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Mr. Bart Croes, P.E., Division Chief, RD

Ms. Shawn Daley, Manager, Retrofit Assessment Section, Emissions Compliance, Automotive Regulations and Science Division (ECARS)

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Ms. Sharon Lemieux, Chief, In-Use Program Branch, ECARS

Mr. Dongmin Luo, P.E., Manager, Air Quality & Climate Science Section, RD

Ms. April Molinelli, Senior Attorney, Legal Office

Mr. Kirk Oliver, Senior Attorney, Legal Office

Mr. Winston Potts, P.E., Air Resources Engineer, Air Quality and Climate Science Section, Research Division (RD)

Mr. Alex Wang, Senior Attorney, Legal Office

ALSO PRESENT:

Mr. Patrick Barge, ESW Group

Mr. Will Barrett, American Lung Association

Dr. Rasto Brezny, Manufacturers of Emission Controls Association (MECA)

Ms. Teresa Bui, Californians Against Waste

Mr. Cory Bullis, Conservation Strategy Group

Mr. Hank de Carbonel, California Alliance for Businesses
APPEARANCES CONTINUED

ALSO PRESENT:

Ms. Christine Flowers, California Product Stewardship Council

Mr. Andrew J. Genevese

Mr. Lorin Hutnick, H&H Excavation

Mr. Sean Lindsteelt

Mr. Aaron Lowe, Auto Care Association

Mr. Larry Roude bush
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VICE CHAIR BERG: Good morning, everyone. First of all, Happy Earth Day. It's wonderful to wake up and see rain. What a great gift for Earth Day. And I would like to call the April 22nd, 2016 public meeting of the Air Resources Board to order. If you'll please stand with me for the Pledge of Allegiance?

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

VICE CHAIR BERG: Chairman Nichols will be joining us a little bit later this morning. And so we'll go ahead and get started. If we can have the clerk do the roll, please.

BOARD CLERK JENSEN: Dr. Balmes?
Mr. De La Torre?
Mr. Eisenhubt

BOARD MEMBER EISENHUT: Here.

BOARD CLERK JENSEN: Senator Florez?
Supervisor Gioia?

BOARD MEMBER GIOIA: Here.

BOARD CLERK JENSEN: Ms. Mitchell?
BOARD MEMBER MITCHELL: Here.

BOARD CLERK JENSEN: Mrs. Riordan?
BOARD MEMBER RIORDAN: Here.

BOARD CLERK JENSEN: Supervisor Roberts?
Supervisor Serna?

BOARD MEMBER SERNA: Here.

BOARD CLERK JENSEN: Dr. Sherriffs?

BOARD MEMBER SHERRIFFS: Here.

BOARD CLERK JENSEN: Professor Sperling?

Ms. Takvorian?

BOARD MEMBER TAKVORIAN: Here.

BOARD CLERK JENSEN: Vice Chair Berg?

VICE CHAIR BERG: Here.

BOARD CLERK JENSEN: Chair Nichols?

Madam Chair, we have a quorum.

VICE CHAIR BERG: Thank you very much.

We have a few announcements before we get started. I'd like to remind anybody who wishes to testify should fill out a request to speak card, which is available in our lobby and outside the Board room. Please turn that speaker card into the board assistant or the Clerk of the Board prior to the commencement of the item.

Also, speakers please be aware that we will impose a three minute limit. Please state your first and last name when you come to the podium. And we appreciate if you put your testimony in your own words. If you have printed materials, that will be given to the Board and the staff.

For safety reasons, please note that the
Emergency exits are at the rear of the room. And in the event of a fire alarm, we are required to evacuate the room immediately, go downstairs, and out of the building. When the all-clear signal is given, we will return to the hearing room and resume the hearing.

So with that, I think we are off to our first item. So the first item on our agenda is a proposal to amend ARB's after-market regulation. These amendments would establish a new evaluation procedure for new after-market diesel particulate filters, DPFs for 2007 through 2009 model year on-road heavy-duty diesel engines.

These heavy-duty diesel engines are equipped with DPF so they can meet a stringent particulate matter certification standard. Currently, there is no path for a legal sale or after-market DPFs as modified parts in California. The only path currently available to consumers who need to replace a worn or broken DPF is to purchase a replacement part offered by the original equipment manufacturer. And we know when we have choice as consumers, that that is something that is very helpful to consumers to manage their fleets.

Staff's proposal, which includes robust testing would allow for the installation and sales of these new after-market DPFs in California. Mr. Corey, would you please introduce this item?
EXECUTIVE OFFICER COREY: Yes. Thanks, Vice Chair Berg. DPFs are a standard technology used on millions of diesel engines worldwide, and they’re primary method of controlling toxic diesel particulate matter emissions from engines and are used to meet California’s engine certification requirements and are an option for fleet rule compliance for in-use vehicles.

Around 2013, manufacturers of after-market DPFs approached staff to express concerns about potential supply issues, if the original equipment manufacturers, or OEMs, limited the product or support of parts for these older engines. The also recognized the market opportunity if ARB provided a new pathway for after-market DPFs to be approved for sale in California.

Such a program is similar in concept to the after-market catalytic converter program and would allow consumers to have options, options in the marketplace. And in response, staff developed a robust procedure to evaluate the unique characteristics of DPFs. Staff presentation will go over the details of the proposed procedures.

And participation in this after-market program is voluntary. And since there is no requirement that a company participate, participation is contingent on the company wishing to sell these parts in California.
The proposed amendments will also benefit consumers with an increasingly competitive DPF market. Staff anticipates prices to the end user will decrease.

I'll now ask Shawn Daley of the Emissions Compliance, Automotive Regulations, and Science Division to provide the staff presentation and recommendations.

Shawn.

(Thereupon an overhead presentation was presented as follows.)

RETROFIT ASSESSMENT SECTION MANAGER DALEY: Thank you. On-road 2007 through 2009 heavy-duty diesel engines were certified equipped with diesel particulate filters, otherwise known as DPFs, and these are now out of warranty. As with any part, these wear and need replacing, but currently the only option for end users is to buy a replacement part from the original equipment manufacturer or OEM, as there is no path to allow for a non-OEM diesel particulate filter.

To address this, staff has developed a procedure for evaluating after-market DPFs intended as alternatives to the original OEM DPF. These DPFs are similar to the OEM, but not identical and must be equivalent in function to the original OEM part to ensure the vehicle maintains its certified emissions standard.

As with other after-market programs,
participation in this program is voluntary and no company
is forced to participate.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: Staff
is proposing to establish a new procedure to allow for the
evaluation and approval of after-market DPFs. This
involves amending the regulation governing after-market
parts to incorporate by reference a new evaluation
procedure, and to explain the terms under which DPFs can be
sold, including the clarification that used DPFs cannot be
sold in California. The procedure and regulation
amendments will help expand the air ARB after-market
program and provide market flexibility to end users.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: The
proposed new after-market DPF approval path will allow
options for the consumer. It will allow potentially more
cost-effective options for consumers who need to replace
DPFs on their vehicles. This bill help ARB to continue to
realize the emission benefits achieved with the
implementation of the 2007 emission standards. It
achieves this by establishing a new regulatory path for
the approval of after-market DPFs, which includes robust
end-user protections, while maintaining economic
feasibility for after-market DPF manufacturers.
RETFIT ASSESSMENT SECTION MANAGER DALEY: I will now provide some background on diesel particulate filters.

RETFIT ASSESSMENT SECTION MANAGER DALEY: DPFs are designed to trap diesel particulate matter, a toxic air contaminant from diesel engine exhaust. Engines such as these illustrate the need for PM control.

(Thereupon a video was played.)

RETFIT ASSESSMENT SECTION MANAGER DALEY: An opacity test, like that shown here, will help detect when a DPF is not functioning properly.

RETFIT ASSESSMENT SECTION MANAGER DALEY: The figure here shows how the exhaust gas passes into the device and moves through the filter media trapping particles. These particles are oxidized via regeneration requiring the DPF to occasionally be cleaned to remove the accumulated materials.

DFPs are necessary in order to meet stringent PM standards, which came into effect in 2007. Most 2007 and newer heavy-duty diesel on-road engines are factory equipped DPFs. DPFs are robust, common, mainstream technology with over 90 million world-wide in various
applications. With appropriate cleaning, in-field DPFs have been found to last over 10 years, provided the engine is appropriately maintained.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: I will now discuss the proposed regulatory amendments.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: Staff is proposing to amend Title 13, California Code of Regulations, section 2222 to include a new section K to provide explanatory language, which includes clarification that used diesel particulate filters may not be sold in California.

Staff is also adding language which incorporates, by reference, the proposed evaluation procedure for after-market DPFs to allow them to obtain an exemption from the anti-tempering provisions of California Vehicle Code Sections 27156 and 38391.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: I will now discuss the proposed evaluation procedure in more detail.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: This procedure strictly focuses on new after-market diesel
particulate filters intended for 2007 through 2009 model year engines, which are out of warranty. It was not designed or intended to assess DPFs covered by other programs or other types of after-treatment technologies, such as diesel oxidation catalysts or selective catalytic reduction, as these have unique technical considerations, which are not addressed by this procedure.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: To ensure the after-market DPF is robust, capable of maintaining compliance with the emission standard for the engine, and is compatible with the engine and application, and possesses no safety risks, staff has developed a multi-part evaluation procedure. It includes emission, durability and compatibility assessments, as well as protections for the end users.

The process starts when the device manufacturer submits its application. During the application process, the device manufacturer describes the product in detail, identifies target engines, and provides information on how the company plans to conduct testing. All data, testing, and other information will be submitted as well.

The basis of an application, in other words, what defines the scope of a product's applicability, is called the emission control group, or ECG. This is a group of
like engines and applications from the perspective of how the after-treatment part works with them and how they behave with the device. ARB staff worked with industry to identify seven ECGs. All testing and information must be supportive of the desired ECG.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: The purpose of testing is to ensure that the device is durable, compatible with the engine, and is emission compliant. In order for the part to receive an exemption, it must pass all the testing requirements. The after-market DPF must be functionally similar to the OEM DPF as far as emission compliance and compatibility with the engine.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: Engines and DPFs are routinely tested on heavy-duty engine dynamometers, an example of which can be seen here.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: This provides a brief overview of the testing structure, which includes comparing the after-market DPF to the OEM DPF, controlled aging of the after-market DPF and field deployment via field-trials of the aged part with
associated emission testing.
The following slides provide more detail about each step shown here.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: The after-market DPF must be similar in function to the OEM DPF. The two parts are compared as part of the proposed testing. In order to ensure the OEM and after-market DPF have the same level of use and in similar condition, the procedure includes structured degreening period. This allows for a better and more equitable comparison of both DPFs. The after-market DPF and OEM DPF are degreened under controlled conditions. They are both emission tested, and the after-market DPF is then compared to the OEM DPF. The specifics of the degreening requirements are shown here.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: The accelerated aging cycle is designed to mimic potential real-world exposure, but in a condensed time frame under controlled, monitored, and repeatable conditions. The after-market DPF is subjected to an accelerated laboratory aging cycle for 300 hours, which ensures testing is conduct under controlled, well monitored conditions. This laboratory aging exposes the DPF to both thermal and
chemical aging, both of which can still contribute to DPF failure over time. This part is then emission tested to ensure it is still functioning properly.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: After the laboratory aging, the after-market DPF is installed and run on a representative infield engine for 500 hours. Finally, this part is again emission tested. To help ensure that the DPF will work on a variety of applications, field testing two additional after-market DPFs on representative infield engines and vehicles for 200 hours is required. These units are not emission tested.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: It is necessary to emissions test the device at various times to ensure it is still properly functioning, and that it is compliant with the emissions standards and Vehicle Code 27156 anti-tampering requirements. The only way to ensure this is via certification type emission testing and test cycles. The emissions and parameters to be measured are shown here.

In addition, if there is any reason to believe that the use of the particulate -- particular after-market DPF may result in the increase of toxic air contaminants
or other harmful compounds, ARB may require exhaust
testing for toxic contaminants. There is also a catalytic
activity test, which is comprised of either NO2
measurement or a soot accumulation test. The purpose of
this test is to show that for catalyzed DPFs passive
regeneration is being properly performed even after
lengthy use, by assessing the soot oxidation rate. The
applicant may choose either NO2 measurement or a soot
accumulation test.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY:

Warranty and record keeping are important to
ensure end-user and consumer protections. Staff is
proposing a two-year warranty for both the product and
installation. This is consistent with other after-market
part warranties and considers past feedback and comments
from stakeholders. It is critical to maintain these
records in the event that a product needs to be found
again for a recall or audit, and to ensure appropriate
warranty tracking or support.

A shorter warranty period will not provide
sufficient information to allow ARB to determine if
problems may be occurring infield and take appropriate
action. If designed and deployed correctly, DPFs can last
many years longer than this warranty period.
ARB received numerous comments in opposition to longer warranty periods, as they were perceived to be burdensome and out of alignment with OEM warranties for replacement parts. However, in order to be protective of the consumer, ARB maintained a more protective warranty period.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: The procedure requires that the after-market DPF manufacturer provide a method to authorize those installing their product. This can be done by having a person review an on-line training video or manual. This helps ensure that the after-market DPF is installed on the correct engine, and that the engine is in a proper state of maintenance. Proper assessment of an engine and vehicle prior to installation ensures the device is appropriate for the engine and that the engine is in a proper condition to receive the DPF.

DPFs are robust devices, which typically do not need replacing unless there is an engine problem. Engines which have mechanical problems could negatively impact the after-market DPF. And because the engine is the cause, the warranty would not cover the replacement of the DPF. This is an avoidable problem which can be effectively addressed by pre-assessment and authorized installers.
All parts must be clearly labeled to demonstrate that they are approved by ARB and do not constitute tampering. The label must be legible, visible, and durable for the lifetime of the device.

Additionally, this information is essential for maintaining warranties and for finding the devices for an audit or recall.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: To protect the end user, if a problem is detected in a device, or if it needs to be modified once deployed to field, a recall provision is included. Additionally, after ARB awards an executive order to a product, ARB can double check the product through audit testing.

Swapping means the movement of a diesel particulate filter from one vehicle to another in the same common ownership fleet. This is allowed provided it adheres to certain conditions spelled out in the procedure, including ensuring the device is intact before being moved, and that the engine it is swapped to is appropriate for it and is in proper working order. Device manufacturers must support the policy and must first obtain ARB approval of their swapping policy before they authorize device swapping. Utilizing these paths provides additional flexibility to both ARB and the applicants.
Applicants must address potential safety issues and must demonstrate compliance with this during the application process. Staff is also requiring strict quality control provisions similar to those required in other ARB after-market programs, such as three-way catalysts.

Device manufacturers can obtain parts from various sources. Therefore, ARB is requiring manufacturers to be able to provide information on how they ensure product consistency.

This proposal opens a new California market for after-market diesel particulate filters, giving manufacturers a new revenue stream. There are approximately 51,000 2007 through 2009 heavy-duty vehicles in California. Staff estimates that at least a quarter of these vehicles may need to replace their DPFs with an after-market DPF during the lifetime of the regulation.

Having another source of DPFs, in addition to those provided by the OEM, should allow for a more competitive market, similar to what was seen with three-way catalysts for light-duty applications. This may
result in a cost savings to consumers of approximately $1,200 per device. This equates to a savings of at least $15 million over the lifetime of the regulation. The applicability -- excuse me, the availability of lower cost DPFs may encourage compliance and end users to be more proactive should the OEM DPFs suffer damage and need to be replaced.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: The procedure is voluntary and does not force companies to participate. Only those companies which are interested in selling after-market DPFs in California, and which determine it is in their best interests are expected to participate. Testing costs will vary by company, depending on the ECG choice and other factors, as if they have access to their own test facilities, but it is expected to cost about 1.2 million over the life of the regulation.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: Staff worked with stakeholders when developing the procedure. Staff held three public workshops, and also did a mailout with updates and information. Staff met with multiple stakeholders from both the after-market and OEM arenas, as well as individual companies, sent drafts to U.S. EPA, and
directly contacted several key non-government organizations. Staff incorporated stakeholder input and comments when appropriate.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: ARB received comments, often diametrically opposed, which fell into three main categories: Testing requirements, such as the aging cycle, criteria for choosing a test engine, fuel testing, emissions testing of the laboratory-aged DPF the, breadth of the ECGs, and the NO2 option for catalytic activity.

Staff received comments on the administrative requirements, such as the length of the warranty and record keeping, and also received comments regarding installer requirements, including authorized installers and pre-installation assessment.

ARB balanced these opposing viewpoints to develop a procedure protective of end uses while maintaining economic viability for participants.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: ARB worked with various stakeholders representing very different positions to reach compromises which maintain end-user protections, the overall robustness of the procedure, and a chief cost savings or which incorporated
flexibilities into the process.

ARB maintained its position in cases where the engineering support was inconclusive or non-persuasive, or where accommodating the request would undermine ARB's ability to enforce the regulation, have effective remedies, such as recall, confound warranty protections, or which could negatively impact the end user. Swapping of a device also benefits fleets by minimizing vehicle down time for DPF routine maintenance by allowing a similar DPF to be installed on the vehicle as needed.

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RETROFIT ASSESSMENT SECTION MANAGER DALEY: This concludes staff's presentation. When vehicles are properly maintained, DPFs can be an effective method of controlling PM emissions, while protecting public health.

In closing, staff recommends adopting the procedure -- the proposed amendments to Title 13 CCR, section 2222.

VICE CHAIR BERG: Thank you very much, Shawn. We have seven witnesses on this item. But before we turn to them, I want to turn to my fellow Board members and see if there's any clarifying questions?

Seeing none.

We will see the witness list up here on my left. And so if you will see where you're positioned, then come
down, and begin your testimony. We'll start with Patrick Barge.

MR. BARGE: Good morning. Can you hear me?
CHAIR NICHOLS: You have to press the little button at the base of the --
MR. BARGE: Can you hear me?
CHAIR NICHOLS: There you go.

So good morning. My name is Patrick Barge. I am the CEO of ESW Group. I appreciate the opportunity to comment on the proposed regulation. ESW is a U.S.-based company with a strong presence in California. We hold nine CARB retrofit certifications and are very familiar with the California diesel emissions control market.

As a DPF manufacturer, we are also participating in the after-market business outside of California. We share ARB's concern that there may be a significant number of model year '07 to '09 and newer heavy-duty vehicles operating with damaged DPFs emitting excessive levels of particulate matter. And we commend ARB's efforts to create a common sense regulatory structure for after-market DPFs. We are convinced that this regulation will help improve California's air quality and protect public health.

ESW believes that an appropriately regulated
after-market program is timely. It will introduce high quality and competitively priced new diesel particulate filters to a replacement parts market that is often dominated by overly expensive and/or remanufactured components. In addition, certified after-market DPFs may feel a need in application where end users have reported that they cannot get new replacement parts.

The testing regimen in the proposed regulation, which encompasses emissions, durability, infield testing will ensure that the after-market DPF have equivalent emissions performance to the OEM and will be durable. In short, the regulation makes sure that the after-market part matches the OEM replacement in form, fit, and function.

We had the opportunity to comment on and provide data towards the proposed rule during its making. And in our opinion, the staff has carefully reviewed and considered the industry's and our input, and we believe that the proposed rule is a workable compromise.

However, we are concerned that the cost of completing the test protocol will increase the cost of the after-market product, and as a consequence reduce its competitiveness. And we are also concerned whether ARB will be adequately staffed to process all the applications in a timely manner.
This concern is based on our retrofit experience in dealing with an overworked and often understaffed CARB team. We believe that a similar scenario will delay the certification process and the much needed after-market product introduction.

We think that the proposed after-market regulation is timely. It ensures that the after-markets product match the performance and durability of the OEM parts, and offer ample protection to the end user. Therefore, we urge the Board to consider the after-market regulation for early adoption.

Thank you.

CHAIR NICHOLS: Thank you.

Andrew

MR. GENEVESE: Good morning, ladies and gentlemen. Thanks for me -- allowing me to speak on my behalf.

I drove with hours to get here. One thing I have to say is a part of a law which says that the law does not apply to certain people and things because of conditions that existed before the law was passed. In light of what we know now, that these DPFs are failing and may or may not be causing fires on the trucks. I'm a single truck owner/operator. My life and my family depend on my income.
I am more about clean air and clean water than you'll ever know. I sell ocean water for a living, and I have a horse. I own horses and maintain horses.

Until we have a standard that is met and we can ensure that nobody's life is in danger, I'm requesting that we put this -- grandfather clause in place.

Also, why is not the '95 to '99 trucks being addressed? I have a perfectly good running truck. In order for me to upgrade, I would go back into debt and start all over again. I would love to go invest in a new truck, new clean air, clean water, everything, but I just cannot do it, and thank you.

VICE CHAIR BERG: Thank you for coming.

Lorin.

MR. HUTNICK: Good morning. I'm a small-time truck driver. Also, I have my finger on the heartbeat of this nation and these trucks. On a daily basis, I get one to five reports of trucks burning down. Now, this is all seems funny, these are all '07 or newer trucks, and prior to that are trucks that had been retrofitted.

You know, you guys have created a mess that I don't even know how you guys are going to get out of it. And I have to remind you guys how this came about. This came about because of a bad report by Hien Tran that supposedly still works here.
Now, I sat up there in the back of the aisle and listened to the two first speakers, and I can punch holes in both of them. I stood in this office -- in this auditorium on December 4th of 2012, I believe, and you guys said the opacity meter wasn't even good enough to be used as a testing.

You guys are creating a mess that is not out there that California don't need. Dr. Enstrom and Dr. Michael Dunn have poked holes in all of your data. The DPF does not work. It creates a problem and a negative industry to California and the rest of the nation. You guys have got to remove this thing, because the engines do not work, period. Throw more ports at it. All you're doing is creating a more problem. You're breaking motors. We cannot be a reliable industry if you guys just keep throwing patches on this thing.

I can't go out, buy a truck, and be responsible for a crew because the truck shuts down, because the DPF is plugged up. Ten years, it don't work. I have yet heard of a DPF lasting six months to a year. And then the manufacturer or the company that's fixing them or cleaning them have them piled all up because they won't clean. You guys have got to remove this thing, period.

And I'm sorry for the businesses that have gone into business thinking they're going to cut a fat hog on
the manufacturing, but it's wrong. It's illegal, unconstitutional. You have violated so many Acts and federal law. Alone, you have damaged the economy of other guys.

Do I have to remind you also, there's a lot of companies that are refusing to come to California. And then there's companies that are coming into California, because you guys have mandated these DPFs, they're getting 8 to 10 dollars a mile end user. There's no reason I need to be at the grocery store paying $5 for an artichoke, which prior to you guys mandating this thing, might have been a $1.99. It's transportation.

Now, trucks can be cleaned up, and I'm all for having a clean truck. But the fact is, it could be done in the fuel and maintenance, not a DPF. It needs to be removed from the market. End of story. You guys have got to fix the situation. You've created a mess.

Thank you.

VICE CHAIR BERG: Thank you for coming.

(Applause.)

VICE CHAIR BERG: Sean. Good morning.

MR. LINDSTEELT: It really doesn't matter about truck drivers. We've been up here 600 times yelling at you guys. You don't care about us. But you probably have kids that go to school. And you don't -- maybe you don't.
When one of these DPF filters kill a kid on a school bus, make an amendment to the rule that we can sue him, the guy that's going to make the new DPF filters. Opening up the market just so that you can bring down the price, that's good. That is good, but they're still catching trucks on fire.

And you guys don't care about us. I don't blame you. Who cares? You know, we're just truck drivers. But they're on school buses, and school buses are going to catch on fire. And when my kids die on a school bus, it's going to be bad, very bad.

Thanks.

(Applause.)

VICE CHAIR BERG: Our next speaker Bud Caldwell. Okay. Bud is not with us. Hank, Good morning.

No, I think Hank is coming down.

MR. DE CARBONEL: Good morning, everybody. My name is Hank de Carbonel. I represent the Alliance for California Business. We're -- we don't think this new proposal changes anything regarding the fundamental danger of a diesel particulate filter, or a DPF, which also stands for dangerous, pricey, and flawed.

On the business of price, you talk about you're going to reduce the price by after-market filters, but I don't know how you're going to guaranty a reduction in the
price unless you're planning on fixing the price. If it's a free market, these people could charge whatever they want for that filter. Why would it be $1,300 dollars, why not $2,500 less, why not $2,000 more? What's that -- where is that regulation?

Second of all, we have testimony from CalFire, from Highway Patrol, Caltrans, over 50 or 60 fires related to, at best, an engine compartment fire. And everybody is ignoring that and pretending it's not there. It's the 800-pound gorilla in the room. You're not addressing it.

I have a question for maybe the Board, or maybe the staff, or the experts that are here. Does this regulation cover only the filter element or is it the entire DPF?

Can't be -- nobody knows?

VICE CHAIR BERG: No, people know. I'm sorry.

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: No, I'm sorry. We were -- it is the entire DPF. So the component that is -- that houses the DPF and all the bracketry and things like that. That's all covered by this requirement.

MR. DE CARBONEL: How about the -- how about the control units, all the electronics, the black boxes?

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: No, that is part of the original manufacturer's certified engine.

MR. DE CARBONEL: So again, we're only talking
about the filter and perhaps the bracketry and some pipes, is that correct?

VICE CHAIR BERG: It's only the filter.

MR. DE CARBONEL: Only the filter element?

VICE CHAIR BERG: Correct.

MR. DE CARBONEL: Okay. I want to make that clear, because it's not clear when you start reading all the papers on it.

So I don't think this proposal changes the fundamental problems that you have here. And as the people before me have said, we have a number of instances of fires, not just in California. We've -- we reserved ourselves just to California, but they're all across the country. This problem isn't going away and it isn't going to be solved by less expensive DPF, and it isn't going to reduce the burden on industry, because they have to get -- they still have to go back and get data logged. They have to go back and get this, that, and the other thing done.

And your own documents support our contention from all -- from day one, that these filters damage the engine. It's not the engine that damages the filter. It's the filter that damages the engine. I don't know how it could be more clear. Again, these things are dangerous, they're pricey, and they're flawed. And this does nothing to change that, absolutely nothing.
Thank you.

VICE CHAIR BERG: Thank you, Hank.

(Applause.)

VICE CHAIR BERG: Good morning, Rasto.

MR. BREZNY: Good morning, Vice Chair Berg and members of the Board, and Happy Earth Day.

I'm Rasto Brezny. I'm the Executive Director for the Manufacturers of Emission Controls Association. MECA represents suppliers of emission controls for new vehicles, diesel retrofits, after-market parts, as well as new replacement parts -- replacement service parts.

Some MECA members have been supplying after-market DPFs outside of California for over five years. And we support this proposal and we thank ARB for its leadership in setting defined testing and durability protocols for diesel after-market DPFs.

I want to thank your staff for their hard work in pulling together a lot of comments from a diverse group of stakeholders. We believe that the testing and field demonstration requirements in this proposal will ensure that after-market DPFs will perform and are compatible with vehicles in the marketplace.

And I guess we -- as has been stated earlier, we urge ARB to allocate appropriate staff for this program, so that applications can be reviewed and approved in a
timely manner.

So I just want to address some of the comments that were made before me around DPF safety and fires. And I want to bring some statistics to this, so that we have something to look at.

The U.S. Fire Administration publishes the statistics on roadside vehicle fires that occur all across the country. And since from 2004 to 2006, before DPFs were put on trucks, there were approximately 18,000 truck fires every year across the country. And these fires were attributed to -- primarily to electrical and mechanical failures.

Since 2007 to 2012, after DPFs were installed, the number of truck fires actually decreased by 33 percent. And they continue to decrease. And that is available on -- in the public literature for anybody to review. In fact, I spent a lot of time reading through this information.

And so to my knowledge, of the millions of DPFs that are on the road today, there are only two truck -- two fires that were attributed to a DPF, and these were due to a metal filter that was installed on a retrofit. And since that time, these have been recalled and are being replaced with ceramic filters. And it's the ceramic filters that are in all of the OEM installations, as well
as these after-market installations, and so forth that we're talking about today.

So I guess, you know, finally, I just want to request the staff that they be allowed to begin accepting data and applications as soon as the Board adopts this regulation, so that manufacturers can bring forward these technologies in a timely manner, and help to support ARB's inspection maintenance objectives for heavy-duty trucks.

We believe that a robust heavy-duty IM program is going to not only help end users maintain their trucks properly, but it's also going to ensure air quality benefits across the State.

Thank you.

CHAIR NICHOLS: Thank you.

VICE CHAIR BERG: And we have one additional speaker. Larry.

MR. ROUDEBUSH: Good morning.

VICE CHAIR BERG: Good morning.

MR. ROUDEBUSH: I just have a few questions about some of the things that were mentioned earlier. They talk about compatibility with engines, I was wondering who did all the studies to check to see the compatibility for DPF filters with engines?

The other thing I'd like to ask about, please, is the NOx and CO gases. The State and federal regulations I
believe are different for the NOx and CO gases. And I'd just like to know also if those are compatible with CARB. And then another thing that you talked about was
the records for the DPFs. Are the companies going to be the ones that are keeping the records for these businesses or is the business going to have to keep these records?

These companies that produce DPFs are going out of business. What's going to happen to those records, and what's going to happen to the owners of those DPFs? What repercussions are they going to have to get compensated to fix these things?

I hope I'm making sense. It's very nerve-racking for me to be here.

They also said earlier that the engine is the cause of the failure of the DPF. Well, the DP -- an engine is not going to fail if it doesn't have a DPF. The DPFs are what's causing these engines to fail.

And then also, I believe it's OOIDA that had a lawsuit about the fair commerce laws. I was just wondering what CARB has done about the fair commerce laws that are going on with OOIDA?

Sorry, I know I'm probably very confusing, because I don't know -- I'm just nervous doing this. Anyhow, those are just some of the questions that I have about what was said and put up on the screens earlier.
I hope it makes sense.

Thank you.

VICE CHAIR BERG: Thank you very much. And it does make sense. I've made a list here. I'm sure other Board members will have some questions and we'll see -- refer it back to staff.

MR. ROUDEBUSH: Thank you.

VICE CHAIR BERG: Thank you. So with no other witnesses, I'm going to close the record and turn back to the Board for questions and clarifications.

I do have a couple of questions for staff, and thought it would be really helpful following up actually on some of Larry's questions. First of all, looking at the administrative part of the rule, it isn't clear to me how we are going to implement that, and more importantly I'd really like to see a commitment from staff to continue working with the entire supply chain from manufacturer through distribution and the end user to make sure everybody is very clear on their part.

But given that, could we just spend a minute talking about how you see this going forward and where does ARB see the responsibility from the administrative part of keeping the records, of the swapping, and the data that is required to keep these records?

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: All right.
Thank you very much Chair -- Board member Berg. As far as the administrative requirements, obviously, the testing and the administrative requirements are a package, and we feel that they're absolutely necessary in order to have a successful program.

As far as what records need to be kept, there are requirements for the manufacturer to keep records as well as the installer. And that would -- it could obviously be the end user themselves. And the reason why we need to have that is to make sure that in the event that we need to do a corrective action or recall, a field fix, something like that, that we are aware of where those products are in-field.

And as far as looking at who's responsible for what, as with any product, it does have several responsibilities to make sure that it's deployed successfully. So the manufacturer must ensure that they put in place protocols such that their product is successfully deployed. So that means that they have to authorize their installers, as we're calling it, and basically that's making sure that they put in place things so that whoever is installing their product knows how to do it successfully.

And we do have a lot of experience with retrofits. And we know that retrofits, as well as DPFs,
have to be installed on a properly working engine.

   Does that -- okay, so that's the manufacturer, and then the installer. And then obviously, the end user has to have enough information, so that they know how to operate and clean and make sure that that DPF is working properly.

   VICE CHAIR BERG: So we're talking over the period of time about 12 to maybe 20 thousand transactions here. And so I think we need to be very mindful, A, that whatever we're requiring of people that they have full control to be able to implement what we're requiring, and it's got to be the easiest way possible.

   This is not a large market. It -- we really need to be very effective and efficient. So I'd really like to encourage that.

   Then if you could just address a little bit of the compatibility from the last speaker just to reiterate what we're doing on compatibility.

   IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: Yes. With compatibility, we are requiring that the DPF get aged. And then after it's aged, it is emission tested to make sure that it's working correctly, and then it's installed on an engine and operated for 500 hours in-field. And then to make sure that it covers a broad application of vehicles, we are requiring it to be put on two other types
of vehicles.

And we think that should help address compatibility issues and make sure it's working across a wide range of operating conditions.

VICE CHAIR BERG: So to answer this commenter's question, CARB is going to be heavily involved in that compatibility testing, and to make sure these are, in fact, compatible. That's part of the certification process.

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: Correct.

VICE CHAIR BERG: Okay. Great. And then, you know, we heard from several speakers staff resources. And we do know that we have plenty on our plate. This is a short window opportunity. Could you just speak to staff resources and what the plan is, especially up front, because my assumption is you'll get a lot up front and as it goes over the next couple of years, it should be quite manageable.

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: Yes. That is always a concern to make sure that we have the appropriate staff to implement our regs. The way we envision it is the retrofit market it's actually decreasing, so the same staff that has been approving retrofits are going to be transitioned over to working on the after-market DPF requirements. What we tried to do
though is to make sure that the procedure is very prescriptive as much as we could. And when it's black and white, then obviously it's easier to approve something.

The retrofit, the way we had those regulations, it was pretty much you could get anything approved, and that included fuel-borne catalysts. You know, you could pretty much approach ARB and try to get any type of emission control system approved.

When you have that sort of flexibility in the rule, then it does take a lot more time to go through the approval process.

VICE CHAIR BERG: Okay. Thank you very much. I'll look one more time up and down. Board members have -- Ms. Mitchell.

BOARD MEMBER MITCHELL: Again, this time as we're addressing the DPF issue, we've heard from a number of truckers about fires being caused by DPFs. I'd just like our staff to respond to that.

DEPUTY EXECUTIVE OFFICER AYALA: Let me take a stab at that, Ms. Mitchell. Let me remind the Board that last fall we actually brought to you a summary of an extensive fuel campaign that we deployed, following Board direction when we last brought you amendments to the truck and bus regulation.

And what we attempted to do is to deploy a
campaign, so that we can understand in-use, in-the-field, in real-world application, how is the DPF technology performing? And one of the key findings from our investigation was that we're not finding any problems with DPFs when they get deployed in a vehicle, in an engine that is well maintained to match up with that DPF.

It is the case that an engine that is not well maintained can indeed lead to problems with the DPF. So the DPF really is more of a canary in the mine, as opposed to the cause of a problem. Industry, working in concert with us, gave us access to information. And there's millions of DPFs working properly today. And on all new engines, they are original equipment. They are standard equipment.

And so what we want to do as part of our process is to actually work with the installers, work with the end users to get the information out to them and essentially notify folks that it is very important that the engine is well maintained.

These are not devices that are install and forget, because they're very complex systems that actually work in concert as a system with the engine, with the fuel, and the after-treatment.

So we did not find any evidence of fires. The one instance -- the couple of instances where there was a
documented fire, as Dr. Brezny from MECA reported. That was actually due to a different type of DPF technology that is no longer in use.

BOARD MEMBER MITCHELL: Let me follow up with that, because then one of the issues will be how can we be assured that when a DPF is installed, the after-market DPF or any other, that the engine is well maintained at the time of installation? We've talked about having authorized installers. Would they have that responsibility? How do we authorize them? Can you just be authorized on-line or how do we monitor this or enforce this?

DEPUTY EXECUTIVE OFFICER AYALA: We are going to be working with industry on all of these items, because again, we now understand, thanks to our investigation, that these are critical aspects. Also, this is one of the reasons the Board directed us to look at a new program, where we can do inspection and maintenance. And part of that is actually getting the word out. But ultimately, we need to be working very closely with industry, and the providers and the manufacturers of that technology, right? I mean, they have ultimate responsibility for the products that they bring to the market. We just need to make sure that amplify getting the information out to the users to make sure that we get a good installation of
these after-market DPFs.

CHAIR NICHOLS: May I follow up on that question?
And maybe this isn't the proper analogy, but if I walk
into a doctor's office and I ask for some procedure to be
done, if that doctor is ethical, he's going to examine me
first to make sure that my condition is such that I can
withstand whatever it is that I'm asking to have done.

I guess the question here is, is there a way that
we can assure that the installers know that they are not
to put the equipment on if the underlying machine that
they're dealing with is not well maintained, because this
is not just an ongoing responsibility for the owner or
operator of the truck. It's also something that involves
a pinch-point, if you will, where somebody comes in and
money is changing hands, and you want to make sure that
there's a moment there where there's an opportunity to
make sure that this thing is actually going to work the
way it was intended and not cause problems.

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: Well, I'd
like to mention that the procedure does require that the
manufacturer is responsible for making sure that whoever
is putting on their DPF has the proper information, so
that they can check their engines. And what we did with
retrofits is we made it explicit in the rule that the
manufacturer is responsible for establishing
pre-assessment requirements before they put the retrofit in.

So the thought is that's exactly what the after-market DPF manufacturer is going to do. They're going to put in some sort a pre-assessment things that they -- the installers can easily check, such as opacity, oil consumption records, different things, so that whoever is putting on that DPF knows that that engine can receive it. Now, in the case where maybe we have a manufacturer who is not doing their due diligence, maybe they are just selling to the end user to unauthorized repair shops, well, when we find that DPF in the field, we're going to -- and there is a problem, then we can go back to the manufacturer and ask them what protocols did you put in place to make sure that this DPF was installed properly?

CHAIR NICHOLS: So we have enforcement ability in that situation if we're notified and/or find out on our own that equipment is getting out there and being installed in a way that's not appropriate to the -- for the equipment?

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: Correct.

CHAIR NICHOLS: Okay. I'm sorry. I interrupted your train of questions there.

BOARD MEMBER MITCHELL: And let me ask this to follow up again on your question. The manufacturer is
interested in selling his DPF, and so he may not have the
interest of the trucker at heart, which is to make sure
that it's installed properly on an engine that's well
maintained. Is there any way we can place obligations
upon the installer with authorization of that installer?
That's -- I mean, maybe that should be two-fold,
manufacturer plus installer?

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: Yes.
Actually, I should have mentioned that both the
manufacturer and the installers have obligations under the
regulation. So if the manufacturer has done everything
they can to make sure the installer is installing that DPF
correctly, the installer decides not to do what the
manufacturer has specified, and installs it on an engine
that is not properly maintained, then the installer is
basically installing that DPF in a non-approved way. And
so if you're not following all the requirements, you
essentially are avoiding your executive order,
the installer is, and they would be subject to corrective
action.

BOARD MEMBER MITCHELL: Thank you. That answers
that.

VICE CHAIR BERG: Thank you.
Any other questions?
Oh, I'm sorry. Barbara first, and then Phil
Serna.

BOARD MEMBER RIORDAN: It's not necessarily a -- pardon me, a question, but a suggestions. We have obviously the ability to place on our website information for the public and the end users. And my understanding is that we do have people who can respond. For instance, if a trucker has experienced problems, and they feel that they're not getting relief from either the installer or the manufacturer, they can access hopefully some part of our website. And do we not have a person that you've designated, is she sitting out here in our audience, and I think that's very important.

And I actually told that to Kathleen this morning, because I do think that -- and I've had that experience personally, not on a truck, but on a very large piece of machinery, where it was a failure of the manufacturer, and in this case manufacturer installer, failed to train the end user on the maintenance. And so the whole thing was failing because of lack of training.

So sometimes when we get into these things, we learn that there's nothing is failing except just communication. So I'm hopeful that we underscore that opportunity for people to contact the ARB directly, if they're having issues with potential problems.

Thank you.
DEPUTY EXECUTIVE OFFICER AYALA: If I can just add. Not only do we have our diesel advocate who's here in the front row, we also have our call center, where our staff can tend to calls and often make appropriate references, to the extent that they don't have the answer to the question, and they can come back to our technical program staff as well.

BOARD MEMBER RIORDAN: Pardon me. We need to make very clear on -- somehow on the website that this is an opportunity to call us or contact and whatever. Thank you.

VICE CHAIR BERG: Supervisor Serna.

BOARD MEMBER SERNA: Thank you, Vice Chair Berg. First of all, I appreciate very much the line of questioning over the last few minutes. This is -- hearing the testimony and listening to staff before that, this was really kind of the heart of the matter for me is understanding what the maintenance protocols are for not just the DPF, and what's involved in the installation of the DPF, but as was mentioned earlier, maintenance of the entire system.

And so to put a slightly finer point on what Board Member Riordan just mentioned, what are -- what, if anything, are we doing to educate the folks that are going to be maintaining these engines in the long run about
any -- any even nuanced subtle changes in maintenance protocols of that entire system moving forward? Maybe there aren't any changes. I don't know. But, I mean, for instance, this is really, you know, it sounds to me an issue about exhaust gas temperatures. And so, for instance, once the DPF is installed, is there a change, for example, in the frequency with which you need to change lubricants? I don't know.

But if we aren't making that absolutely clear, it seems to me that we'd want to include that in whatever education campaign we think is going to best result in an understanding that that whole system needs to be maintained a certain way. So I'd like some response to that.

IN-USE PROGRAMS BRANCH CHIEF LEMIEUX: Yes. That's an excellent question. And actually, from the DPF survey that Alberto Ayala just mentioned, we did come up with a list of things that we went forward to implement. And one of them is to make sure that the diesel mechanics have proper training. So we are working with the CCDET program, which is a college program that trains diesel mechanics, and also with -- to make sure that they're aware of what needs to be looked at on these new technology engines. So that's not only DPFs, it's making sure that, you know, your injectors, your SCR system, all
that is working properly, and that they're aware of what needs to be done to keep that engine working properly.

And I just want to follow up on Board Member Riordan's comment on what type of process we have. And it was through the retrofit advocate process where we actually went out and we looked at fleets that were having problems with their retrofits, that we found out a lot of it is training, that people aren't used to having to look at their oil consumption, look at their injectors, their turbo seals, and all these things. Usually, a diesel engine you put fuel in it and it goes. You put fuel, oil, and you're fine for a million miles.

So with the advent of advanced technology and after-treatment, now there just has to be a shift in the industry. And I should also mention, we not only have the retrofit advocate, we also do have field reps and a complaint process for the OE, so -- and that's also in my branch.

So if any of the end users that spoke here need us to go look at what's going on, there's engine problems, there's retrofit problems, they could certainly contact us and we do have a process for addressing those.

DEPUTY EXECUTIVE OFFICER AYALA: One more item that I want to add to that and that is also very important, and I'm glad that we had industry
representation here today is again, at the point of sale, we want to work with industry, because that is an important gateway to get the information to the end user, whether it is installer that is doing it for their own fleet or it's a company that is in the business. That is also very important for us, and we need to continue to work with industry to make sure that we get the relevant information out at that point.

BOARD MEMBER SERNA: Thank you.

VICE CHAIR BERG: Thank you. Great questions. You bring up a great opportunity, Sharon, about industry reaching out to you. But I would like to understand in full transparency that when we do get involved, that if there is noncompliance issues, it does open them up to some corrective action and possible fines. So is there not a mechanism that if somebody really wants to find out what's going on and how they can correct it, that they don't subject themselves to a situation where they came in good faith to figure out what's happening and they leave with a fine? I don't know.

CHIEF COUNSEL PETER: This is Ellen Peter. In terms of our enforcement actions, they are in a totally different division than the people that are providing technical assistance.

VICE CHAIR BERG: That's true, but the technical
people do turnover this stuff to enforcement.

CHIEF COUNSEL PETER: So you're suggesting a --

sort of an amnesty kind of program, some kind of --

VICE CHAIR BERG: I'm just saying that if people
really want to figure out what to do, and how to do it,
there has to be a program that allows people to figure
this out without putting them at risk to something far
greater than they anticipated. This has really been a rub
in industry for a long time. And I just would like to
encourage that maybe you could look into it. That's all.

CHIEF COUNSEL PETER: We will definitely look
into it. I was not aware that we were doing direct
referrals, because typically the way the -- especially in
light of the additional work on -- for truck compliance in
conjunction with our environmental justice obligations,
we're actually turning the whole situation around where
we're using available data to look at primarily the larger
firms, because obviously they have the capability of doing
the repairs. And so we wanted to focus basically on the
largest firms and work down.

There are people that just get -- you know, will
be identified in a roadside talk. But starting about a
year -- last summer for sure, it's actually changed the
whole focus. That's been reemphasized starting in
January, where we're doing a -- trying to target the
biggest ones first.

So let me check with the Enforcement Division who reports to me and I will -- I will do that, because I was of the impression that -- because I agree with you, you don't want people to come and ask for advice and turn it in to be a referral. So I will definitely look into that and report back to you.

VICE CHAIR BERG: Great. Thank you very much, Ms. Peter.

BOARD MEMBER EISENHUT: I thought we could hear from La Ronda Bowen with possibly an answer to your question.

OMBUDSMAN BOWEN: So thank you, Board Member Eisenhut. We do have the ombudsman. I'm the ombudsman for the Air Resources Board. Businesses that are seeking to get into compliance, they have a question, they just want to ask that question, they can come to us confidentially. We will take their information. We will encourage them to comply. We will tell them we will serve as an intermediary with the staff and find out exactly what they need to comply, and then it's their decision.

However, there is no immunity from enforcement when they're with the ombudsman process. But it is a mechanism that's allowed to have the businesses come forward, ask their questions, get them answered, and then
they have to make their right decision.

VICE CHAIR BERG: And certainly, there is a
balance to this. And I'm not suggesting that there isn't
a balance, but just really appreciate if -- that we have a
process that we're very transparent about, and what it
means, so that as Ms. Bowen just indicated, they have the
ability to make those decisions.

CHIEF COUNSEL PETER: Right. This is a
non-trucking example, where somebody realized that they
were going to have a problem, and they ran into basically
a self-report after it was already identified. So we've
had a situation where -- and once again, very
sophisticated people try to take advantage of those kind
of self-reporting kind of violations after they'd already
been notified. I'm saying this is not a trucking
situation. It's something totally separate.

And so we don't want to encourage sophisticated
people to try to end-run on that, but I totally understand
the -- you know, the idea is for people who are working so
hard they can't get time to sit down and read the webpage
or they're driving or whatever. Those single truckers are
the ones that we should be directing our effort for. And
I -- in my view, they should not be penalized for coming
and asking questions. And we'll check into that and try
to make sure that that's handled.
VICE CHAIR BERG: Great. Thank you very much.

Mr. De La Torre.

BOARD MEMBER DE LA TORRE: Thank you. First of all, just in general terms, we've gone from the truck needing to be as clean as it can be, and therefore, if you needed to have a cleaner truck, you needed a new truck. We went from that to retrofitting, to going in and installing a device on trucks that didn't previously have them to make them cleaner.

This is the third tier of a strategy to make it easier than having to buy a new truck, than having to retrofit, to be able to swap out one piece of the truck, like you would on any other maintenance of your vehicle.

I just changed my tires this last week end, just -- we're used to that concept. And so this is the third step in making it easier. And hopefully -- well, it is less expensive than getting a new truck. It is less expensive than doing a retrofit. So this is a part of a process that we are trying to be more responsive to the concerns that have been expressed here today.

That doesn't mean we've figured everything out, as this conversation has shown, but I think we're heading down the right path.

And along those lines, I wanted to make two points. One -- and these are for staff. Some of the
concerns that I heard were about the process by which we approve these devices, that we -- many of our procedures are grafted from retrofits, and these are not retrofits. It's a -- it's just a swap, one device for another.

So to have redundant monitoring et cetera, there was already monitoring for the device before. You swap out the device, the monitoring should be working. So things like that we should be very careful that we're not carrying over legacy obligations for the installation of these devices. It is just a clean swap. There was a filter before, there's going to be a filter now. So that's one concern.

The other is somebody mentioned it from the podium about staffing. As we ratchet up, there's going to be a peak. And so if we need to borrow staff from somewhere to help these folks look over these applications, make sure they're good, et cetera, we need to anticipate that, and then it will peter out, I assume, after that point, but we need to be ready administratively to handle that.

Thank you.

VICE CHAIR BERG: So seeing no other -- oh, I'm sorry. Go ahead, Diane.

BOARD MEMBER TAKVORIAN: Thank you very much. Thanks to the staff for a great presentation and all the
work that you've done. I appreciate it. And thanks to
those who came today to testify. I think it's really
critically important that -- the work that you're doing,
because we've seen huge improvements in our communities,
those that have a lot of trucking activity, especially
those that are near the ports. And we have seen a great
improvement. So it's really important to us that this
process, as Board member De La Torre has said, takes --
continues to evolve and continues to improve, because our
communities are seeing an improvement, so we appreciate
that, and I know that the kids who suffer from asthma
appreciate it very much.

I have two questions. One is are there, or could
there be, any incentives available for lower income
truckers that might make the cost of doing this --
installing these new filters available. That would be one
question.

And the second is what's the plan for outreach to
truckers, so that they will know about it, and they can
take the proper steps to install these new filters?

Thank you.

DEPUTY EXECUTIVE OFFICER AYALA: I guess to
address the first question, I think the incentive will be
that if the Board approves what the staff is proposing to
you, we are going to generate a market of functionally
equivalent after-market DPFs that are going to be lower cost than the current alternative, which is basically to go to the original equipment manufacturer and buy a brand new DPF.

So the incentive for the end user is going to be that we are creating a new market. We don't necessarily have any of our traditional incentive programs, I think, that you're thinking about, because again, as Board Member De La Torre said, this is really meant very -- to be very focused on engines that came originally equipped with the DPF. And because they've been in use for so long, they may need a replacement. We're providing a lower cost alternative that is still functionally equivalent.

BOARD MEMBER TAKVORIAN: Thank you.

VICE CHAIR BERG: Dr. Sherriffs.

BOARD MEMBER SHERRIFFS: As a health care person, I just wanted to remind everybody and thank everybody for their diligence in this. And by everybody, I mean -- I mean everybody, I mean staff, I mean the trucking industry for the pain that they've been through, and people stepping up and working on this, thanking people for driving as far as they drove to testify, because although many of the issues that were brought up are really a little off topic the narrow thing we're trying to do here, they're still very important issues that we need to
continue to work through.

But this has been, from a health standpoint, hugely powerful. You know, the calculations before truck and bus rule increased cancer risk of a thousand per million. You know, do the zeros. Staff can do the zeros better than I can. Is that 1 in 10,000?

It's a big number. It's a big number. And when you multiply by the number of people in the State, it's a huge number. And, you know, remember the agony we had over reassessing toxic risk. And we were worrying about numbers like two in a million, you know, the chance of being struck by lightning as you are drowning.

(Laughter.)

BOARD MEMBER SHERRIFFS: You know, a thousand per million is a much bigger number, and we have cranked this down a hundred fold through this process.

So it's important to remember. It's been very painful on all sides, but it has made a big difference. And we still have a lot of work to do, but we've accomplished a lot. And it's been because of people's engagement, cooperation, willingness to dig in on this.

Thank you.

VICE CHAIR BERG: Thank you, Dr. Sherriffs. I think that's a good way to wrap this item up. I do have an interesting position on the Board, because I do have 17
trucks, and it has not gone totally smoothly, as some of
the testimony has indicated.

But as the benefits that Dr. Sherriffs have
outlined, struggling through this is something that is
what we need to do. We want to stay opened. I do want
to -- I do feel compelled to say that this Board does care
about safety, and we do care about the truck drivers. I
care about my drivers. I care about my business. And I
do care about health, as all of you do too.

And so I do appreciate you coming, and we'll
continue to try to proactively work towards this issue.

So with that, we are looking at resolution
16-4-2. And do I hear a motion?

BOARD MEMBER SERNA: So moved.

BOARD MEMBER EISENHUT: Second.

VICE CHAIR BERG: All those in favor?

(Unanimous aye vote.)

(One abstention.)

VICE CHAIR BERG: Any opposed?

Any abstentions?

CHAIR NICHOLS: I'm going to abstain, because I
missed the oral testimony, but I'm familiar with the
record, and I would have voted, but I think it's better
not to.

VICE CHAIR BERG: Great. Can we show the record
that Chairman Nichols will abstain.

And the motion passes. Thank you very much.

CHAIR NICHOLS: Okay. We'll be shifting now to the next item, which is 16-4-3. And it's another amendment to an existing regulation that also reaches a lot of individuals and small businesses. This is the regulation for small containers of automotive refrigerant. It's used in the do-it-yourself recharging of motor vehicle air conditioners.

This product is sold over the counter, and contains R-134a, a refrigerant with a very high global warming potential, about 1300 times that of carbon dioxide. This is one of the first regulations that I was involved with when I came to the Board for the second time. This is back in January 2009 that we actually adopted this item, and I believe Mr. Corey worked on it, at some point, as well before he ascended to his current position.

So it's been with us for a long time. We've -- relatively long time. We've had an opportunity to see how it works in practice, and it needs some fine-tuning. But it's an important regulation, because as I just indicated, this is a very potent greenhouse gas that we're dealing with here. So without further ado, I will turn it over to the staff.
EXECUTIVE OFFICER COREY: Thanks, Chair Nichols.

Staff developed regulatory amendments to address implementation issues that have arisen since the regulation was first adopted, as you noted. The regulation is intended to reduce emissions associated with do-it-yourselfer air conditioning recharging through the use of a self-sealing valve on product cans, plus a container return program where the refrigerant remaining in the containers would be removed and recycled.

The self-sealing valve has been very effective, very effective in reducing emissions. However, unclaimed deposit money has been accruing with retailers, instead of going to consumer enhanced education programs administered by manufacturers as intended. These programs educate consumers about proper recharging techniques, as well as informing them of the global warming potential associated with the refrigerant.

Staff's proposed amendments are designed to address the disposition of future unclaimed deposits. Winston Potts from the Research Division will provide the Board with details of the staff's proposed amendments to the regulation.

Winston.

(Thereupon an overhead presentation was presented as follows.)
AIR RESOURCES ENGINEER POTTS: Thank you, Mr. Corey. Good morning, Chair Nichols and members of the Board. The regulation we are proposing to amend today deals with small containers of refrigerant used in do it yourself recharging of motor vehicle air conditioners.

I will begin with a brief introduction to greenhouses gas emissions from motor vehicle air conditioners.

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AIR RESOURCES ENGINEER POTTS: The Board has adopted a comprehensive program to reduce greenhouse emissions of automotive refrigerants, which is driving this entire sector to zero emissions. The main program elements are new low-global warming potential refrigerants that are being introduced by car manufacturers into low-leak more fuel efficient air conditioning systems.

The Board's refrigerant servicing and end-of-life requirements including the regulation being discussed today, address emissions from the existing fleet. Similar program elements have been adopted or have been proposed for adoption by U.S. EPA as national requirements.

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AIR RESOURCES ENGINEER POTTS: The figure on the left shows a typical air conditioning system. These systems naturally leak refrigerants to the point that they
may need recharging usually after six to seven years. Extra wear and tear and lack of routine maintenance can lead to excessive leaking, resulting in loss of cooling power, and the need for more frequent recharging.

When recharging is needed, a car owner has two options, one is to attempt to service the system themselves, or do it yourself, by using small containers typically holding 12 to 22 ounces of refrigerant to recharge the system. The other is to have the vehicle serviced by a professional which is significantly more expensive.

About six percent of car owners are do-it-yourselfers, and tend to be more predominant in low-income communities. The most common refrigerant currently used worldwide in vehicle applications is hydrofluorocarbon-134a. It is a potent greenhouse gas with a global warming potential 300 -- excuse me 3,800 times that of carbon dioxide on the 20-year lifetime appropriate for its status as a short-lived climate pollutant.

The contents of a single 12 ounce can of HFC-134a are equivalent to 3,000 pounds of carbon dioxide emissions resulting from the combustion of 150 gallons of gasoline, or three barrels of oil.

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AIR RESOURCES ENGINEER POTTS: The Board's existing regulation for these small containers of automotive refrigerant has been a successful program. Greater-than-anticipated emission reductions have been achieved, and U.S. EPA has proposed a nationwide requirement for the same self-sealing valve technology. However, amendments are needed to refine the deposit and recycling provisions.

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AIR RESOURCES ENGINEER POTTS: The measure was identified by the Board as an AB 32 discrete early action and was adopted in January of 2009 with the purpose of reducing HFC-134a emissions from do-it-yourself motor vehicle air conditioner servicing. The principal goal of this regulation is to reduce the venting of the refrigerant and to recover the residual refrigerant remaining in the container after recharging the air conditioning unit.

It should also be noted that this regulation works in concert with tighter vehicle air conditioning systems, which are attributable to advances in sealing technologies and lower permeability hoses.

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AIR RESOURCES ENGINEER POTTS: The existing regulatory requirements consist of:
The installation of a self-sealing valve on each container; a manufacturer-administered recycling program, which includes a $10 refundable deposit upon the return of the used container to the retailer. Unclaimed deposits are to be sent to the manufacturer for recovery of the residual refrigerant and for a consumer education program.

Manufacturers submittal of a certificate application to ARB to sell small containers of auto refrigerant in California. The application includes information on the self-sealing valve and container labeling text in both English and Spanish.

An annual reporting requirement for manufacturers and retailers on containers -- excuse me, on container sales and return rates.

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AIR RESOURCES ENGINEER POTTS: The regulation has been successful in reducing greenhouse gas emissions as the self-sealing valve allows the product container to be used for multiple recharges. This is reflected in a drop of sales from 1.9 million containers in 2006 down to 1 to 1.3 million after 2010.

Car owners are purchasing fewer containers and thus saving money. The avoided purchases total about $8 million per year. This lower demand is a result of the use of all the contents of the can plus the lower
refrigerant leak rates in today's cars. The emission reductions achieved is about one million tons of carbon dioxide equivalents per year, a 34 percent greater reduction than was originally projected.

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AIR RESOURCES ENGINEER POTTS: I will now turn to the principal issues that we have encountered in the implementation of this regulation. Container return rates have been about 70 percent less than our target return rate of 95 percent. However, the 70 percent is in line with the similar programs for beverage containers. The 70 percent achieved rate has resulted in unclaimed deposits amounting to approximately $3.5 million per year and the total accumulation of about $18 million.

These unclaimed deposits have been accruing with the retailers and are not being used by the manufacturers for the benefit of consumers in supporting enhanced consumer awareness efforts, as was intended.

The purpose of this amendment is to reemphasize that the retailers need to immediately transfer this money to the manufacturers going forward. Transfer of funds held by the retailers now is a separate effort.

Because of the effectiveness of the self-sealing valve, the return containers average two to four percent of refrigerant recovery rates, far less than the 20
percent from the one -- from one-use containers measured
by our research studies before the regulation was adopted.
ARB has conducted multiple studies to determine if this
lower than anticipated amount of refrigerant is because of
leaking valves or multiple uses of the can. These studies
have confirmed that the valves are working properly.

When the containers are not empty, they are
classified as a household hazardous waste by California
agencies. And the current program ensures that they go
through proper recycling and product stewardship of the
refrigerant and the container itself. There is an overall
greenhouse gas benefit of 28,000 metric tons per year,
equivalent to removing 6,000 cars from the road.

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AIR RESOURCES ENGINEER POTTS: The goals of the
proposed amendments are to:

Preserve the greenhouse gas reductions realized
in the implementation of the regulation; maximize the
refundable deposit return rate to the consumer; ensure
that the unclaimed consumer deposits are being spent in
ways that benefit the consumers and the environment, and
that maximizing the container return rate so that more
refund money will be returned to the do-it-yourselfers;
Finally, by maximizing the return rate, we can divert more
containers with their residual refrigerant from the
household waste stream and get these back to the retailers and into the recycling program.

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AIR RESOURCES ENGINEER POTTS: This slide summarizes amendments that we are prosing for your approval. First is to add details to the existing requirement that retailers must transfer future unclaimed deposits they've collected from the consumer to the manufacturers. The new amendment adds recordkeeping and reporting requirements, which ensure the retailers' compliance with this provision.

Because of the relatively large potential amount of these funds, this amendment also proposes to provide manufacturers a wider range of programs and projects related to the reduction of greenhouse gases, in addition to the enhanced education programs to improve consume awareness and increase the return rate.

In all cases, the manufacturers will need Executive Officer approval before expending funds on any program. In addition, the proposed amendments will fix the refundable deposit at $10 and eliminate the adjustable deposit provision that allows the deposit amount to increase in the future. We think education is a better approach to increase the return rates, rather than preserving the option to increase the unclaimed deposit in
the future.

Finally, the certification procedures are being amended to require additional language on the product container. This additional language will warrant consumers to not intentionally vent the contents of the product container to the atmosphere before returning it to the retailer.

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AIR RESOURCES ENGINEER POTTS: The new costs associated with these amendments are one-time cost to the manufacturers of a little over $200,000 for the additional labeling on the product container. If passed on fully to the consumer, this would result in an estimated cost increase of $0.04 per container.

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AIR RESOURCES ENGINEER POTTS: The public input we received was valuable during the development of this regulation. We held one public workshop and numerous meetings with stakeholders during the course of amendment development. We worked with other agencies, such as CalRecycle, the Department of Toxic Substances Control, the Bureau of Automotive Repair, and the U.S. EPA.

We also worked with stakeholders such as manufacturers and retailers of this product, associations such as the Auto Care Association, the Automotive
Refrigerant Products Institute, and the California Product Stewardship Council.

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AIR RESOURCES ENGINEER POTTS: In discussions with stakeholders, several comments were received that staff is proposing 15-day changes to address. The first is to simplify the changes to the label, focusing on encouraging consumers to not intentionally vent the refrigerant. The second is to eliminate the one-year sell-through period requirement. We propose instead to require the manufacturers to begin shipping product containers with the new labeling after December 31st of 2017. Retailers would be allowed to sell all cans with the old labels they and the manufacturers have in stock.

The last 15-day change we are proposing is to simplify the transfer of the unclaimed deposits from the retailers to the manufacturers. We are proposing to reduce the frequency from quarterly to semiannual. This will also apply to the reporting and recordkeeping requirements associated with this proposal.

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AIR RESOURCES ENGINEER POTTS: It is our intention to continue working with the stakeholders regarding two main issues of concern.
For the short term, we intend to convene a work group with the stakeholders, including the container manufacturers, retailers, and community representatives to establish specific requirements regarding the management and spending of the unclaimed deposits. This includes consumer awareness and education, and projects to reduce refrigerant loss and the associated greenhouse gas emissions.

Our primary goals will be to focus these monies on improving container and deposit return rates, and otherwise benefit the low-income consumers and communities that purchase these containers.

In addition, we will also be working with our sister agencies, CalRecycle and the Department of Toxic Substances Control, and the industry, and public stakeholders to see if there are improvements that can be made that would be more efficient than the current program, but maintain the environmental benefits or alternatives to the container and deposit recycling program.

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AIR RESOURCES ENGINEER POTTS: In summary, the proposed amendments to the regulation will preserve the greenhouse gas reductions associated with the air conditioner use in vehicles. This will ensure that the
unclaimed deposits are transferred to the manufacturers where the funds will be spent for the benefit of the consumers and the environment.

With consumer deposits being spent on consumer outreach, the container return rate will be maximized resulting in more consumers returning the used containers and collecting the refundable deposits.

Staff therefore recommends that the Board adopt the amendments with the 15-day changes.

That concludes my presentation.

Thank you for your attention.

CHAIR NICHOLS: Thank you. We have a list of five witnesses who have asked to speak on this item. So why don't we turn directly to them, beginning with Aaron Lowe from the Auto Care Association.

The list is up on the board, so you can see where you are.

Good morning.

MR. LOWE: Thank you. Good morning. I'm Aaron Lowe -- my name is Aaron Lowe and I'm testifying on behalf of the Auto Care Association, and also the Coalition for Auto Repair Equality, and the California Automotive Wholesalers' Association.

First, I want to congratulate the Board. This program, as the staff has said, has been a major success.
It has resulted in cans that are now on the market that have reduced emissions. EPA is now considering a proposal to institute it nationwide. So this certainly is a great success for the Board and for the industry that worked with the Board to put this together, and we're real proud -- we're very proud of the effort that Auto Care and the other groups were involved in putting this together.

As it was stated, the deposit program was put in place to make sure that the deposit of the cans, which were originally considered to have a large heel in them, went back to the manufacturer and all the refrigerant was sucked out of them, and then the can was recycled. The $10 deposit fee was instituted to make sure consumers brought this back.

What's resulted, as the staff has also stated, is that there is very, very little refrigerant actually left in those cans because of the self-sealing valve. So therefore, a large amount of these cans are being transported all the way back, currently to Texas, to be recycled and have practically minimal refrigerant taken out of them. This is a very inefficient and ineffective program in how we handle and reduce it. I think it results in a huge amount of energy that's expended that could be reduced.

So we're happy to work with the Board in the
future to try to reduce or to change this recycling program. I think the $10 deposit results in higher costs that really aren't necessary to be charged. But we look forward to working with the staff to try to find an alternative that will result in reduced waste into the stream, but also replaces a very inefficient program that's been put in place.

I also have to take issue with some of the statements that have been made by the Board staff, however, regarding the unreturned deposits that are currently being held. There is an implication from the staff that the retailers were not complying with the law.

And, in fact, the law, as it was written, the regulation as it was written, all educational documentation pointed to the fact that retailers were setting up two -- I should say, they set up two deposit programs, one for the manufacturer to the retailer, and one for the retailer to the consumer.

The retailer to consumer was set at $10. The manufacturer to retailer deposit was not set and not specified. And it was done that deliberately to make sure to provide incentives to the retailer to participate in the program. And, in fact, the retailers had been great participants in the program. And I think the staff will recognize that they have been sending those cans back to
the manufacturer.

However, the unreturned -- the deposits that came back to the retailer is -- it is totally silent in the regulation regarding how those deposits are to be handled. As far as we can read, there was a provision originally put in there that the deposit was supposed to be to the manufacturer's benefit. That was taken out before this regulation was finalized. And therefore, in all our guidance, as far as we can see in the regulation, the retailers were supposed to hold on to that deposit -- the unreturned deposits. And retailers have been giving those deposits back no matter when those cans come back to the retailer, not the 90-days that's in the regulation. So it could be a year. Even then, they were returning those deposits.

Also, I want to comment quickly on the fact that retailers -- the deposit program that's being established by this new regulation, we think it would be much better -- because the retailers are on the ground in California and have the best connection with the consumer, that the retailers retain those deposits and expend those unreturned deposits in a way -- in an education program that's -- to benefit or in cooperation with the Air Resources Board and other groups that might be involved in this.
We would see -- we would -- I think the most effective way for this to happen would be for one fund to be developed that was given by the retailers. And that is -- the destination for those funds is agreed to by the work group that's established. I think that would be a more effective program, a more efficient program than sending the money back to the manufacturers.

It also should be recognized that some of these manufacturers could be overseas, which makes enforcement even more difficult for the Board. The retailers are here in California, they operate in California, and do a lot of take-back programs, batteries, used oil, and I think they're in the best place to educate consumers.

So we'd like to see that program instead of requiring all that money to go back to manufacturers, and then manufacturers spending the money here in California, that the retailers hold the deposits and work with a -- in a -- to have a fund, so that that money goes to the -- to improve the recycling program, which is in everybody's best interests to have as many cans come back as possible, until we come up with a alternative.

And also, I want to just finally express some concern with the way the rule has been written regarding some of the --

CHAIR NICHOLS: Sorry. Your time is up.
MR. LOWE: I know. Can I just -- one last point.

CHAIR NICHOLS: All right.

MR. LOWE: I'm sorry.

CHAIR NICHOLS: That's all right.

MR. LOWE: We have done a lot of work on this the Board staff --

CHAIR NICHOLS: I didn't cut you off. Yes, I hear you.

MR. LOWE: -- so we have a lot to go over. I'll just say that we would like -- the actual final regulation has got a lot of problems logistically on how the funds are going to be returned to the manufacturer but stays the way it is. It could, the way it's written we think, provide a disincentive to retailers to return those deposits to the consumer after the 90 days expires. And I think retailers keep their consumers happy, want to continue to return those deposits when the can goes back. So we want to be able to work with the Board to try to clarify some of those issues.

CHAIR NICHOLS: Okay. Thanks. Thanks.

MR. LOWE: Thank you very much.

CHAIR NICHOLS: Can I -- I'm going to actually extend your time for a second, because I -- there was something that you said at the very outset, which implied that you had a better solution for what to do with the
left over refrigerant, which in each can may be rather small, but collectively, and given the potency of the refrigerant, it's still a very big deal. So is there some alternative that you are proposing?

MR. LOWE: No. I guess what I was saying is we would prefer that this deposit program, as it was originally going to be eliminated, that it be eliminated. And I understand that we need to find a way to mitigate the problem. And what we were saying is we'd like to work with the staff, the Board over the -- or the staff over the next year to try to see if we can come up with an alternative procedure, because currently we're shipping those cans to the midwest --

CHAIR NICHOLS: I understand that.

MR. LOWE: -- and it doesn't seem energy efficient to us.

CHAIR NICHOLS: Got it. Okay. Thank you.

MR. LOWE: Thank you.

CHAIR NICHOLS: All right. Will Barrett.

MR. BARRETT: Good morning. I'm Will Barrett with the American Lung Association in California. First off, I just wanted to thank staff for your work to move this forward to ensure that this early action measure under AB 32 the benefits are maintained that there's a robust consumer education program going forward, and that
the recycling that we need to see goes forward as well.

I'd like to note that the American Lung Association released our Annual State of the Air Report this year -- or this week. We found that our federal, State and local air district programs are really providing relief to Californians in driving major pollution reductions. So just as a broad statement, I wanted to thank this Board and the staff for your role in improving public health through all the rules and programs you have going.

While there's a lot of progress to celebrate in our report, we know that there's still an enormous challenge facing Californians as far as air pollution. And our report really this year highlights the growing challenges we face from climate change.

Of particular concern are the -- some of the programs you're talking about today, this program related to refrigerants, the black carbon diesel reduction program you discussed earlier.

These and other super pollutants like methane accelerate the health impacts of climate change. And we see that this proposal before you now is really a common sense way to keep more of these pollutants out of the atmosphere through the recycling program and through consumer education.
So just generally in closing, we support your effort here. We think that we can increase and maintain the program benefits, ensure ongoing consumer education and awareness and continue the commitment that the Board has always followed to review programs as they go forward and make sure that they're working properly or take the appropriate actions to make sure that we're getting all the benefits we need.

So thank you again. I just wanted to make a brief statement in support and thank you again.

CHAIR NICHOLS: Thank you.

Christine Flowers.

MS. FLOWERS: Chair Nichols and the other Board members, my name is Christine Flowers and I'm the Assistant Director for the California Product Stewardship Council. California Product Stewardship Council is a non-profit which formed in 2006 to educate and support implementation of extended producer responsibility.

CPSC is the thought leader and expert in California for these policies where producers share responsibility for end-of-life management of their products. Our board is comprised of both public and private sector members working towards this goal.

I'm here on behalf of my organization and the other co-signers of the letter submitted to the Board who
couldn't be here today: COALITION for Clean Air, Alameda Stop Waste, and San Francisco Department for the Environment.

We are in support of the proposed amendments to the regulation for small containers of automotive refrigerant. The ARB staff have been thorough in the report and rationale for the proposed changes, and we support the ARB adoption of the proposed amendments.

The modifications would include:

- Clarification that unclaimed consumer deposits are to be transferred to the manufacturers for enhanced consumer education, expand the scope of the programs and projects for these funds, fixing the deposit at $10 dollars, and additional containers label language.

Based on the reports between 2011 and 2014, nearly $14 million in unclaimed deposits have accumulated at the annual rate of approximately 3.5 million. The majority, more than 95 percent of the small container automotive refrigerant is sold by nine retailers in California.

The proposed changes will clarify that the retailers must transfer the funds and report to the ARB and make the transfer to manufacturers and ensure the unclaimed deposits are utilized to educate the consumers. We urge the ARB to ensure the transfer of the previous
unclaimed deposits and that they are used for their intended person -- or purpose in a timely fashion.

We look forward to seeing the proposed changes implemented. We encourage the ARB to engage with a broad stakeholder group, including local governments, industry, and NGOs to provide input on how these funds are used in the development of consumer education by the manufacturers.

Thank you.

CHAIR NICHOLS: Thank you.

Teresa Bui

MS. BUI: Good morning. And Happy rainy Earth Day. My name is Teresa Bui with environmental nonprofit group called Californians Against Waste. I just want to concur with the comments made by my colleague from California Product Stewardship Council. And I want to thank the Air Board for your leadership on this issue. We are supportive of the proposed amendments by staff.

Automakers are already recognizing the damaging effects of HFC-134a and they're trying to phase-out the refrigerants. In the meantime, we need to continue an aggressive recycling program to capture the auto refrigerants. And we think the proposed amendments will help do so.

So thank you.
CHAIR NICHOLS: Thank you. Cory Bullis.

MR. BULLIS: Good morning, Chair and Board Members. Corey Bullis on behalf of Environmental Defense Fund. Back in 2008 and 2009 EDF stood in front of this body in support of development of regulations that would reduce pollution from high GWP compounds commonly used in refrigerants. This included the Refrigerant Management Program pertaining to stationary air conditioning and refrigerant equipment and do it yourself small container automotive refrigerants.

Once again, we support the Agency's full pursuit -- or pursuit of the full realization of this nation-leading program, which has made great strides in cutting the emissions of high GWP refrigerants. As demonstrated by the lower than expected return rates for refillable containers, nearly 25 percent lower than expected, there is much work to be done to ensure consumers and technicians are aware of the requirements and incentives that apply to small containers of automotive refrigerants.

Money collected from the consumers associated with these refrigerants can and should be recycled back to consumers to ensure that they know the requirements of the law and the opportunities associated with canister exchange. By ensuring that California consumers are
beneficiaries of the money brought in from the program, as opposed to refrigeration retailers, California can double down on emission reductions while reducing overall program costs on society.

This is no doubt what was intended in the original design of the regulation back in 2009, and it remains the proper application of the original design today.

Thank you so much.

CHAIR NICHOLS: Thank you. That concludes the list of witnesses that have signed up, so we will close the record at this point, and return to the Board members' questions or comments.

I'll start with you, Ms. Riordan.

BOARD MEMBER RIORDAN: I have a question for staff. How many manufacturers are there currently that manufacture this product approximately?

RESEARCH DIVISION CHIEF CROES: There are two main manufacturers.

AIR RESOURCES ENGINEER POTTS: There's four that are certified.

RESEARCH DIVISION CHIEF CROES: Four that are certified, but one represents 95 percent of the market.

BOARD MEMBER RIORDAN: The reason I ask that question, it seemed to me that the request to have the
sellers of this project retain the money and then use it
for education, I just think that's very difficult, because
you -- there's -- if there's nine, as was testified, there
are probably maybe more. And it seems to me, if you're
working with a nucleus of folks that are required to, you
know, meet a verification for the product, that's going to
be much simpler to work with them in terms of refund, and
then asking them to do then a program of education.

So while it might seem like it might be easy to,
you know, contact all these retailers, I just don't see
it, and I would not support that suggestion. I think just
keep it with -- very simple with your manufacturing
community.

Thank you.

CHAIR NICHOLS: Okay. Dr. Sherriffs was next, I
believe.

BOARD MEMBER SHERRIFFS: Yes. A couple of
questions. But first, you know, really congratulations
for a very successful program. It seems to have been very
well crafted, involve stakeholders, actually has come in,
in many ways, above target, and certainly has come in
above target a 34 percent greater reduction than estimated
at the time of regulation. Well, congratulations. Good
job. So now we're trying to work to make it even better.

You know, another statistic that I wonder. Well,
I was very concerned first reading this in terms of the recycling rate. And now I'm really, well, maybe I don't need to be so worried, because, you know, only two to four percent refrigerant recovery, expected 20 percent. Yeah, but wait a minute, there's a 70 percent container return, and we expected 95 percent.

You know, in fact, when you look at those percents and those numbers, as one of the testimony, there's not a lot of refrigerant to recover. These small containers it's good. It's working, assuming people aren't just releasing refrigerant, which, you know, the question, and maybe staff has some insight, where is the most greenhouse warming potential? Is it in the leakage as our do-it-ourselfers are doing this or is it in the lost recycling? Where is it we really ought to be focusing our efforts?

And as somebody who does things themselves, I know if there are threads, I'll get it wrong the first time.

(Laughter.)

BOARD MEMBER SHERIFFS: And I don't know how many chances I have to replace the refrigerant in my car. It's a steep learning curve. But I'd appreciate your comment. Where is the most greenhouse warming potential, is it in the leakage when people are doing this, so we
need more education, or more education that -- or programs that somehow discourage people from doing this that supports them to get it done professionally by people who have done this before and are more likely to get the threads right.

DEPUTY EXECUTIVE OFFICER KARPEROS: Dr. Sherriffs, thank you for that question. To get directly to the point, the potential for the most leakage is not appropriate care and repair of the vehicle itself. If you are habitually buying these cans because your vehicle is leaking, that's the place we need to address it.

Now, we have programs to tighten up those vehicles over time, but in the interim, we want to be dealing with this business model and this use of the cans. The self-sealing valve has been very, very effective in terms of keeping emissions out of the air, and, quite frankly, saving the consumers some money, because they can now put that can on the shelf. It still has some value in it, rather than just that value going up into the air.

But nevertheless, there is -- there does remain a heel in that can and two to four percent, while much smaller than we were looking at before, when you multiply it times all the cans, it still needs to be dealt with in some fashion.
In terms of the recycling rates, as we have been talking to folks that implement recycling programs, 70 percent is actually something to be admired. Recycling programs are tough -- efficient recycling programs are tough to implement. And some of the people who we're talking about have essentially said we're envious that you're able to achieve that rate. And so we should compliment, quite frankly, the retailers and the manufacturers and the consumers for achieving that. And what we're looking for here is just improving that system even more.

BOARD MEMBER SHERRIFFS: You know, a simple rebate. What if this is sold in a box that's got the return address, and you send it in, and whoever gets it, sends you $10? Is that feasible or too simple -- simple-minded?

(Laughter.)

DEPUTY EXECUTIVE OFFICER KARPEROS: I'm not going to suggest you have an idea that's simple minded.

(Laughter.)

DEPUTY EXECUTIVE OFFICER KARPEROS: It's a very --

(Laughter.)

DEPUTY EXECUTIVE OFFICER KARPEROS: It's a very good idea.
DEPUTY EXECUTIVE OFFICER KARPEROS: The representative from the Auto Care Association talked about, and we had in our slides that we're going to put together a work group to talk through some potential alternatives. They had suggested the program that could be administered more directly by the retailers. This would be another approach, and we can put that one on the table to talk through.

BOARD MEMBER SHERRIFFS: It doesn't require a seat or -- you know, the box is the receipt and done. Good idea.

(Laughter.)

CHAIR NICHOLS: Because you weren't there. All right. You can jump in and then we'll move on down the line there.

BOARD MEMBER DE LA TORRE: Let me interject one of my favorite quote is a Mencken quote. "For every problem there's a solution that's neat, simple, and wrong".

(Laughter.)

CHAIR NICHOLS: Always goods to remember.

(Laughter.)

CHAIR NICHOLS: All right. Mr. Serna.

BOARD MEMBER SERNA: Thank you, Chair.
So I understand that what's in front of us today is an attempt to make much more clear the process of dealing with the deposits and putting more detail on what the deposits, the use for that. But I do have a concern or a question, I guess. And it was touched on briefly by Mr. Lowe, and I did bring this up with staff during my briefing on this subject, and that is are we -- are we doing any kind of lifecycle analysis on a regulation like this?

In other words, this is an effort that is intended to keep this extremely potent greenhouse gas from being released into the atmosphere, but in the process of having deposits and having to return cans, the consumer presumably going back and forth to a retailer, has anyone done any analysis in terms of how much transportation is actually involved here, and whether or not that itself has some impact on greenhouse gas emissions.

RESEARCH DIVISION CHIEF CROES: This is Bart Croes with the Research Division. Yes, we have done that full lifecycle analysis that considers all the transportation related emissions and the recovery rates of the refrigerant, and we still see a net greenhouse benefit of about 28,000 metric tons of CO2 equivalents, which is equivalent to about 6,000 cars being taken off the road.

BOARD MEMBER SERNA: Is the -- is the deposit
does it actually have to be acquired back by the consumer at the retailer? Does the consumer have to physically be there?

RESEARCH DIVISION CHIEF CROES: The requirement is that -- this is on the can -- that within 90 days the consumer returns the can, plus the receipt. What is happening in practice is in trying to keep good customer relationships, a lot of retailers are refunding that $10 deposit even if they're past the 90 days.

BOARD MEMBER SERNA: I guess it goes to Dr. Sherriff's idea about the box. But it seems like if there's any opportunity to take a trip or two out of the whole process, we ought to explore that.

VICE CHAIR BERG: So if I could just do a point of clarification. One of the things that this container, if we did not have this recycling program, would be household hazardous waste.

CHAIR NICHOLS: Right.

VICE CHAIR BERG: And therefore, it has shipping limitations. And so what we're doing is having an opportunity for it to all come into one area and then ship it. If we were not to do that, the consumer would be responsible for getting it to the right place, and it -- it isn't landfillable.

CHAIR NICHOLS: And it's not a practical
solution, because we know how poorly hazardous waste is actually handled at the local level, I mean, by individual households. It's just -- many people are responsible, but others are not.

BOARD MEMBER SERNA: As a county supervisor, I really appreciate that.

CHAIR NICHOLS: Okay. Ms. Takvorian, we're going to take you next, and then go to the other side here.

BOARD MEMBER TAKVORIAN: Okay. Thank you, Chair. Well, I'm very interested in your last comment having been part of creating the first household hazardous waste program in the early 1980s. So I would love to hear more data about that, because one of my questions was going to be why not coordinate more with the household hazardous waste programs, because they are doing education. And I'm a little concerned about the manufacturer doing the education frankly. And so that's the piece of this that I would be most concerned about and want to learn more about it from the staff.

We -- I'm assuming that these refrigerants are often used in lower income communities by do it yourselfers. So I appreciate the fact that the information is available in both English and Spanish. I would suggest that we need to expand the languages and move into some of the Asian languages as well to reach out
to some of those populations. And I would suggest that if
the ARB has control of the funds, then they may want to be
disbursed utilizing a different formula. So perhaps we're
using CalEnviroScreen and looking at those communities
that are most impacted as those that should have the most
education. And I don't know enough about the program to
offer a better, simpler solution. That would probably be
wrong, but I'd be happy to think more about that.

So I think this program is excellent. I want to
add my congratulations, and I think that we can go deeper
with some of the communities and do-it-yourselfers that
clearly are the target of the education.

CHAIR NICHOLS: Just to be clear, no funds come
to ARB. We don't collect or disburse any funds under this
program. It's all with the retailers and the
manufacturers. And I think if we had tried to do it in
any other way, we would have run into some problems in
terms of our authority to do something like that. So we
are dealing with a situation where we can have some
ability to direct how the funds are dealt with. And I
think certainly your point about who uses these cans is
well taken.

I'd also like to say I didn't mean to "dis"
household hazardous waste programs. I'm aware that
there's a lot that goes on at the local level, but I just
also see that there's a lot of stuff that still winds up in landfills and eventually in the ocean, in many cases in the area where I live.

So let's turn to the other side here.

BOARD MEMBER TAKVORIAN: Can I just -- can I just get clarification though, Chair -- sorry -- about -- I understood that they -- that the executive officer does have authority over approval of the use of the funds.

CHAIR NICHOLS: Yes, that's correct. That's correct. Yeah, so we can definitely do some things to try to urge them to spend them in ways that --

BOARD MEMBER TAKVORIAN: And I guess what's the -- what's the basis of that approval versus control in having it come back to ARB and is -- I don't know whether that's a good idea, but has that been evaluated and maybe you could speak to that as well as to how you're thinking about the disbursement of the funds and what the focus should be, because those are my questions.

Thank you.

CHAIR NICHOLS: You want to respond to that?

EXECUTIVE OFFICER COREY: I will. And I may want a little support on this. But the regulation did identify and does identify areas of qualifying expenditure. So it's not just an open -- a blank check and really the objective of those expenditures was in this broad
characterization and to the benefit of consumers. And that really came under the category of consumer education in terms of proper vehicle repair, treatment of the air conditioning system, and participation in the deposit return program. That there's good information out there so we have a high return rate. So we define those parameters.

But even with that characterization, the structure was set up for -- before those expenditures occur, that they clearly identify here is our game plan to -- really to confirm that it is consistent with what was envisioned in the regulation.

But with that, and, Ms. Takvorian, the comments that you made, even during as we move forward on the 15-day process, I'd be interested in having the conversation with you and others in terms of some of those qualifying expenditures.

CHAIR NICHOLS: All right. Thanks.

Any questions on this side? Are you all, at the moment, content with the -- yes, Ms. Berg.

VICE CHAIR BERG: So I think our intent here is very well thought out. I am not getting the sense that we really have the details well lined out. And so, Mr. Corey, could you kind of walk us through the 15-day change. I am concerned about the detail of returning the
funds, specifically having the funds with -- the regulatory aspect of it, either a suggested forum -- how are they going to be in compliance, how is the retailer going to be in compliance with this new amendment and the returning of funds?

So I am concerned about that. And like my fellow Board members, I am also concerned about once the funds go back and it appears 95 percent is going to go back to one manufacturer, I'm concerned that we have no comments from them. They haven't been here to testify. I'm seeing a little bit -- and I might be jumping to that conclusion. Maybe they have been involved with staff. But from a Board member perspective, I have no idea what they're thinking.

And so it seems that our intention is very good, but that the details are a little bit fuzzy. And so could you help us on the 15-day change, how you see that working?

EXECUTIVE OFFICER COREY: Sure, Ms. Berg. So the 15-day -- and you really -- you are noting a recognition of the fact that there are few comments here about the path that those dollars take -- those unclaimed deposits. The staff recommendation was to the manufacturer. You just noted a few issues with that. You also heard a recommendation that they stay with retailers. There's a
fundamental principle here, which was -- and it goes back to my point that those expenditures be consistent with the identified consumer benefits, that they be fully documented, that they be reported.

And the reason we called out the 15-day is because I would say we, too -- we have some details to work through in terms of the tracking, the documentation, and the reporting of those expenditures. And even in this conversation in some of the observations from the Board, I did hear some suggestions from the retailer side that I think they're worth exploring. I think it's worth having that conversation.

The manufacturers have been engaged. They've been engaged since the development of the regulation. So the fact that they're not here, I wouldn't take that as a lack of engagement. They have been.

So what I see playing out over the 15-day process with respect to the treatment and the tracking of the dollars, we're going to have fundamental -- I have fundamental questions that are going to go through that public process, stakeholder process. And it really gets to the point that I just described, it's tracking, it's documentation, it's reporting, and it's providing us and you the confidence that those dollars were fully spent to the benefit of the consumers.
And I don't have and I don't think staff has the full answers on that approach. I've got to work that process some, but I know the outcome that we're looking for and I know there's some models that have achieved that goal before.

The one thing though that I wanted to add to, and you touched on it, and I think it's an important point, the comments that I was just making are really the prospective, they're really what is in front of the Board, in terms of the amendments. You heard comments about the retrospective, the unclaimed deposits. And there clearly -- you heard from the manufacturers or from the association, there clearly is a difference of perspective here with staff and what the reg said and the intent. We're having that conversation. We're having that conversation.

I believe there's options, but I'm crystal clear on what the outcome here is, that those dollars be spent to the benefit of consumers. We have a few options. And based on the conversations I've had -- very preliminary conversations with the associations and its members, and our historical relationship, I'm pretty confident that we're going to get to a workable outcome that achieves that objective. But if not, we will -- we're going to explore other options.
VICE CHAIR BERG: So within the resolution, do you feel that you have the authority, based on the 15-day changes that you have identified, to be able to do everything you just outlined?

EXECUTIVE OFFICER COREY: For the prospective characterization, yes, and the retrospective is outside of the amendments of the regulation.

VICE CHAIR BERG: No, I understand that.

EXECUTIVE OFFICER COREY: So, yes, I do.

VICE CHAIR BERG: And then secondly, you know, all this takes time. And so the small little thing of labeling it seems like it's a long time away. But when it takes us six months to go through the process, or nine months, then that is not enough time as a manufacturer going through the globalization harmonization act for labeling, I can tell you that this is not a small deal. So we need to give them time.

And having a hard date here, I'm concerned about that, because it isn't like we can say we can get through these 15-day changes and have everybody on board in 90 days. So if we need to take a look at that, I'd like a suggestion on that.

And then finally, we need to come back to the Board at some point and let us know if we're continuing to build this reserve, because then we should be looking at
reducing the deposit.

EXECUTIVE OFFICER COREY: You have a commitment that there will be a report back. I would give it probably on the order of a year. We'll see how EPA's program plays itself out, and that would be enough time to have it played through the 15-day process and have a little execution.

VICE CHAIR BERG: And it might -- and it really might be 18 months, because it is a balance here. But at the end of the day, we really struggled over what was the right amount on this deposit. And so in another year to 18 months, we really should be able to say is it $10 or is it less?

Thank you.

CHAIR NICHOLS: Although, in another year to 18 months, this is going to be a declining problem, because again we're phasing out this refrigerant, and as cars turnover in the fleet, there are fewer of them with leaking air conditioners. Thanks be to God.

You know, so let's -- let's look at this as something that we have to deal with, but not overplay what its impact is going to be.

Yeah. Exactly.

So -- sorry, one more comment. Yes. Or a question, whatever.
BOARD MEMBER SHERRIFFS: I'm sorry.

CHAIR NICHOLS: No, no. We all need to be comfortable.

BOARD MEMBER SHERRIFFS: But exactly following up on that, in the long term, this takes care of itself, because these are being phased out. But, in fact, these will be the most resistant vehicles to phase out. This is an extraordinary opportunity --

CHAIR NICHOLS: Yes.

BOARD MEMBER SHERRIFFS: -- to coordinate, cooperate, get information into the environmental justice communities, into the CalEnviroScreen communities. The can is the canary. The can is the canary. And as Mr. Ayala pointed out, you know, as we think about one can representing three barrels of gasoline in terms of greenhouse gas warming potentials, that's a lot of potential mitigation.

And the problem isn't that somebody is plugging this and replacing it, the problem is that it disappeared, that it went into the environment. So that -- we need to be sure that we're thinking about the programs that are going to help stop that.

Thank you.

CHAIR NICHOLS: Sure. You know, at the time this regulation was first adopted, this was a totally new type
of program for the Air Resources Board. I don't believe we'd ever done anything like this before, interfering to this extent in the consumer market, and dealing with the individual customers and retailers. This is a whole new -- a whole new venture that we launched as part of the climate change program.

And as has been said many times, the impact clearly has been very positive. But as it turned out, there were some weaknesses in the program, as it was first put together. And we do have an opportunity to make it work better. So I am pleased that we've gotten this far, but we've got a little more work to do in the 15-day period, and I'm counting on Mr. Corey and his persuasive skills to work through what happens to the money that is being held, because this is an important piece of getting this right.

So without further ado, do we have a motion to approve?

VICE CHAIR BERG: So moved.
BOARD MEMBER RIORDAN: Second.
CHAIR NICHOLS: Motion and second.
All those in favor, please say aye?
(Ayes.)
(Unanimous aye vote.)
CHAIR NICHOLS: Any opposed?
Any abstaining?
Okay.
Seeing none, it is adopted.
And that concludes our business for today. But we have a time for public comment. Has anyone signed up?
BOARD CLERK JENSEN: (Shakes head.)
CHAIR NICHOLS: No. No one who simply wanted to stand up and speak to the Board today.
So at that -- in that case, we do have a closed session for a report from our counsel on pending litigation. And so we'll adjourn for that. And when it's over, if any action has been taken, as a result, we will come back and recess the meeting and announce what the results were.
Okay. Thanks very much, everybody.
(Off record: 11:24 AM)
(Thereupon the meeting recessed into closed session.)
(Thereupon the meeting reconvened open session.)
(On record: 12:59 PM)
CHAIR NICHOLS: Okay. Great. So we are back from our closed session, where we discussed pending litigation. The Board heard reports from our Chief Counsel and was able to ask questions, but no decisions
were made.

So with that, we will adjourn the meeting.

Thanks, everybody.

(Thereupon the Air Resources Board
adjourned at 1:00 PM)
CERTIFICATE OF REPORTER

I, JAMES F. PETERS, a Certified Shorthand Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 4th day of May, 2016.

JAMES F. PETERS, CSR
Certified Shorthand Reporter
License No. 10063