TRU gensets.

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STAFF AIR POLLUTION SPECIALIST HILL: The key requirements of the existing TRU ATCM are listed here. By July 31st, 2009, all California-based TRUs were required to be registered in ARBER, ARB's web-based registration system.

Additionally, all California terminals were required to submit an operator report by July 31st, 2009.

And all TRUs that operate in California, including those based out of state, are required to meet

the TRU ATCM's in-use performance standards on a phased compliance schedule.

Once a TRU engine reaches seven years old, it must come into compliance with the in-use standards or be replaced. All TRUs must eventually meet the most stringent in-use standard.

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STAFF AIR POLLUTION SPECIALIST HILL: Since the TRU ATCM became effective, staff have been conducting outreach training and have provided compliance assistance to affected TRU owners and operators. We have also met regularly with stakeholders on various compliance issues. And we have developed regulatory advisories to clarify the requirements and explain ARB's policies to provide flexible compliance solutions.

Staff have worked with compliance technology providers to assist their development efforts towards verification of retrofit systems.

We have conducted and participated in compliance technology forums.

ARB's equipment registration, or ARBER, has also been developed. Over 100,000 units have been registered.

We maintain a toll-free help line to answer questions about the control measure and provide registration assistance. Staff estimates that we have

responded to over 8,000 calls.

Enforcement began in August 2009 for registration requirements and in January of 2010 for the in-use requirements.

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STAFF AIR POLLUTION SPECIALIST HILL: Earlier this year, we conducted a series of workshops to identify and discuss options for addressing issues that have arisen during the implementation of the TRU ATCM. Over 20 possible amendments were identified.

Staff realized based on the scope of the amendments that a significant amount of work was needed to fully address the economic, environmental, and public health impacts of all the potential changes.

Staff concluded after the June workshop and relayed to stakeholders that the best approach would be to focus on the 2010 amendments on the most time critical issues that needed resolution by the end of this year. Today, we are proposing three amendments.

We will return next year in 2011 with additional proposed amendments to address the broader issues that require more work, including revisiting the seven-year operational life requirement.

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STAFF AIR POLLUTION SPECIALIST HILL: The next

few slides describe the three proposed amendments.

The first amendment applies to all model year 2003 TRU engines and only model year 2004 engines that were rated at less than 25 horsepower. When the TRU regulation was adopted in 2004, staff anticipated that level three retrofit systems that reduce diesel PM by 85 percent would be available for TRU engines by 2010.

As a result, the original regulation required that, beginning with model year 2003, TRU engines must meet the ultra-low emission TRU in-use standard, what we call ULETRU, by retrofitting with a level three control device by December 31st, 2010. For model year 2004, the original regulation required ULETRU to be met by December 31st, 2011.

We're proposing an amendment because only one level three control system is currently available and the supply is not sufficient to meet anticipated demand by the end of 2010. To provide TRU owners with sufficient notice on their options, we issued a regulatory advisory this past summer.

The proposed amendments would allow model year 2003 and model year 2004 truck TRU engines to comply with in-use standards by meeting either the ULETRU or the less stringent low emission, or LETRU, standard.

The LETRU standard can be met by retrofitting

with a level two control system or by installing a new Tier 4 engine. A level two retrofit will reduce PM emissions by 50 percent.

If a TRU owner chooses to comply by retrofitting with a level two control system, then they would still need to comply with ULETRU seven years later in 2017 or 2018.

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STAFF AIR POLLUTION SPECIALIST HILL: The second amendment affects flexibility engines.

Federal and State off-road engine standard regulations for new engines allow equipment manufacturers to temporarily build and sell a limited amount of equipment using engines that meet a prior tier standard. Use of flexibility engines results in higher emissions when compared to new engines that meet the standards in effect at the time of manufacture.

The use of flexibility engines has been much greater than expected.

The compliance schedule for TRUs is tied to the model year of the engine. And since flexibility engines meet a prior tier emission standard, the model year of the engine is older than the year the engine was manufactured. Thus, TRUs equipped with flexibility engines can have an engine model year that is one to three years older than

the manufacture year.

As a result, under the current ATCM, TRUs equipped with flexibility engines would have one to three years less operational life. Most owners of TRUs with flexibility engines were unaware that the equipment they purchased would not receive the full seven year operational life that a non-flexibility engine equipped TRU receives under the ATCM.

To address this issue, we are proposing to use the flexibility engine's actual manufacture year as the basis for determining the in-use requirements and compliance dates for pre-2011 engines. This allows current owners of TRUs the full seven years of operational life.

For flexibility engines sold in the future, we are proposing to base the compliance schedule on the standard that the engine meets. Engines meeting earlier emission standards would have a shorter operational life.

To protect consumers, the TRU manufacturer would be required to disclose to the ultimate purchaser that the TRU is equipped with a flexibility engine and the ULETRU must be met on a deadline that is based on the effective model year of the flexibility engine.

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STAFF AIR POLLUTION SPECIALIST HILL: The

proposed amendments also include a new requirement for TRU manufacturers. The TRU manufacturers would be required to report to ARB information regarding the equipment models and the engines they are expected to be produced. This information will help to improve the accuracy of statewide engine and emissions inventories as well further streamline the registration process.

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STAFF AIR POLLUTION SPECIALIST HILL: The emissions impacts related to these proposed amendments are small. As the graph shows, the emission reductions would be temporarily deferred until the 2017-2018 time frame.

We applied this change in estimated emissions impacts to the original health risk analysis conducted for the TRU ATCM and found that the change in the public health risk is also negligible. These estimates are based on the original TRU inventory, which is sufficient to allow us to evaluate the impact of the proposed amendments. However, in order to move forward on the more significant amendments being considered for 2011, a new inventory will be needed. As we develop this inventory, there are several factors we need to consider.

For example, we know that compliance costs are higher than originally anticipated. Additionally, ARBER has shown us that the number of TRUs on California roads

is much higher than originally estimated.

We also need to assess the impact of a recession on the TRU industry, bearing in mind that the refrigerated goods sector has been negatively impacted, but to a lesser degree than the dry goods or the construction sectors.

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STAFF AIR POLLUTION SPECIALIST HILL: This slide discusses the cost impacts of the amendments. The first amendment results in a net savings of about $310,000 statewide.

In Amendment 2, there are no costs to the end user associated with flexibility engines.

For Amendment 3, the TRU manufacturers would incur costs of approximately $150,000 associated with reporting data on flexibility engines and reporting the unit and engine information.

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STAFF AIR POLLUTION SPECIALIST HILL: Staff recommends the Board approve the proposed amendments. Staff also recommends the Board direct staff to issue an implementation advisory to the affected industry, explaining these amendments and to conduct outreach efforts to existing owners of TRUs equipped with flexibility engines to explain the use of the flexibility engines manufacturer dates, compliance dates, and the need

to register their units with the ARBER.

Staff also recommends that the Board direct staff to continue its efforts to work with TRU manufacturers on the development of a reporting mechanism that provides the data that ARB requires while being mindful of data security needs.

Finally, we are recommending the Board direct staff to return to the Board in 2011 with additional proposed amendments to address industry concerns including recommendations that consider extending the operational life of TRUs.

This concludes staff's presentation of the proposed amendments. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Do you have any concluding remarks, Mr. Goldstene, before we go to --

EXECUTIVE OFFICER GOLDSTENE: No. We look forward to seeing if there are any questions. It seems like it should be a simple rule, but it gets complicated.

CHAIRPERSON NICHOLS: It gets complicated.

Dr. Telles.

BOARD MEMBER TELLES: Thank you for the presentation.

I have two questions. One, I notice that the out-of-state TRUs aren't registered, but they have to

comply. How will you enforce that compliance? How do you track an out-of-state TRU?

PROCESS EVALUATION SECTION MANAGER BOYD: Our enforcement folks will track that out in the field. So, for example, the enforcement activity takes place at distribution centers and truck scales. If they observe a non-compliance unit out in the field, the citation will be issued at that point, when they're in California.

BOARD MEMBER TELLES: Is there some easy recognizable way if you just drive by one of these things and they have a decal on them or something?

PROCESS EVALUATION SECTION MANAGER BOYD: If they voluntarily chose to register, we would have issued them an identification number which they would have fixed through their TRU. So that would provide an easy way to identify the unit was complying at the time of registration.

BOARD MEMBER TELLES: Thank you.

One final question on the seven-year life. How did the staff come up with a seven-year life? Is that based on the kind of natural deterioration of equipment or based on some kind of regulatory number?

PROCESS EVALUATION SECTION MANAGER BOYD: We base that on our efforts to align with the Diesel Risk Reduction Plan that was adopted back in early 2000 to meet

specific emission reduction goals by 2020 looking at the population out there. So that particular operational life was established to align with that.

We also collected some data about what the expected turnover was. And we had a range of turnover between five years and ten years depending on how the actual vehicle was used, whether it was a long haul truck operation or a shorter operation.

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: This is Dan Donohoue.

A couple other comments. With respect to looking at useful life, there are a number of factors that go into that, including the engines -- what is the life of the engine, the compressors on the systems that are there and the trailers itself. So it involved looking at all that data.

There is a big difference between if you're a long hauler or a short hauler as far as how quickly you accrue those things. So there was a lot that goes into that calculation.

We are going to, as part of the amendments, go back and relook at all that information to make a new look at what, in fact, is the useful operational life of these engines. We did, in the original thing, believe that the operational life of these engines on whole is around

ten years. For the regulation, we took into account the cost of regulation reducing that as part of the cost of the regulation to get a quicker turnover on the engine sets that we get more quick emission reductions associated with that.

CHAIRPERSON NICHOLS: Yes.

BOARD MEMBER BALMES: So I have an informational question. Can somebody in the staff explain what the flexibility engine is?

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: We'll maybe all three of us have a try.

Basically, it's an engine that's being built in a later year, but it's being made to an earlier standard. So if you have a transition between the tier engine one or the other, it's built to an older, like a Tier 2 or Tier 3 when you're up at a 3 or 4.

And this has allowed under the off-road rule that both EPA and ARB has to allow for certain low-volume engines being made to be continued to meet that.

Now, the issue is they can be continued to be made for up to seven years. And the volume of them is somewhat limited, but it's kind of up to the manufacturer to decide what source category they ended up putting those in.

The interesting thing about this is what happened

here that we weren't aware of is 10,000 of those were directed to the California market, which was an exceptionally large number. 35-, 36,000 were directed to the U.S. market. We did not anticipate based on past experience that we would see that number of flexibility engines and the potential for the duration there. So they are new engines but built to an old standard.

BOARD MEMBER BALMES: Thanks.

BOARD MEMBER BERG: I'll go ahead and jump right in.

CHAIRPERSON NICHOLS: Yes, please.

We're having a little AV issue here. I think we can continue the conversation, but then want to take a very short pause so we can allow for people who wish to follow us by web to call in -- apparently the call in was not available when we started the meeting.

So why don't we just finish up the Board questions and then we'll take a very short break.

BOARD MEMBER BERG: Just so I understand the compliance, on model year 2003 and model year 2004, the compliance date is December 2010?

PROCESS EVALUATION SECTION MANAGER BOYD: Right, for model year 2003 and model year 2004, less than 25 horsepower. Greater than 20 hours model year 2004.

BOARD MEMBER BERG: So at the conclusion of our

vote today, industry will have about 45 days to come into compliance?

PROCESS EVALUATION SECTION MANAGER BOYD: Correct.

BOARD MEMBER BERG: And then on model year 2005, it's December 2011?

PROCESS EVALUATION SECTION MANAGER BOYD: 2005 would be 2012.

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: In December 2012. Add seven to the number. Actually, the 2004 date we talked to you earlier, that would be 2011.

BOARD MEMBER BERG: And how many of the ULE TRU do we have in the pipeline going through the verification?

PROCESS EVALUATION SECTION MANAGER BOYD: We have one ULE TRU device that has completed verification conditional and is on the market right now. We are working with another manufacturer on their level three system. We are anticipating verification of that to occur probably around the May time frame of this year.

BOARD MEMBER BERG: So one additional?

PROCESS EVALUATION SECTION MANAGER BOYD: One additional.

BOARD MEMBER BERG: I think that's it for now. Thank you.

BOARD MEMBER TELLES: Since we have a little

time, can I ask one more question?

CHAIRPERSON NICHOLS: Sure.

BOARD MEMBER TELLES: These filters that are put on there, that will make the vehicle compliant for the next seven years?

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: Yes. The next seven years, if it's meeting the LE TRU standard. If it meets the ULE TRU standard --

BOARD MEMBER TELLES: Are those filters guaranteed for seven years with no additional cost to the person or the company that buys them?

PROCESS EVALUATION SECTION MANAGER BOYD: No. No. The warrantee period is typically about four years on those. Four to five years is what the manufacturer will offer. There are manufacturers here that can clarify that.

BOARD MEMBER TELLES: So somewhere in there if that device breaks down, that trucker may have to buy a whole new system or the compliance cost for him might be twice of what you estimate?

PROCESS EVALUATION SECTION MANAGER BOYD: There may be some repair cost or replacement cost at the end of the lifetime that would be experienced by the owner-operator.

BOARD MEMBER TELLES: Is there an estimate on the

frequency that that's going to happen?

PROCESS EVALUATION SECTION MANAGER BOYD: We don't have sufficient data available today to tell us what the end of the life filler rate would be. These devices are still fairly new.

BOARD MEMBER TELLES: We'll be voting on something that's a little uncertain as far as the cost to industry?

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: Yes, you are.

DEPUTY EXECUTIVE OFFICER FLETCHER: However, the amendments that are being proposed reduce the costs associated with compliance with this regulation. So that seven years was there originally. And because of the nature of the amendments, they would have had only five years to replace. So now we're essentially extending that time period for compliance. That is a structure of the original regulation not associated with these.

CHAIRPERSON NICHOLS: Okay. I need to check with staff as to how much time. Is five minutes enough?

BOARD CLERK MORENCY: Just one or two. They just have to call the number.

CHAIRPERSON NICHOLS: We'll take a five-minute break then. Thank you.

(Thereupon a recess was taken.)

CHAIRPERSON NICHOLS: We're ready to now hear from the witnesses. And I will call you in groups so you'll be ready to come up. And we will be imposing a three-minute time limit on speakers. So we'll start with Joe Kubsh from the Manufacturers of Emission Controls Association and Tom Sem and Patrick Smith.

Good morning.

MR. KUBSH: Good morning, Madam Chair, members of the Board.

My name is Joe Kubsh. I'm the Executive Director of the Manufacturers of Emission Controls Association. Our members include many of the manufacturers that have verified retrofit technologies here in California with your staff, including technologies verified for the TRU applications that we're discussing here this morning.

I'm here to indicate that MECA supports the proposed amendments that are before you today and understands the need for provide additional flexibilities for 2003-2004 model year TRU engines. Allowing these engines to make use of available verified level two technologies provides that flexibility to the end user while still providing PM reductions. There are more than 4500 level two technologies that have been sold into TRU applications here in California, and the experience so far has been quite good.

Some initial glitches were quickly resolved by one manufacturer. And there is a very extensive dealer network available here in California to sell, install, and service these technologies.

And as you already heard, the options for level three retrofit technologies for TRUs are being expanded by one manufacturer, and we expect that verification, as you heard, to be completed in the coming year.

I just want to close by indicating that regulatory certainty on these amendments is important and needed to get engines off the sidelines and into compliance and to protect the investments that manufacturers have made to verify retrofit technology for these TRU applications.

I'd like to thank the staff for bringing these amendments forward. And we look forward to working with the staff on the next set of amendments for next year.

And in conclusion, I would like to ask you again to adopt the amendments that are before you. Thank you.

CHAIRPERSON NICHOLS: Thank you very much.

Tom Sem.

Mr. SEM: Good morning. My name is Tim Sem. I'm the North American representative for Proventia Emission Control. We manufacture the level two VDEX to fit the Thermal King TRUs to make them compliant to the LE TRU

portion of the regulation.

And I submitted our sales and warrantee data since the beginning of the project, beginning in '08 and including the sales data up until this week in '10, and also our warrantee summary, which we submit to CARB annually just to indicate that the reliability of the level two VDEX has been really good.

And my main point today is I just want to say that we do have manufacturing capability to meet the regulation if these amendments pass. In March of this year, we moved our production from Europe over to Minnesota so that we could respond more quickly to customer demand.

CHAIRPERSON NICHOLS: You're getting closer, but how about moving further west?

MR. SEM: My grandkids are in Minnesota.

So that's all. I just wanted to confirm that we have the capability to ramp up as needed to meet customer demand if the amendments pass.

CHAIRPERSON NICHOLS: Thank you very much.

Patrick Smith, followed by Dan Miller and Mike Shuemake.

MR. SMITH: Good morning, Madam Chair, Board members, staff.

My name is Patrick Smith with Harris Ranch, and

we are in support of the staff's proposal.

We tried to apply level three devices in 2003 and older TRU with disastrous results, two different technologies we had to resolve with level two. And it still created problems. Even though it's verified technology, the practical applications still has a lot of problems. Unfortunately, we have a supplier that's very proactive and very good to work with.

We would also strongly recommend that the Board and staff consider a ten-year life. For most California carriers, that TRU unit has a useful life of 25 years. A ten-year life would help us tremendously.

We also need to develop a very strong working relationship with the developers of this technology for field testing prior to verification. We think we could help perfect this technology when it's required by the rules.

So thank you for your consideration.

CHAIRPERSON NICHOLS: Thank you. Sounds like a good suggestion. Okay.

Dan Miller, Mike Shuemake, and Larry Milton.

MR. MILLER: Good morning, Madam Chair, Board members, and staff. My name is Dan miller. I'm Vice President of Transportation for the Save Mart supermarkets. I operate 250 stores in northern

California.

We agree with the proposed revision concepts relative to the TRU engine. However, we would ask that the due date be pushed out 90 days from December 31st, 2010, to March 31st, 2011. Due to the lack of ULE TRU units for 2003 TRU units, the proposed changes to the regulation and the fact that the proposed changes are not certain to be voted on today by the Board, we need time to react that does not affect our business.

Now is a very busy time of the year for our companies as well as other companies that transport food products. In order to comply with the due date of 12-31, we would have to put trailers out of service and be unable to satisfy our customers' demands during this critical holiday season in these very difficult economic times.

Thank you for your time today and your consideration of extending the due date to December 31st, 2010, to March 31st, 2011.

CHAIRPERSON NICHOLS: Thank you.

Mike Shuemake.

MR. SHUEMAKE: Madam Chair, I'm Mike Shuemake, President of Central Valley Trailer Repair in Fresno.

I prepared three minutes' worth of speech and decided I'm going to change that a little bit just to clarify a few things that have been said today.

One of the things that was brought up was the warrantee on the existing VDEX. And it was said it was four years. But most of the warrantees on the VDEX are also hours related at about 2600 hours, which for most -- most carriers, that relates to only a two-year usable life warrantee.

So to address your question, John, you don't have really five years of warrantee. You only have about two. And in some cases, it's as low as one.

The field testing, there wasn't enough field testing done on the LE TRU devices to get a good comfort level for industry to be able to use the devices and feel like they were going to work. We've been -- we're getting into the LE TRU stuff and seeing some issues. We're working through them with the manufacturers. And there are only one device for over 25 horse power units. There's only one device for each of the major manufacturers. So we are in a little bit of a monopolistic -- we're forced to use just one vendor for the product.

Going forward, we really need to extend that lifetime, the life cycle. The original Statement of Reasons, it was 16 years for the off-road model from the EPA. For some reason, staff decided to reduce that to ten after talking about turnover. You can't -- turnover and

operational life or not the same. If a customer turns his unit over -- when you trade your car in, they don't take it to the scrap yard. They take it to the next guy that wants to buy a cheaper car.

In our case now, because the way of the life cycle -- the seven years, basically at the end of seven years, you have to scrap that trailer. So we need to be looking a lot harder at that, at minimum of ten years or a one and done situation. Once you made the investment of technology, we need to be finished.

Anyway, the rule that you're voting on today, we have no opposition to. It's needed. It should have been done a year ago. We talked about flexibility engines and how they affected the marketplace a year ago to staff. We've talked about the '03 and the fact that it is a less tier engine than the '04 and it was going to be harder to get the ULE TRU. Now we're down to the last 45 days before compliance deadline and we're being forced into this technology. I would urge you to extend it to March.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Larry Milton and then Senator Polanco.

MR. MILTON: Good morning, everyone. My name is Larry Milton. I'm President of 21 Eagle.

I come back to California -- actually raised

here. Decided to come back to California to lead again not only just the U.S., but the world, in technology and energy conservation.

We actually have a technology that's available to definitely exceed BACT standards. That is the best available control technology that allows fuel to -- diesel fuel. We can accommodate any of them, but basically diesel fuel to burn completely. No toxins.

We have a test we've been going across the nation we're doing. We ran some on the trucks we have available here in the area that would not pass the emission standards in the port of Long Beach.

We're working with some of the legislators. They are very happy with the technology we have.

We're also going through which is the verification process. We initiated it to show that it is a product; no modification is required. We can meet all of the standards that we're looking for today for the ultra low emission. We can do all that in 2011. Because it allows fuel to burn completely without the toxins, this would allow anything downstream of here to actually increase the life longevity of those components, including the DPF filters as well the TRU units.

There is no carbon deposit release. We have some municipal buses over 400,000 miles with no carbon

deposits. And we share that in the state of Louisiana. Actually go to the website and see the videos that we've done. That's where I was born. But I was raised here in California. So I decided to bring it here so that we can continue on with it.

Very favorable in China right now and also in the southern Hemisphere. But what we would like to do is definitely -- I would like to, Ms. Nichols, have you to have some way to expedite the verification process so we can actually have it done in 30 days. And you can see across the board this works with aircraft, locomotives, marine vessels as well. Because it's transformational technology, it's going to change a lot of the things we're doing at very economical extreme, economical level where the state of California we can start with the savings the first year in billions of dollars guaranteed.

Thank you very much.

CHAIRPERSON NICHOLS: Well, thank you. I hope you'll present the information to our staff and they can follow up with you on the suggestion that you made for the process.

EXECUTIVE OFFICER GOLDSTENE: Chairman Nichols, I notice Mr. Milton has two colleagues, Ralph Schulhe and Armando Sinclair. I don't know if they're going to be saying the same thing or not.

MR. MILTON: No, they won't be covering the same thing.

CHAIRPERSON NICHOLS: Okay. They signed up to speak, so we'll give them their time.

Senator Polanco followed by Peter Bransfield and Pedro Guzman.

SENATOR POLANCO: Madam Chair, good morning. Commissioners, thank you very much for the opportunity to address you. I'm here today representing Rypos.

I will be very, very brief. First, I want to acknowledge the leadership of the staff as well as the Commission. We've come a long ways. My 16 years in the Legislature, I remember legislating the bill that created these kinds of economic studies and workshops. And so I'm glad full circle to be here to present and express support for the proposed amendments.

Having said that, we do want to bear light on the very important note, which is there appears to be the utilization of the recession as a means for delays and postponements, outright stops of rule and regulation.

Proposition 23 is a classic example that went before the voters. The measure was to delay, to stop the regulation implementation of AB 32 for up until the unemployment rate dropped to 5.5 percent. That's a slippery slope. The recession we've had before in the

past in the state of California, this too will pass.

I think what we are here to ask is to look at this in a comprehensive manner. We have public pension funds throughout the country, our own here in California, that is invested in these new clean technologies. The CEO, who will present right after my presentation, is a recipient as a result of those allocations that is bringing the kinds of clean technology that is creating a wealth of meaningful significant jobs. Over 50 dealerships have been created as a result of this one company's efforts and presence here in California. Over $100 million has been invested in the areas of research and development. Over two billion across the country towards clean technologies.

I will close by saying that reliability and stability of regulation is critical, not only to the implementation of the work that you do all, but it's also critical in sending the message to the business investment communities. Certainty of enforcement is also essential, and the need for the additional resources in order to bring compliance is critical.

And so I close by saying on behalf of my client, on behalf of the voters who spoke and send a clear message saying to all of us that the key going forward, there is no need to stop that of what is being implemented as it

relates to this very, very important issue.

I would ask that you give serious consideration to adopting the rule, making sure that we don't go beyond that of what is on the books from this point forward as it relates to this particular issue of great importance.

Again, thank you very much for your leadership, Madam Chair. You've been a strong advocate as well as the members of this Board. I recognize former employee Doreene. It's good to see you. Thank you, Lydia, for all the work you've done in Los Angeles and your participation there as the former Executive Officer. We appreciate it.

CHAIRPERSON NICHOLS: Thank you. Thanks for the reminder.

Okay. Peter Bransfield and Pedro Guzman and then Mik Skvaria.

MR. BRANSFIELD: Madam Chair, Board members, thank you for the opportunity to speak.

My name is Peter Bransfield. I'm the CEO of Rypos, Inc. We're a manufacturer and supplier of VDEX equipment. Since May of 2008, we've delivered over 4600 verified LE TRU VDEX to the marketplace. These systems have completed more than 11 million operating hours resulting in capture and disposable of over 85 tons of particulate matter.

We are supportive of the proposed amendment to

extend the compliance for LE TRU to the 2003 model year. The Tier 1 engines incorporated in these model years are identical for 1995 to 2002 model years and are therefore appropriate candidates for LE TRU retrofit.

Engine replacement, rebuild, and exhaust retrofit solutions are all available to the operators to become compliant.

We are currently in an excellent supply position with more than enough inventory and production capacity to meet the near and long term market demand. We have established channels and excellent geographic coverage for sale, service and support in California and across the country.

We're in an equally strong position regarding our ULE TRU development effort. This modification allows us to focus on Tier 2 engine emissions and postpone the need for ULE TRU on Tier 1 engines until probably 2015. As a result of this change, we are ready to begin immediate trials of our two ULE TRU products with the goal of achieving verification in early 2011. We're looking forward to working with our customer partners and staff to bring the most reliable and cost effective control solutions to the market in a timely manner.

These ULE TRU VDEX are very nearly identical to the LE TRU products in the field, with the exception of

the filter cartridge which is more efficient.

These units have amassed thousands of hours of operation on our full scale development test stands. Their modular design will also allow us to recycle LE TRU VDEX and upgrade them to ULE TRU VDEX and significantly reduce cost to the operators when compared with buying a new unit.

As Senator Polanco mentioned, we made a significant investment in the California market. And we continue to invest in the ULE TRU market based on the stability of the regulations.

There's been some discussion regarding the lack of availability of compliance options for the operators and lack of composition in the VDEX space.

There are several viable options available. I believe there will be more in the coming months. There is and will be competition. And this is an industry that knows how to get the most out of their suppliers. The refrigeration truck industry has thrived with only two suppliers for transport refrigeration units for the last 30 years.

We've held our prices constant since launching in 2008, in spite of increased costs over that time. Our dealer network provides multiple outlets for operators to purchase, and we are looking forward to continuing to

support the market as we go forward.

I appreciate the opportunity to speak and your dedication to the clean air. Thank you.

CHAIRPERSON NICHOLS: Thank you. We appreciate your participation in this product. I know it's difficult.

Pedro Guzman, Mik Skvarla, Matt Schrap.

Is Mr. Guzman here? No.

Okay. We'll hear from Mr. Skvarla.

MR. SKVARLA: My name is Mik Skvarla. I'm with Lucas Advocates here on behalf of one of the two manufacturers of TRU units. We appreciate the opportunity to work with the ARB on this regulation and continue working with them in the near future as they reopen the reg in 2011.

We've expressed some concerns to the staff about the strict confidentiality of the competitively sensitive data required in the reporting requirements, and we hope that this concern will be addressed when it reopens in 2011.

We believe that the option of reporting mechanisms that are in this current update provide us the possibility of working with staff and through the Executive Officer to achieve compliance.

To that end, we appreciate the efforts by staff

and the Board on this subject and look forward to working with you in the future.

CHAIRPERSON NICHOLS: Thank you.

Matt Schrap and then Ralph Schulhe.

MR. SCRAP: Good morning. I appreciate the opportunity to come and present before you this morning.

My name is Matt Schrap. I'm Director of Environmental Affairs at the California Trucking Association. And we stand before you today to say we do not oppose these amendments. We do recognize, however, that there are serious challenges moving forward for any users in this state and beyond.

When we talk about reliability, that is something that our industry relies upon. Without equipment that works, we're going to move into an area where food safety becomes a problem, liability becomes a problem. We need certainty that this equipment is going to be reliable.

We're not coming before you to ask for a delay. We're not looking to push off requirements. What we want is a sensible approach, a pragmatic approach towards putting something in place that's going to be a sustainable regulation that protects the end user, that allows Mr. Jacobs to have a robust enforcement piece.

And from our perspective, we worked with staff. We've worked with the engine manufacturers. We've worked

with the retrofit manufacturers. We've come and spoke to several of you on the Board about a longer extended useful life for this type of equipment. We look forward to the next round of amendments when the serious work will have to be done. We guarantee that we'll be working with staff closely as well as the engine manufacturers as well as the retrofit manufacturers. But we need to take a hard look at how we're classifying this useful life of these engines.

And again, we're not asking for a delay in the standards. We're not trying to loosen the standards. We're trying to come up with a pragmatic approach that's going to work for everybody.

I appreciate your commitment. I appreciate the staff's commitment towards coming up with a sensible regulation that's going to work for all parties involved. But we are very, very supportive of the extended useful life.

And for carriers who are looking at an imminent compliance date at the end of this year that some type of additional time leading up until March 31st, 90-day extension or 45-day extension on the LE TRU requirements for 2003 should be pushed out so carriers aren't putting in place enforcement actions when all the while they were looking for some type of a reliable consistent regulation.

So as we move forward today, we're very supportive of these amendments, as I mentioned, but I think there is a lot of work that needs to be done. I look forward to working with staff. But there should be something that's put in place that extends the enforcement window for these '03 LE TRU engines.

So with that, thank you.

CHAIRPERSON NICHOLS: Thank you. We appreciate your very constructive comments.

Okay. Ralph Schulhe and then Armando Sinclair and Michael Tunnel.

And those are the last witnesses.

MR. SCHULHE: Good morning, Chairman Nichols and Board.

My name is Ralph Schulhe. I'm here -- I just want to clarify I'm with 21 Eagle of Southern California. We developed this company to basically do pilot program testing on private fleets for 21 Eagle California. And we basically formed a separate technology development and sales for the technology implementation process of 21 Eagle's technology. So just to clarify that point.

We are currently testing that technology that Larry Millton mentioned in two Fortune 500 companies within the United States. We developed the testing systems specifically designed to identify all

possibilities of diesel, biodiesel, and gasoline emissions.

As you all know, may know, diesel fuel releases 37 toxins. Biodiesel releases 51. And what we've discovered in our testing process is that with the technology that 21 Eagle provides, we can reduce CO2 emissions down to .03; CO emissions down to .001; HO emissions down to .002; and NOx levels down to .02 to .03. This is with no retrofit technology. It's turnkey technology.

Basically, we were able to show that with this technology we removed 1,044 pounds of CO2 per truck that we tested in these fleets. These fleets are not in California. We are trying to develop more business in California in order to basically bring this technology to California.

But from what I understand in AB 32 and CARB, you know, and what CARB does, from what I understand, CARB is supposed to seek technology like this. And I'm hearing a lot of talk about different filters and different TRU systems and things like that. We have a technology basically that will remove these carbon emissions, remove these toxins without any filtration systems on newer vehicles and newer systems that use diesel and older systems that use diesel.

So basically, you know, I invite private companies as well as California Trucking Association as well as CARB to look into our product and really see what it is we're doing and what we can do with this technology.

CHAIRPERSON NICHOLS: Okay.

BOARD MEMBER SPERLING: Quick comment. I just have been searching the web internet diligently, and I find no record of this company anywhere, except for the names of a few people that have been linked in. There's no web sites.

MR. SCHULHE: If you'd like to e-mail me, my e-mail is Ralph@MX7technology.com. That's our website. I can give you all of our website. We have certifications. For example, MIT is certifying us as green technology. We've done testing through Southwest Institute of Technology, Hauser Laboratories. We've done testing through multiple companies, and we do have all this research.

There are many reasons for why the technology has not really reached the general public, but I'd be happy to disclose all this to you in private and see if there is a way to push us through the verification process and get this technology implemented.

CHAIRPERSON NICHOLS: This is a public meeting, and the Board sits in public and we receive information

that any of you give to us. But we also don't negotiate about approvals of technology in a session like this.

So we appreciate it if you bring your information through the normal process. And if for some reason you feel like you're not getting adequate response or we're not looking appropriately, you're always free to write to the Board members and tell us what you think the problem is.

But nothing that we do is secret. And we appreciate people who give us information that's also publicly available. I think that's the point of the comment by Professor Sperling is that normally when we deal with companies that have technologies that have been used, they tell us where, how, and give us the details. So we'll look forward to receiving that from you.

Armando Sinclair and Michael Tunnell.

Either one of you here?

Michael.

MR. TUNNEL: Good morning, Chairman Nichols and members of the Board and staff.

My name is Mike Tunnel. I'm here to testify on behalf of the American Trucking Association. It's nice to see everyone today, and I appreciate your interest in this issue.

We acknowledge the necessity of the proposed

amendments before you today. The lack of viable ULE TRU options and the nuances of the flex engine provisions require action today to provide certainty to effected fleets. We support the notion of pushing out the compliance deadline a few months to allow additional time for compliance. But as you've heard today, more work is needed.

I offer the following observations regarding this regulation. Engine repowers are the primary compliance strategy used by nearly two-thirds of the affected units. And retrofit technologies cost roughly two and a half to three times higher than originally projected.

Given these higher than expected costs and a preference for engine repowers, ATA urges the Board to direct staff to further modify the regulation to eliminate the current two and seven year compliance requirement and instead align future compliance with the introduction of new engines meeting the ULE TRU standard for the 25 to 50 horsepower category.

In addition, an extended compliance period should be provided for fleets that have extended financial resources complying with step one of the current two-step process.

Finally, these modifications need to be made as soon as possible in order to provide certainty to those

facing compliance decisions. And in looking at your resolution, it looks like on page five, be it further resolved, roughly addresses these issues. It's a little unclear about the future compliance requirements and whether the resolution is directing staff to look at those issues as well. But we would appreciate you looking at that.

I would just like to mention that it looks like there has been an estimated 83 to 133 million already spent on repowers and retrofits or will have been spent through the end of the year. So there is a significant financial commitment that has been already made to this regulation. I really urge the Board and staff to try to keep working on this and get the bugs worked out. Thank you for your consideration.

CHAIRPERSON NICHOLS: Thank you very much.

All right. That concludes the witnesses, and so now it's time for us to close the record. And we can do that now. We have not heard any request for extension of the comment period, so we will officially close the record on this portion of Item 10-10-6. Any written or oral comments received after this will not be part of the official record.

We do normally now ask the Board members before we move to a vote to disclose any ex parte communications

that they may have had. Our rule is that we are allowed to, and in fact even encouraged, to communicate off the record with persons regarding rulemakings. We have to disclose those comments and the nature of any communications on the record. This is specifically applicable to communications that occur after a public record, public agenda for a Board meeting has been published.

So I will start by saying I have a monthly meeting that I hold with representatives of the environmental community here in Sacramento. It's a round table discussion where they go over the agenda. So there was some discussion about their concerns about this and all the other items on the agenda, but no information that hasn't already been discussed on the public record.

Is there anybody else that has any ex parte?

BOARD MEMBER TELLES: I have a weekly meeting with the trucking industry and most commonly with Patrick Smith. I'm thinking about this continuing because he beats me every time in tennis. We did discuss the TRU rule, but he beat me six to one that day, so I really didn't hear what he said.

(Laughter)

CHAIRPERSON NICHOLS: Maybe he better consider a more effective approach.

Anybody else?

Yes?

BOARD MEMBER RIORDAN: Yes, Madam Chairman

I met in Riverside with some of the members of the CTA and the following: Matt Schrap with CTA, Rick Miller, Mike Shuemake, and Patrick Smith. I'm going to say that our conversation very much was reflected in the testimony today, some of those gentlemen.

And ultimately before you vote, I do want to bring to the table one idea that struck me as important. Doesn't necessarily relate to what we are about today but certainly into our future on this particular issue.

CHAIRPERSON NICHOLS: Okay. Ms. D'Adamo.

BOARD MEMBER D'ADAMO: On October 27th, in Modesto, I met with Julie Saulis from CTA; Brian Long, Foster Farms; Rick Mello, Northern Refrigerated Transportation; Mike Shuemake, Central Valley Trailer; Patrick Smith, Harris Ranch; Dan Miller, Smart Refrigeration Transport; Bill Rawlings, Northern Refrigerated Transportation.

And then on November 5th, the entire group in addition of Matt Schrap from CTA. I asked for a meeting with staff, and staff was in attendance at this meeting with the same individuals.

CHAIRPERSON NICHOLS: Thank you.

Dr. Balmes.

BOARD MEMBER BALMES: I had a conference call on November 16th with Gary Palanovick, Makeover, Incorporated, and his client, Peter Bransfield, CEO of Rypos, and our discussion was reflected in Mr. Bransfield's presentation today.

CHAIRPERSON NICHOLS: Any others?

Ms. Berg.

BOARD MEMBER BERG: In abundance of caution, I did have a meeting with MECA yesterday. However, the meeting was in regards to the December meeting. But there was some brief discussion on the TRU, and it was in concert with the testimony we heard today.

And also I have been working with industry over the last year regarding this item, but nothing within the time frame of disclosure. My last meeting was on August 16th with CTA.

CHAIRPERSON NICHOLS: Thank you.

Well, we can turn this back to staff just to see if they have any final comments on the testimony that we heard. But I would start by saying that I really appreciate the fact that, you know, these are tough issues because of the timing as well as the cost. And we've got, as we will be hearing much more next month, difficult issues now because of the state of the economy. But every

one of these measures that apply to the trucking industry -- and I'm struck by the fact there seems to be very broad consensus around these particular proposals. So that's nice. That's a good place to be. But there have been a couple of specific additional proposals that quite a few people have made in terms of short extension on the compliance for the first round as well as this issue about useful life. So I would like the staff to comment on those.

EXECUTIVE OFFICER GOLDSTENE: Dan will make a few comments.

CHAIRPERSON NICHOLS: Excuse me?

EXECUTIVE OFFICER GOLDSTENE: Dan will respond to a few. Our Dan. Not Dr. Sperling.

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: With respect to the issue of extending the compliance date out until March 31, 2011, what staff would prefer to do is to handle that administratively. We have been through this before in different areas with respect to the regulation. And the reason we prefer to handle it that way is we would like to get these amendments out there and done and not go back out to the 15 day thing.

What we certainly would be able to do in our expectation is that we would move forward on trying to issue contracts, get purchase orders out there. But we

would fully recognize that their delivering and installation may not occur by the end of this year. And it would be reasonable to take that into consideration as we go through the process. And we believe we can handle that both through administrative and enforcement discretion, which we have had to exercise before on this reg. So that's what I think on that, that's what we'd ask.

With respect to the issue of extending the useful operational life, that covers the entire regulation. And that is a key issue that we've committed to coming back and looking at in the next session and moving forward with additional data to provide the economic, the environmental, and the public health impact associated with those across the board. So rather than trying to deal with that on a one or two model year basis, we'd prefer to bring that back with a new inventory with more data coming out of our registration system to give you the full scoop on what might happen with respect to that.

The only third point that was raised and we're in agreement with this, and we have made efforts to try to do that is to try to do some in-field testing hands-on. We originally made an effort to do that in the 2005 time frame. At that point in time, the market maybe wasn't as mature. The individuals that were able to experiment with

that didn't come forward.

So we have tried to and we will continue to try, and we think the next phase there will be more participation on everybody's side, because we do understand this is essential, particularly with respect to the TRU area where you're dealing with equipment that is sometimes dealing with 100 degree temperatures and other times 32 degrees temperature in the ambient air, and those create some unusual situations for this particular --

CHAIRPERSON NICHOLS: This is the item that Ms. Riordan wanted to comment on.

BOARD MEMBER RIORDAN: Yes. What I came away with from the meeting that I had with individuals that I spoke to -- and that to me made good sense. And I'm glad you've picked up on that, because I do think there is some interest on my part and I would hope my colleagues as well to make sure that those things that we are requiring and asking of people to invest in that they function very well in unusual climate conditions. I think that's a very important thing.

And particularly if you've been in the central valley in the middle of summer, you'll know what I'm talking about. It's just boiling.

So we need to be sure that's all working, because that is the location where much of the produce and sources

of food that we have throughout California and perhaps the Western United States, that's one of the big areas of production. And we need to make sure that those commodities make it to the market in very good shape.

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: Right. And it's a totally different situation with the TRUs in that if those don't operate, we have cargoes that are extremely valuable and expensive. It's different than the trucks on the side of the road I have.

CHAIRPERSON NICHOLS: Well, thank you for that exchange.

Other comments?

Yes, Ms. Berg and then Dr. Sperling.

BOARD MEMBER BERG: I would be comfortable in handling the enforcement administratively if I can get on the record that you will, not you may.

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: We will.

EXECUTIVE OFFICER GOLDSTENE: Ms. Berg, I'm the one that has to actually sign the letter. And I will.

BOARD MEMBER BERG: Thank you.

CHAIRPERSON NICHOLS: All right.

BOARD MEMBER SPERLING: I have a question and tell me -- kind of a request, but tell me if it's not reasonable.

I get a little concerned about the nature of this retrofit industry in part because I don't understand it very well. Because partly I'm hearing some of the compliance can be done through repowering and some of the -- I look up some of the companies here and they supply these filters both to the OEM industry as well as the retrofit industry.

And I just -- you know, going back to what Mrs. Riordan was talking about in terms of the reliability of these, it's tied to the scale of the industry and the technology and the commitment. I guess that's just not for the TRUs, but for all of the retrofit technology.

Could we have a discussion at some point about this industry and to what extent we can count on it for reliability? There is some competition there. You know, I haven't followed it closely, so if I'm completely off base here and everyone knows the answer, then that's fine.

CHAIRPERSON NICHOLS: I think it's an issue of concern always when we get into retrofit issues and, you know, it's one that I've been thinking about for a long time, having started my career in this area with the old NOx retrofit program. So we've had a long history with MECA and others in terms of how they've developed over the years into major companies. And also the sort of -- for lack of a better term -- dependency or codependency

relationship we have when we set standards and then the industry tries to meet them. And then we send them different signals, and suddenly we've made or broken some very legitimate expectations. So it is tough.

But I think maybe, Tom, you might want to just talk about this particular area.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, we can certainly present something to the Board in terms of our experience to date.

But in a nutshell, the experience is very, very good. We have tens of thousands of retrofits in the field now for many years ranging from buses to trash trucks to just about every kind of piece of equipment.

And in general, the filter technology is pretty bullet proof. The problems that we've encountered have to do with applications. Are they put on an engine that has adequate temperature to cause them to burn off the soot and generate? And even more importantly, is the engine putting out a lot of excess particulate matter beyond what it should be? In those cases, you have problems.

So it's more is the device applied appropriately to a good solid engine and installed properly? That's the issue.

You'll find there are examples everywhere where you'll find problems. But the number of problems are

relatively low compared to tens of thousands of pieces of equipment that are out there. And it's even been out in Europe longer than that. And we have both on road and off road in general really a success story.

But we're more than willing to try to put that together in facts and figures. And although when you do that, I'm sure you'll hear experience that this didn't work on my piece of equipment and there were problems and it had to be taken off and so forth, so on. But those are relatively small compared --

CHAIRPERSON NICHOLS: What I'm hearing is a request for a staff report on retrofits kind of more broadly. And I think that might actually be an interest to the Board members as a whole. And that might be a good thing when we have a little break after the December Board meeting when we're refreshed and learn some new things. Let's look at scheduling something for the Board.

BOARD MEMBER D'ADAMO: I know there's always bumps in the road, and many times it could be anecdotally stories that you've heard.

But on this regulation in particular, I think it gets back to the in-use application. There were quite a few failures, and I know Rypos has done a good job in going back and correcting those issues through warranty.

But none the less, there were a lot of failures.

And just underscoring what Mrs. Riordan brought up, I'm particularly concerned about food safety issues because the last thing we want to see is -- it's one thing to have carrots go bad and another to have chickens go bad and having it come back to ARB's regulations. So I think it's important to do -- I appreciated Harris Ranch's offer and I think we need to follow up on that.

But with respect to not just the failures but the cost to industry of this regulation, it appears that we were off the mark a little bit. And so when you go back to look at the seven-year life, I just would like to ensure that you're also looking at the issue of cost effectiveness as you incorporate what we should do, whether it should be seven versus ten years or whatever figure you end up with reporting back to us on.

EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUE: We will, Ms. D'Adamo.

CHAIRPERSON NICHOLS: All right. With that, oh --

BOARD MEMBER TELLES: I have a personal story.

CHAIRPERSON NICHOLS: Okay.

BOARD MEMBER TELLES: And with this, I'd like to frame how important this regulation is. But it's about 30 years too late.

Through high school and college, I worked on a

shipping dock, cantaloupe packing plant in Firebaugh, California, and I can testify how much emissions are on there. And these areas would be like heat islands and often the temperature would be about 125 degrees on the dock. And on one side, we'd have the railroad cars with their big diesels and the other side would be the trucks and with their big diesels. They were also idling at that time, not just their TRUs going. So it does have a huge health impact on the people who work on those docks. I remember at the end of the day just blowing your nose, it would look like you were working in the coal field or something. So I think it's a very important regulation.

But having said that, I also note that most of the trucks that come into those docks are kind of small owner/operator type folks that have a very hard time complying with not just this regulation, but all the other regulations that these are all additive onto what they have to do.

And having said that, I think it's important to consider this longer life issue. And I guess we're going to go back to that next year or something. Because I think some of the smaller organizations and companies that take the commodities out of the San Joaquin Valley are going to have a hard time complying with this and other things coming down the line. I strongly would like to

relook at the ten year thing next year.

CHAIRPERSON NICHOLS: Okay. Well, thank you. I think we're ready now to vote on this one. It sounds like we have consensus, but we do need a formal motion.

BOARD MEMBER D'ADAMO: I move adoption of Resolution 10-39.

CHAIRPERSON NICHOLS: Thank you.

BOARD MEMBER BALMES: Second.

BOARD MEMBER RIORDAN: Second.

CHAIRPERSON NICHOLS: All in favor, please say aye.

(Ayes)

CHAIRPERSON NICHOLS: Any opposed?

Very good. It carries unanimously. Thank you.

We have next adoption of proposed amendments to the California Consumer Products regulation and the method used to test consumer products for compliance.

As part of this, we also asked the staff to provide us with an update on the Green Chemistry Imitative that's moving forward by a sister agency, the Department of Toxic Substances Control. The reason for that is simply that as time goes on, we may see increasingly a shift towards a more holistic approach to the chemicals that are used in the consumer products and away from product regulations.

But we, nevertheless, are in a situation where we need to continue looking at the volatile organic compound emissions from these products in order to meet our commitments under the State Implementation Plan. In fact, we were just reminded very recently by U.S. EPA when they partially disapproved our implementation plan for the San Joaquin Valley that they believe that VOC reductions are essential to the effort to meet the ozone and fine particle standards in the valley. So even though a lot of our focus lately has been on particles and NOx as a precursor, VOCs are still out there. There's a lot of them, and they play an important role in meeting the health standards. So we do need to pay attention.

So after we hear from our staff, we are going to be joined by my colleague, Maziar Movassaghi, who is the Acting Director of the Department of Toxic Substance Control, to give us some perspective on their initiative as well.

And with that, I will turn it over to Mr. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

Staff is proposing amendments to the consumer products regulation that will affect several product categories. When in effect, the VOC emissions will be

reduced by about 6.9 tons per day statewide.

Changes to the compliance testing method are being proposed to add procedures for the analysis of the volatile organic compound content of recently regulated products.

At the end of the regulatory presentation, we'll provide a brief update on a related effort by the Department of Toxic Substances Control -- and Moziar will do that -- to develop a safer alternative to regulations under the Green Chemistry Program.

I'll ask Nicholas Berger from our Stationary Source Division to present the staff presentation.

Nicholas.

(Thereupon an overhead presentation was presented as follows.)

MR. BERGER: Thank you, Mr. Goldstene, Chairman Nichols, and members of the Board.

Today, we are proposing for your consideration amendments to the California consumer products regulation.

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MR. BERGER: My presentation will follow this outline. Note that in addition to summarizing our proposal, we will also give you a very brief update on the Green Chemistry Imitative being implemented by the Department of Toxic Substances Control.

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MR. BERGER: I will begin with a brief background on the consumer products program.

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MR. BERGER: Consumer products are defined in state law as chemically formulated products used by household and institutional consumers.

Examples of consumer products are listed on this slide. Most of the products included in the proposal today are considered cleaning products.

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MR. BERGER: Consumer products are an important volatile organic compounds, or VOC, source. Previous consumer products regulations have already resulted in reducing VOC emissions by 225 tons per day.

Despite this reduction, it is estimated that current VOC emissions from consumer products are about 12 percent of the overall statewide VOC inventory.

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MR. BERGER: State law requires ARB to achieve the maximum feasible reduction in VOCs from consumer products.

The regulation must be technologically and commercially feasible and not eliminate any product form. Reduction of VOC emissions from consumer products is an

important part of the 2007 State Implementation Plan, or SIP, to attain ambient air quality standards for ozone.

I will describe the consumer products SIP commitment next.

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MR. BERGER: As you can see, the proposal before you today represents an important step towards meeting the 30 to 40 tons per day target.

Adopted rulemakings from 2008 and 2009 will result in over 19 tons per day of reductions once fully effective.

If approved today, these amendments would contribute an additional 6.7 tons per day toward our goal.

We plan to bring you a proposal next year to achieve the additional reductions needed to meet the 2014 goal.

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MR. BERGER: I will now summarize the proposed amendments.

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MR. BERGER: The eight proposed amendments were developed with extensive public participation.

Initially, surveys were conducted, which serve as the basis of our proposal.

We conducted three public workshops and held

numerous individual meetings and teleconferences with stakeholders. We also consulted with other State agencies on aspects of our proposal.

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MR. BERGER: As an overview, the proposed amendments would set new or lower VOC limits for eleven categories of consumer products.

Other amendments would prohibit use of certain toxic compounds and compounds with high global warming potentials in certain categories.

To implement the VOC limits, we are proposing new and modified definitions. In addition, we are proposing to clarify and streamline several existing regulatory provisions.

Proposed amendments to method 310 would add additional VOC testing procedures for recently regulated products.

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MR. BERGER: This is the first of two slides which summarize the proposed VOC limits and emissions reductions. The limits would become effective on December 31st, 2012, or December 31st, 2013. All of the categories on this slide are currently regulated. We are proposing lower limits --

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MR. BERGER: -- and continuing with more categories and proposed limits. The special purpose lubricant category is currently not regulated.

The proposed limits, when fully effective, would achieve about 6.9 tons per day of VOC reductions statewide.

Note that 6.7 tons per day will be creditable toward the current SIP and an additional 0.2 tons per day would count towards a future commitment.

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MR. BERGER: I would next like to describe the several key amendments.

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MR. BERGER: We are proposing to expand the existing oven cleaner category to include grill cleaner products and raise the VOC limit from one to four percent for non-aerosol products. This proposal is designed to allow use of non caustic technologies. This change would result in a small increase of 0.1 tons per day, which is offset by other lower VOC limits under consideration today.

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MR. BERGER: We are proposing to incorporate spot remover products used on dry clean only fabrics into the currently regulated spot remover category. These are

primarily products used at dry cleaning operations. To accommodate the necessary time for these products to reformulate, we are proposing to extend the upcoming effective date until 2012. This delays about a quarter ton per day reduction but will not impact the SIP creditable reductions.

As part of the proposal, these new products would need to comply with the existing prohibition on use of toxic chlorinated solvents.

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MR. BERGER: For certain categories, the proposed amendments would prohibit use of methylene chloride, perchlorethylene, and trichloroethylene.

Compounds with global warming potential values at or above 150 and alkylphenol ethoxylates and factoids. These proposed mitigation measures are designed to address potential health or environmental impacts.

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MR. BERGER: I will now summarize the impacts of this proposal.

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MR. BERGER: Staff conducted an economic analysis of the costs to comply with the VOC limits. As shown, we believe the proposed amendments are highly cost effective. The cost of 98 cents per pound of VOC reduced is among the

lowest ratios for consumer products rulemakings.

We also determined that the average increased cost for a consumer to purchase a product would be about six cents. The total statewide cost for industry to comply with the proposed amendments is about $5 million per year.

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MR. BERGER: This proposal would have overall positive impacts on the environment because the 6.9 tons per day VOC reduction would contribute to reducing ground level ozone concentrations.

In addition, co-benefits of this proposal would prevent potential exposure to carcinogens, minimize potential climate change impacts, and provide protection to aquatic organisms.

This proposal, along with the proposed mitigation measures, would not result in any significant adverse impacts. This is the last slide on the staff's proposal outlined in the staff's report. However, we do have some suggested modifications to our original proposal which I will describe next.

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MR. BERGER: We are proposing to reorganize the special-purpose lubricant category to clarify the types of products included. This may entail adding or modifying

several definitions.

To ensure adequate reformulation time, we are proposing to provide an extra year, until 2013, for aerosol products to comply. In addition, we are proposing to increase the VOC limit for aerosol forms of anti-seize products to ensure feasibility. This change will have a visible impact on overall VOC reductions.

We have also been apprised that there may be a need to provide an exemption from the chlorinated solvent prohibitions for products used where flammability is a concern. Staff needs additional time to evaluate these claims.

We are also proposing to maintain two provisions that were inadvertently deleted during drafting of the proposed amendments.

We are proposing to restore the provisions for certain products making disinfectant sanitizer claims related to the most restrictive limit clause.

Second, we are proposing to restore an exemption for certain penetrant products used on energized equipment.

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MR. BERGER: Ongoing activities include developing advisories to facilitate implementation of current regulations.

We are also in the process of beginning a survey of the industry. The survey results will serve as the basis for proposals to achieve the remaining reductions needed to meet the SIP commitment. We anticipate bringing you this proposal next year.

This concludes our summary of the proposal and activities planned to meet the SIP commitment. I will now move on to the staff's recommendation.

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MR. BERGER: Staff recommends adopting the proposed amendments with the modification suggested today.

Next, I will provide an update on the Green Chemistry Imitative.

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MR. BERGER: Much has happened since July 2008, when you were last given an update on the Cal EPA's Green Chemistry Imitative by the Department of Toxic Substances Control staff.

Governor Schwarzenegger signed green chemistry legislation in September 2008. As required by the Health and Safety Code, the Department of Toxic Substances Control is preparing to adopt safer alternatives regulations. The definition of consumer products under this program is broad, with few exclusions, and can include such products as baby bottles and jewelry.

The Department, with the Office of Environmental Health Hazard Assessment, or OEHHA, will also develop an online clearinghouse to provide manufacturers and consumers with information on chemical toxicity or hazards. These related efforts facilitate the transition to safer alternatives.

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MR. BERGER: This slide provides highlights of the development process taken by the Department of Toxic Substances Control and OEHHA.

As for recent events, in September, the Department released proposed safer alternatives process regulations, and held a public hearing on November 1st, 2010, to take comments from the public.

In October, it was determined that the proposed process regulations would not have adverse health and environmental impacts.

The Department is on track to adopt regulations to establish the safer alternative process by January 1st, 2011.

OEHHA intends to release the proposed hazard trait regulation soon for public comment and the Department will use these traits to inform the design of the Toxics Information Clearinghouse.

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MR. BERGER: Here is an overview of the key components to the proposed safer alternatives process regulation.

If the proposed regulation is adopted in its current form, manufacturers of priority products will prepare an assessment that identifies the mitigation strategies the manufacturer intends to implement.

After review of the assessment report, the Department may impose on the manufacturer regulatory responses, such as making product information available to the consumer or end-of-life management requirements.

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MR. BERGER: The regulations give manufacturers the responsibility to develop safer products using a life cycle multi-media approach.

This compliments ARB's consumer products mandate, which is focused narrowly on the ingredients in a finished product that contributes to the formation of ground level ozone.

We collaborated with the Department staff during development of the regulation to ensure that there would be no overlap or conflict with goals of our program.

We will continue to work closely with our sister agency as the regulations are implemented.

The next slide has contact information and the

Department's website address.

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MR. BERGER: At this point, we would like to invite Mr. Movassaghi, Acting Director of the Department of Toxic Substances Control, to say a few words about the program.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: Good morning, members of the Board.

My name is Moziar Movassaghi. I'm the Director of the Department of Toxic Substances Control. It's an honor to be before you today, because we've had the pleasure of truly working in a collaborative fashion with ARB staff over the past two years on a whole variety of issues, from technical issues to legal matters, development of the rulemaking process, and also expanding our knowledge of the daunting challenges before us.

As we move forward, there is much that we need to work on. There is significant data gaps, significant safety gaps, significant technology gaps. And it's going to require the collaboration of different environmental agencies for us to leverage and use our different tools together, share data, share knowledge, share best practices, in order to really be able to achieve our mutual goal of a sustainable, healthy, and functioning California.

I want to really congratulate ARB staff for their proposal today for dealing with VOCs in consumer products, and there is a full commitment from DTSC to continue working with ARB to make sure that California consumers have access to safe and workable products.

CHAIRPERSON NICHOLS: Thank you.

Obviously, you're just at the beginning of a long journey here, but the California legislation that you are implementing is very comprehensive and I believe in this country perhaps the first of its kind. Do you want to talk a little bit about that?

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: Absolutely. This focus on alternatives assessment and California is the first governmental body to attempt to bring this within a regulatory structure and implement it.

This issue itself is a very big challenge, and we've actually been contacted by a number of international regulatory entities looking at how we propose to tackle this very big issue.

In addition, as was mentioned by staff, the definition of consumer products in the underlying statue was also very broad with the intent of -- I want to echo what the Chairwoman said -- that the idea is to be more multi media life cycle impact and be holistic in what we

look at. American Chemistry Council's own data indicates that global chemical production will double every decade, far faster than the rate of population growth. And we really do need to have this ability with the different regulatory entities to work collaboratively as we move into the future.

CHAIRPERSON NICHOLS: As I look around for people who have jobs as tough as mine, I always think of you, Maziar. Thank you for the good work you're doing.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: Thank you.

CHAIRPERSON NICHOLS: Any questions? Comments?

If not -- oh, one.

BOARD MEMBER SPERLING: So to what extent is there collaboration/interaction with EPA, for instance? And that's with respect to this rule here that we are doing. I mean, are we -- to what extent are we really reaching out and/or are they following, either way?

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: Are you referring to the federal EPA?

BOARD MEMBER SPERLING: Yes. I'm sorry. The federal EPA. What I assume is the entity that would be involved with this.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING

DIRECTOR MOVASSAGHI: There have been discussions of reforming the Federal Toxic Substances Control Act that was established in 1976 and has not been touched since 1976.

The two proposals right now complement what we are doing here in California, but they're not necessarily covering what we're covering with our Green Chemistry Initiative, which is to focus not only in identifying hazards, but also looking for safer alternatives to known profits.

So what we're trying to work out with the U.S. EPA is the amount of data sharing where they would share data with us about where chemicals are, information about hazards, and we would, in return, share information about safer solutions to known hazards identified by U.S. EPA.

CHAIRPERSON NICHOLS: Dr. Balmes.

BOARD MEMBER BALMES: Well, just one other comment with regard to Professor Sperling's question.

I think the recent election results will make the task of reform less likely in the next session of Congress. But the federal EPA does have a high level physician like Paul Menaskis (phonetic), who actually was on the Green Chemistry Panel that advised DTSC that I was also on a few years ago.

So I think within the agency, there is very much

interest in what we're doing here in California. And I'm sure they would like us to continues to be trail blazers in this regard.

CHAIRPERSON NICHOLS: Yes. And among the challenges that DTSC faces in implementing this very ambitious proposal, of course, is the issue of financing. There were no additional resources. When we embarked on climate protection, the Legislature also gave us additional positions and we were able to bring in some experts and wonderful people to help us develop the regulation, whereas, DTSC is under the gun and has deadlines, but no additional resources to do this with.

So I don't maybe we should put you on our Christmas list. But I think seriously that the importance of this initiative really is hard to overstate. It's similar to what happened we first began to make the link between pollution and energy use and to go back to the root causes of the things that we all worry about if we're going to have meaningful regulatory reform or streamlining, which everybody agrees we need to do. We all know whether you're on the left or the right that regulation and regulatory burden is an issue that people have to deal with. The question is how you make sense out of it given the needs of society and the demands of the public.

One of the most important things we can do is to understand what the causes are and how to get to safer alternatives. And we're really just at the beginning of that in the area of chemistry. So I know ARB staff has been collaborating with DTSC to the extent that they are able to do it and I'm sure other agencies will be as well. But I just want to highlight the importance of this effort as well the challenge, because I think it's really is going --

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: If I could say, the President's Cancer Panel February of this year released a report, and their entire focus of the report was the environmental risk factors that impact cancer. And their basic recommendation was a call for regulatory proposals, such as the Green Chemistry Initiative here in California. And I would like to point to the two members of the panel that authored the report and were responsible for it were Bush appointees. So this does have a bipartisan support in scientific review.

CHAIRPERSON NICHOLS: That's great to hear.

Dr. Balmes.

BOARD MEMBER BALMES: Well, just one other area that your comments, Chair Nichols, prompted from me is that DTSC has supported efforts at U.C. Berkeley to

develop a Center for Green Chemistry, and we appreciate that. And UCLA also has been working in the green chemistry area.

So I think it's a field that people are paying attention to. And one of the things that DTSC has been supporting at Berkeley is curricular changes for chemistry majors so that chemists are now trained to think about sustainable alternatives.

CHAIRPERSON NICHOLS: Ms. D'Adamo.

BOARD MEMBER D'ADAMO: So I have not followed this. So forgive me if I'm asking elementary questions here.

But on the Green Chemistry Initiative, is this entirely a regulatory approach or are you also looking at consumer information and consumer labeling in order to encourage consumers to -- maybe there is a safer alternative that would be a regulatory standard, but perhaps a safer A+ standard that the consumer would like to know about so they can make choices.

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: Your question is very good. And building on what Dr. Balmes said, the Green Chemistry Initiative itself is a comprehensive initiative. It has six different planks. The safer consumer product alternative regulation is only one of those six planks.

Another one was mentioned by Dr. Balmes was making sure that tomorrow's graduates out of the U.C. system are knowledgeable about that. But also to expand our pollution prevention events which really actually focus on disseminating information up and down the supply chain so consumers, as you mentioned, have the ability to decide what they want to buy, but also retailers for them to have access about what they're buying from their vendors and also the folks who are the technical people in manufacturing companies to have access to information about safer alternatives.

If I could give a very brief example of something that's worked completely out of the non-regulatory realm. Pharmaceuticals are exempted from this statute. Pfizer in their one of their global R&D facilities down in La Jolla has these little magnets they have on top of all the chemists' sinks that breaks down solvents into a red, yellow, green category. Green being least harmful and red being most harmful to humans and the environment. Over the past three years, they've recognized a 60 percent drop in the solvents in the red category.

So what we're really going for is a design change, to modify the behavior of the folks that make our products to make them benign by design at the initial stage.

CHAIRPERSON NICHOLS: Yes?

BOARD MEMBER BERG: And could you just elaborate on how the regulatory part comes in? Who exactly are you going to be regulating and going to be helping with pushing this initiative forward?

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: Absolutely. Underlying statute gave the Department broad authority over a very broad range of consumer products, a small handful were excluded: Pharmaceuticals, food packaging materials, pesticides, because those items are covered under existing regulatory regimes in a somewhat holistic manner.

Other than that, all the consumer products are eligible to come in. The Department needs to go through a prioritization process, because as the Chairwoman mentioned, we're in the embryonic stages of getting started and we need to start in a slow and manageable way and really be forward looking to be able to capture new products and new chemicals that also come in through the stream.

So after we're done with prioritizing the chemicals in products, we will then ask manufacturers of those products to go through an alternative assessment to identify safer substitutes to the chemicals that are prioritized in their products.

BOARD MEMBER BERG: Will you relate this to the Proposition 65 list so that we will have some coordination on these chemicals that we should be looking at?

DEPARTMENT OF TOXIC SUBSTANCES CONTROL ACTING DIRECTOR MOVASSAGHI: Absolutely. One of our first -- we just released the revised version of the regs earlier this week, and we're stating that an initial set of hazards we looked at are carcinogens and reproductive disorder hazards and we're drawing from the Prop. 65 list, in addition to a few other lists.

But the idea is for us to build on the knowledge we've had through Prop. 65 or the Toxic Air Contaminant Program here at ARB to start also identifying solutions to the problems we're grappling with.

BOARD MEMBER BERG: Thank you.

CHAIRPERSON NICHOLS: Thank you very much. Thanks for taking the time to come and visit with us.

It's time to go to the public. If you want to speak, please sign up now because I'm going to close the list because it just gets too confusing if people keep popping up during the course of the hearing.

Okay. We begin with Joseph Yost, followed by D. Douglas Fratz and Gregory Johnson.

MR. YOST: Thank you very much, Chairman Nichols. Good morning.

My name is Joe Yost. Chairman Nichols, members of the Board, ARB staff, I represent the Consumer Specialty Products Association, or CSPA.

I'd like to summarize the extensive written comments CSPA has filed on this particular proposed rule. By way of explanation, the CSPA is a voluntary nonprofit trade association that represents approximately 240 companies that manufacture, formulate, distribute, and sell a broad range of consumer and commercial products.

During the past 20 years, CSPA member companies have spent many hundreds of millions of dollars to reformulate their product to comply with ARB's strict standards to improve air quality in California while maintaining our industry's ability to supply effective products and contribute positively to California's health, safety, and quality of life.

CSPA member companies manufacture or market all of the eleven product categories that are included in the proposed 2010 amendments that you have before you. In most cases, CSPA member companies manufacture the leading product brands in the market.

This has been a very difficult rulemaking process involving a large and diverse group of consumer products. Consequently, when the process began, there are many challenging issues to resolve. CSPA participated and is

an active member of the ARB's consumer products regulation work group and worked cooperatively with ARB staff, environmental groups, air districts, and other stakeholders on this very challenging rulemaking process.

CSPA commends ARB staff's concerted efforts to ensure that all interested parties have an opportunity to participate in an open and transparent public effort to develop this proposed regulation.

After considering all the relevant evidence presented by stakeholders, ARB staff developed a comprehensive proposed regulation that: One, produces significant additional new VOC reductions; and two, adds or clarifies important regulatory provisions, including, among other things, a pragmatic provision to the most restrictive limit provisions.

Although the proposed regulation presents very serious and cost effective reformulation challenges, CSPA member companies support most of the proposed new VOC limits and other regulatory provisions. In addition, CSPA member companies support the changes proposed by ARB staff as part of the 15-day notice and comment period.

In conclusion, CSPA member companies commit to initiate extensive research and development and engineering efforts that will be necessary to reformulate their products to meet these very aggressive new

regulatory standards. However, we request ARB staff work with us to reevaluate these challenging new VOC limits in the future if one or more of the VOC limits prove to be technologically or commercially infeasible.

Be happy to answer any questions you may have.

CHAIRPERSON NICHOLS: Thank you very much. Appreciate your involvement and your being here today. And I'm sure you'll be here if any questions come up.

Mr. Fratz and then Mr. Johnson.

MR. FRATZ: Good morning. I'm D. Douglas Fratz, Vice President of Scientific and Technical Affairs at the Consumer Specialty Products Association.

My colleague Joe Yost noted we've worked long and hard with your staff to seek these new VOC limits and other provisions proposed for adoption today are technologically feasible and maintain the many benefits that our products provide.

Staff has estimated that this rule would require $50 million for our industry to reformulate. This may be true if all of our R&D efforts are successful. While this might not seem like much in these days of billion-dollar fiscal problems, it is important to note that these costs are not spread evenly across our industry. Most of the nearly 1500 products that we will need to reformulate over the next few years are manufactured by small companies

with limited resources for research and development. And we cannot be certain that they will find those resources or that they will be successful in their R&D efforts if they find them.

The first problem that we have -- there are two problems that we have remaining that we need to address. The first relates to spray floor cleaners that are used exclusively with specialty design light weight mops. These products that were developed over the last decade have proven to be of great benefit to older household consumers and others that have limited physical abilities to handle the traditional mop and bucket techniques.

More than a year of research has yet to find a technology that will allow these products to maintain their effective and efficient cleaning systems and not create slipperiness on the floor surfaces. We continue to believe the special purpose floor cleaners should not be treated as general purpose cleaners.

The second problem we have relates to heavy-duty hand cleaners that are used to remove the kind of tough soils where no water is available. Adhesives, asphalt, pre-soak PCBs, tar, tree sap, and soot are very difficult for soils. And they can cause dermatological problems if they're not removed quickly where the water is available in the field.

Most effective current products use bio based citrus extracts, which is a sustainable solvent but which is a VOC. Moving to sustainable bio based solvents is one of our goals.

Both these products are small, but they are important to consumers of California. Next year, we're going to be back again for another regulation. And we hope to work again next year and seek to finish our SIP commitments. We do, however, find that we are -- what we've been doing for the last 20 years is probably not sustainable.

CHAIRPERSON NICHOLS: Sorry, sir. Your time is up. You have gone over your time limit.

MR. ALBERT: Okay. Thank you very much.

CHAIRPERSON NICHOLS: Appreciate that.

Greg Johnson and followed by Eileen Moyer and Barry Wallerstein.

MR. JOHNSON: Chairman Nichols and members of the Board, thanks for letting me come and speak today.

My name is Greg Johnson and I'm with the Sherwin Williams Company. We make products in most of the categories that are being regulated today.

I'd like to first commend the ARB on the process, the regulatory process. The regulatory development process is as good as it is in the country. And the staff

is as professional and knowledgeable about consumer products as any we encounter.

This was, as you heard, a challenging regulation, especially in some of the categories like the lubricants which appeared to be simple from the start. But as we looked into them, there were literally hundreds of unique and special products that will have to be reformulated. It took a lot of effort on the staff's part and the industry's part to work until just now to sort out some of the issues in that category and go forward with something we think will work.

One thing that's become apparent to those of us who have been involved in this in this ongoing UFC reduction in the last few decades is we're moving not only into an area of diminishing returns, but an area where sometimes the categories have insignificant returns. Some of the categories that we looked at in the lubricants area had potential reductions of 20 pounds. That's the equivalent of three gallons of gasoline spread across the state of California. That's not a lot.

As you heard Fratz say, we think the cost of the regulation to the industry will be in the millions of dollars, which differs greatly from the estimates that staff has prepared.

But what I'd like to -- and I'm not here to

complain about that. But what I would like to suggest is going forward we look to alternatives next year. We're going to be back again doing another regulation and hopefully a successful one.

But there are opportunities for the consumer products industry to work with ARB to achieve greater and more significant reductions in VOCs and possibly in greenhouse gases by using alternative methods than this command control and reduce that we've been using. We have a Committee that's been established, and we'd like to work possibly with the Board or staff on some of those ideas going forward.

And to sort of use the term that one of my teenage nieces use, if we don't do something like this in a couple years, we'll be back here talking about reductions of ten or 15 pounds in the product category, and use her term, really? Is this really where we want to go with this? Thank you.

CHAIRPERSON NICHOLS: Okay. Eileen Moyer, Barry Wallerstein and Harry Zechman.

MS. MOYER: Madam Chairman, I'm going to cede my time rather than duplicate comments that have been said.

CHAIRPERSON NICHOLS: Thank you.

Then Dr. Wallerstein.

DR. WALLERSTEIN: Good morning, Chairman Nichols,

members of the Board. I'm Barry Wallerstein, Executive Officer of the South Coast AQMD.

It's a pleasure to join you this morning in support of the staff proposal. We have taken an independent look at the analysis and concluded as your staff did that there is available feasible technology. It is cost effective. And we believe that your staff's proposal complies with all provisions of State law in this regard.

We're also pleased to note that the staff -- your staff is working hard on issues associated with consumer products, such as toxicity of materials, any other environmental effects, and also on the topic of volatility because some low volatility in materials are significantly due to ozone formation. And we look forward to working with your staff on those issues. And we recommend approval of the staff proposal.

CHAIRPERSON NICHOLS: Thank you.

Harry Zechman and then Bob Sweger and Doug Raymond.

MR. ZECHMAN: Madam Chair, members of the Board, my name is Harry Zechman. I'm Chief Operating Officer for Stoner Incorporated. We're a third generation family-owned business and recipient of the Malcolm Baldrige national quality award. The Center produces many

products for glass cleaning, automotive appearance, and industrial applications.

I appreciate the opportunity to comment on this regulation. The proposed amendments will impact one of our flagship products, the Invisible Glass glass cleaner. My colleague, Bob Sweger, will comment on the technical challenges of the amendments.

I'm here to support the change to the glass cleaner category as proposed. This change will be challenging, as Bob will explain.

Stoner, Incorporated's team has worked with CARB staff in an effort to propose a VOC limit which gains this state emissions reductions while preserving product efficacy. Invisible Glass is the number one selling glass cleaner in specialty automotive for the past six years. This product provides the customer the ability to clean their windshields and prevents streaks, haze, and clouding to ensure a safe environment in their vehicle.

Again, we support the proposed rule and appreciate the staff's effort on this category. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Mr. Sweger.

MR. SWEGER: Good morning, Madam Chairwoman, members of the Board. My name is Bob Sweger. I'm the

lead research and development scientist on the Invisible Glass product at Stoner, Incorporated.

The staff proposal will reduce the VOC in our product by 25 percent. This is a significant reduction for a product that has been regulated and reduced three times before: Initially, in 1993, when it was at eight percent, 1996 when it was reduced to six percent, and then in 2004 when it went to four percent.

Our product, Invisible Glass, does not leave a haze or streaks which can certainly interfere with the safety of a driver in direct sunlight or at night with oncoming traffic.

To produce a product such as ours, it takes a careful balance of the right ingredients. Currently, technology of certain compounds such as surfactins, does not lend itself readily to the extensive use in glass cleaners because a film is left behind that can cause streaks or hazing.

Over the past two years, we've worked with Carla Takemoto and her staff investigating numerous compounds to meet the proposed reductions. The proposal by staff today reflects the state of technology for years to come.

The proposal is technologically challenging and we will need to continue our work to develop a formula to meet the stringent limit. And it will not be easy.

In conclusion, I concur with Harry. We understand the need to reduce VOC emissions. We support the proposed VOC limit for glass cleaner and we appreciate the opportunity to comment on this proposal.

Thank you and the CARB staff for their willingness to work on this issue.

CHAIRPERSON NICHOLS: Thank you for being here.

Doug Raymond and then Morgan Wyenn and Barbara Losey.

MR. RAYMOND: Good morning, Madam Chairwoman and members of the Board.

I'm actually here if you look at the cards actually representing four different companies.

CHAIRPERSON NICHOLS: I see that.

MR. RAYMOND: I'm going to try to make my comments brief.

First, I'm here for the National Aerosol Association. We're here to support the regulation as is, and we actually look forward to working with staff on the specialty lubricants issue. That is something of very much importance to us.

The second company is Radio Specialty Company also for the lubricant categories. We'd like to work with you on that. And also support the changes that are being made today for some of the oversights and some of the

provisions.

The third one is Eco Lab. They make products for the food service industry. They're a global leader in that. We're here to support the oven cleaner category changes. Those will help us make some products that are more safe and effective.

Lastly, CRC Industries, we're here to support the regulation for the specialty lubricants. In that area, we support what Greg Johnson was saying. Specialty lubricant category was extremely difficult to deal with, and we still have work to do on those.

I want to reiterate, too, that staff was very willing to meet with us at all levels, all the way up to the executive branch. And we look forward to finishing up this regulation and we look forward to working with you in the future.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you. And congratulations on being able to represent four positions in less than three minutes. That's great.

Morgan Wyenn.

MS. WYENN: Hi. Good morning, Chairman Nichols, members of the Board and staff.

My name is Morgan Wyenn. I'm an attorney with the Natural Resources Defense Council, the NRDC. I'm here

to support the proposed amendments to the 2010 consumer products regulation. We especially applaud CARB's proactive approach in prohibiting several toxic air contaminants and compounds with high global warming potential to make sure they are not used to meet the new VOC limits. We believe this proposal is a great step in the right direction to protect the health of workers and consumers to meet the 2014 standards and to make progress on an important source of pollution.

Thank you for your commitment and leadership in reducing VOC and toxics. We look forward to the benefits your actions will bring to California in the future. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Barbara Losey and then Luis Cabrales and Pedro Guzman.

MS. LOSEY: Thank you, Chairman Nichols and to the Board for this opportunity to speak to you today.

I'm Barbara Losey, Deputy Director of the organization called the Alkylphenols and Toxics Research Council. It's consortium of manufacturers of those compounds. It's conducted research for the past 25 years on the environmental data of human health safety of the compounds. We've been conducting research and monitoring the public's literature on these compounds for over 25

years, and we now have over 4,000 studies in our database regarding these compounds.

I wish to offer the following comments to the Board about why we do not warrant --

CHAIRPERSON NICHOLS: Could you speak up a little? Maybe get closer. You have a low voice. It's hard to hear.

MS. LOSEY: Is this better?

CHAIRPERSON NICHOLS: Much better.

MS. LOSEY: So we offer the comments for why they should not be regulated under the current regulation.

The fact that APEs are toxic to product life is not surprising, because all surfactins are toxic to aquatic life. What's different about APEs from other surfactants is that probably we know more about them than we do about other surfactins in alternatives that might be used in their stead. We know how much is in the environment. We know how much -- what levels are protective of the environment. EPA has water quality criteria for alkylphenols and is known the major challenge. We know that there are predicted no effect concentrations governmentally derived and otherwise for what's safe in sediment. We know the levels of alkylphenols in California waters and sediments are very, very low and that with very few exceptions do not exceed

the water quality criteria or values.

The Board has expressed concern about the estrogenic activity of alkylphenols, and alkylphenols do display estrogenic activity that is 10,000 to a million times lower than human type hormones that are also present in the environment.

EPA developed chronic water quality criteria for alkylphenols that consider these types of effects, things like developmental and reproductive effects in aquatic organisms.

In studies conducted and sited by the Southern California Coastal Water Research Project have in the conclusions of the authors of those studies not found any definitive links between the structure and composition in fish to any compounds, including the APEs in surface water.

So it seems that the basis in the staff report for this proposal is weak. We don't think that APEs are likely to go to in green and reformulation, but to restrict them would unnecessarily restrict formulation options for people that want to meet the VOC regulations. California has ongoing programs --

CHAIRPERSON NICHOLS: Thank you. I think we get the gist of the comment. And you have filed written comments.

MR. LOSEY: We filed written comments and I have a copy of my statement.

CHAIRPERSON NICHOLS: Okay. I'm going to maybe extend the time on this a little. Just like to hear from the staff response to these comments.

TECHNICAL EVALUATION SECTION MANAGER TAKEMOTO: This is Carla Takemoto.

As you probably have figured out by now, this is a water quality issue. These are chemicals that when they are washed down the drain with various cleaning products get into our waterways.

And because it is a water quality issue, of course, we consulted with our sister agency at the Water Resources Control Board. And their review of available literature from various water quality entities in the state found there were levels of concern of these surfactins in California's waterways and that they felt that any additional use of these compounds would be detrimental. So I think that the Water Board would disagree that use of these compounds is not an issue.

CHAIRPERSON NICHOLS: Okay. Do they file any formal comments, or was this an informal consultation?

TECHNICAL EVALUATION SECTION MANAGER TAKEMOTO: Pardon me?

CHAIRPERSON NICHOLS: Was this an informal

consultation you had with the Water Board?

TECHNICAL EVALUATION SECTION MANAGER TAKEMOTO: No. It is part of the record for the rulemaking. We consulted with them. The information they got from various other water quality agencies in the state is part of the record, as is their record to us making the recommendation.

CHAIRPERSON NICHOLS: Thank you. Okay. Thanks very much.

Mr. Cabrales and then Mr. Guzman.

MR. CABRALES: Good morning, Madam Chairman.

Before I start my testimony, I'd like to make note Mr. Guzman is a monolingual Spanish speaker, and I will translate for him, unless there is staff available to translate. Thank you.

Again, good morning, thank you very much for this opportunity to address this Board, staff, and participants today.

I'm Luis Cabrales. I'm Deputy Director of Campaigns Coalition for Clean Air. We have submitted testimony supported by more than 30 local, state, and national organizations representing consumers, workers, and interest groups from throughout the country.

These regulations are very important. That's why we have the support of these groups. I'd like to remind

you that just recently the U.S. EPA has notified us that they are interested in making one of your recent regulations a national regulation. So that's how important these regulations are for people across the nation.

I would like to speak in support of staff's proposal and also commend their work and their efforts to involve all of the stakeholders in this process. I'm very -- I'd like to express our disapproval or our opposition to any attempt to change these regulation as drafted. Especially, I want to mention the SCPA's request to create any special purpose floor cleaner.

Further, I believe that their comments and concerns that reducing the VOCs from their products all the way down to .5 percent will make them I quote, "compromising walkway safety" and without providing any valid information to back their arguments. I would like to, in fact, liken those comments to scare tactics and prevent you from approving a regulation that will not only comply with your 2007 State Implementation Plan and Clean Air Act, but will also protect workers, consumers, and people across the state, not only the state, but most likely the nation.

Thank you very much for your interest in this issue.

CHAIRPERSON NICHOLS: Thank you. I know you've been involved in this from the beginning.

Mr. Guzman.

MR. GUZMAN: Good morning. My name is Pedro Guzman, and I have eleven years of experience working as a car wash worker in the Los Angeles area. People take their vehicles to have clean car washes are not aware that us workers have to handle strong chemicals, like degreasers, cleaners to remove stains, glass cleaners, waxes, and other chemicals to polish their vehicle as well as acid to clean the rain.

All this time I worked as a car wash worker, I've hardly ever used or had access to the adequate equipment to protect myself from the chemicals such as gloves, face masks, glasses, or even shoes.

We never received any training on how to use those chemicals and about the risks. After using these chemicals for six days a week, I suffered of skin rashes, skin irritation, red eyes, irritation of the eyes, and respiratory. And now I suffer of blurry sight and respiratory problems.

Recently, us workers at the hand car wash won several lawsuits against the owners and manager of this company for abuses to worker safety laws. And the company was also fined for environmental violations and for

getting rid of polluted water without being treated previously.

CHAIRPERSON NICHOLS: Mr. Cabrales, I don't -- as you know, they are over the time. Of course we need extra time for translation. But could you just bring it to an end, please?

MR. GUZMAN: That's why I'm asking this agency to help workers like myself at car washes and other workers, especially women that work at car washes, because it's practically impossible to protect the thousands of workers from the abuses of their employers. But by reducing the toxic chemicals, we will at least face less risks. And we will have a cleaner environment.

CHAIRPERSON NICHOLS: Thank you very much. Thank you.

I believe that is the list of witnesses. Staff have any final comments before we approve this one?

ASSISTANT CHIEF COREY: No. No comments.

CHAIRPERSON NICHOLS: Okay. I believe we do need to also put out any ex parte communications on this particular rule.

Are there any ex partes?

Yes, Dr. Balmes.

BOARD MEMBER BALMES: I was contacted by Marla Cone of Environmental Health News regarding the specific

issue we have relating to glycol ethers. It was an e-mail interaction. And then I questioned staff about that specific issue and had a nice briefing from them on the following day.

CHAIRPERSON NICHOLS: Okay. Is that it?

Okay. The record is now officially closed on this item. It will be reopened when the 15-day notice of public availability is issued. So written or oral comments received after this date but before the 15 day notice comes out will not be accepted as part of the official record. When the record is reopened for a 15 day comment period, the public may submit written comments on the proposed changes which will be considered and responded to in the Final Statement of Reasons for the proposed regulations.

I think we now have before us Resolution Number 10-40. Do I have a motion and a second for this one?

BOARD MEMBER D'ADAMO: So moved.

BOARD MEMBER YEAGER: Second.

CHAIRPERSON NICHOLS: Any further discussion on this item? If not, all in favor will please say aye.

(Ayes)

CHAIRPERSON NICHOLS: Any opposed?

Very good. Thank you very much, Board members.

The next two items that we have today are large

updates for the Board, one on the low carbon fuel standard and the other on the diesel emissions inventory related issues. And I think we should take our break before we get into those items, just to give fair warning to the audience here or those who are watching and waiting and trying to decide when to come over. I think it would be best to come at 1:00.

We do have an additional question about order of the two items because Professor Sperling has to leave to go teach and was hoping we could flip the order and do the emissions inventory item first and the LCFS item second.

Is this acceptable to everybody? Is that a problem?

EXECUTIVE OFFICER GOLDSTENE: It's okay from a staff perspective. We'll be ready.

CHAIRPERSON NICHOLS: All right. Then let's do it that way. Thank you very much.

(Thereupon a lunch recess was taken at 12:03 p.m.)

AFTERNOON SESSION

1:25 p.m.

CHAIRPERSON NICHOLS: So the two items this afternoon are informational items. There is not any vote to be taken, but these are both extremely important issues for the Board's work. And it's important to take the time and to really delve into.

The next agenda item is an informational report on updates to emission inventories for the trucks and buses and off-road equipment regulations. We will be considering amendments to these regulation at our December Board meeting.

When we adopted the regulations in 2007 and 2008, we certainly did not expect a recession in depth of the one that we had experienced. Nobody did. And so we did not take into account the emissions reductions that would occur due to those things.

In light of the economic conditions as they unfolded, we directed our staff to develop amendments to our rules to reduce their economic impacts. And to do that, the staff had to go out and update the emissions inventory. Today, staff is reporting on the results of the inventory update.

After this item, I hope that everybody who's following these rules will have a better understanding of

what an emissions inventory is, how it is used, and what the effect of changes may be on the rules that we'll be considering next month.

Since today's item on the emissions inventory is only informational and it's only about the inventory -- it's not about any other aspect of the rules -- we are going to ask those who are commenting to limit their remarks -- limit their comments only to issues about the actual inventory. The time for commenting on the cost effectiveness of the rule, the reasonableness of the rule, the health effects of diesel, or the relationship between diesel and global warming, all of those things is not at this meeting. And given the time, I really would appreciate if people would try to focus their remarks.

And I would also say that if you do comment today, we will take your comments and we will fold them into the official rulemaking record. So in other words, if you choose to make your statement today, which we're not encouraging, but if you do, we will add it to the record and you don't have to come back and say the same thing next month.

Today's staff presentation and the meeting transcripts will also be included as part of the official record for the proposed rule amendments that we're taking up in December. I hope there's clear. If not, we'll have

to go over it again.

But at this point, I think it's time for the staff to begin their presentation.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

Staff has provided you with a number of briefings on the on- and off-road diesel rule since you first adopted the off-road rule in 2007 and the truck and bus rule in 2008.

In July 2009, staff proposed and you adopted changes to the off-road rule to implement the provisions of AB 82X. That legislation, passed in response to the recession, directed ARB to make changes to lessen their requirements for large fleets in 2010 through 2012.

Following that, in December 2009, was a staff presentation on the impacts of the recession on trucking activity and emissions.

In April of 2010, staff provided the Board another update on the impact of the economy on both truck and off-road emissions.

Through the course of this year, staff has also been incorporating new data and methods into its emission estimates.

With that, I'll ask Dr. Todd Sax, Chief of the Mobile Source Analysis Branch, to continue the

presentation.

Todd.

(Thereupon an overhead presentation was presented as follows.)

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Thank you.

Good afternoon, Chairman Nichols and members of the Board.

Today, I'm going to discuss the substantial improvements we have made to emissions inventory methods for off-road equipment and the impacts of the recession on both trucks and off-road equipment.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: My presentation has four sections.

In the first, I will provide a general overview of emissions inventory development for mobile sources, and in particular, what is needed to support rulemaking for in-use fleet rules, which is different from more traditional rulemaking for new engine emissions standards.

Next, I'll talk in greater detail about improvements to the truck and bus emissions inventory and then the off-road emissions inventory.

I will conclude with staff's inventory findings as they pertain to providing businesses economic relief in

light of the recession.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: An emissions inventory is an estimate of emissions both now and in the future. There is no single measurement or a single data source that can be used to quantify an inventory. Instead, staff combines test measurements with available data that describes the population of equipment and how those equipment operate. All of these together are used to estimate emissions.

Methods and data sources improve over time, and staff periodically updates inventories to reflect this information. An inventory is not static; it evolves over time.

When an inventory is developed to support an air quality plan or rule, it is based on the best information available at that time. The Board periodically approves the entire emissions inventory as part of its approval of federal air quality plans.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Once current emissions are estimated, forecasts are developed based on economic growth trends and the anticipated penetration of new technologies into the future.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Many different types of data are used to develop emissions inventories.

Staff periodically conducts emissions testing programs that provide the fundamental basis for relating how much vehicles operate to how much vehicles emit.

Agency programs can also be a valuable source of information. The best known example would be vehicle registration program data that are available through the Department of Motor Vehicles for on-road vehicles, but there are many others. Industry surveys and market reports are used to estimate how much vehicles operate. We will conduct surveys or implement field studies to fill in data gaps we find in other data sources.

Finally, economic forecasts are used to estimate the growth in activity associated with the use of various types of vehicles.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The in-use rules are different, because unlike new engine standards that focus on manufacturers, in-use rules focus on fleets owned and operated by individual businesses. Developing in-use rules requires understanding how individual fleets operate and manage their vehicles. In California, there are many different ways in which fleets

operate, and these differences are important to understand.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: In this section, I'm going to focus on the truck and bus inventory. We'll discuss the original inventory used for the 2008 rulemaking, our assessment of the impact of the repetitive session both now and in the future, and several refinements made to the inventory to reflect new information.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The inventory developed for the 2008 rulemaking represented the culmination of several years of work to better characterize the diversity of trucking operations to support rule development. We found unique differences between various trucking sectors operating in California, including interstate trucks, drayage trucks, and agricultural trucks.

Recent inventory updates focused on reflecting the recession. We assessed the impact on the recession on different trucking sectors, including construction. We also developed several refinements to the inventory to reflect new information.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The inventory development process has been extensive. This slide highlights the many workshops and meetings we have had throughout the development of the inventory. Our inventories, including the 2008 rulemaking and the new inventory updates, are available through our website.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The most significant change to the truck and bus inventory since 2008 has been assessing the impact of the recession. Last year at this time, we reported to you on our assessment of the impact of the recession on trucking operations in California. We evaluated a number of different data sources to reflect the impact of the recession, including taxable on-road diesel fuel use, various economic indicators of construction activity, and container through-put at California's ports.

Over the course of this year, we updated that work with more recent information. Overall, we estimate that emissions have been reduced by 25 percent in 2009 from what we previously estimated.

Of course, not all trucking sectors have been impacted equally by the recession. For example, activity in the construction sector has dropped by 50 percent.

To check that our estimates correctly reflect the

recession, we compared our emission estimates with on-road taxable fuel sales data to match within a few percent.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: So the recession has had a major impact in reducing emissions from trucks and buses operating in California today, but a critical component of the emissions inventory is the forecast of emissions into the future. To evaluate emissions in the future, we reviewed different economic and fuel forecasts at a state and national level. These reports assess economic recovery through a variety of economic indicators, including sector level employment and gross domestic product.

As we have looked at data from these sources, we have focused especially on what they suggest about the possible state of the economy on 2014. This is the key compliance year for the PM2.5 air quality standard and so is critical to the regulatory design in terms of needed emission reductions.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Last December, we presented a range of forecast scenarios: One faster, one slower, based on the data we have seen.

The faster growth scenario assumed a return to non-recession forecasted levels in 2017 based on

Congressional budget office gross domestic product forecasts. While it's the faster, more optimistic scenario, it is still slow. It is based on an eight year recovery period, the same length of time it took the United States to recover from the Great Depression. The slower recovery scenario assumed historically average growth from the trough of the recession into the foreseeable future. In this scenario, the economy does not truly recover from the recession at all. This scenario is pessimistic and intended to represent the slowest possible growth that could reasonably occur.

In April, we presented a forecast that represents the average of the faster and slower recovery scenarios. That is the same forecast we are using today. It is consistent with the transportation and warehouse employment forecasts developed by the University of California at Los Angeles and the University of the Pacific.

Let me show you what it looks like graphically.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: This chart shows our truck and bus activity forecasts. This line represents our forecast from the 2010 to 2014 of truck activity relative to the estimated growth in 2006 if there had been no recession.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Added in here is the June 2010 UCLA forecast, shown here as the purple line. It accounts for the recession and projects a much lower activity into the immediate future.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: And now the UOP forecast, shown here as the blue line, is very similar to the UCLA forecast, projecting moderate growth in transportation and warehousing employment into the future.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: And here the black line shows staff's forecast based on the average of the fast and slow recovery scenarios. It compares very well to the UCLA and the UOP employment forecast.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Finally, this last line is the inventory forecast for just construction trucks, reflecting the much deeper impact of the recession in terms of current activity and the much longer recovery compared to trucking as a whole.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: In

addition to assessing the impact of the recession, we have made several other improvements to the inventory.

We conducted a major field study in 2007 and 2008, collecting data in more than 50 locations around the state. We used this information to improve our estimates about how trucks of various categories travel around the state. This allowed us to refine our regional emissions estimates.

We collected new data from the State Board of Equalization reflecting fuel tax information from non-California registered trucks traveling in California to revise our estimate of miles traveled by these interstate trucks. This change reduced emissions by eight percent.

Finally, we updated emission rate estimates for older vehicles, based on revised estimates of the total amount of miles driven by trucks on average over their lifetime. This change, which we will discuss in greater detail shortly, reduced the emissions inventory further by about five percent.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: This slide summarizes the impact of the recession and methodology changes on the particulate matter emissions inventory.

As you can see, our revised emissions estimates are lower now than we estimated in 2008, mostly because of the recession. In this figure, the dark gray bar represents the 2008 rulemaking inventory, the light gray bar represents that inventory adjusted for the recession, and the blue bar represents current estimates.

The impact of the recession is greatest in 2010. And while the impact diminishes as the economy recovers, it is still significant in 2023. As the chart shows, the impact of the refinements is smaller. The same trends are seen for NOx as well.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Since we have posted the inventory and documentation for the December Board hearing, we have received several comments.

One comment was to use the slow recovery scenario rather than the average recovery scenario. But our forecast compares well to the transportation and warehousing employment forecasts developed by UCLA and UOP.

Further, the slow recovery was designed to be a worst-case forecast where the economy would not recover from the recession in the foreseeable future. We do not believe using a worst-case scenario is appropriate. By planning for a reasonable, modest recovery, we can provide

economic relief while also ensuring that public health will be protected and legal obligations under the Clean Air Act will be met.

Other comments called for lowering the assumption for lifetime mileage and annual mileage. We have analyzed additional data since receiving these comments and concluded they do not support the suggested changes.

In the next several slides, we will walk you through these mileage issues, starting with a little background on what lifetime mileage is.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Lifetime mileage refers to the cumulative miles traveled by a category of similar trucks over a lifetime. The average value across the truck category is used in the calculation.

Lifetime mileage estimates are important because they affect our calculation of emission rates. As vehicles are driven during their lifetime, engine components age and malfunction. Emission rates increase as a result. The comment to reduce average lifetime mileage assumptions is, in effect, a comment to reduce the emission rates of older vehicles.

Staff has made this adjustment already. In the original inventory for the 2008 rulemaking, we assumed

trucks travel more than one million miles over their lifetime. Staff lowered that to 800,000 miles on average for the heaviest trucks in the updated inventory. That change reduces emissions by about five percent.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Estimating an appropriate lifetime mileage is actually not a simple process, and several methods can be applied. During the inventory update process, staff looked at a variety of data sources, including engine standard requirements, information about truck survival rates, and odometer data from several sources. Based on this information, we chose 800,000 as our lifetime mileage for heavy-heavy-duty diesel trucks.

Since receiving the comment, we collected additional information. We applied a method used by U.S. EPA to estimate lifetime mileage and calculated an average lifetime mileage of around one million miles. Using a survey-based approach, we calculate an average of 650,000 miles. As a result, we continue to believe 800,000 is a reasonable assumption.

As I said, the lifetime mileage assumptions are really about the emission rates of older vehicles. Let me show you what these mileage assumptions mean.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: This chart shows the estimated fleet average PM2.5 emission rates for California registered trucks in calendar year 2014 using three different lifetime mileage estimates.

On the left, for the 2008 inventory, we assumed a fleet average emission rate of about .5 grams per mile based on the lifetime mileage estimate that exceeded one million miles.

In the middle, the updated inventory, the 800,000 mile corresponds roughly to about a .45 gram per mile emission rate.

Finally, on the right, the emissions rate with the suggested 600,000 lifetime mileage assumption would be around .4 grams per mile.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Here is the horizontal black line represents the U.S. EPA approach. The emissions rate is about .48 grams per mile, below the old outdated assumption on the left, but above our current assumption in the middle.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: This line represents the survey approach of 650,000 miles and a .42 gram per mile emission rate.

As you can see, it is below our current

assumption but above the suggested 600,000 mile estimate.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: So our fleet average emission rate generated by the 800,000 lifetime mileage estimate falls between the two methods. And staff does not believe any further change, beyond that already made, is supported by the data.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The last comment pertains to estimates about how many miles older trucks drive per year. This issue matters because emissions are the product of annual mileage and emission rates. Older vehicles, having been manufactured to less stringent emissions standards, have higher emission rates. If those vehicles are assumed to drive less, they will generate fewer emissions.

We developed our annual travel miles estimates for the 2008 rulemaking based on the U.C. Census vehicle inventory and use survey, and additional data provided by trucking fleets during the regulatory process.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: To evaluate the comment, staff assembled a larger database than we had with just the US Census data. We added to the Census records information from ARB surveys and data from

the Proposition 1B and Moyer funding programs. This doubled the amount of data we could analyze to more than 11,000 mileage accrual records for California registered non-drayage trucks. These data are now available on our website. Our analysis of this expanded data set supports the existing mileage accrual estimates.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: In the next portion of this presentation, we'll be discussing the original inventory used to support development of the in-use off-road regulation in 2007 and the 2010 updates including the public process that has taken place during the past year.

We'll be presenting all the new and extensive information that has become available since 2007, including information on the impacts of the recession on the industry.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: When we developed the inventory for the 2007 rulemaking, we used standard calculation techniques and updated key inventory inputs using industry market reports supplemented with ARB surveys. The use of industry market reports was important because at the time there was no California or national data set for off-road equipment.

By the middle of 2009, the severe impact of the economic recession on the construction industry had become clear, and we began the process of updating the inventory to reflect its impacts.

In late 2009, Professor Harley at U.C. Berkeley published a fuel-based analysis suggesting the off-road inventory was overestimated. As a result, staff expanded the work already underway to look at all of our basic assumptions and methodologies. This was possible because by 2010, a wealth of new California-specific information was available as a result of the existing reporting required by the rule and the expanded reporting put in place to support granting economic relief.

With these new data, we have been able to assess both the impacts of the recession and address the concerns raised by Professor Harley and industry regarding the accuracy of emissions estimates and comparison to fuel-based estimates.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Like on-road, the off-road inventory development process has been extensive. This slide highlights the many workshops and meetings we have had throughout the development of the inventory. All of our inventories, including the rulemaking and the new inventory updates, are available

through our website.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: In terms of new information, first is the California-specific equipment population information and information about how that equipment is used collected through rule reporting. Owners of regulated equipment were required to report fleet information to ARB's on-line reporting system, DOORS. Fleet owners reported the total number of vehicles by type, horsepower, and model year.

Staff used the financed equipment sales data to better understand how changes in the economy impact the age of the fleet and new engine testing information to better understand how hard equipment operates, what we refer to as a load factor.

And lastly, economic indicators, such as current and forecasted employment and human population data, have provided a better assessment of how much emissions from regulated equipment have dropped as a result of the recession, how much they are forecasted to recover, and where these emissions are likely to occur.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: For 2010, staff made updates to these four main components of the emissions inventory. Each of these components will be

discussed in more detail over the next ten slides.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The 2007 rulemaking inventory relied on national population estimates that were scaled to California. The regulation required that by the beginning of 2010 all owners of regulated equipment had to report fleet information to ARB's online reporting system, called DOORS. Fleet owners reported the total number of vehicles by type, horsepower, and model year.

The updated inventory is based directly on this new reported data. The original inventory estimated 195,000 vehicles in 2009. The updated population is about 145,000 vehicles, reduced mostly as a result of the recession.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The 2007 rulemaking inventory primarily relied upon an industry market report to estimate how much different types of equipment are used annually.

In 2009, the California Legislature approved Assembly Bill 82X, which required ARB to amend the off-road diesel regulation to give economic relief. As part of these amendments, ARB gave credits to fleet owners toward early requirements if they provided documentation

of reduced activity as a result of the recession. To receive credit, fleet owners had to report equipment-specific hours of operation for calendar years 2007 and 2009. Data were reported for about ten percent of the vehicles reported to DOORS.

The 2007 reported activity was 50 percent lower on average than our previous surveys and market reports. 2007 was down from the peak of 2005, but before the recession. We believe 2007 represents an historically average year. 2009 activity levels that reflect the recession were lower than 2007 estimates.

The updated inventory relies on the new lower hours of use data reported to DOORS by California fleets.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Load factors are a measure of how hard a given vehicle operates, or in other words, what fraction of its rated horsepower is used on average. Our previous estimates were based on a national study. Data that became available in 2009 and 2010 through ARB engine testing and manufacturer-supplied engine computer downloads suggested load factors should be reduced by 30 percent.

Over the past several years, we had been reviewing load factors across a wide variety of equipment in the goods movement sector. The ports of Los Angeles

and Long Beach had conducted two studies reviewing load factors on cargo handling equipment and the results were similar to what we saw in the new data representing construction equipment.

As a result, the revised load factors were reduced 30 percent.

When we account for all the updates based on improved methodologies and new information, the revised inventory is reduced by about 60 percent.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: At the time of the original rulemaking, staff projected continued growth into the future. Instead, the construction sector has experienced a reduction in activity of about 50 percent from peak levels in 2005. That reduction has led to a major decrease in emissions.

As with the truck and bus inventory, staff is using the average of faster and slower recovery scenario to forecast construction emissions. This compares well with near-term forecasts for construction employment published by UCLA and the University of the Pacific.

Given the depth of the recession in the construction industry, the average forecasts says that construction activity will not return to previously forecasted level until about 2023.

Let me show you what it looks like with similar graphs to those you saw for trucks and buses.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: This slide shows how construction activity was forecasted to grow without the impacts of the recession. The trend is based on 40 years of historical employment levels in the industry.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: The next line, purple on this graph, is the UCLA construction employment forecast.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: In addition to UCLA, the University of the Pacific also publishes their own construction employment forecasts, which is the blue line.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Lastly, we've overlaid staff's average recovery forecast, the solid black line. As you can see, the published forecasts support the average recovery scenario.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: This slide is also similar to what you saw for trucks and buses

and shows particulate matter emissions estimates for 2010, 2014, and 2023.

The dark gray bars show the original rule inventory estimates, the light gray bars show how the original inventory would be reduced if only updated for the impact of the recession. And the dark blue bars show the updated emissions inventory with the impacts of the recession and the impacts of the new data incorporated.

In 2010, the combined recession accounted for about half of the change from our previous estimates. That impact diminishes as the economy recovers.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: In late 2009, Professor Harley released his study which concluded the ARB inventory was overestimated by more than a factor of three. Industry also pointed out a similar study focused on all off-road equipment published in 2000 by Keene, Sawyer, and Harley that found similar results.

Our updated inventory represents the best available data from a variety of sources, including reduced estimates of hours of use and load factor. The updated inventory is not based on fuel sales information. However, comparing fuel use estimates derived from our inventory to other fuel sales estimates provide a valuable cross check.

Making this comparison is not easy because the Board of Equalization does not report off-road diesel sales by industry sector. The California sales data are for all off-road fuel.

Survey information is available that does estimate fuel sales at the industry sector level, but it is unclear the extent to which these surveys truly represent California industry.

For example, trends in estimated fuel consumption for the construction sector do not match California industry activity.

With those caveats, fuel use estimates based on our updated inventory are generally consistent with fuel sales estimates. As a result, staff believes the overestimate identified by Professor Harley has largely been resolved.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: In summary, the truck, bus, and off-road inventories have been updated to reflect the recession and new information. Truck emissions are 35 percent lower in 2010 due primarily to the recession, while off-road emissions are 80 percent lower in 2010 due to a combination of the recession and new information.

These results represent the very latest

information, a major increase in the amount and improvement in the quality of California-specific input data, especially for the off-road sector, and show consistency between fuel use estimates and independently derived fuel sales data.

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MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Finally, I will conclude by linking these inventory revisions to your upcoming decisions about providing economic relief via rule amendments.

Part of that equation is compliance with SIP commitments for particulate matter attainment in 2014. With the existing rules and updated inventories, emission levels for trucks, buses, and off-road equipment combined are now forecast to be significantly lower than was committed to in the SIP. The difference between the original SIP forecast and the updated forecast is the margin available for giving economic relief while still meeting the State's SIP commitment.

The analysis suggests substantial relief can be provided in 2014; a margin of 62 tons per day is estimated in the South Coast and 40 tons per day in the San Joaquin Valley.

That being said, as the economy recovers, we still will need the cleanest technologies for all sources

in the long run. The current ozone attainment deadline is the San Joaquin Valley and South Coast is 2023. The SIP envisioned nearly full modernization of the on- and off-road fleets by then. That is still needed.

EPA will soon set in motion a new planning cycle for an even more health protective ozone standard, and California will need to identify ways to reduce emissions even further.

Thank you. That concludes staff's presentation.

CHAIRPERSON NICHOLS: Thank you. That's a very thorough presentation of what you've done.

I'm going to open it up to Board questions.

BOARD MEMBER YEAGER: Thank you for that presentation.

I was wondering if you could talk a little bit about the public meetings and workshops you had. I know they were quite extensive and may be particularly the last ones that were held, what the mood was of the group, whether there was general consensus on a lot of the findings that you talked about later, and sort of what the mood of the public process was.

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Well, we've had a number of public workshops over the past year focused specifically on the emissions inventory. That's actually not something we normally do whole workshops

focused on inventory. And we did that because we thought it was important given all the information that had come out to really make an effort to make sure that people understood what we were doing.

The mood at those workshops is mixed. Nobody likes being regulated. I don't think that's a surprise. And I think people were understandably a little bit confused and upset by what had gone on with the off-road inventory. But in the process of those workshops, I think we made it -- I hope we made it relatively clear what we were trying to do and what was happening. While everybody doesn't necessarily agree with us or even like the regulations, I hope they came away from the workshops with a better understanding of what we're doing with regard to the inventory and how the process works.

BOARD MEMBER YEAGER: At least an understanding of the adjustments that we were looking at making and rational for it. Because it seemed like this was an -- I'm very encouraged by the report and felt that staff went out of its way to take many things into consideration, particularly dealing with the economy.

I was wondering if people in the construction industry sort of felt that ARB staff was again understanding their issues and concerns they had raised in the past.

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Well, I hope they did. I don't think all of them did, but I think many did. And I imagine you'll hear some comments today, some who understand it and others who maybe don't.

BOARD MEMBER YEAGER: Thank you.

BOARD MEMBER TELLES: Thank you.

Can you maybe add one or two sentences to re-explain the difference between the U.C. professor's estimate and CARB's estimate? If I heard you right, you feel that the U.C. professor had overestimated based upon the fuel inventory? Overestimated the decline of the emissions?

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Well, first of all, we're not questioning the work Professor Harley has done.

BOARD MEMBER TELLES: I understand.

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Professor Harley's study used a fuel based estimate. They start with estimates of how much fuel is used in the inventory and convert that into emissions. Using that approach, Professor Harley and his staff found emissions were lower by a factor of three relative -- found our estimates were too high by a factor of three.

And we went back and updated the inventory, but our inventory is not fuel based. And there is a reason

for that. When you're trying to do in-use rules like the diesel rules that will be in front of you in December, those rules are based on a lot of information about the population of equipment, how that equipment operates, how much it's used. And a fuel based inventory won't tell you that information.

What a fuel based inventory is really valuable for is a cross-check against what we've done. And so when we updated our emissions inventory, we updated -- first of all, we went back and re-evaluated all of our inputs. But what we found was a couple of the key inputs were overestimated when we looked at new data that had become available during the regulatory process and after the original rule was adopted.

And so our new estimates are not based on fuel estimates. They're based on the actual population of equipment in California and hours of use data from about 10 percent of equipment operating in California and the best information we could find from a number of different sources representing load factor. And when we compare that to the fuel use -- to the fuel sales estimates that Professor Harley used or the industry used in their comparisons to our work, our inventory compares much more favorably to those than it did in the past.

We're not in agreement 100 percent. Our numbers

are still a little higher than I think they'd like to be. But based on our work, I'm very comfortable where we've ended up.

CHAIRPERSON NICHOLS: Any other comments? Go ahead.

BOARD MEMBER RIORDAN: I would like to go back to Supervisor Yeager's questions. Just explain to the Board that when I could, I did attend some of the workshops for the South Coast in El Monte because I wanted to learn and I also like to understand the interests of all that are participating, because we were rather divergent in our assumptions on both sides.

And I think Todd is being just a little bit humble, because on occasion Todd would I think very well explain some of the intricacies that we go through to develop our estimates. And if I have to give kudos to anybody, it might be to Todd for explaining to those of us who are not involved with some of the background and intricacies of making our estimates for the future. And I just really wanted to commend him, because sometimes our discussions would become heated at best. And I think, really, the staff did a wonderful job. I felt Todd -- and I'm going to single him out -- was so good explaining some of the difficulties we have in understanding all of the minutia that goes into making these estimates. So I think

that helps.

Maybe Supervisor Yeager understands why. Sometimes you have to explain things to people.

CHAIRPERSON NICHOLS: Thank you.

If there are no further comments from the Board, we will hear from those members of the public who signed up to comment here.

I notice that the vast majority of them indicate they're neutral, not that we're asking them I guess to bless or oppose the inventory, per se. But I think that's an interesting description I guess, because I don't think much of anybody is actually neutral on this topic. But we are seeking the best answers that we can. And I hope that the comments both from the staff and from the Board members here today do at least establish a tone of what we're trying to accomplish here, which is one of actually developing the best inventory that we can to use for decision making purposes.

So with that, we'll just go to the list beginning with Henry Hogo of the South Coast Air Quality Management District, followed by Barry Wallerstein and Morgan Wyenn.

MR. HOGO: Good afternoon, Madam Chair, members of the Board.

(Thereupon an overhead presentation was presented as follows.)

MR. HOGO: I'm Henry Hogo, Assistant Deputy Executive Officer of Mobile Source Division at the South Coast AQMD.

I first wanted to acknowledge all of the work there's been done by staff in putting together the revised inventory. We know all the hard work that's been done and we appreciate that. We believe the changes are reasonable and directionally correct, given the available data we have today. However, we need to be cautious since these inventories are being used to propose regulatory relief. And when we were asked to look at the proposals, we need to look at if the inventories are technically sound. So what we've done is take a look at some of the parameters that went into it and the uncertainty balance associated with the parameters that staff provided in the staff report.

Next slide.

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MR. HOGO: Just to give you an idea -- Todd actually did a great job explaining the emissions inventory and all the changes. So we looked at the range of uncertainties that are associated with each of these parameters.

Next slide.

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MR. HOGO: What we found is that doing some of these sensitivity tests and stress testing that the inventory potentially could be as much as 20 to 30 percent higher, especially on the off-road side. We believe the on-road emissions inventory are very reasonable given the amount of data -- much more data that's available on the on-road side compared to the off-road side.

Next slide, please.

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MR. HOGO: What the implications of this would be in terms of the margin that Todd mentioned, the 62 tons per day margin in the South Coast, this is Table 37 from Appendix G of the on-road regulation ISOR. And what we've done is increased the off-road emissions by 20 percent and most of the numbers that you see in red on the far right column. When you add up those numbers, and with the proposed amendments that you'll be considering in December, there really is no margin left. And so we have to be cautious on the inventory numbers. We know that staff has done their best at the estimates at this time, but -- if you go to the last slide.

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MR. HOGO: We believe that the off-road inventory could be on the low side. But we need more adequate review of the inventory, more long-term review of the

data, especially when we started using this data for the next Air Quality Management Plan update.

We believe that staff should be encouraged to conduct additional analysis of the parameters just to ensure that you know the implications of the inventory relative to the proposed amendments.

Even though the reductions are not meeting 2015, we believe they will be met after 2015. And given these uncertainties and these estimates, we believe we still have to clean up vehicles as early as possible and incentivize that.

Thank you.

CHAIRPERSON NICHOLS: Thank you.

Could I just sort of turn this back at you and see if I understand what you're saying?

You're not saying that the inventory that the staff is now proposing is underestimated, but you're saying that because of the uncertainty that always exists around the edge here, that when it comes to the rulemaking, we should be more -- we should err on the side perhaps of being more aggressive because of the need that there will be to achieve.

MR. HOGO: Because every estimate in an inventory development has uncertainties associated with them and the interpretation of the data and the assumption of how the

data will be applied in the model, we should err on the side of more aggressive reductions to provide that margin.

CHAIRPERSON NICHOLS: Thank you.

Barry Wallerstein.

DR. WALLERSTEIN: Good afternoon, Chairman Nichols, members of the Board.

I'll be very brief this afternoon. Henry went over the technical details of the analysis that we've been working on with your staff.

I have two requests of the Board. One is that as you prepare your budget for the upcoming year -- and I know this is a tough budget time for the entire state and all of us even at the regional levels -- that there be additional resources put to this issue of emissions inventory, because this is so fundamental to our ability to demonstrate attainment for the particulate standards as well as the ozone standards.

And the decision you'll have in December naturally isn't just about 2015, which is the annual average PM2.5 standard for South Coast and San Joaquin, but also in 2019 when we address the 24-hour standard. And we haven't prepared the plan for that.

So inventory numbers are always a snapshot in time, but historically we've seen them bounce around. Your staff has done leading work in this area, but it's

important now that the ambient air quality standards are being tightened that we put more resources to this. And not just your staff, but we will commit to do so at South Coast as well.

My second request is in reference to a comment or a notation that the Chair made at the outset about the fact the State has received notification from EPA on our PM2.5 plans in South Coast and San Joaquin that they are proposing partial disapproval.

I would recommend -- and I mentioned this to James earlier today -- that before you act on these two critical regulations in December, because of the changes in the inventory that we seek to have a conversation between CARB, EPA, and the two associated air districts to make sure they're going to be okay with these inventory changes.

As you heard in your staff presentation, there are departures from the standard EPA methodology. We're agreeing with your staff that these are improvements. But if the three of us agree San Joaquin, South Coast, and CARB, but we don't have EPA's approval, we've got big problems.

So we would just request your consideration of these two actions. Thank you.

CHAIRPERSON NICHOLS: Thank you.

DEPUTY EXECUTIVE OFFICER TERRY: Chairman Nichols, on that point, just to be clear, the EPA just approved this, the emission inventory work, that the Board has done as part of the 2.5 SIPS. And now that we're in the process of working with them to resolve the remaining outstanding issues, we will be meeting with them to talk about inventories as well as all the other outstanding issues. And we intend that to be a conversation with both EPA, the air districts, and ARB together.

DR. WALLERSTEIN: If I could, I think this is maybe something we need to talk about, because if these are new inventories just being completed now, I'm not quite sure how EPA has approved them.

CHAIRPERSON NICHOLS: I think that's the question, how this applies to inventory in the previous SIPS. I think we understand the point and agree with you that is the right way to go. So thank you for your offer and all your work on this.

Morgan Wyenn and then Hank de Carbonel and Richard Lee.

MS. WYENN: Hello again. Good afternoon, Chair Nichols and members of the Board and staff. Thank you for the opportunity to comment.

My name is Morgan Wyenn. I'm an attorney with NRDC, the Natural Resources Defense Council. And I'm here

in support of the diesel emission inventory update by staff.

We appreciate the responsiveness of the staff to the new emissions data and the extensive efforts to make the necessary inventory adjustments in the short time frame. However, we are concerned the sudden drop in diesel emissions gives a false sense that we can back off reduction commitment in the SIP.

The latest round of amendments to the diesel rules for trucks, buses, and off-road equipment goes much too far in dialing back the health protective requirements of the original measures. The proposals utilize the full margin created by the inventory adjustment, making SIP compliance somewhat uncertain.

Of most concern is that our lungs do not benefit from inventory adjustments. While the diesel emissions inventory may now be much smaller due mainly to technical accounting changes, that doesn't change the fact that communities throughout the state suffer from the ills of diesel pollution from trucks and heavy equipment. We urge you to use the newly created margin of emissions cautiously. Please preserve more of the health protection of your regional diesel rules. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Mr. de Carbonel.

MR. DE CARBONEL: Good afternoon.

In all these discussions, I think there has been one area that has been left out, and that is the area of the vocational truck, which is not -- it's a little bit deceiving. When you see it, it looks like it's a truck. But in fact it's actually a tool. And it's not -- what it does is special and unique unto itself. The Fed EPA even recognizes that the role of a vocational truck as being separate from a highway vehicle.

In our case, with concrete pumps, we use a transfer case so we are classified as only incidentally traveling on the highway. And when we get to the job site, we go into a transfer case mode, and we cannot move until we're finished placing the concrete. And then placing of the concrete, we use about a third of the horsepower that we use for motion of the truck on a highway. So if we have a 350 horsepower engine, we're only using -- we can't use more than about 80 KW because our hydraulic systems are rated at that. So there are a lot of things that go into it.

Our odometer turns and shows mileage while we're standing still. If we make an error at this point on how we're going to judge and make assessments on things -- and there is a little bit of an error here when we are on a job site with six or eight ready mix trucks holding ten

yards a truck, that's about six or $8,000 in each truck. And somebody says, whoops, we misjudged it and things are all screwed up, we've got a perishable commodity. I think it's very important that -- and there is a number of vehicles that fit this category, whether they're moving and storage, ready mix trucks, trains, all sorts of equipment that has a very unique application. And the truck is only a small part of the thing. And basically the truck is moving -- the sole source of income is not the trucking; it's moving the item that's involved. In our case, the truck is incidental. It's maybe 20 percent of a total value of a million dollar piece of equipment. We have a $100,000 truck in there.

So I think that we really should have a vocational category. It makes more sense. It cleans up a lot of problems. And, you know, just because we're not off highway, we're not truly highway, and I think that a lot of the considerations for mileage and emissions and all of that would change considerably. And also the average life expectancy of these vehicles changes dramatically due to technology plus usage.

In our case, in the construction industry, we know we are off by 65 percent. So getting a 30 percent reduction is incidental when we're down 65 percent. And of that 65 percent, we're only using about 30 percent of

our horsepower probably 80 are 90 percent of the time. We travel very little. We spend a lot of our time hopefully when things get better on a job site performing a function. That's how we make money, not going down the highway.

CHAIRPERSON NICHOLS: Thank you.

Mr. Lee. Richard Lee, Betty Plowman, and James Lyons.

MR. LEE: Good afternoon.

I look at CARB's estimates of the on-road annual mileage as being dangerously simplistic. These estimates of annual mileage I think should be deconstructed to reflect not just the quantity of miles traveled, but also the quality of miles traveled.

What I mean by this is a long haul truck is actually traveling we'll say a higher quality mile as far as pollution is concerned than a short haul truck because the engines in a short haul truck or short haul, the engines don't really come up to temperature. So what's going to happen with these annual mileage estimates is that you're basing -- the painting both long haul and short haul trucks with the same brush.

I think that some real attention needs to be given to on-road trucks traveling under 20,000 miles a year. One thing for sure is that both of these trucks

share a similar characteristic, and that is there's probably a limiting operating budget generated by the activity, if you have basically limited resources, less money to afford the new technology. And given the limited resources, any imposition of, say, the installation of a diesel particulate filter puts an undue hardship I believe on the operators who are running fewer miles.

The other thing is that these diesel particulate filters, as I've really come to understand this, they really don't work well on short haul vehicles. And many of these are actually I would categorize as vocational vehicles. I've spoken about vocational vehicles before, and I think there should be a clear distinction in the regulation covering vocational vehicles.

In fact, you might want to view vocational vehicles as somewhere in between an on-road and an off-road vehicle.

Thanks very much.

CHAIRPERSON NICHOLS: Thank you.

Ms. Plowman and then Mr. Lyons and then Bill Davis.

MS. PLOWMAN: Good afternoon and thank you.

Todd, you kind of threw me today here with your report and I kind of veered from the way I had originally planned to go.

I was just thinking what a role reversal we have had here. 2023, that's not good news. As I listen to the reports from UCLA and UOP and everything was off. I was here in '07 for the off-road hearings when the folks were trying to tell you we've got a big problem. Whether it's reflected yet or not, we are in a recession. In back to December of '08 when we filled this hall and we tried to say we're really in a recession, we need some relief, no one was listening. Now here we are again and trying to comply. And believe me, we all want to.

And I would just like to add something to these low mileage trucks. We've had a real hard time trying to figure out what is a vocational truck. You could go and look up everything and try to find vocational. I think we all agree it's a pretty specific truck. A dump truck, that's pretty easy to look at. He's hauling dirt. He's hauling construction. A tow truck, he's got a huge investment. He's really well a vocational truck.

But I did want to point out -- and I had the clerk point out for you from the moving guys, because this is something I didn't realize. They are also very short hauls. And I'm talking about the guys that start the truck, drive to your house, park it, load it, and then drive back and park it that night. They may do, 10, 20,000 miles a year also. They don't look separate. I

would just like on this information for you to notice that they are regulated by the Public Utilities Commission and that might be a way to determine that group.

But back to the construction or our lack of construction, if we could get any kind of an exemption for our low mileage, being that we don't have any, 20,000 miles may sound like a lot. It would immensely help folks. We want to comply. We always want to comply but were unable. And I don't know when it's coming back.

Our credit ratings are shot. We can't purchase. Folks that did get incentive funding have lost that equipment. It's been repossessed. Check out Peterbilt, Kenworth, look at all the dump trucks. The guys that traded in all their old ones and even with incentive funding couldn't continue to make the payments.

But there is a way. I've got to say again -- I've been saying this for three and a half years -- guys, let's get this periodic smoke inspection program working. Let's get this PSIP going. Let's reduce those high, high numbers that are allowed. Let's take that 55 percent opacity level. Let's take it to 30 percent. Let's take the 40 percent and take it to 20. Let's bring the owner-operators into the program. Let's get rid of the dirty trucks, the low hanging fruit. Give us some mileage. Get rid of the dirty trucks. We'll buy new. We

love to drive new and we can make this work.

Thank you.

CHAIRPERSON NICHOLS: Thank you. Appreciate that.

MR. LYONS: Good afternoon, Chair Nichols and members of the Board. My name is Jim Lyons. I'm a senior partner at Sierra Research, a Sacramento-based consulting firm.

I'm here today to discuss the truck and bus rule inventory. In addition to my testimony today, I will be submitting electronically this afternoon a report prepared at the request of the Ad Hoc Working Group to the rulemaking record to the truck and bus regulation. I hope you'll have a chance to look at this report, as I won't be able to go into the details here within my three minutes.

I'd like to begin my testimony by acknowledging the fact your emissions inventory staff have been very open to meeting with us to discuss different areas of the truck and bus rule inventory. I'd like to thank them for that openness as well as their time.

I also know that your staff has worked hard to develop what they believe is an accurate inventory and I will obviously be available to discuss any questions they may have regarding the report we'll be submitting.

With respect to the inventory, it's based on an

enormous amount of data and a multitude of assumptions. These data and assumptions have not been thoroughly reviewed and, in fact, have pretty much been in the state of flux for the course of this summer as well as since the time the rule was originally developed.

In addition, all of the data that underlies the inventory is not publicly available for a number of reasons. Given this, the potential exists for mistakes, inappropriate use of data, and assumptions, and other factors impact the accuracy of the inventory.

In addition, there are areas where simply using the upper and lower end of the range of assumptions can lead to substantial differences in the inventory.

Unfortunately, the truck and bus inventory have not, to the best of my knowledge, been subjected to a comprehensive peer review at any point in time since it was developed back around 1970 -- or 2007, 2008. I believe that a peer review of the inventory should be conducted. This isn't a new thought on my part. I urged this back in December of 2008 when I testified at the hearing where the truck and bus rule was originally adopted.

Presumably, a peer review could be structured also to eliminate some of the problems with confidential data and other data that's not publicly available for

review.

I'd like to close my testimony with a quote from Section 39607.3 of the California Health and Safety Code, which I believe was enacted in 1996. This section requires the Board to hold periodic public hearings to approve emissions inventories. I don't there's happened with respect to this inventory.

The Legislature hereby finds and declares it is in the interest of the State that air quality plans be based on accurate emission inventories, inaccurate inventories that do not reflect actual emissions into the air can lead to misdirected air quality control measures, resulting in delayed attainment of standards and unnecessary and significant costs.

Again, I don't believe that the truck and bus rule inventory can be deemed to be accurate without a peer review and would urge the Board to direct such a review occur.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

Mr. Davis, Ms. Holmes-Gen, and then Nidia Bautista.

MR. DAVIS: Green card, that means we're not opposed to the emission inventory. We have some questions about it.

Good afternoon, ladies and gentlemen, Chairman Nichols, ladies, doctors, supervisors.

My name is Bill Davis. I'm the Executive Vice President of the Southern California Contractors Association. I'd like to take a second to wish all of you and your families a happy Thanksgiving next week. I hope you have a peaceful, quiet, and fulfilling weekend.

Also, I asked the clerk to distribute my prepared remarks and our version of a PowerPoint. We do not get to see the staff report prior to your meetings, so it's very difficult for us to respond to them in writing and online and that sort of thing. I'm not sure if the reason we can't see them is they are so pressed for time or if there is a certain hide the bunny factor. In either case, we'd really like to see the staff report five working days before your meeting so we would be more cogent in our response to it.

Since you have my prepared remarks, I don't have to read them to you, so I'm going to go off the reservation.

First of all, Supervisor Yeager, Mrs. Riordan's comments were very accurate. And, in fact, I hope this doesn't hurt his career, but Todd Sax has a reputation with our industry as being both truthful and thoughtful. He does not, however, have a reputation as being

clairvoyant. And that in relation to the emissions inventory is where we'd like to talk about.

CHAIRPERSON NICHOLS: I think that's a relief.

MR. DAVIS: He's very good to work with. And like I said, I hope us saying that doesn't hurt him here.

However, we still think you guys are overestimating the construction industry's emissions impacts. And we think that's the case for several reasons, one of which is -- and you found it out in the off-road rule. When you got real data, the numbers changed dramatically. You still don't have real data on the truck rule. And you could get it.

You're building in a little time to do some things like actually acquire real data from DMV. If they currently don't have a check box for vocational trucks, for example, or mileage, I'm sure they could be induced to provide you with that information either as an agreement between agencies or we can go to the Legislature and ask for it. And real data would satisfy us and I think you and our friends at the environmental community instead of estimates and models. We really, really would appreciate that.

And finally, Chairman Nichols -- and excuse my poor pronunciation -- (inaudible) com preita (phonetic). We'd like for you to direct staff to work with us on this

question of vocational trucks. It's something that was talked about during all the workshops. But that's as far as it's gone. And it's not in the rule.

So thank you all very much. Happy Thanksgiving. Look forward to hearing your discussions later.

CHAIRPERSON NICHOLS: Thank you.

Bonnie Holmes-Gen and Nidia Bautista, and that's the end of my list. Then we'll go to some discussion.

MS. HOLMES-GEN: Chairman Nichols and Board members, Bonnie Holmes-Gen with the American Lung Association in California.

And as I'm sure you know, the American Lung Association has been very committed to the goal of reducing diesel pollution and diesel public health impacts in California. And we first want to thank you for your hard work over the years to addressing the health impacts of diesel pollution and important regulations that you've adopted. We applaud you for that. And we have worked hard alongside you to support the on-road rules and keep it moving forward to addressing the dangerous impacts of diesel emissions.

As you're looking for this inventory data today, I want to say, first of all, that we appreciate the work that you've done to review and update the diesel inventory and we support this work.

But given the huge implications of the changes in the inventory, we also want to make sure that this data is as accurate as possible. And we do hope that as you are looking at how you're moving forward that you will continue to look at this data on the fuel use factors, the hours of use, and these estimates, and make sure these estimates are matched by the actual experience in California and make sure that we're not underestimating inventory. We are concerned and we don't want to swing in the opposite direction. We want to be accurate of course and not underestimate.

As we move forward, as you move forward to update the regulations and take this data into account, we, of course, want to continue to urge you to focus on the important overarching goal of health protection, especially making sure that we achieve both near-term and long-term goals to protect public health.

And so along those lines, we would urge you, number one, to be cautious as you move forward and to avoid moving up the entire margin of emissions reductions that are estimated in the target update.

And number two, we would urge you to look very carefully at the impacts of the regulatory changes on public health benefits, especially in the near term and make sure that in addition to achieve our SIP commitments

we avoid giving up public health benefits, especially in vulnerable communities. And we hope you will look at ways that we can achieve all the near-term health benefits through both regulatory and incentive approaches to make sure that we are moving forward with our public health goals.

CHAIRPERSON NICHOLS: Thank you.

Nidia Bautista.

MS. BATISTA: Good afternoon, Chair, members of the Board.

Nidia Bautista, Policy Director at Coalition for Clear Air.

I want to second and third the comments on complimenting staff. I appreciate staff's efforts to really share and help us better understand some of these changes.

To Supervisor Yeager's comments about how we may have to react to the changes, clearly they're quite dramatic from our perspective and we were certainly quite surprised by the changes in the emission inventory. Clearly, the success of these life saving regulations is largely hinged on this emissions inventory particularly because I know this Board is so very mindful of its SIP commitments and our federal clean air commitment. So in that regard, we do applaud your efforts to ensure that.

But we also second the comments about ensuring that we're erring on the side of caution so we are protecting the lives and that we're meeting our SIP commitments and not find ourselves short and not be able to get past that goal line.

We are also concerned that -- or actually would like to have better understanding to what extent ARB sees the need to do air quality modeling now that the emission inventories for off-road has changed since a lot of the modeling was done prior to the inventory changes. We want to ensure the real experience that's happening in California this -- isn't just an accounting situation but really about trying to improve the air quality in our communities.

And I also just want to second the comments about working with EPA to ensure that we have accurate inventories and in fact they are going to be -- again, be mindful of our federal SIP commitments, wanting to ensure it is something we can submit. We don't want to be at a place either through the mid-course review or particularly when 2014 comes that we are falling short because the emissions inventory is not acceptable to EPA.

Thank you for that.

CHAIRPERSON NICHOLS: Thank you.

That concludes the list of commentors. Now it's

back to the Board for any further questions, comments, direction to staff on this issue.

Yes, Dr. Balmes.

BOARD MEMBER BALMES: Well, I have several things to say, but first I was wondering about staff's response to Mr. Davis' point about he would rather see us use real data as opposed to model data. Does staff have a response to that?

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: I'll respond in a couple of areas.

First of all, our population estimates for trucks are based on registration data through the Department of Motor Vehicles. So that is real data.

Our estimates of miles traveled, the annual mileage estimates we talked about during the presentation, those are based on a census survey done and also based on some other information sources. And we're continuing to look at data that comes in from a variety of places to try to figure out if the estimates are right. But you can't go to DMV and get records on how much a vehicle drives per year.

We are fortunate in that we generally have that from smog check program for cars, because we know when a car comes in that it comes in again, we can look at the difference in odometer. We know how many miles that

vehicle has driven. But because there's no smog check program for trucks, we don't have access to those data. But where there are real data, we use them.

CHAIRPERSON NICHOLS: In other words, there isn't any data we're not using.

BOARD MEMBER BALMES: I just want to hear staff response and I appreciate it.

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: There is one other thing I would add, which is there has been a lot of discussion here about vocational trucks. And with regard to the inventory, we do account for driving differences for different types of trucks. That was part of the point of the inventory update we conducted in 2008. So, for example, we look at the differences in truck body types and registration types, because those vehicles have different travel patterns and they have different age distributions. So all of that is accounted for in the inventory.

BOARD MEMBER BALMES: So I wanted to also compliment staff for responding to a concern that I, among other Board members, expressed a couple months ago when the contractors brought up the fact that Professor Harley's fuel use data were inconsistent with our estimates. And I think I made a comment then because it was right after our economic summit about cap and trade

how I really like the comments, all got in the same room and we hammered out differences. And I want to see something similar done with regard to emissions inventory that the tone of this meeting in terms of all the participants, staff as well as public testimony is much -- it's lower key, but I think a lot more is being said. And I like that. I think that's the way we should be dealing with these issues.

And I really want to compliment staff for responding to the challenge of the emissions inventory and trying to get it right. I realize not everybody in the room is going to agree with what staff has come up with, but I think it's a very good faith effort. And we've done well. And despite the way it's been portrayed in the media, I think it's an example of an agency that's trying to do its job right in a transparent way. And I applaud the way the staff has handled this.

CHAIRPERSON NICHOLS: Other -- John.

BOARD MEMBER TELLES: Getting back to the real data question, it's been said many times throughout the years I've been here is that the fuel inventory is not too good because you don't know where it's being used. And the miles travel is not too good because you don't know exactly how many miles are being traveled.

I think what Mr. Davis was suggesting is that we

ask for some help in trying to get more accurate data, whether it takes legislative action or something that can be done without a huge bureaucratic nightmare.

But it seems to me if we knew how many miles trucks are going per year and we knew what percent of fuel was being used off-road, on-road, or different sectors of the economy that the data would all of a sudden get a whole lot better. It seems like these would be relatively simple things to do to go through some sort of legislative action or whatever it takes to get more accurate data.

Can we -- I mean, you guys probably know what you need to ask for and --

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: Obviously, if all of the people who drive trucks in California would like to report how many miles they drive every year on their individual trucks, as someone who develops emissions inventories, I would be all in favor of that. That's a tremendous thing to ask a large group of people to do. But if that's as a matter of policy what people would like to do, I'm very much in favor of that.

CHAIRPERSON NICHOLS: Could I interject on that point?

There is a new inspection and maintenance program coming into effect for heavy-duty vehicles this coming year. No? Some additional --

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Not for the heavy-heavy ones that they're talking about.

CHAIRPERSON NICHOLS: So none of the vehicles --

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: This is for diesels and more from the pickup to the light delivery size vehicles.

CHAIRPERSON NICHOLS: So because that will obviously be a rich source.

CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That helps with those.

CHAIRPERSON NICHOLS: When those comes in, then we can get their odometer readings to know exactly where they've driven in the last year or how much they've driven.

BOARD MEMBER TELLES: It obviously takes cooperation from the trucking industry to do this. But the trucking industry is asking for better clearer data and they have to be part of the solution.

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: One thing I would add just when we -- obviously, getting better data would be the most optimal situation. But when we compare our current estimates against fuel, we're within a fuel percent. So our miles traveled estimates can't be that far off, because we're matching fuel very closely.

CHAIRPERSON NICHOLS: Right. There is a lot of money riding on the decisions that get made on this inventory. So the more we push to getting better controls, the more -- the stronger light is going to be shined on the inventories and the more pressure they're going to be made to withstand.

And so it isn't necessarily the idea to just leave things as they are, but I think the point about trying to continually improve those inventories, even if it means changes need to be made and we see how painful that is too, because it could go up or down. There's no guarantee what you find once you start getting more real world data injected into these things. Is a risk that is worth taking.

I'm going to let you comment then even though it's not necessary --

MR. DAVIS: It's just to point out you have within your own hands the ability to get mileage data through your Smoke Inspection Program. It is available, but it's not currently reported. And if you would add a box on your form and say report mileage, that would give you at least that data point.

CHAIRPERSON NICHOLS: Thank you.

MR. DAVIS: And our suggestion was you guys work with DMV. And if that doesn't work out, we can go to the

Legislature and help you with that.

CHAIRPERSON NICHOLS: I think that's a very worthwhile suggestion and might be something that could be doing without any additional cost. That's the other key thing; we're not going to be getting any new resources I think it would be fair to say to implement this new program.

EXECUTIVE OFFICER GOLDSTENE: I just wanted to make a point about smog check for cars and the middle weight trucks is that that mileage information is keyed in by a smog check technician. It's essentially an independent third party trained to do the inspection and key in the information. And the smoke program is a self-inspection and the subject to inspection by us. So we don't have a mechanized apparatus or database set up by them.

I'm not clear -- we have to check to see if we actually do have the authority to do what Mr. Davis is suggesting.

CHAIRPERSON NICHOLS: I think what you're hearing back is a spirit of cooperation coming from the industry that might be willing to even help with some of the resources that it would take to do this if they thought that we were serious about using the data.

EXECUTIVE OFFICER GOLDSTENE: I think it's

definitely worth exploring and we could follow up with Mr. Davis and talk about some strategies.

CHAIRPERSON NICHOLS: I heard both Mr. Davis and Ms. Plowman and Mr. de Carbonel basically saying the same thing here, although they're also all talking about this vocational truck issue. And that's another one we probably need to ask to explain a little better what your thinking on that is.

EXECUTIVE OFFICER GOLDSTENE: What is a vocational truck?

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: From our perspective, to explain a little bit about what vocational trucks are, there are a lot of different types of trucks out there obviously. And some of these trucks, like the speakers are talking about -- when you think of a truck, you think of a five-axel long haul truck. That's what you see on the freeways. There's a lot of other different types -- concrete truck comes to mind. There are cranes. There are street sweepers, all sorts of different types.

CHAIRPERSON NICHOLS: I have a wonderful book with pictures.

MOBILE SOURCE ANALYSIS BRANCH CHIEF SAX: I do, too. I read it to my son every night.

But when we look at the inventory, we are

obviously because of the data we have, we're limited in our ability. We can't say how many miles per year a crane truck drives or a street sweeper drives, but we do look at the differences between what we term single unit trucks and tractor trucks, tractor-trailer type trucks. And the single unit trucks drive about half as many miles per year as a standard tractor does. And so that is accounted for in the inventory. We know how many of these trucks in general there are. And we assume -- we estimate a lower annual mileage estimate for those trucks. They also have a slightly older age distribution. Because they're driven less per year, they last longer.

BOARD MEMBER BERG: Madam Chairman, I think one of the issues is that vocational trucks and some of the vocations within the vocational trucks are suffering a great deal more in this recession, specifically the ones that are tied to construction.

And working with Tony Brasil and his group yesterday, we are still in conversation as to what the revised rule and what will be being brought to this Board in December. And so we're going to continue the conversation with the vocational people and staff to see what additional things we can do within that rule and bring it back to the Board.

CHAIRPERSON NICHOLS: So that conversation is

still underway at this point. Okay. Thank you.

Well, I think this is a work in progress. And I know it has been a tough process in a lot of ways, because I can say that I came in -- I feel like this is where I came in to ARB, this time around, having started my service at ARB in this role, you know, in July of 2007, when the off-road truck rule was coming back again. I know how contentious and difficult this has all been.

And despite all of that, I really am grateful to the people who are here today who have stuck with it and continue to try to educate us, even if they sometimes thought that we were too hard to educate. Never the less, I think it has borne some fruit in a variety of different ways. And so I do have to say thank you for that and also to say this is still a work in progress.

But I also want to echo the words of those who have said that they feel that the staff was committed to an open process and to doing the best that they could with the information that they had available. It's just fundamental to what we do that the public trusts that our motivation under the broad assignment of cleaning up the air and doing so as expeditiously and cost effectively as possible is to do that with the best data and the best tools that are there. And so we do have to keep working at it. And that obviously requires that we listen to and

learn from all these who are out there who have information to offer. That's the wonderful thing about the way the California process works, unlike any other that I've ever seen. We are definitely open and transparent about how we do our work.

So I think this is a good example of that and we will continue to try to do better. Thanks very much. I think we will bring this item to a close, no action at all.

I think we will take a brief break for the court reporter and everybody else, five minutes maybe, before we come back and hear about the low carbon fuel standard.

(Thereupon a recess was taken at 2:55 p.m.)

CHAIRPERSON NICHOLS: The goal of the low carbon fuel standard is to reduce the carbon intensity of transportation fuels in California by ten percent by 2012. That's what the rule says. And when we adopted the rule, we did, in fact, direct the staff to come back to us with an update on key elements of the program.

I've been hearing a lot from people in the industry about a number of issues and concerns they have, both people in the oil industry and people who are involved in biofuels about their concerns about some of the information that we used in developing the rule and particularly this issue about indirect land use effects of

crop based fuels continues to be a very, very hot issue. Apparently, there was a workshop held by our expert work group on this a few weeks ago. And although we don't have a report yet, I'm hoping that we can get a summary on that as well.

This, like all big complicated new programs, this one has had some issue that's come up that required dealing with as we move forward to try to make sure that we are doing it correctly. And I think we all understand, everybody who's been involved with this Board and air quality issues, understands that of all the things we do that effect the public, any changes in the fuel supply that have any impact on the ability or air quality or price are probably the most sensitive.

And so it's important I think that we as a Board continue to pay attention to how this is rolling out and make sure that we're getting staff direction where need be in order to continue this program moving forward. Particularly, this is the case now with respect to how they're going to demonstrate compliance in the coming year. And I think we'll be hearing more about this.

I'll just wait to have some discussion after we've heard from the staff. So Mr. Goldstene.

EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman Nichols.

As you stated, when the Board approved the low carbon fuel standard in April of 2009, it directed staff to work with stakeholders to accomplish specific tasks to enhance and implement the LCFS and to report back to the Board.

Today, staff will report on the progress made on these efforts, the challenges that remain, and the plan to address these challenges as the program is implemented in 2011. Staff has worked closely with stakeholders throughout 2010 in preparation for full implementation during 2011.

As you may recall, 2010 was only a reporting year. 2011 is the first year for which carbon intensity standards are required to be met. However, to facilitate a smooth transition to full implementation, the standards approved during the early years of implementation are modest.

I'll now have Wes Ingram of our Stationary Source Division present the staff presentation. Wes.

(Thereupon an overhead presentation was presented as follows.)

MR. INGRAM: Good afternoon, Chairman Nichols and members of the Board.

--o0o--

MR. INGRAM: After presenting some general

background, this presentation will focus on the information shown on this overview slide.

--o0o--

MR. INGRAM: The LCFS is designed to accomplish the following: Reduce the carbon intensity of transportation fuels by 10 percent by 2020 and reduce transportation sector greenhouse gas emissions by 16 million metric tons by 2020. These reductions account for about 10 percent of the total emission reductions required under AB 32. In addition, the regulation is expected to reduce petroleum use and support investments and job growth in green transportation.

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MR. INGRAM: As the first full implementation year for the LCFS, it is important to keep in mind that 2011 is a significant and important step in California's effort to reduce greenhouse gas emissions from motor vehicles and is critical for protecting the health, safety, and welfare of the State's citizens and its environment.

--o0o--

MR. INGRAM: We are pleased to report that the LCFS, along with other clean fuel related initiatives, has led to significant growth in the green fuel economy. Growth is occurring in California and elsewhere. The next

few slides present some highlights.

In California, two ethanol plants with a combined capacity of 115 million gallons per year are restarting. The Energy Commission awarded grants totaling almost $5 million to four bio fuel projects this month. The Department of Energy has awarded $45 million in grants to California businesses and a $200 million Mendota sugar beat to ethanol plant is being planned.

Also of note is the fact that 18 of the 50 hottest companies in bio energy for 2009-2010 are located in the state.

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MR. INGRAM: This slide shows that the percentage of transportation-related venture capital invested in alternative fuels with the exception of a slight dip in 2008 due to the financial crisis has generally increased steadily over the last five years. This reflects the fact that California is leading the national growth trends in bio fuels and other alternative fuels.

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MR. INGRAM: Job-growth relating to advanced bio fuel production in the U.S. is projected to increase steadily through 2022.

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MR. INGRAM: Within California, the number of new

alternative fuel related jobs created between 1995 and 2009 has more than doubled.

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MR. INGRAM: Turning now to the implementation of the LCFS, this slide lists the main areas in which significant progress has occurred on the LCFS. These areas will be discussed in more detail in subsequent slides.

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MR. INGRAM: Over the last year, we have been working with several contractors and a number of stakeholders to develop an electronic reporting tool. This ARB initiative is designed to provide a secure web-based data collection and report-generation system that will assist regulated parties with compliance and enhance our enforcement efforts.

Following the release of a test version in September 2010, we released a production version in November for official use by regulated parties. Since its release, several regulated parties have begun using this production version of the reporting tool. As we collectively gain experience, we will continue to enhance this system.

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MR. INGRAM: At the Board's direction, staff

convened an expert workshop in February consisting of a wide spectrum of international experts from industry, academia, the NGO communities, and government. The work group divided its members into nine subgroups whose job it was to intensively evaluate specific aspects of the land use change estimation process. Estimating the indirect efforts of all fuels was also within the purview of the subgroups. Each subgroup has recently completed draft final white papers that contain recommendations for ARB. Each of these papers is posted on the ARB website.

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MR. INGRAM: In today's presentation, we will provide you with our preliminary staff recommendation on the next steps in addressing emissions of land use changes and other indirect effects. These preliminary recommendations are based on the draft final subgroup recommendations and analysis of an updated Purdue University study of land use changes for corn ethanol and the draft findings of two independent contractors that we retained to evaluate the Purdue analysis. As we proceed through the public review process, these draft staff recommendations are subject to change.

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MR. INGRAM: While the expert work group was in session, researchers at Purdue University released an

updated corn ethanol land use change analysis. The new analysis included three different modeling approaches resulting in three different results. Based on input from the subgroup asked to evaluate different models, staff is recommending that we use what is referred to as a group two simulation model. This modeling approach is similar to the original modeling done for the LCFS, but includes a number of modifications, including an update of the economic baseline from 2001 to 2006. Application of this new model reduces the land use change value for corn ethanol by about one half over the current LCFS value.

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MR. INGRAM: ARB also asked the appropriate subgroups as well as two independent experts to assess various other updates associated with the Purdue study. These updates are listed on this slide.

In general, staff believes that the first five of these updates should be included in the LCFS model. The remaining two updates are receiving ongoing consideration and continue to be discussed with the expert work group and the independent reviewers.

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MR. INGRAM: Staff will be investigating a number of other near-term recommendations made by the subgroups. Some of those recommendations are shown on this slide.

These recommendations are an attempt to provide you with an indication of the scope of our analysis going forward. It is important to note that additional analyses that we will conduct will likely have an impact on the land use change numbers, but the size of this impact is not known at this time.

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MR. INGRAM: As far as next steps go, we intend to engage several contractors to assess some of the key inputs involved, retain Purdue University researchers to assist us with running the model and evaluating the results, and continue to evaluate the subgroup recommendations.

We will then present our findings to the public for comment and propose recommendations to the Board for consideration.

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MR. INGRAM: The next series of slides are focused on our efforts to implement the regulation in 2011.

The first topic area is our voluntary bio-refinery registration program. This ARB initiative allows bio-refineries to identify carbon intensity values currently in the look up table, together with a demonstration of the physical pathway that the fuel takes

to get to California. Once registered, any fuel provider can view the information presented in the registration program in its determination of compliance with the LCFS.

To date, approximately 60 facilities are registered in the program, representing about 700 million gallons per year of bio fuels sold in California.

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MR. INGRAM: Another area in which significant progress is occurring is the development of additional fuel pathways for lower carbon intensity fuels. The LCFS includes a process whereby fuel providers can apply for a new or modified pathway. In support of this effort, ARB staff issued detailed guidelines to facilitate submittals.

Many within the industry are taking advantage of this program. Currently, staff is considering applications covering 33 facilities, which collectively produce about 1.3 billion gallons per year of ethanol for the California market. This level of production would meet about 90 percent of California's needs.

When the production from facilities registered in the bio fuel registration program is included, about 110 percent of California's needs are met.

Once approved through regulatory process, the value becomes a part of the regulation. ARB staff is developing a process that will allow these determinations

to be done through a simpler certification process. We plan to propose these LCFS amendments to the Board in 2011.

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MR. INGRAM: In some cases, the origin and carbon intensity of a particular ethanol source cannot be reasonably determined. Consistent with the original intent of the regulation, we will be issuing guidance that indicates that the average value for midwestern corn ethanol can be used for these situations. This value is currently listed in the look up table in the regulation.

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MR. INGRAM: As you may recall, the LCFS includes special provisions to ensure that crude oils that have not been historically significantly part of the base line crude oil used in California are not from high carbon intensity production sources. In particular, we established provisions for crude oils that have a significantly higher carbon intensity than the average crude oils historically used in California.

Without appropriate accounting, these so-called high carbon intensity crude oils could reduce much of the benefits of the LCFS.

Staff has been working with stakeholders on a screening process to help them identify potential high

carbon intensity crude oils. ARB will maintain lists of high carbon intensity and non-high carbon intensity crude oil.

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MR. INGRAM: At this time, however, neither the information nor the screening protocols necessary to help stakeholders determine carbon intensity of these crude oils is yet available. To avoid potential interruptions in the process of securing crude oils, ARB staff is proposing to issue guidance. This guidance would allow the use of existing baseline values through June 30th, 2011, to allow sufficient time for the proper identification and quantification of these crude oils. Staff anticipates completing this effort and recommending amendments to the Board in 2011.

The LCFS allows for credit generation and trading beginning in 2011. To further facilitate this activity, staff is developing the necessary tools in consultation with stakeholders. In the long term, an electronic system will be developed. Until then, a simpler manual system will be employed to track and trade credits. Staff expects credits earned in 2011 to be traded in later years.

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MR. INGRAM: Work is also ongoing in a number of

other areas. These include: Creating a best practices guidance for siting bio-refineries; defining a process whereby credits can be earned for the sale of electricity for use as a vehicle fuel; and the drafting of sustainability provisions; the environmental review of specific bio fuel projects; assessment of the energy economy ratios for light and heavy-duty vehicles; and a multi media evaluation of bio and renewable diesel. All of these efforts support the longer term implementation of the low carbon fuel standard.

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MR. INGRAM: To provide a forum for the ongoing assessment of the LCFS and to assist with the LCFS review required by the regulation, staff is progressing with the creation of a formal advisory panel. Staff has solicited and obtained applications from prospective panel members and will make final appointments in December of this year. The panel will begin meeting in January of 2011. These public meetings will continue through the year, culminating in a report to the Board by January of 2012. The process will repeat in 2014, leading to a report to the Board by January of 2015.

As mentioned previously, full implementation of the LCFS will begin in 2011. Although only a .25 percent carbon intensity reduction is required, that requirement

will increase, gradually at first, to ten percent by 2020. 2011 is structured as an implementation year with focused enforcement. Fuel providers wishing to use ethanol where the source of carbon intensity cannot be reasonably determined will be allowed to use the generic reporting carbon intensity value. And high carbon intensity crude may use the California average crude carbon intensity for the first two quarters. As we implement the program, staff will apply the regulation in a transparent manner so as to foster public confidence.

To summarize the significant progress made on the program since its adoption, staff is prepared to implement the regulation in 2011 and reasonable measures to provide flexibility during the first year transition to full implementation have been developed.

Staff will continue to build on the close collaboration it has established with stakeholders and will return to the Board with amendments and updates in 2011.

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MR. INGRAM: Staff has developed a resolution that represents much of what has been relaid in this presentation.

In support of that resolution, staff recommends that the Board reaffirm staff's activities in support of

the original Resolution 09-31 and affirm staff's plans for 2011 as necessary and appropriate for implementing the LCFS low carbon fuel standard.

CHAIRPERSON NICHOLS: Okay.

DEPUTY EXECUTIVE OFFICER FLETCHER: Thank you. And we'd be happy to answer any questions.

CHAIRPERSON NICHOLS: That's what I was waiting for. Perfect.

Okay. I have a couple comments that I want to make. I think it's probably better if we hear from the public that has asked to comment first and then go back to the Board. So let's go to our list of hearty commentors.

We have Catherine Reheis-Boyd from WSPA; Todd Ellis from Imperium Renewables; Will Barrett from the American Lung Association; and then John Shears from CEERT; and Nidia Bautista from the Coalition for Clean Air. That's a good cross section of stakeholders here.

Welcome.

MS. REHEIS-BOYD: Good afternoon, Chair Nichols, members of the Board. My name is Catherine Reheis-Boyd. I represent the regulated party, the Western States Petroleum Association, and our members.

You've heard me say this many times, and I think you all agree with it that we have to get this right because there really is too much at stake not to.

I think the resolution before you today does provide us some flexibility for next year, and so I encourage you to adopt it.

But, however, I still don't think we're ready for 2011 as a compliance year. It's not a surprise to staff. They know that. We've been talking and working with them very hard on this, and I still believe 2011 should be a reporting only year, like this year, and I think that's the case because we're not ready. And we have to make sure we getting the implementation right.

I've always find it interesting that this was a discrete early action. When I look at things that are very complicated like designing a Cap and Trade Program, the Board was very good and had foresight in 2012. Transportation fuels is equally or more complicated and we tried to move it two years early and it's been difficult. We struggled. There's lots of issues and you've heard about them in the staff presentation.

So we do hope that CARB will work with us in 2011 on the regulatory advisories. We've done three this year together because we had to. Again, we had to make sure we close some gaps so we could make sure we could implement this regulation. We're not talking about delaying. We are talking about being able to implement it with you.

So we will need to close some gaps. There is a

long list of them. I provided them to you all. I think the Clerk distributed them. They're all the gaps we've talked about many times with staff and are still working on. This is not a criticism of staff. They've worked very hard on this program with us and we're making progress. But again, I just don't think we're ready. And I know they're sick of me saying that. Probably sick of seeing me, too.

So it's really important that we get the Low Carbon Fuel Standard Advisory Committee beginning because I think that is very important. It is a broad stakeholder group. It will help us connect the dots and close some gaps as we move forward. And I'm happy to see the resolution does emphasize that.

It's important to recognize the high carbon intensity crude oil issue. It's complicated. It's vital to California's energy security. And it's really important that we take the time with that. And I think again the resolution talks about that.

So again, I just continue to ask for consideration of 2011 as a reporting year. I know there is controversy about that, but we feel pretty strongly.

And I do agree with Chairwoman Nichols comments at the beginning that the consumers are going to be the ultimate judge of the success of this program. And even

the 2009 resolution recognizes that adequate, reliable, affordable fuels are very, very important as we develop the program going forward in 2011.

So thank you very much. And I urge you to adopt the resolution.

CHAIRPERSON NICHOLS: Thank you. Thanks for all your help and work on this. I know it's a life and death matter to your members. And it's important to us as well. And so, you know, we do spend a lot of time together. But it's worth it. Thanks.

MR. ELLIS: Good afternoon, Chairman Nichols, members of the Board. My name is Todd Ellis. I'm Vice President of sales and business development for Imperium Renewables. We own and operate the nation's largest PQ 9000 certified biodiesel facility based in Washington state.

I'm here today to provide support for the recommendations by staff. This is very important we believe in bio fuels industry. I'm going to limit my comments especially to the biodiesel industry.

Our facility based in Washington state is 100 million gallon a year nameplate capacity that we built in 2007. Spent $80 million, and we are invested by $155 million to ensure that we are meeting the State's needs and the nation's needs: Energy security, job creation,

and environmental benefits.

The State of California positioned the low carbon fuel standards as one of the policies we see driving industry forward. At this point in time, industry is in a bit of a stress. We believe that full implementation of 2011 and the low carbon fuel standard is extremely important. It sends a signal to industry that the state is serious about the goals. It's a serious commitment by our investors that are fatigued. They'd like to see policy certainty there. We recommend 2011 full implementation.

We appreciate the work that the expert working group did with the staff on recommendations with the Board. We believe it's a critical step forward to success of this program. Specifically encourage the recommendation by the expert working group.

Believe it or not, there are reliable recommendations out of that group that we believe are beneficial and should be adopted going forward. And staff presented those earlier here today.

In addition, we need to ensure that this is done in a timely manner. We are waiting to get things moving again as an industry. And we believe if this is done in an expeditious manner, you will see the benefits of bio fuels in the industry to meet the goals.

Lastly, there was some discussion around the additional pathways presented. We'd like to see those moved in an efficient manner as well. They're important to industry. And they're very diverse and flexible in our ability to meet product demands, but ask these be approved in an expeditious manner.

In summary, appreciate the time and energy everyone has put into this project and policy. Think it's important. And we look forward to helping the State meets its goals moving forward.

If you have any further questions, happy to answer them.

CHAIRPERSON NICHOLS: Thanks for your comments.

Will Barrett, followed by John Shears, and Nidia Bautista.

MR. BARRETT: Good afternoon. My name is Will Barrett of the American Lung Association of California.

We'd like to thank staff first for your efforts in implementing the LCFS in an open public stakeholder process. We feel that the upcoming implementation of the LCFS is crucial to our transition away from transportation fuels that are including our air and public health and environment in our state. So we do look forward to continuing our engagement with you.

We're very pleased the plan is on track for 2011.

We appreciate the amount of work staff put into developing the materials and tools and expert guidance to keep it on schedule for successful standards that divert emissions to protect the public's health.

As we do enter the implementation phase, just like to stress the importance of moving forward with the transparent process in terms of credit prices, accrual banking, tracking, and trading, and those should occur in a formal system open and public review.

Lastly, just quickly, we're pleased to participate -- or pleased that the Board offered direction to staff to provide a quality guidance to bio refineries. Pleased to be able to participate in that development. And we feel it's an important resource for permitting new facilities guided by the most stringent available practices out there.

We do appreciate that staff will review the geographic distribution of the facilities and look at any negative effects that local or regional air quality impacts that occur and make alternative mitigation strategies.

We also want to make sure that the guidance compliments your ongoing work on the cumulative impacts assessment mapping by providing geographic recommendation for site locations and we do look forward to continuing

our conversation with staff to achieve this goal as the document is completed in the next few months.

So thank you again for the opportunity and for your support for public health by moving forward to implement this in 2011. Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

John Shears.

MR. SHEARS: Good afternoon, Chair Nichols and members of the Board.

John Shears with the Center for Energy Efficiency and Renewable Technologies.

I first want to applaud the staff for all their hard work. This is dispute probably it being one of the most complex regulations that CARB has ever undertaken. The transparency, it's been fantastic on this.

I'm going to have to disagree with my colleague, Cathy Reheis-Boyd with WSPA on where we need to be on the high intensity crude screen. From our perspective, WSPA and the oil industries have known this has been on the horizon for quite a while. If you look at the 2006 baseline crudes represents these crudes that accounted for 80 percent or more of imports into California. Back then, the baseline captured 96 percent what of was being imported into California.

This is really what we were talking about moving

forward from that baseline. Admittedly, there's been a slight increase in the imported crudes. We're talking about addressing what's happening with the four percent that didn't fall in the baseline.

What we had recommended going forward was that based on the work through the screening work group, CARB staff adopt the provisional default values for high intensity crudes based on the work we had done to this point and allow for some oil companies to bring data back to CARB staff so that there could be corrections -- retroactive corrections so we were open to retroactive corrections on that as well.

Our thinking there is that a lot of the work around the regulation, the real goal in this is for industry to bring high quality data to staff, which is really essential for staff's work now going forward. So that's our thinking about.

Another issue with regards to this is the gentleman from Imperium pointed out there is a large stakeholder community out there as well that is key to 20111 being an implementation year. So they're very, very, I'm sure, key to the fact that things have to be moving this year. Delaying much further potentially jeopardizes what's happening with the investment community supporting the rest of the industry.

So with that, I will speak in support of the proposed resolution that staff is offering, recognizing compromises are necessary. But I just wanted to highlight the issues for the Board. Thank you.

CHAIRPERSON NICHOLS: Thank you.

Nidia Bautista and then Simun Mui has signed up.

MS. BAUTISTA: Good afternoon, Chair, members of the Board.

Nidia Bautista, Policy Director for Coalition for Clean Air.

I'm doing pitch hitting this afternoon for my colleague Dr. Shankar Prasad who's been following this item very closely.

We do want to also command ARB in terms of their efforts. We know this is a very complicated and ambitious issue to take on, but certainly not without the help of ARB's capacity obviously and potential. So we thank you for that.

We second the calls for continued increased levels of transparency. But we also want to specifically talk about the siting of facilities. While there have been good recommendation in terms of a facilities can do, each facilities what sort have measures can be taken, we think it's important where we want to site the facilities. Clearly, there is a great need or interest by many

different regions of the state to incorporate these facilities into their regions, but we also want to ensure we're protecting public health as we're doing that. Both for the industry stake and for the community's sake, we want to ensure there is good recommendations from ARB about those areas and those neighborhoods.

So, specifically, it would be great if this Board would direct staff to come back to you within a certain time line next year to actually provide that guidance.

And as was noted by our colleagues, certainly we would love to have that be incorporated in terms of the cumulative impact assessment work that CARB staff has committed to doing. And we know they are committed to continuing to pursue. But this is clearly very important in terms of just ensuring that there is that reassurance for residents living near these facilities, especially that they're not taking on the additional pollution in their neighborhoods, particularly in areas that are already vulnerable where we know they're already dealing with high levels of air pollution.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

MR. MUI: Good afternoon, members of the Board, Chairwoman Nichols.

I'm Simon Mui with the Natural Resource Defense

Council. I guess I'm last, so I'll make it quick.

I just wanted to thank everyone here for the years of work on this regulation to implement the LCFS. We do see 2011 as being necessary to be a compliance year. We've gone too far to not have a compliance year. But I wanted to speak specifically to the high carbon intensity crude oil provision, because this is an area where I think staff is actually making a very reasonable taking a middle grounds here in the resolution, which I've read.

You know, the high carbon intensity crude oil provision is a very important provision. One of the main reasons, as you're aware, is that as we're cleaning up lower carbon fuels, we're also having to -- the simultaneous effect is the petroleum baseline getting worse and worse over time. So it's important to make sure that we are accounting for having a backstop to the petroleum baseline getting worse over time.

As a member of the HCIC work group, over the past eight months, I want to make sure the Board recognizes the staff's hard work on this issue, both in developing a work plan as well as a screening protocol in a very transparent and open manner.

While further progress does need to be made in developing default interim values for the eco provision, you know, I do think that my colleague Cathy Reheis-Boyd's

suggestion that we delay the whole thing for a whole year is somewhat unreasonable given the middle grounds stake out here is essentially a nine-month period of basically where the HCIC provision wouldn't be in effect.

And over the past several months, I do want to make sure it's clear that when we had sought for data from the oil industry, they weren't exactly forthcoming with that data. And I think that would be helpful going forward to actually require that that data be provided to establish default carbon intensity values. That has been part of the delay in developing default carbon intensity values in that sense. I believe CARB is working hard to turn to scientists, to turn to academics and consultants to help develop these numbers like they've done in many other instances.

So NRDC believes that the resolution item that CARB has proposed is going halfway, is very reasonable in terms of the delay. And I just want to make sure we implement this over the next year in a reasonable time frame. Thank you very much.

CHAIRPERSON NICHOLS: Thank you.

That concludes the witnesses.

So I just want to comment on both of these things.

First of all, I understand the importance of the

Advisory Committee. And I have to say that although I appreciate the fact that the staff is moving forward with this thing, and I know we talked about it in the past, it's an important enough item so that I think the Board members ought to at least be invited to nominate people to join this Advisory Committee, because I think we have not been in on the discussion here at all. So I think it would be wise if we had an opportunity to look at the qualifications and the types of individuals that you're seeking for the Committee and submit names for people who would be good to serve on. I hope that won't slow the process down.

EXECUTIVE OFFICER GOLDSTENE: No.

CHAIRPERSON NICHOLS: So if you'd give everybody an opportunity to look at the solicitation. It probably was posted in some places, but I don't think people saw it. That's one thing.

The other thing I want to say this issue of the high carbon intensity fuels makes me extremely nervous. And I know it's a concern to you all as well, and the resolution indicates that you want to work on it.

But if we got it wrong in using 2006 as our baseline for reduction because we failed to anticipate how much higher in carbon content the fuels were going to be, the crudes that were going to be coming here, we have a

big problem on our hands. And you know, we may need to adjust it sooner rather than later.

The economic realities of the oil industry are they're going to get whatever crude they can get at the best price. And the best price is high carbon crude. And if the refineries here are all equipped to process that crude, which they are, then that's what they're going to be using of. And that means that either to comply with our rule, they will then have to go and buy a lot more of the very low carbon stuff with lead and use as offsets, which may or may not be available. Or they'll be back complaining that we're making them buy Saudi crude instead of the less expensive. And we will be blamed, to be perfectly honest, for any increase in the price of gasoline. I see this coming. I want to forestall it. I don't believe that this is a threat that they're making. I think it's just the way the industry works. And I think we have to get in front of this issue.

One of the things that I think would help would be to convene a very short-term discussion research project with our colleagues at the Energy Commission who have the obligation for researching what the supplies of gasoline are like in California to give us their input on this issue so we at least are on the same path as those who have that responsibility. And I'm sure the WSPA folks

and others are only too happy to join us in this.

I certainly think we're on -- I mean, I think our policy is right. Our cause is right. But if we are wrong about what the underlying reality of the supply is, we're going pay a heavy price for it. So I think we need to figure out quickly what the right solution is and adjust for it.

Bob, I don't know if you want to comment on that.

DEPUTY EXECUTIVE OFFICER FLETCHER: Yeah, I'd be happy to comment on that.

On the latter issue, we are -- in fact, that's exactly what we're doing right now. And we had a very active work group on high carbon intensity crude oil that's met a number of times. They've drafted a screening process that we are kind of flushing out. It's a multi step process that says, well, if you meet these two criteria, then you're likely to be -- at least you're in a category of high carbon intensity. If you don't meet those criteria, then you're not. That's based on information from World Bank and others looking at flaring rates and other things. So we are working through that.

The Energy Commission is part of that work group already. Has been very active in the process. They have access to information about the types of crude oils that are coming into California.

When we did the original assessment, as you indicated, it did cover 98 percent of the crude oils that were coming into California. The assessment in 2009 looked like there was about ten percent that were not part of the baseline. So that was higher than the 2 percent. So it means that we're getting crudes that were not originally part of that baseline.

The piece that we're missing right now is what is the carbon intensity of those and do they actually fall within this high carbon intensity crude oil consideration. So we are still dealing with 90 percent of the crude oils that are still part of our 2006 baseline. But it is something that is part of that work group. And we are actually meeting tomorrow as part of our kind of ongoing efforts. So I think we're --

CHAIRPERSON NICHOLS: I didn't think this was the first time we ever heard about the issue. But I just wanted to indicate both to the staff and to the public that this is an issue that we're taking seriously, because it's a kind of a sleeper issue, and it is one that could turn around and bite us if we're not careful.

DEPUTY EXECUTIVE OFFICER FLETCHER: As part of the periodic reviews, I think our interest was also to sort of evaluate that and report that out as part of our 2000 -- actually it's the end of 2011 is the first formal

report. And then again at the end of 2014. So we wanted to be nimble enough to be able to look at it. We didn't expect the cried oil would be wholesale changing from year to year and that really actually the case. If you look at 2006 to 2009, there's been some shift. But, you know, we're still looking at over 90 percent of the crudes from sources that were traditional. But you're right. It's a big issue.

CHAIRPERSON NICHOLS: Okay. Other comments?

Professor Sperling.

BOARD MEMBER SPERLING: I haven't followed this discussion as closely as I'd like to. But kind of some general following up on what Chairman Nichols said. I think there's some general principles on this is it's probably most important of all is sending a very clear signal to the investors and the really high carbon unconventional fuels that they are going to be accountable for the carbon intensity. Because I know, for instance, some of these -- at least some of the major oil companies I talked to, it's clearly already effecting their investment plans and policies to the extent they invest in oil sands and very heavy oil. That's probably the most important part of this whole process is make sure that's very transparent, that's very clear, and very consistent.

And when you get into -- and then I think when

you get into the other kinds of fuels that are just have a little bit of flaring and things, everyone -- incentives for them to do a little better. But you know the unconventionals, I mean, that's where the -- those are long-term investments. And they invest in that and that's here for another 50 years. And it's much higher carbon.

So I think that if we're going to prioritize I think our efforts in this, let's kind of make sure we don't get stuck in the trees and see the forest in terms of where we want to go.

And that's kind of the larger message. I think what has been good about this program is that by being transparent, by being consistent, by being clear, we are really sending signals -- clear signals to industry that they really do need to reduce the carbon intensity of their fuels. And I know it's definitely effecting their investment strategy, their R&D and their investment strategies. It already has been. And what's important for us is just to make sure that we make that clear. Stick to it consistent.

So a lot of these -- I get less concerned with some of these details. I know that's kind of who I am and you need to do the details.

But I do have a couple questions. Also following up on Chairman Nichols that is the Advisory Board. I've

never seen -- I guess it probably exists somewhere -- what the mission is or assignment is. I've served on a lot of Advisory Boards, and there is a lot of them that waste a lot of time. And I think it -- following up with what Chairman Nichols said, it would be good I think to have some discussion about exactly what is the mission of this Advisory Board, what is the task. I mean, if that's easy and simple and you have it already, I'd like to hear it.

DEPUTY EXECUTIVE OFFICER FLETCHER: Well, it's a little bit simple and easy to respond but not easy to implement.

The easy response is we outlined about 10 or 15 specific actions within the regulation itself as to what the scope of what the Advisory Committee should look at. So the actual scope of what they are to do is outlined in the regulation itself. That's the easy part.

The hard part is actually figuring out what the priority is and how you do it. And in fact, the reason that we haven't launched the advisory panel yet is that that is the document that we are developing now. Because we think that before we launch it, we ought to have a good clear vision. And we'd be happy to share that vision with folks about how it's actually going to operate.

And this is a formal Advisory Committee run under the Bagley-Keene. And having just come off the expert

work group, which was run in the same fashion, which I think went actually very well and we launched early with a pretty defined scope that said here's the list of topics that we think and we have the group prioritize it. We broke into subgroups and they were off and running.

Whether that same structure works here or not, I'm not sure. But Richard and his crew are currently putting together that scope. And I think that will be based in part on what's in the regulation because we have to cover that.

Also, there is a practical element what are the really key issues. And I'm sure that we'll propose a scope at the first meeting and then you take input on what that scope is from the members of the Committee.

BOARD MEMBER SPERLING: Yeah, I would just urge a lot of care in doing that, because you're going to get people that really are going to have a lot of insight but also very constrained time and different than previous advisory committees. This is really broad. I mean, just listening to the presentation here, there were probably 20 things I would have been interested in following up on and I can imagine other Board members would be like that. You can't do everything. And I think it's going to be very important to prioritize what are the really key issues and questions we address. That I think would be valuable to

have a number of people, including some of the Board members here and others participate in that.

CHAIRPERSON NICHOLS: Just to react to one thing you said about the long term vision, I completely agree with you that we need to keep our eyes on the price which is changing over all investment patterns in terms of what future fuels are going to look like. But I can't help but again point out that this rule goes into effect this year and it effects refineries that are making decisions on at least a quarterly if not a more frequent basis in some cases. And so little trepidation in the market have big impacts on customers at the pump. And that's where we're going the get our report card from, Professor.

BOARD MEMBER SPERLING: That's why you're the Chairman and I'm the professor.

CHAIRPERSON NICHOLS: Okay. Getting close to the end. I can tell.

Additional comments, questions from Board members?

This is a good update and really I know there is a huge amount of work going on here and we only can get a glimpse of it. But we can certainly see a lot of progress.

Yes, Ms. Berg.

BOARD MEMBER BERG: I'd just like to bring the

conversation back to the implementation in 2011 and have staff comment on the enforcement aspect, because you have thought it out and it is outlined very clearly in the resolution. But if you could just take a moment to talk about the enforcement action of the compliance that you are expecting in 2011.

DEPUTY EXECUTIVE OFFICER FLETCHER: Right. There is a couple provisions within the resolution itself recognizing that this is one of those high anxiety issues for the refiners, because they know that they are responsible for complying. They know that we're in development. We're still improving some of the tools they're using like reporting tool. And they're concerned that if they get to the end of the year and through no fault of their own they find themselves in a situation where they're not in compliance with the standard.

So we've tried to identify that we would really focus on those areas that -- I think we use the term, you know, materially egregious or something of that nature.

But relative to the reporting requirements, we want them to make good faith efforts to reasonably comply. We thought about trying to specify things that we explicitly wouldn't take action on, but it really goes back to the kind of the willful or persistent if they just kind of don't do anything, then we don't think that they

should be off the hook. There is some judgment. There is some discretion involved in that. And our interest was in being judicious on how that goes.

And you know, we want to work with the fuel providers. Our objective is not to go after and try to seek penalties. We want this to roll out effectively. We don't want fuel providers to be liable for things that are beyond their reasonable control.

BOARD MEMBER BERG: I appreciate the level of which you've thought about this. We always know that in a steep learning curve that's expensive. And so we do want them to put their resources in implementation. And yet, there shouldn't be any free passes. So I do appreciate the effort that you went to include in the resolution. Thank you.

BOARD MEMBER SPERLING: Following up on both of these, they can bank whatever they do this year or this coming year for the following year; right?

So it does seem, following Chairman Nichols and Ms. Berg's thoughts, I think where they're going is being more lenient, you know, as was suggested by Cathy Reheis-Boyd, I think that makes sense. There's no need to be -- you know, because again it's okay. So I'm worried about innovation, investment, commitment, and what happens in this year as long as those targets and requirements are

in place. Isn't that crucial? So I'm kind of -- I think I'm following the lead of my fellow Board members.

DEPUTY EXECUTIVE OFFICER FLETCHER: Right. We are -- you know, there is a balance between the flexibility that we're providing and allowing the banking of credits for which a full accounting of the carbon intensity has not been done.

So, in fact, in the resolution itself, there is a provision in the high carbon intensity that indicates that we would be issuing guidance on the banking of credits. And what the vision there is that by the end of the year, we would know what -- we expect to have carbon intensity values or a process in place where people can determine the carbon intensity in the crudes they were using. And we're giving them a pass basically for the crudes for compliance obligation in 2011. So we have a quarter percent requirement. And we will allow them to use the baseline value for that.

But if you're going to bank credits over that .25, we think there is some additional accounting that has to be done to ensure that you really capture -- if you're using a lot of high carbon intensity crude oil, you shouldn't be able to bank credits for future years, although we don't think that you necessarily -- that effects your 2011 compliance obligation. So we're just

being a little cautious about how the banked credits for future year works and trying to ensure there's some accountability for the entire pathway.

BOARD MEMBER SPERLING: Isn't there a problem here that the numbers are shifting because of the reviews of the numbers for corn ethical, Brazilian ethanol so that -- I mean, especially if the Brazilian numbers are changed significantly as I suspect they will be. If you dropped the corn ethanol numbers, then I suspect you'll do the same thing proposing for Brazilian. And that could make a huge difference in the intensity of the fuels that they're using. And therefore that greatly effects their compliance.

DEPUTY EXECUTIVE OFFICER FLETCHER: Right. And as we did when we went through the original assessment of what the compliance pathway looks like from year to year to ensure that we didn't end up with a lot of banked credits that would stifle the innovation in future years, depending upon what the changes are to the ILAC values for the different feed stocks, we fully anticipate coming back at the same time if it turns out that these are, for example, half of what we thought they would have been, than we think there is a need to re-evaluate the compliance obligation milestones, if you will, each year to ensure that there is sort of continuity and we don't

end up with a whole lot of banked credits. So we intended to look at that as we go through this amendment.

BOARD MEMBER SPERLING: When does the Board hear about all this?

DEPUTY EXECUTIVE OFFICER FLETCHER: We said we would do it in the spring of 2011 or as expeditiously as practical afterward. So we're going to do our best to try to make it happen. Some we may be able to come back with sooner than others.

BOARD MEMBER SPERLING: I would add what other Board members have said; this is an incredible effort by the staff. I mean, it is complex. A lot of it's new. And, you know, every piece of it is being worked on, good progress. So I think staff deserves a lot of credit.

DEPUTY EXECUTIVE OFFICER FLETCHER: Thank you.

CHAIRPERSON NICHOLS: And enough nice things said about staff.

BOARD MEMBER RIORDAN: It's different staff that we're speaking to.

CHAIRPERSON NICHOLS: That's true.

EXECUTIVE OFFICER GOLDSTENE: I have to work with him every day.

CHAIRPERSON NICHOLS: I think that is a very fine report and we will bring this to a close.

We do have a resolution in front of us. Is

everyone willing to just adopt this by consensus? It's not a formal rulemaking.

Okay. That sounds great. Thank you.

We do have three members of the public who wish to take three minutes to tell us what's on their mind. We have Luke Breit, Michael Endicott, and Brian Nowicki. They all want to talk about forests.

MR. BREIT: Good afternoon, Chairman Nichols and members of the Board. I'm Luke Breit. I'm a legislative advocate for Forests Forever. And I'm here -- I believe you have a letter from me about this. Has that been distributed?

CHAIRPERSON NICHOLS: Yes, we have it.

MR. BREIT: Thank you. And we have also signed onto a longer letter about the forestry protocol that you're going to hear about from Brian Nowicki.

But I just want to tell you a couple of things. I've been involved with forestry politics and policy for about 25 years going back to Mendocino County and our efforts to prevent clearcutting and stop herbicide spraying there. We wrote an initiative and passed it. I was the campaign chair for that initiative, and we beat the timber industry that was wanting to keep spraying herbicides.

Well, why do you spray herbicides? Because you

have clearcuts. And then you have brush and hard woods that have to be Suppressed so have a conifer growing again.

So oppose that and we passed the initiative. We passed it by the Supreme Court of California. And it was overturned by an active Legislature by Assemblyman Bruce Bronson.

And the point is that we have been through all of this fight for years. And most of the big timber companies in California have stopped clearcutting. And the reason for that is that everybody understands that the health of the forests are most poorly dealt with through clearcutting.

So now is the Board next month as they approve the forestry protocol that's before you next month, is it going to incentivize our return to clearcutting? Not only the companies that are doing it now, but will it expand because it will suddenly become profitable to clearcut.

But anyway, I just want to make the point that when you consider this next month as you vote on the forestry protocol, please do not allow clearcutting become the face of the forestry incentive that we're going to try to live with.

Thank you very much for your time.

CHAIRPERSON NICHOLS: Thank you. Good to see

you.

Okay. Michael Endicott.

MR. ENDICOTT: Good afternoon. It's been a long day but certainly not your longest by far. You're well trained for this.

Thank you for the opportunity. My name is Michael Endicott. I'm here on behalf of Sierra Club California to speak in this open session on one portion of the Cap and Trade Program you're going to be looking at next month.

We're kind of sorry we didn't have a staff presentation on what you're going to be looking at because you're going to be covering so many issues. We think it's really critical that you focus on this one piece of it because we want to avoid the perfect storm.

Today I'm speaking on the cap and trade portion of the forest sequestration protocols. It is important that the program you adopt promotes resiliency and not weakens our ability to adapt to climate change. We're so pleased that the voters of California resoundingly said to you keep moving forward on your climate change program. But we're very scared if you move forward without re-examining this portion of your sequestration protocols.

Resiliency depends on having robust connectivity in your corridors. This is important so that the animals

can adapt to climate change and can also have movement back and forth to food sources and also other breeding populations.

It's important as part of resiliency that we have vibrant areas that are diverse and have a healthy carrying capacity to enable wildlife and plants to feed and to breath.

It is also very important for resiliency that we have adequate buffers. It is important for that because we need to make sure that the animals and the plants can survive both manmade and natural incursions.

There is a perfect storm potentially here because also your sister organization, the Department of Fish and Game, essentially had its THP review budget blue penciled by the Governor. Our lead agency that would be looking out for the wildlife and any impacts of any program you might adopt to sequester carbon is going to be missing in action. We're not asking that you don't -- if you adopt a sequestration and offset protocols in forests under the program, we're not asking that you don't do most of the ones that you're looking at. But we are asking that you do not include at this stage because of missing critical information and analysis that we've been waiting for more than a year and hasn't been -- they did not proceed forward with analyzing it, but put it off to an unclear

white paper process.

So we're asking you in the theme of what Luke Breit said not to harm the lungs of the earth. And you can see clearly that for resiliency the lung on the left is not the kind of resiliency we want. There's no need to proceed forward. We ask that you remove clearcutting as a way of sequestering carbon for the largest emitters of greenhouse gases, and we ask also that you put into the provisions very clearly that you won't be supporting any projects that would end up in the conversion of naturally managed forests into even aged forests.

Thank you very much.

CHAIRPERSON NICHOLS: Thank you. And last, Brian Nowicki.

MR. NOWICKI: Brian Nowicki with the Center for Biological Diversity. Thank you very much for your time.

When you last considered the forest carbon offset protocol in September 2009, conservation organizations and the Board raised questions about the environmental criteria, shortcomings in the protocol, including the impacts of forest clearcutting as part of the protocol. Staff assured the Board and the public at that time that the forest protocol before the Board was only for the purposes of the voluntary market at that time and that all of the issues would be addressed, especially the issue of

forest clearcutting before the protocol was proposed as part of the Cap and Trade Program and also that the final revised version would be a "gold standard."

Unfortunately, the protocol currently before you in the proposed cap and trade rule included no changes to address the systemic problems in the protocol and still includes forest clearcutting. As a result, the forest protocol poses the risk that the Cap and Trade Program will allow entities under the capped sectors to avoid reducing their emissions by instead purchasing carbon offsets for projects that have their basis in forest clearcutting. Even worse, the resulting financial incentives raise the threat of subsidizing the conversion of native forests into tree farms.

This is no gold standard. But it does not have to be this way. The forest protocol itself offers many other options for forest projects that incentivizes a positive direction in forest management and benefit both the climate and the forest. This is exactly the approach taken by the Climate Action Reserves of their forest protocols for international use and also ARB's international forest program, which also does not include clearcut.

For all these reasons, we implore the Board to uphold the initial intentions of the forest carbon program

by amending the forest protocol to not include forest clearcutting in order to protect against the worst perverse and unintended impacts while we continue to hammer out flaws and loopholes in the current protocol.

At a bare minimum, the Air Resources Board could ensure that forest carbon offset projects do not include the conversion of native forests to tree plantations. We are submitting specific changes to this effect, changes that have broad consensus among the groups that have been working on this for the past several years. We cannot and should not try to clearcut our way out of climate change. Please implement these minimum protections to ensure that forest clearcutting does not become the face of California's carbon offset program while we continue to address the flaws in the forest protocol and work to develop a plan that truly is a gold standard. Thank you.

CHAIRPERSON NICHOLS: Thank you.

I hear and appreciate your comments and look forward to the specific written suggestions that you said you're submitting. Thank you. Okay.

With that, we have heard from everyone who wanted to talk to us. And I think it's time to go on our way. I look forward to seeing you all in December for what is going to be a very long and exciting meeting. So thank you. Vitamins, get a lot of sleep. See you in December.

(Thereupon the California Air Resources Board meeting adjourned at 4:17 p.m.)

CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

I further certify that I am not of counsel or attorney for any of the parties to said hearing nor in any way interested in the outcome of said hearing.

IN WITNESS WHEREOF, I have hereunto set my hand this 2nd day of December, 2010.

TIFFANY C. KRAFT, CSR
Certified Shorthand Reporter
License No. 12277