MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

SAN DIEGO COUNTY ADMINISTRATION CENTER

BOARD CHAMBERS, ROOM 310

1600 PACIFIC HIGHWAY

SAN DIEGO, CALIFORNIA

THURSDAY, JULY 23, 2009 9:05 A.M.

JAMES F. PETERS, CSR, RPR CERTIFIED SHORTHAND REPORTER LICENSE NUMBER 10063

APPEARANCES

BOARD MEMBERS

- Ms. Mary Nichols, Chairperson
- Dr. John R. Balmes
- Ms. Sandra Berg
- Ms. Dorene D'Adamo
- Mr. Ronald Loveridge
- Mrs. Barbara Riordan
- Mr. Ron Roberts
- Dr. Daniel Sperling
- Dr. John Telles
- Mr. Ken Yeager

STAFF

- Mr. James Goldstene, Executive Officer
- Mr. Tom Cackette, Chief Deputy Executive Officer
- Ms. Ellen Peter, Chief Counsel
- Mr. Mike Scheible, Deputy Executive Officer
- Ms. Lynn Terry, Deputy Executive Officer
- Mr. Gerhard Achtelik, Zero Emission Vehicle Infrastructure Section
- Ms. Analisa Bevan, Chief, Sustainable Transportation Technology Branch
- Mr. Bart Croes, Chief, Research Division
- Mr. Bob Cross, Chief, Mobile Source Control Division

APPEARANCES CONTINUED

STAFF

- Mr. Craig Duehring, Zero Emission Vehicle Infrastructure Section
- Dr. Susan Fischer, Climate Action and Research Planning
- Ms. Kim Heroy-Rogalski, Off-Road Implementation Section
- Mr. Bob Jenne, Assistant Chief Counsel
- $\operatorname{Dr.}$ Eileen McCauley, Atmospheric Processes Research Section
- Ms. Elizabeth White, Mobile Sources Control Division
- $\operatorname{Mr.}$ Erik White, Chief, Heavy Duty Diesel In-Use Strategies Branch

ALSO PRESENT

- Mr. Charlie Cox, Ironman
- Ms. Debbie Day, Engineering & General Contractors Association
- $\operatorname{Mr.}$ William E. Davis, Southern California Contractors Association
- Ms. Lynn Devine, American Lung Association
- Mr. John Dunlap, American Home Furnishings Alliance
- Mr. Sean Edgar, Clean Fleets Coalition
- Mr. Scott Erreca, Erreca Inc.
- Mr. Jeff Farano, SA Recycling
- Mr. James Gaspard, Design Line
- Mr. Joshua Goldman, Proterra
- Mr. Bill Guerry, National Marine Manufacturers Association
- $\operatorname{Mr.}$ Henry Hogo, South Coast Air Quality Management District

APPEARANCES CONTINUED

ALSO PRESENT

- Mr. Mike Hursh, Santa Clara VTA
- Mr. Glenn Inverso, M.J. Baxter Drilling Co.
- Mr. Paul Jablonski, Metropolitan Transit System
- Dr. William Jefferds, Southwest Defense Alliance
- Mr. Joseph Kubsh, Manufacturers of Emission Control Association
- Ms. Dana Lee, Long Beach Transit
- Mr. Bob Leiter, San Diego Association of Governments
- Mr. Jamie Levin, Alameda-Contra Costa Transit District
- Mr. Michael Lewis, Construction Industry Air Quality Coalition
- Mr. Clayton Miller, Construction Industry Air Quality Coalition
- Mr. Steven Miller, Golden Gate Bridge Highway & Transportation District
- Mr. Jim McElroy, California Transit Association
- Mr. John Paliwoda, California Motorcycle Dealers Association
- Dr. David Parrish, National Oceanic and Atmospheric Administration $% \left(1\right) =\left(1\right) +\left(1\right)$
- Mr. H.E. Christian Peeples, Alameda-Contra Costa Transit District
- Mr. Nick Pfeifer, Granite Construction
- Mr. Tim Pohle, Air Transport Association
- Mr. Durand Ral, Omnitrans
- Ms. Alexandria Sanchez, Field Rep for Assemblyman Joel Anderson

APPEARANCES CONTINUED

ALSO PRESENT

- Mr. Mike Shaw, Perry & Shaw, Inc.
- Mr. Kenneth Stewart, UTC Power
- Mr. Tom Swenson, Cleaire Emission Controls
- Mr. Glen Tepke, Metropolitan Transportation Commission
- Ms. Kerri Toepfer
- Mr. Gene Walker, Golden Gate Bridge Highway & Transportation District
- Ms. Donna Wilson, Outdoor Power Equipment Institute

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PROCEEDINGS

- 2 CHAIRPERSON NICHOLS: Good morning, ladies and
- 3 gentlemen. This is our first meeting of the Air Resources
- 4 Board in this particular chamber, which is why we're
- 5 having a little lesson in how to operate our microphones
- 6 and acclimatizing ourselves. But we are very happy to be
- 7 in this lovely building, and we want to thank Supervisor
- 8 Roberts for having invited us down here and been such a
- 9 good guide and host. And if the Chamber of Commerce isn't
- 10 paying him to be an advocate for San Diego, they should,
- 11 because he is a terrific exponent for all the good things
- 12 that are happening here in San Diego.
- 13 So --
- 14 BOARD MEMBER ROBERTS: Could I officially
- 15 welcome you.
- 16 CHAIRPERSON NICHOLS: -- I think we have official
- 17 remarks.
- 18 Please.
- 19 BOARD MEMBER ROBERTS: We have a couple local
- 20 blogs who will probably find a great relationship between
- 21 this Board meeting here and the Comic-Con convention
- 22 that's going on. And I hope you won't be insulted by any
- 23 of that. I've learned to ignore most of them.
- 24 But I appreciate you coming to San Diego.
- 25 Because the work that this Board has done over the years

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1 is so significant, I think it's good throughout the State

- 2 for people to have a better chance to see in person and
- 3 hold accountable as need be those who are making the
- 4 decisions.
- 5 But we hope you have a good visit in addition to
- 6 this meeting.
- 7 CHAIRPERSON NICHOLS: Well, thank you. I was
- 8 going to say that yesterday I encountered quite a number
- 9 of people who are here in town for the Comic-Con as I was
- 10 walking around downtown San Diego. And I was actually
- 11 thinking about trying to get myself a big fuzzy purple
- 12 wig, but I couldn't find one anywhere. So I'm kind of
- 13 stuck with --
- 14 BOARD MEMBER ROBERTS: We'll have one before the
- 15 meeting's over.
- 16 CHAIRPERSON NICHOLS: Thank you very much.
- 17 And we appreciate the leadership of San Diego on
- 18 air quality issues. And actually, as you know, I was here
- 19 yesterday in order to announce a grant from the federal
- 20 stimulus money for the San Diego School District to use
- 21 for retrofitting buses. Supervisor Roberts was with me.
- 22 We had a nice turnout of people from the community college
- 23 who are actually working on doing the retrofits as well as
- 24 the local company that is manufacturing a number of the
- 25 devices. And it was really a well attended press

- 1 conference and a wonderful project.
- 2 BOARD MEMBER ROBERTS: For the other Board
- 3 members, in attendance at that meeting was our Executive
- 4 Director of the local San Diego Air Pollution Control
- 5 District. He's in the audience. I'm going to ask him to
- 6 stand just so I can introduce him. Bob Kard, who's been
- 7 here a little bit over a year now, a Californian that got
- 8 lost for awhile over in Arizona and has come back, and is
- 9 doing a terrific job for us.
- 10 MR. KARD: Good morning, Board members, Chairman
- 11 Nichols. Thank you for your being here today. We wish
- 12 you a warm welcome.
- I also want to express my appreciation for all
- 14 the things you've done over the years. I've been in air
- 15 pollution roughly 28 years now throughout California,
- 16 brief time in Arizona, couldn't wait to return.
- 17 But you folks really are cutting edge. And as I
- 18 said yesterday, I think the air pollution efforts
- 19 represent the best of the best in government. And so
- 20 thank you for being here, thank you for all your efforts.
- 21 And if there's anything I can do for you, feel free to
- 22 call upon me.
- Thank you.
- 24 CHAIRPERSON NICHOLS: Well, you've done a good
- 25 job with the air quality today, so we appreciate it.

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1 MR. KARD: Thank you.
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- 2 CHAIRPERSON NICHOLS: Thank you.
- 3 All right. With that, I think the public meeting
- 4 will officially come to order and we will begin with the
- 5 Pledge of Allegiance if folks will stand and face the
- 6 flags, which are behind us.
- 7 (Thereupon the Pledge of Allegiance was
- 8 Recited in unison.)
- 9 CHAIRPERSON NICHOLS: The clerk will please call
- 10 the roll.
- 11 BOARD CLERK VEJAR: Dr. Balmes?
- 12 BOARD MEMBER BALMS: Here.
- BOARD CLERK VEJAR: Ms. Berg?
- BOARD MEMBER BERG: Here.
- BOARD CLERK VEJAR: Ms. D'Adamo?
- BOARD MEMBER D'ADAMO: Here.
- 17 BOARD CLERK VEJAR: Ms. Kennard?
- 18 Mayor Loveridge?
- BOARD MEMBER LOVERIDGE: Here.
- 20 BOARD CLERK VEJAR: Mrs. Riordan?
- 21 BOARD MEMBER RIORDAN: Here.
- 22 BOARD CLERK VEJAR: Supervisor Roberts?
- BOARD MEMBER ROBERTS: Here.
- 24 BOARD CLERK VEJAR: Professor Sperling?
- 25 BOARD MEMBER SPERLING: Here.

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1 BOARD CLERK VEJAR: Dr. Telles?
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- 2 BOARD MEMBER TELLES: Present.
- 3 BOARD CLERK VEJAR: Supervisor Yeager?
- 4 BOARD MEMBER YEAGER: Here.
- 5 BOARD CLERK VEJAR: Chairman Nichols?
- 6 CHAIRPERSON NICHOLS: Here.
- 7 BOARD CLERK VEJAR: Madam Chairman, we have a
- 8 quorum.
- 9 CHAIRPERSON NICHOLS: Thank you very much.
- 10 A couple of announcements.
- 11 If there's anyone who's not familiar with our
- 12 process, if you are planning to testify on any item, we
- 13 appreciate it if you would fill out a card with the staff
- 14 and turn it in. You have the option to include your name,
- 15 but it's not required.
- Also, we will be imposing our usual three-minute
- 17 time limit on speakers. We appreciate it if when you come
- 18 up to the podium, you simply give your name and then
- 19 summarize your testimony briefly. Your written testimony,
- 20 if you have any, will be entered into the record.
- 21 As I understand it, because this building is new
- 22 to us, we have an exit at the back of the room there. In
- 23 the event that we were required to evacuate the building
- 24 due to fire or some other emergency, there would be
- 25 flashing lights and sound and some spoken instructions as

1 well, and we would be asked to exit immediately either in

- 2 the back or here in the front.
- In the event of an emergency, we're asked to walk
- 4 to the nearest exit, proceed down the stairs and out of
- 5 the building. The elevators will be inoperable.
- 6 And I think that's all I have by way of
- 7 housekeeping announcements.
- 8 The first item on the agenda is an informational
- 9 update from the realm of climate science. Board members
- 10 have asked for staff to provide us with regular updates on
- 11 recent research. Today's presentation will highlight some
- 12 findings that were presented at a recent ARB-sponsored
- 13 symposium in Sacramento known as the Haagen-Smit
- 14 Symposium.
- Mr. Goldstene, would you please introduce this
- 16 item.
- 17 EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman
- 18 Nichols. Good morning, Board members.
- 19 In June, ARB held its ninth annual Haagen-Smit
- 20 Symposium in honor of the late Dr. Arie J. Haagen-Smit,
- 21 our first chairman and pioneer in air pollution science
- 22 and regulation.
- The 2009 Haagen-Smit Symposium brought together a
- 24 distinguished and influential group of policymakers and
- 25 leading researchers to discuss climate-forcing pollution

1 that is not fully addressed by current climate policy,

- 2 such as non-Kyoto Protocol pollutants like black carbon.
- 3 Dr. Susan Fischer of the Research Division will
- 4 provide an overview of the symposium and the policy
- 5 implications.
- 6 Dr. Fischer.
- 7 (Thereupon an overhead presentation was
- 8 Presented as follows.)
- 9 DR. FISCHER: Thank you, Mr. Goldstene.
- 10 Good morning, Chairman Nichols of the Board.
- 11 Today's climate change science update focuses on
- 12 findings presented at the recent Haagen-Smit Symposium,
- 13 which brought 80 influential decision makers and
- 14 researchers to Sacramento to exchange ideas at the
- 15 intersection of climate policy and emerging science
- 16 Professor Arie Haagen-Smit, for whom the
- 17 symposium is named, is shown here operating an earlier
- 18 mobile monitoring platform to research photo chemical smog
- 19 in 1950s Los Angeles.
- --00--
- 21 DR. FISCHER: Since 2001, at the direction of the
- 22 our former Chairman, Allen Lloyd, ARB has sponsored annual
- 23 symposium to foster discussion and interaction among
- 24 policymakers, researchers, environmental and health
- 25 advocates, and other stakeholders.

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1 Each symposium focuses on a topic that is at the
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- 2 forefront of major policy decisions and offers a fertile
- 3 incubator for important policy initiatives, with
- 4 participants representing a broad and influential cohort.
- 5 ARB has had great success attracting high caliber
- 6 national and international figures who have brainstormed
- 7 such initiatives as the goods movement emission reduction
- 8 plan and the low carbon fuel standard.
- 9 ---00--
- 10 DR. FISCHER: The topic of this year's symposium,
- 11 addressing the missing pieces of California's carbon
- 12 footprint, refers to the fact that some climate-active
- 13 pollutants are not fully integrated into current policy
- 14 and some emission sources are not included.
- 15 For example, the climate impacts of black carbon
- 16 are not accounted for by current policies, and emissions
- 17 from international aviation and imported goods are not
- 18 part of state or national emissions inventories.
- The symposium also showcased international
- 20 efforts to address some of these missing pieces as well as
- 21 tools available to businesses, individuals, and local
- 22 governments to help promote voluntary emissions
- 23 reductions. Today I'll present highlights from the
- 24 symposium and opportunities for ARB to respond to emerging
- 25 climate science.

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- 2 DR. FISCHER: Since the intergovernmental panel
- 3 on climate change issued its fourth assessment report in
- 4 2007, several other influential reports and peer-reviewed
- 5 scientific papers have been released. These works bolster
- 6 confidence in climate models. Recent trends agree with
- 7 projections, giving no indication that models are overly
- 8 pessimistic. Mechanisms and strength of positive
- 9 feedbacks are also becoming more clear.
- 10 Positive feedbacks which amplify climate impacts
- 11 include decreased carbon uptake of tropical forests,
- 12 slowed ocean uptake, and permafrost thaw.
- 13 Emissions of greenhouse gases show a sobering
- 14 trend. Since 2000, the rate of emissions growth has
- 15 nearly quadrupled relative to the final decade of the
- 16 twentieth century. We have been on an emissions
- 17 trajectory higher than anything analyzed in depth by IPCC.
- 18 Although the current recession is decreasing emissions.
- 19 Another sobering finding is that much of the
- 20 warming to which we are already committed by past
- 21 emissions has been masked by cooling effects of organics
- 22 and sulfates contained in PM2.5.
- 23 A growing number of scientific experts now
- 24 contend that the blanket of man-made gases already
- 25 surrounding the earth is sufficient to push the climate

- 1 system beyond critical thresholds.
- 2 --000--
- 3 DR. FISCHER: The magnitude of recent emissions,
- 4 strength of positive feedbacks, and specter of hidden
- 5 warming underscore the need to make dramatic emissions
- 6 reductions as soon as possible.
- 7 In addition to reducing total warming, we must
- 8 target reductions that will slow the rate of warming to
- 9 avoid pushing the climate system beyond critical
- 10 thresholds during the climate stabilization period.
- 11 The graph shown on this slide shows the IPCC's 90
- 12 percent confident range for the committed warming that
- 13 will result from emissions already released. Past
- 14 emissions commit us to approximately 2.4 degrees Celsius
- 15 warming, which, as you see on this graph, puts us at risk
- 16 for dangerous changes to the climate. At present, we have
- 17 only realized 25 percent of the committed warming since
- 18 some of the warming is stored in oceans and some is
- 19 shielded by particle and cloud effects.
- 20 --00--
- 21 DR. FISCHER: Fortunately, significant near-term
- 22 climate mitigation is possible through reductions in
- 23 non-CO2 pollutants. These pollutants, which include
- 24 methane, black carbon, and halocarbons such as ozone
- 25 depleting substances, are responsible for approximately

1 the same amount of warming as CO2. Due to the relatively

- 2 short atmospheric life times of methane and black carbon,
- 3 and the high global warming potential of ozone-depleting
- 4 substances and other halocarbons, reducing emissions of
- 5 these pollutants results in relatively fast reductions in
- 6 their climate impacts.
- 7 Reduction of these pollutants also addresses
- 8 traditional air pollution risks.
- 9 Now I'll discuss opportunities and challenges
- 10 associated with each of three non-carbon dioxide
- 11 pollutants.
- 12 --000--
- 13 DR. FISCHER: Although methane is covered by the
- 14 Kyoto Protocol as well as the scoping plan, the use of a
- 15 100-year time scale for measuring its impacts undermines
- 16 motivation for emissions reductions since its impacts are
- 17 heavily weighted toward the first few decades after its
- 18 emission.
- 19 In addition to slowing the rate and extent of
- 20 warming, methane emissions reductions benefit human and
- 21 ecosystem health. Although methane is non-reactive on
- 22 time scales of days or weeks, it eventually forms ground
- 23 level ozone.
- 24 Climate policy could further incentivize
- 25 technologically feasible low-cost mitigation by

1 considering a 20-year global warming potential to measure

- 2 methane's climate impacts.
- 3 To support implementation of mitigation
- 4 strategies, ARB is working to verify emissions and
- 5 identify unknown sources using its mobile monitoring
- 6 platform.
- 7 --000--
- 8 DR. FISCHER: Black carbon is more challenging to
- 9 address, in part because it is not included under the
- 10 Kyoto Protocol because its effects are location dependent
- 11 and because it is often co-emitted with other PM2.5
- 12 compounds that exert cooling climate effects. However,
- 13 there are enormous potential co-benefits to strategic
- 14 reductions of black carbon emissions, since exposures to
- 15 black carbon particles such as those emitted from diesel
- 16 engines and soot-producing cook stoves account for
- 17 substantial health burdens.
- 18 To take advantage of technologically feasible
- 19 low-cost mitigations such as those demonstrated in rural
- 20 homes that cook with solid fuels in less developed
- 21 countries, and to further incentivize ARB's diesel risk
- 22 reduction plan, accounting and verification frameworks
- 23 need to be developed.
- 24 ARB's ongoing research in collaboration with top
- 25 climate and particle scientists is helping to shed light

1 on regional impacts of black carbon as well as ways to

- 2 measure these impacts.
- 3 --000--
- 4 DR. FISCHER: Nationally and internationally,
- 5 climate policy thus far has been inconsistent with regard
- 6 to control of ozone-depleting substances, which are not
- 7 covered under the Kyoto Protocol but are included in
- 8 California's climate policy. Although the Montreal
- 9 Protocol controls new production of ozone-depleting
- 10 substances, it does not address end-of-life recovery of
- 11 those substances that are already in use. In California,
- 12 alone, the stock of ozone-depleting substances is
- 13 estimated to be roughly 700 million metric tons carbon
- 14 dioxide equivalent.
- The scoping plan identifies several mitigation
- 16 strategies for these extremely high global warming
- 17 potential gases, including an upstream mitigation fee to
- 18 ensure that climate impacts of these substances are
- 19 reflected in product costs and to encourage reduced use as
- 20 well as the development of alternatives.
- 21 To facilitate recovery and destruction of
- 22 ozone-depleting substances, economic incentives need to be
- 23 implemented.
- 24 --000--
- DR. FISCHER: International aviation and

1 shipping, each of which accounts for a few percent of

- 2 global carbon dioxide emissions, are not accounted for by
- 3 current climate policy. Both sectors are projected to
- 4 grow substantially by 2050. For both sectors,
- 5 international organizations have assumed authority to
- 6 devise climate regulatory control.
- 7 Imported goods are another missing piece of
- 8 current climate policy. In the United States, emissions
- 9 associated with production and transport of imported goods
- 10 is estimated at 13 to 30 percent of the total national
- 11 carbon emissions.
- 12 --000--
- 13 DR. FISCHER: Carbon calculators are among the
- 14 tools available to individuals, businesses and other
- 15 organizations to help produce their climate impacts. In
- 16 partnership with the University of California Berkeley,
- 17 ARB is working to make available a carbon footprint
- 18 calculator that, as part of the cool California resource,
- 19 will facilitate voluntary reductions by Californians.
- 20 The calculator results shown here depict the
- 21 average California household, whose annual emissions of 38
- 22 tons carbon dioxide equivalent per year are largely
- 23 comprised of indirect emissions such as consumption of
- 24 goods, food, and services that people may not immediately
- 25 consider when they think about climate change.

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1 Carbon calculators can also be used by
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- 2 businesses. In an effort that helps address the
- 3 import-export issue, 100 businesses worldwide are working
- 4 with the UK's carbon trust to develop carbon footprints
- 5 that include emissions from the supply chain. Among the
- 6 lessons learned so far is that the process of supply chain
- 7 footprinting is generally more useful than the actual
- 8 number produced by labeling protocols, because the process
- 9 typically reveals opportunities for cost-effective
- 10 reductions, although not necessarily where expected.
- 11 --000--
- 12 DR. FISCHER: In conclusion, science presented at
- 13 this year's Haagen-Smit Symposium underscored the fact
- 14 that dramatic near-term emissions reductions are needed to
- 15 prevent the worst climate change impacts. ARB has
- 16 significant opportunities to continue leading
- 17 international climate policy through innovative mitigation
- 18 of methane emissions, black carbon, and high global
- 19 warming potential gases.
- 20 In the coming decades California will also need
- 21 to work with international partners to reduce emissions
- 22 from sectors that are not currently controlled by climate
- 23 policy.
- 24 Emerging tools, some of which are under
- 25 development by ARB and its partners, will help California

1 reduce the missing pieces of its carbon footprint.

- 2 --000--
- 3 DR. FISCHER: Although ARB is already taking
- 4 action on several issues addressed by this year's
- 5 Haagen-Smit Symposium, major issues remain to be
- 6 addressed. For example, the U.S. EPA's endangerment
- 7 finding does not extend to ozone-depleting substances or
- 8 black carbon. So ARB needs to take leadership with regard
- 9 to urgent action needed for these climate active
- 10 pollutants.
- 11 Although recent scientific and political
- 12 consensus regarding accounting frameworks for non-Kyoto
- 13 pollutants will take some time, in the very near term ARB
- 14 can incentivize methane reductions by considering a
- 15 20-year global warming potential which reflects the high
- 16 impacts that methane incurs in the first few decades after
- 17 it is emitted.
- 18 ARB can begin to address California's
- 19 responsibility for the carbon footprint of imported
- 20 consumer goods and manufacturing supply chains through its
- 21 efforts to promote voluntary emissions reductions.
- 22 Technical staff at ARB are continuing to work on
- 23 innovative policy to set precedence for reducing
- 24 greenhouse gas emissions through control of
- 25 ozone-depleting substances.

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- 2 DR. FISCHER: Thank you for your attention. We'd
- 3 be happy to answer any questions.
- 4 CHAIRPERSON NICHOLS: Thank you, Dr. Fischer.
- 5 Are there any questions or comments from Board
- 6 members?
- 7 Yes, Dr. Sperling.
- 8 BOARD MEMBER SPERLING: That was an excellent
- 9 presentation. Having attended the conference, that is an
- 10 excellent summary of it.
- 11 One question I have is your comments about black
- 12 carbon. It's one of the really interesting issues because
- 13 it does carry over, you know, from our efforts at, you
- 14 know, improving health as well as climate change. And so
- 15 I was just wondering, is there an analysis being done to
- 16 see what effect some of these in-use diesel rules that
- 17 we're pursuing, as well as the new engine diesel rules --
- 18 you know, what are -- is there some effort to quantify the
- 19 climate benefits as well as the health benefits? Because
- 20 I think that will help us a lot as we move forward if it's
- 21 a significant number. Acknowledging that there are -- it
- 22 is challenging the word that you use and to measure these
- 23 effects.
- 24 RESEARCH DIVISION CHIEF CROES: Bart Croes with
- 25 the Research Division.

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1 Dr. Sperling, yes, we're actually working with
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- 2 NASA and Mike Walsh, who's a former EPA employee that does
- 3 global emission inventory. So we're coming up with
- 4 transportation scenarios that include the diesel retrofit
- 5 program, calculating the climate benefits as well as the
- 6 health co-benefits from these measures, both in California
- 7 and if they were implemented nationwide and in Europe.
- 8 BOARD MEMBER SPERLING: Well, we've analyzed the
- 9 health benefits, and they're very substantial.
- 10 What about the climate benefits, the greenhouse
- 11 gas reductions, does that look like it's a significant
- 12 impact?
- 13 RESEARCH DIVISION CHIEF CROES: Yeah, it does
- 14 look like it's significant. And NASA provides a global
- 15 climate modeling capability that we need to do that
- 16 estimate.
- So, yes, we are finding pretty significant
- 18 climate benefits from diesel retrofit programs. On just
- 19 the California's program alone is on the order of 10 to 20
- 20 million metric tons CO2 equivalent. And I give a pretty
- 21 broad range because of the uncertainty in the climate
- 22 impacts of black carbon. And then we're also trying to
- 23 scale that up nationally and globally, and it does look
- 24 like it's fairly significant.
- 25 BOARD MEMBER SPERLING: And will we get any input

1 on anything we should possibly be doing differently with

- 2 our diesel -- various diesel rules to enhance those
- 3 benefits?
- 4 RESEARCH DIVISION CHIEF CROES: Well,
- 5 uncontrolled diesel's about 70 percent black carbon. And
- 6 the retrofits basically take all the black carbon out. So
- 7 it really is a very effective strategy to reduce black
- 8 carbon.
- 9 CHAIRPERSON NICHOLS: For the benefit of those
- 10 who may not be as steeped in all of these things as some
- 11 of you are, could somebody give a simple definition of
- 12 what black carbon is.
- 13 RESEARCH DIVISION CHIEF CROES: Black carbon
- 14 is --
- 15 (Laughter.)
- 16 CHAIRPERSON NICHOLS: Just a question.
- 17 RESEARCH DIVISION CHIEF CROES: It's basically
- 18 the black light-absorbing soot that you -- so it's a
- 19 visible soot from diesel sources, from coal combustion,
- 20 from fires, and so forth.
- 21 So this black soot absorbs the radiation and
- 22 turns it into heat very effectively, and so it's a very
- 23 effective warming agent.
- 24 CHAIRPERSON NICHOLS: And did I just hear you say
- 25 that 70 percent of uncontrolled diesel emissions -- or

1 diesel engines without any control on it, 70 percent of

- 2 what came out the tailpipe would be black carbon?
- 3 RESEARCH DIVISION CHIEF CROES: Seventy percent
- 4 of the particles that come out of the diesel engine are
- 5 black carbon.
- 6 CHAIRPERSON NICHOLS: Particles.
- 7 RESEARCH DIVISION CHIEF CROES: And the traps
- 8 effectively remove essentially all the black carbon.
- 9 CHAIRPERSON NICHOLS: Okay. So what happens when
- 10 black carbon has its warming effect on glaciers or snow
- 11 and the polar ice, et cetera, as it drifts around the
- 12 globe is these particles literally fall on these white
- 13 substances, the frozen ice or whatever, and causes it to
- 14 absorb more sun and then warm up?
- 15 RESEARCH DIVISION CHIEF CROES: Right. So black
- 16 carbon in the atmosphere heats up the atmosphere because
- 17 of this capability to turn the solar energy into heat.
- 18 And then also, like you said, when the particles fall on
- 19 snow or ice, they enhance the melting of that snow and
- 20 ice.
- 21 CHAIRPERSON NICHOLS: Okay. Thank you.
- I see that some people have discovered the fact
- 23 that there is seating upstairs in the balcony. If there's
- 24 anybody who's still looking for seating, because I saw
- 25 there were a number of people standing in the back, it is

1 possible to participate by sitting up on the upper level.

- 2 Thank you for opening that area up.
- 3 CHAIRPERSON NICHOLS: Yes, Dr. Telles.
- 4 BOARD MEMBER TELLES: Is this on?
- 5 CHAIRPERSON NICHOLS: You have to wave your arms,
- 6 because I can barely see you over the partition.
- 7 BOARD MEMBER TELLES: I had a question of
- 8 clarification on the imports, the U.S. equivalence of --
- 9 up to being 30 percent of CO2 emissions. Is that the
- 10 production of CO2 emissions in the country of origin or is
- 11 it the use and disposing of those imports here in the
- 12 United States?
- 13 DR. FISCHER: That's the manufacturing and the
- 14 country of origin as well as the transportation to the
- 15 United States.
- 16 BOARD MEMBER TELLES: Okay. And you mentioned
- 17 that California was working with international partners to
- 18 do something about that. Now, what exactly could
- 19 California do from a legal point of view in regards to
- 20 that, because it's an international trade issue?
- 21 DR. FISCHER: Carbon Trust, which is an
- 22 organization in the UK, is working on a voluntary basis
- 23 with businesses to develop carbon footprints that include
- 24 the supply chain, and therefore internalize the emissions
- 25 associated with imported goods.

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1 California's effort to offer a tool for
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- 2 calculating carbon footprints to businesses as well as
- 3 individual consumers and households similarly produces a
- 4 result that reflects imports and other consumer goods. So
- 5 we offer people the information they need to make
- 6 voluntarily decisions.
- 7 CHAIRPERSON NICHOLS: There's already a pretty
- 8 lively offset market out there, a voluntary market without
- 9 any mandates behind it, which we are being asked I know as
- 10 a result of various bills going through the Legislature to
- 11 participate in in a more active way by actually developing
- 12 mechanisms for assuring that the offsets are real and
- 13 deciding how much they should be credited with. We have
- 14 not taken a position on any of those bills. But it's
- 15 clear that this is an area that's getting a lot more
- 16 attention internationally as well.
- I wanted to comment on Dr. Sperling's comment
- 18 earlier about quantifying the climate benefits of diesel
- 19 control. I had the opportunity to attend a meeting this
- 20 summer with transportation regulators from around the
- 21 world through a group called the International Council for
- 22 Clean Transportation, which is based in the U.S. And the
- 23 same fellow, Michael Walsh, who was mentioned earlier, has
- 24 been working with them as well on a number of studies to
- 25 try to look at transportation as the market for personal

- 1 vehicles grows rapidly in China and India and other
- 2 developing parts of the world Mexico, Brazil, et
- 3 cetera to see sort of how this is going to affect our
- 4 efforts to control global climate, which up until now have
- 5 been mostly focused on individual vehicles and so on. And
- 6 I think one of the most interesting things that I learned
- 7 as a result of this is that probably this year when the
- 8 U.N. Framework Convention convenes in Copenhagen is going
- 9 to be the first time that there's really been much serious
- 10 looks at that issue. Up until now it's been much more
- 11 focused on electricity production, coal burning, heating
- 12 and cooling, so forth. And people are beginning to
- 13 realize the magnitude of the growth in this area and what
- 14 it could mean for all of our other efforts.
- 15 But I would say that outside of the U.S. and
- 16 Europe -- western Europe and maybe Japan, people are
- 17 really not interested in looking at transportation from a
- 18 climate perspective. They are worrying about effects on
- 19 health, and they're just really getting started in many
- 20 areas in setting standards to look at the effects on
- 21 health of increasing use of combustion engines -- internal
- 22 combustion engines. But as far as factoring that into
- 23 some sort of a global climate regime, I think we're quite
- 24 a long way away from, you know, having any kind of
- 25 international consensus about doing that, despite your

1 best efforts, I might say. I wished I had had copies of

- 2 your book to hand to all of these people while I was
- 3 there. So I think there's a market out there that we need
- 4 to get to.
- 5 Anyway, were there any public speakers who signed
- 6 up for this item?
- 7 BOARD CLERK VEJAR: No, we do not.
- 8 CHAIRPERSON NICHOLS: We do not.
- 9 Okay. Then I think we'll just move on to the
- 10 next item on our agenda.
- 11 EXECUTIVE OFFICER GOLDSTENE: Just one thing.
- 12 I'd like to thank the staff for the work they did on the
- 13 symposium this year. They pulled symposium off under very
- 14 difficult conditions. And I want to just thank them again
- 15 publicly for the effort Bart and staff did.
- 16 CHAIRPERSON NICHOLS: It was an excellent
- 17 symposium. I attended a fair amount of it myself.
- 18 Thank you.
- 19 Okay. So we have another brief science update
- 20 this morning also. And this one relates to a study that's
- 21 going to be getting underway later this year, a major
- 22 field study that's going to start actually next year, a
- 23 field study that we're collaborating on with the National
- 24 Oceanic and Atmospheric Administration. And so I thought
- 25 Board members would appreciate hearing about what we're

- 1 going to be launching here.
- 2 EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman
- 3 Nichols.
- 4 Today we'd like to make the Board aware of CalNex
- 5 2010 and other field studies which will take place in
- 6 California next year.
- 7 ARB's tradition of supporting air pollution
- 8 research goes back to the beginning, you know from the
- 9 last four decades.
- 10 Next year ARB will benefit from and contribute to
- 11 a \$15 million effort by NOAA focused on air quality and
- 12 climate science issues. The aircraft and ships that NOAA
- 13 will deploy are able to make measurements over the entire
- 14 state. Combined with surface monitoring stations funded
- 15 by ARB and the South Coast Air Quality Management
- 16 District, we're going to get an unprecedented amount of
- 17 data collected. NOAA will then work with us to review the
- 18 results and produce policy-relevant conclusions we hope in
- 19 a very timely manner so we can make decisions about how we
- 20 want to move forward in certain areas.
- 21 Dr. Eileen McCauley of the Atmospheric Processes
- 22 Research Section of the Research Division and Dr. David
- 23 Parrish from NOAA will make the presentation this morning.
- 24 CHAIRPERSON NICHOLS: Thank you.
- 25 (Thereupon an overhead presentation was

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1 Presented as follows.)
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- DR. McCAULEY: Thank you, Mr. Goldstene.
- 3 Dr. David Parrish is one of NOAA's leads for
- 4 CalNex, and he is here to discuss with the Board NOAA's
- 5 plans for CalNex 2010. Before his presentation, I will
- 6 provide some background about air quality field studies in
- 7 California, and CalNex in particular, and their role in
- 8 the regulatory process. I will also very briefly mention
- 9 two other major field studies which will take place in
- 10 California in 2010.
- --000--
- 12 DR. McCAULEY: California's been the site of
- 13 dozens of air quality field studies, with over 2,000
- 14 papers published on work in California. By improving our
- 15 understanding of the sources and processes which form
- 16 pollution in the State, these field studies have played an
- 17 important role in shaping the Board's decision about
- 18 controlled strategies. However the complexity of the
- 19 atmosphere, changes in the composition, and growth in our
- 20 ability to more accurately model processes in the
- 21 atmosphere mean that we continue to need evermore
- 22 detailed, accurate scientific information.
- 23 Recognizing the need for a better understanding
- 24 of many issues which affect air quality and climate, ARB
- 25 was immediately interested when the National Oceanic and

1 Atmospheric Administration suggested collaborating on a

- 2 major field study focused on both air quality and climate
- 3 science.
- 4 CalNex 2010 will focus on basic science questions
- 5 which have implications for issues of concern to the
- 6 Board, such as ozone formation under very different
- 7 conditions in the coastal plain and the inland valleys,
- 8 and formation of carbonaceous particulate matter and its
- 9 effects on the radiative budget of the atmosphere.
- 10 --00o--
- DR. McCAULEY: Air quality and climate are a
- 12 phenomena of the atmosphere, and it's not surprising that
- 13 some species or processes traditionally of concern to one
- 14 discipline have an impact on both. For example,
- 15 particulate matter or aerosols not only impact human
- 16 health but can either warm or cool the atmosphere,
- 17 depending on the composition of the particulate matter.
- 18 Policymakers would like the most complete understanding of
- 19 climate air quality interactions as they make decisions
- 20 that affect both.
- 21 CalNex will collect sophisticated measurements on
- 22 a spatial scale not available to us previously. NOAA's
- 23 scientists can make measurements over the entire state and
- 24 fall out over the Pacific with a chemical completeness and
- 25 temporal resolution that has not been available to us

- 1 previously.
- 2 NOAA's contribution of \$15 million dollars in
- 3 time and effort mean that ARB's research dollars are very
- 4 highly leveraged.
- 5 --000--
- 6 DR. McCAULEY: As the first step in planning
- 7 CalNex, ARB and NOAA staff worked together to identify a
- 8 number of science questions that are of interest to
- 9 policymakers. These questions and the planned work have
- 10 been shared with the scientific community in several
- 11 public meetings.
- 12 Broadly the questions fall into three categories:
- 13 1) How to improve our emissions inventories of greenhouse
- 14 gases and traditional pollutants and precursors; 2) How
- 15 can we improve our understanding of chemical
- 16 transformations and climate processes occurring in the
- 17 State?
- 18 The third category is important to our ability to
- 19 model the processes which contribute to poor air quality
- 20 in California. Air quality modeling is made much more
- 21 difficult by California's complex terrain and meteorology.
- 22 Thus, the third focus area for CalNex is improving our
- 23 ability to model air flow in and between the State's air
- 24 basins. NOAA's aircraft and their plans for a network of
- 25 ozonesondes and radar wind profilers will provide

- 1 information about air flow above the surface.
- 2 From the beginning, ARB has recognized that
- 3 effective regulations must have a strong scientific
- 4 foundation if they are to produce the maximum benefit in a
- 5 cost effective manner.
- 6 CalNex will provide data and insights which will
- 7 be of use as the Board takes action to reduce greenhouse
- 8 gas emissions as well as people's exposure to harmful
- 9 pollutants.
- 10 --000--
- DR. McCAULEY: NOAA scientists who will work on
- 12 CalNex have extensive experience in making sophisticated
- 13 measurements from aircraft, ships, and on the ground.
- 14 With a schedule that typically conducts a major field
- 15 study every other year, they have studied atmospheric
- 16 processes in New England, the southeast, Texas,
- 17 California, over the eastern and western Pacific, the
- 18 arctic and Mexico City.
- 19 In all of these efforts NOAA was interested in
- 20 science which was policy relevant. Recognizing the need
- 21 for more quickly making available findings from their
- 22 studies, they aim for summary reports within a year or 18
- 23 months after the studies. This is far faster than the
- 24 typical time of three to five years or longer that it
- 25 takes for results from large field studies to become

- 1 available.
- 2 --000--
- 3 DR. McCAULEY: We are planning a large
- 4 ground-based effort also which will include two so-called
- 5 Supersites, one in Los Angeles and one in the southern San
- 6 Joaquin Valley. The L.A. Supersite will focus on organic
- 7 particulate matter and nighttime chemistry. The South
- 8 Coast Air Quality Management District is considering
- 9 funding work by Professors Stutz and Jimenez, and NOAA
- 10 will support Dr. de Gouw.
- 11 The San Joaquin Supersite, which will be located
- 12 in Arvin, will have a comprehensive suite of chemical
- 13 measurements which will significantly improve our
- 14 understanding of the formation of ozone and particulate
- 15 matter in the San Joaquin Valley. Professors Ronald Cohen
- 16 and Allen Goldstein are the principal investigators, and
- 17 four other research groups will join them at this site.
- 18 As the Board seeks to decrease Californian's
- 19 exposure to particulate matter, the issue of sources of
- 20 particulate sulfate in southern California is one we would
- 21 like to investigate. By deploying continuous sulfate
- 22 monitors alongside South Coast's new trace SO2 monitors,
- 23 we will have a better understanding of both marine and
- 24 on-land emissions of sulfur and of the chemistry and
- 25 transport of SO2 and sulfate.

1 Recognizing the importance of methane as a

- 2 greenhouse gas, the Research Division is leading a
- 3 multiyear effort to measure methane throughout the state.
- 4 These efforts will be coordinated with CalNex monitoring.
- 5 --00--
- 6 DR. McCAULEY: In addition to CalNex 2010, next
- 7 year two other large field studies will take place in
- 8 California.
- 9 A different group at NOAA, the hydrology unit, is
- 10 working with the California Energy Commission and the
- 11 Department of Water Resources on CALWATER. This field
- 12 study is interested in the impacts of particles and
- 13 changing climate on California's snowpack and water
- 14 resources. CALWATER will take place early in 2010 during
- 15 the hopefully rainy season.
- 16 Staff from the Pacific Northwest National
- 17 Laboratories with funding from the Department of Energy
- 18 will conduct the carbonaceous Aerosol and Radiative
- 19 Effects Study, or CARES, in the Sacramento metropolitan
- 20 area and east into the foothills next summer. This study
- 21 is focused on the formation and changes in the organic
- 22 fraction of ambient particulate matter.
- 23 As part of CARES, two, possibly three, aircraft
- 24 will be deployed in addition to two ground sites. We are
- 25 working closely with the CARES participants.

1 Even my brief introduction makes it clear that

- 2 2010 will be a very exciting year for atmospheric
- 3 scientists in California.
- 4 Now, Dr. David Parrish will provide more detail
- 5 about NOAA's past work and their plans for CalNex.
- 6 CHAIRPERSON NICHOLS: Thank you.
- 7 Dr. Parrish.
- 8 DR. PARRISH: Thank you. Thank you for the
- 9 invitation to come today. And thank you, Eileen, for the
- 10 introduction and, Susan, for the introduction. I'll touch
- 11 on many of the same points that they introduced.
- 12 (Thereupon an overhead presentation was
- 13 Presented as follows.)
- 14 DR. PARRISH: I'm David Parrish. I'm from the
- 15 Chemical Sciences Division of the Earth System Research
- 16 Lab. We're stationed in Boulder, Colorado.
- 17 And what I'll try and do today is make three
- 18 points: Address NOAA's climate and air quality science
- 19 approaches; address the specific science issues we'll
- 20 investigate in 2010; and show -- focus specifically on
- 21 NOAA's contributions to the study.
- --000--
- DR. PARRISH: Over the last 15 or so years, we've
- 24 carried out quite a few research intensives that
- 25 investigate climate and air quality in various parts of

1 the country. So this is kind of a synopsis of those.

- We've been in New England on three different
- 3 studies, southeastern U.S. on three studies. We've been
- 4 to Texas and the Texas air quality studies twice. We've
- 5 even stayed close to home in Colorado once. And we've
- 6 been in California to some extent before.
- 7 NOAA made substantial contributions to the
- 8 Central California Ozone Study in 2000, although we didn't
- 9 bring the mobile platforms.
- 10 And we were here in 2002 with the -- at least the
- 11 P3 aircraft, kind of our centerpiece platform. But that
- 12 was more of an outward looking study where we were looking
- 13 at the air masses and the pollution that was coming ashore
- 14 from the Pacific, and not much on air quality here in
- 15 California.
- So CalNex 2010, it'll be our first effort in
- 17 California where we have full capabilities of all our
- 18 platforms and with a major air quality focus that we
- 19 haven't really had in California before.
- 20 ---00--
- 21 DR. PARRISH: So this is kind of my version of
- 22 one of the slides that Susan showed earlier. It's based
- 23 on the IPCC 2007 report. And it breaks the climate
- 24 forcing agents up into two categories.
- 25 The category on the left are purely climate

1 agents - carbon dioxide, methane, nitrous oxide, and

- 2 halocarbons.
- 3 The category on the right play two roles: Air
- 4 quality and climate agents. Soot is one that Susan
- 5 focused on. And my bar is a little smaller than her bar,
- 6 which simply reflects some of the scientific uncertainty
- 7 that we're hoping to investigate. Ozone is an air quality
- 8 concern certainly but also a climate forcing agent. And
- 9 those two are warming agents.
- 10 There's also particulate matter, or aerosols as
- 11 they're labeled here, that have a very strong cooling
- 12 component.
- 13 And it's the balance between the warming and
- 14 cooling that gives us then our total climate change
- 15 forcing.
- So in 2010, this will be our first steps at
- 17 really trying to integrate carefully these two issues,
- 18 climate and air quality. And we'll look toward the
- 19 benefits of dealing with these specifically together and
- 20 thinking about them together.
- 21 So they're clearly highly interrelated. We've
- 22 got these agents that both are air quality and climate.
- 23 The major air pollutants aerosols, soot, ozone are all
- 24 significant climate change-forcing agents. And these
- 25 common agents, as Susan mentioned, are short-lived. So

1 they have a much shorter lifetime than carbon dioxide.

- 2 And so any efforts we can make to reducing their impact
- 3 will have an essentially immediate impact, years instead
- 4 of many decades to be felt.
- 5 And, finally, we can investigate these very
- 6 effectively together because they have the same common
- 7 sources transportation, industry, agriculture, and
- 8 forests.
- 9 ---00--
- 10 DR. PARRISH: So we are looking at CalNex as a
- 11 first step for the nation toward providing information for
- 12 integrated regional decision making on air quality and
- 13 climate.
- 14 So why do we come to California? Well, I don't
- 15 have to tell you that California leads on both these
- 16 issues, for decades on air quality, and certainly in the
- 17 last, oh, part of a decade on climate change. And it has
- 18 a very diverse emission base. The agricultural emissions,
- 19 the industrial emissions, the transportation emissions,
- 20 forest emissions are all represented here in California.
- 21 Hopefully we'll provide the science information
- 22 that's needed by California to integrate their climate --
- 23 your climate and air quality management. And, boy,
- 24 there's a lot of efforts that are already underway that
- 25 we've heard about already today. And hopefully we can

1 leverage that experience into benefit the nation.

- 2 So, in summary, the payoffs from CalNex will be
- 3 science-based options for making decisions for air quality
- 4 and climate together and lead to win-win situations. And
- 5 the information can be extended to other regions of the
- 6 nation.
- 7 --000--
- 8 DR. PARRISH: So I'll try and go through our
- 9 science issues quickly here. We have it organized a
- 10 little differently than Eileen mentioned.
- 11 This, by the way, is the -- on the right is the
- 12 cover of our science plan. It's available on the web at
- 13 that URL that's shown at the bottom. It's a large
- 14 document, something over a hundred pages at this point,
- 15 that tries to detail our plans. So it's kind of a
- 16 planning document for us. We can look through it and
- 17 update it as we need to.
- 18 So, as Eileen mentioned, one major effort will be
- 19 emissions quantification. And we'll focus on greenhouse
- 20 gases, we'll focus ozone precursors, aerosol precursors,
- 21 aerosol emissions themselves. And the result will be
- 22 improved emission inventories, with particular focus on
- 23 greenhouse gases, soot or black carbon, and on sulfur
- 24 emissions.
- 25 --000--

1 DR. PARRISH: The next slide shows one example of

- 2 that. And I'm not sure how well you can see that. The
- 3 upper map shows the point sources of sulfur from the
- 4 inventory in the L.A. basin. And the bottom panel shows a
- 5 flight track of the NOAA P3, the aircraft that Eileen
- 6 showed, that's basically an airborne platform for making
- 7 rapid measurements of all the species of interest. And we
- 8 did do one flight in 2002 over the L.A. basin. And that
- 9 flight track is traced out and color coded according to
- 10 the SO2 concentration.
- 11 So we can fly downwind from each of these point
- 12 sources and measure the emissions that are coming out from
- 13 each of the point sources. And we can characterize the
- 14 total SO2 concentration throughout the L.A. basin. And we
- 15 can repeat that for many, many species.
- 16 The research vessel, it will be well suited for
- 17 detailed sampling of ship emissions either in the ports of
- 18 Long Beach, Los Angeles, and perhaps the Bay Area,
- 19 depending on where the ship sets out from. And the P3 can
- 20 fly throughout the state.
- 21 And we'll be in a place now we can look at
- 22 changes in emissions. We were here, at least limited, in
- 23 2002. The CARB funded the NASA aircraft to make
- $24\,$ measurements in 2008. And then we'll be back in 2010. So
- 25 we can begin to get a time tracking of the emissions

- 1 changes.
- 2 --000--
- 3 DR. PARRISH: Eileen mentioned chemical
- 4 transformation. We'll be looking at the formation
- 5 processes and the removal processes for ozone and
- 6 aerosols. We'll be looking at daytime and nighttime
- 7 processes. We're beginning to learn that nighttime
- 8 processes have significant effects on both aerosols and
- 9 ozone.
- 10 And we'll look at gas phase species and
- 11 heterogeneous species, reactions taking place on the
- 12 surfaces of aerosols.
- We'll look at transport and mixing. And so
- 14 intercontinental, inter and intrastate transport,
- 15 transport from the lower atmosphere, the boundary layer
- 16 where the emissions are, to the pre-troposphere. And
- 17 ideally we'll come up with improved understanding of how
- 18 we are affected and how we affect our neighbors by our own
- 19 emissions.
- --00--
- DR. PARRISH: And the next slide shows one
- 22 example of that.
- 23 This is the NOAA Twin Otter airborne LIDAR data
- 24 from the study in 2006 in Houston. So the big
- 25 metropolitan area kind of in the center there is the

1 Houston metro area. The winds were from the southwest

- 2 during this flight. And the LIDAR aircraft then flew that
- 3 colored track and can map out the ozone plume moving
- 4 downwind.
- 5 And if you take that flight track and stretch it
- 6 out into a curtain, then the curtain of ozone and the
- 7 curtain of aerosols are shown there on the right.
- 8 So we're particularly interested in using
- 9 measurements like this to define pollution pathways for
- 10 export of L.A. basin and Central Valley pollution and
- 11 transport between these two valleys.
- 12 And coordinating the Twin Otter aircraft with the
- 13 P3 aircraft and the NASA King Air that will be involved in
- 14 the CARES study that Eileen mentioned will be quite useful
- 15 in 2010.
- 16 --00o--
- DR. PARRISH: The next slide shows two other
- 18 things aerosol properties and radiative effects. So one
- 19 of the big bars on that climate-forcing diagram was
- 20 aerosol climate forcing, both direct and the cloud aerosol
- 21 interactions that leads to climate forcing. And we'll
- 22 look at that. The ship is well suited for sailing under
- 23 the stratus deck off the coast of California and looking
- 24 at the effect of pollution that moves into those clouds.
- 25 And particularly we'll be interested in better

- 1 defining the role of black carbon in climate.
- 2 And, finally, model development. NOAA is tasked
- 3 with providing ozone forecasts for the nation. And there
- 4 will be several, maybe something like five, forecast
- 5 models that will be running during this period. And we'll
- 6 verify -- check those forecasts against what we measure.
- 7 Next slide.
- 8 --000--
- 9 DR. PARRISH: These are the platforms. So we do
- 10 have the NOAA P3 aircraft, the Ron Brown. And both of
- 11 those are laboratories for making continuous in situ
- 12 measurements by sampling air that they take in. The Ron
- 13 Brown also makes remote measurements with instruments that
- 14 look up. The NOAA ozone and aerosol LIDAR aircraft.
- 15 Those are our three NOAA platforms.
- 16 We're also funding the surpass Twin Otter. So
- 17 that's John Seinfeld of CalTech instruments that aircraft.
- 18 And he'll be studying secondary organic aerosols in the
- 19 Los Angeles basin.
- 20 We'll make contributions to an ozonesonde network
- 21 and a radar wind profiler network. And we'll also make
- 22 contributions to the Los Angeles Supersite that Eileen
- 23 mentioned.
- 24 --000--
- DR. PARRISH: And the next slide basically shows,

1 with all of us working together, we're coming out with a

- 2 pretty impressive research effort for 2010. There's the
- 3 long-term surface observations that are done routinely.
- 4 And each of those little dots is an independent station.
- 5 And, boy, there's a lot of them in California that gives a
- 6 tremendous amount of information.
- 7 The next slide adds in the instrumented tall
- 8 towers. Lawrence Berkeley Lab and NOAA work together on
- 9 two tall tours in Walnut Grove and Sutro in San Francisco.
- 10 --00--
- DR. PARRISH: The next slide shows the major
- 12 ground sites: The San Joaquin Valley and L.A. that CARB
- 13 and the air districts and NOAA are funding; and then the
- 14 two sites that the Department of Energy and the CARES
- 15 program up near Sacramento are funding.
- 16 --00o--
- 17 DR. PARRISH: The next slide shows ozonesonde
- 18 releases.
- 19 It's becoming apparent that ozone transported
- 20 ashore really does have significant effects on the air
- 21 quality in California. And we'll try and supply seven
- 22 ozone profile stations in California where there can be
- 23 daily ozonesonde launches. So we get a climatology of the
- 24 vertical profiles of ozone throughout the length of the
- 25 state.

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- 2 DR. PARRISH: The next slide shows the radar wind
- 3 profilers that will be very useful for mapping out the
- 4 transport pathways.
- 5 --000--
- 6 DR. PARRISH: The next slide adds in the mobile
- 7 platforms.
- 8 So we really can cover the whole state. We've
- 9 got something like six aircraft signed up now: The ones
- 10 I've mentioned, the two Twin Otters, the P3. The NASA
- 11 King Air aircraft is associated with the CARES program and
- 12 the DOG-1 aircraft with the CARES program. And the U.S.
- 13 Forest Service is also instrumenting a Cessna aircraft
- 14 that will investigate primarily wild fire emissions.
- 15 And then we work closely with people that
- 16 integrate in the satellite observations.
- 17 --000--
- 18 DR. PARRISH: So the next slide I think kind of
- 19 summarizes what I've tried to get across, is these three
- 20 points.
- 21 --000--
- 22 DR. PARRISH: And the final slide shows that from
- 23 the -- we're interested in kind of leveraging our
- 24 experience in 2010. And we'll return hopefully with
- 25 the -- not as major a study, but we'll return in 2011 with

1 the P3 aircraft to focus more clearly on these air quality

- 2 climate interactions and more clearly characterize the
- 3 emissions particularly on greenhouse gases and aerosols,
- 4 and that emerging importance of black carbon or soot will
- 5 be a major effort.
- 6 So thank you.
- 7 CHAIRPERSON NICHOLS: Thank you very much.
- 8 Board members have any questions at this point
- 9 about the studies?
- 10 Yes.
- 11 BOARD MEMBER SPERLING: One part of your talk got
- 12 my attention.
- 13 You know, California's a very unique place in
- 14 many ways, we've all discovered in our own ways. One of
- 15 the ways is we have all of these regional climates, you
- 16 know, very -- micro-climates, and there's a lot of
- 17 sensitivity to it, you know, in terms of it affects our
- 18 water supply, it affects our wine industry, skiing, many
- 19 things important to many of us. Some more than others.
- 20 But, you know, you talk about regional climate models.
- 21 So one of the huge issues for California as it
- 22 moves forward, you know, ARB to some extent, but the whole
- 23 state, is how to deal with the climate change and these
- 24 differentiated effects. And so there's starting to be
- 25 attention to adaptation policies and, you know, it's

1 infrastructure issues as well, you know where to build the

- 2 airports and near the water and so on.
- 3 Are you going -- how big a part of this or how
- 4 sophisticated or how fine -- how much fine resolution will
- 5 there be in this work that can be useful to us in that way
- 6 in terms of talking about adaptation?
- 7 DR. PARRISH: I should emphasize the P3 aircraft
- 8 gives very fine resolution information. So it makes
- 9 measurements of many, many species on a one-second time
- 10 scale. So that translates into a hundred meter
- 11 resolution. And so during a six- to eight-hour flight,
- 12 there's a lot of seconds in that time period. And so we
- 13 have a measurement, you know, nearly every second of all
- 14 these species throughout that time period. So we'll have
- 15 a tremendous amount of very fine scale information.
- 16 The trick is to effectively interpret that. And
- 17 so that's the advantage of coming to a location with
- 18 the local expertise that's here, both at CARB, the air
- 19 districts, the universities, and leveraging this data set
- 20 with the folks that can -- that we can work with to get
- 21 the biggest science payback from the efforts we put in.
- 22 BOARD MEMBER SPERLING: So is this part of the
- 23 program to integrate in with -- you know, NOAA has these
- 24 big climate models, and I know there's efforts at
- 25 developing these more regional -- you know, looking at

1 regional effects and regional changes. Is that part of

- 2 this program to develop, you know, these micro-climate,
- 3 regional climate models -- sub-models?
- DR. PARRISH: We don't -- well, there's -- in
- 5 terms of a regional climate model I'm not aware of any
- 6 research in NOAA that's directly addressing the
- 7 micro-climates of California. But we would certainly make
- 8 this data available to anyone that's interested in
- 9 evaluating it and using it.
- 10 We are working with the GFDL that do run the
- 11 global climate and the global climate models and the more
- 12 national climate models. And they're interested in doing
- 13 a finer scale model over the California region. But
- 14 whether we can really call that the microscale climates or
- 15 not, I'm not sure.
- 16 CHAIRPERSON NICHOLS: Dr. Balmes.
- 17 BOARD MEMBER BALMES: I think --
- 18 CHAIRPERSON NICHOLS: Oh, sorry.
- 19 Bart.
- 20 RESEARCH DIVISION CHIEF CROES: Dr. Sperling,
- 21 just a follow-up. There are efforts to do regional
- 22 climate modeling funded by the California Energy
- 23 Commission with University of California at San Diego.
- 24 And so they're a pretty big participant in this CALWATER
- 25 activity, for instance, and looking at some of these

1 issues about precipitation and snowfall in local -- you

- 2 know, in the mountains as well as local areas around the
- 3 state. So there are modeling efforts that address your
- 4 issue but they're just not part of NOAA. But they are
- 5 integrated with this and other studies that are going on
- 6 in 2010.
- 7 BOARD MEMBER BALMES: So my question is actually
- 8 for Eileen.
- 9 In your slide presentation when you talked about
- 10 California's contributions, I saw that there was a San
- 11 Joaquin Valley Supersite.
- DR. McCAULEY: Yes.
- 13 BOARD MEMBER BALMES: So where is that located?
- DR. McCAULEY: In Arvin.
- 15 BOARD MEMBER BALMES: In Arvin.
- DR. McCAULEY: Which is near Bakersfield.
- 17 BOARD MEMBER BALMES: Okay. Thank you.
- 18 CHAIRPERSON NICHOLS: Dr. Telles.
- 19 BOARD MEMBER TELLES: Will you be measuring
- 20 methane? Especially in the San Joaquin Valley, is there
- 21 any way to determine -- one of the unknown things is how
- 22 much methane a cow actually produces in the field. And is
- 23 there any way you can extrapolate how much methane is
- 24 coming out of the dairies in the San Joaquin Valley?
- DR. PARRISH: The short answer is yes. We'll

1 have one-second resolution methane measurements made from

- 2 the aircraft. And it flies low enough that we'll be able
- 3 to clearly discern, not individual cows, but at least
- 4 individual dairies and feedlots. And that will be a major
- 5 focus. The analysis from that 2002 flight, the -- if you
- 6 just look at the whole state budget for greenhouse gases,
- 7 the ratio of methane to CO2 I think was like 6 percent in
- 8 units of global warming potential.
- 9 And when we look at just the L.A. basin, we were
- 10 getting a ratio that was close to that 6 percent. But we
- 11 don't think L.A. really represents the whole State of
- 12 California in terms of representative methane emissions.
- 13 So we'll try and map out much better, you know, contours
- 14 of methane emissions across California.
- DR. McCAULEY: In addition to the aircraft
- 16 measurements, there will be ground-based measurements. We
- 17 are deploying a number of -- setting up a number of sites
- 18 in the San Joaquin Valley which will look at methane,
- 19 carbon monoxide, and carbon dioxide. And there are two
- 20 mobile platforms. Basically electric vehicles have been
- 21 equipped with instruments, and they can drive around. If
- 22 we see something interesting in some of the other
- 23 monitoring, we can use the mobile instruments to look at
- 24 it in more detail.
- 25 CHAIRPERSON NICHOLS: So it sounds like we're

1 going to be acquiring an awful lot of information. And

- 2 we're not quite sure at this point even how we're going to
- 3 be able to use all of it. But clearly it's going to add
- 4 to the resources that are available to us for a number of
- 5 different purposes, and it's very useful for us to know
- 6 that this is going to be coming our way and to be thinking
- 7 about how we might be asking more questions of it that are
- 8 relevant from a policy perspective.
- 9 Lynn.
- 10 DEPUTY EXECUTIVE OFFICER TERRY: I just wanted to
- 11 mention how critical this work will be for the new SIPs
- 12 for the ozone standard planning process that will take
- 13 place shortly after this data is collected. It's
- 14 really -- the last field study we did in the San Joaquin
- 15 Valley was in the year 2000. So this is very critical.
- 16 And the Supersite in the southern valley was selected very
- 17 purposefully to collect that data.
- 18 CHAIRPERSON NICHOLS: I suspected that, yeah.
- 19 Arvin is a name that has a lot of resonance here at the
- 20 ARB.
- 21 All right. Without further ado then, thank you
- 22 very much. We appreciate your coming and getting us this
- 23 update, and it's exciting. We'll look forward to getting
- 24 some updates when you have more to report.
- 25 The next item on our agenda this morning is a

1 public hearing on proposed amendments to the regulation

- 2 for in-use off-road diesel fueled fleets.
- 3 The regulation, which was approved by the Board
- 4 on July 26 of 2007 an important date in my personal
- 5 history since it was my first Board meeting when I came
- 6 back as Chairman will significantly reduce the public's
- 7 exposure to diesel particulate matter and oxides of
- 8 nitrogen from the nearly 180,000 off-road diesel vehicles
- 9 operating in California.
- 10 When the regulation is fully implemented, we
- 11 expect it to prevent some 4,000 premature deaths and to
- 12 provide the State an economic benefit of 18 to \$26 billion
- 13 in avoided health costs and costs of premature deaths.
- We last heard from our staff regarding this
- 15 regulation in January when the staff gave us a technology
- 16 and implementation update. At that time, we extended the
- 17 deadline for fleets to obtain the double credit that we
- 18 had written into the rule for those who were able to do
- 19 early retrofits.
- 20 Then as part of the February 2009 budget
- 21 agreement, the Legislature enacted Assembly Bill 8 2X,
- 22 which is why the staff is back before us today. This bill
- 23 was intended to provide economic relief and to preserve
- 24 jobs for fleets that are heavily impacted by the current
- 25 recession, and particularly for those that are in the

- 1 construction industry.
- 2 So we need to both acknowledge the fact that this
- 3 legislation passed and our role in helping to implement
- 4 it, and then to hear from the public about the proposal
- 5 that the staff has made for how to actually implement that
- 6 legislation.
- 7 Mr. Goldstene, would you please introduce this
- 8 item.
- 9 EXECUTIVE OFFICER GOLDSTENE: Thank your Chairman
- 10 Nichols.
- 11 In Assembly Bill 8 2X, the Legislature directed
- 12 ARB to amend the regulation to provide additional credit
- 13 for reduced activity and vehicle retirement, and to revise
- 14 the performance requirement schedule to allow fleets more
- 15 flexibility in 2010 and 2011.
- The changes directed by AB 8 2X will allow fleets
- 17 to take fewer actions to reduce emissions and therefore
- 18 staff expects they will result in a loss in emission
- 19 benefits. Hence, staff is also proposing a number of
- 20 measures to spur voluntarily early retrofits and repowers
- 21 of affected vehicles, with the expectation that these
- 22 measures will make up some of the emission benefits lost
- 23 due to AB 8 2X.
- 24 Additionally, over the past six months staff has
- 25 been working closely with affected fleets to implement the

1 regulation. Through this effort, staff has identified

- 2 several areas in the regulation where minor changes are
- 3 needed to provide additional flexibility and clarity. As
- 4 such, staff is proposing several additional minor
- 5 clarifications and modifications.
- 6 I'll now ask Elizabeth White from our Heavy-Duty
- 7 Diesel In-Use Strategies Branch to give the staff
- 8 presentation.
- 9 Beth.
- 10 (Thereupon an overhead presentation was
- 11 Presented as follows.)
- MS. WHITE: Thank you.
- Good morning, Madam Chairman and members of the
- 14 Board.
- 15 My presentation today details the proposed
- 16 amendments to the regulation for the in-use off-road
- 17 diesel-fueled fleets.
- 18 The proposed amendments will implement elements
- 19 of February's budget bill, codified in Assembly Bill 8 2X,
- 20 that affected this program and also include new incentives
- 21 to spur early actions by fleets to reduce emissions, and
- 22 several additional minor modifications and clarifications
- 23 to the regulation.
- --o0o--
- MS. WHITE: Here's an outline of today's

- 1 presentation.
- 2 First, I will describe Assembly Bill 8 2X, which
- 3 I will refer to as the legislation, and what it directed
- 4 staff to do.
- 5 Then, I will discuss the incentive provisions
- 6 staff is proposing to offset the potential loss and
- 7 emission benefits due to the legislation.
- 8 Then, I will summarize proposed minor
- 9 modifications and clarifications that staff is proposing
- 10 to rectify some issues that have come up as we've been
- 11 implementing the regulation.
- 12 Next, I will describe the overall expected
- 13 emissions impacts of the proposed amendments.
- 14 Finally, I will conclude with staff's
- 15 recommendation.
- 16 --00o--
- 17 MS. WHITE: The legislation directed ARB to make
- 18 several changes to the regulation that will allow some
- 19 fleets to delay compliance for a number of years. Before
- 20 describing the legislation, I will first review the
- 21 existing requirements of the regulation.
- --000--
- MS. WHITE: The Board approved the regulation in
- 24 July 2007, and its idling limits and disclosure provisions
- 25 are now effective. This spring the ban on adding Tier 0

1 vehicles, the oldest, dirtiest vehicles, took effect. The

- 2 reporting deadlines for large and medium fleets were in
- 3 April and June, and the deadline for small fleets is
- 4 August 1 of this year.
- 5 The requirements for reducing emissions begin
- 6 next spring for large fleets, those with over 5,000
- 7 horsepower. Beginning March 1, 2010, and each year
- 8 thereafter, the regulation currently requires large fleets
- 9 to either meet the fleet average or the BACT retrofit and
- 10 turnover requirements. Fleets can meet the NOx BACT
- 11 requirements by retiring vehicles, repowering vehicles
- 12 with cleaner engines, designating vehicles as permanent
- 13 low use, or installing NOx retrofits. Fleets can
- 14 currently meet the PM BACT requirements by installing
- 15 retrofits or shrinking their fleets by retiring Tier 0
- 16 vehicles. Fleets currently receive double credit for PM
- 17 retrofits if they are installed before January 1, 2010.
- 18 The regulation currently provides no credit or recognition
- 19 for reduced activity.
- 20 ---00--
- 21 MS. WHITE: The intent of the legislation is to
- 22 provide economically relief and to preserve jobs in the
- 23 construction industry, which is currently facing difficult
- 24 economic times due to the current global recession. The
- 25 legislation directs ARB to amend the regulation in the

- 1 following ways:
- 2 First, to allow fleets to delay some of their
- 3 2011 and 2012 turnover and retrofit requirements until
- 4 2013.
- 5 Second, to give PM and NOx BACT credit to fleets
- 6 that in the past two to three years have shrunk or reduced
- 7 their activity, that is, how much they operate their
- 8 vehicles.
- 9 ---00---
- 10 MS. WHITE: When crafting staff's proposal, staff
- 11 strove toward the following goals:
- 12 To develop a proposal consistent with the intent
- 13 language of the legislation; not penalize fleets by
- 14 increasing the stringency of the regulation; and
- 15 Reduce potential emissions disbenefits due to the
- 16 changes.
- 17 In developing the proposed amendments, staff held
- 18 two workshops, in Sacramento and Diamond Bar, as well as
- 19 received input from individual stakeholders and through
- 20 the Off-Road Implementation Advisory Group.
- --000--
- 22 MS. WHITE: First, let me provide more detail
- 23 regarding how staff proposes to implement the changes to
- 24 the BACT schedule.
- 25 --000--

1 MS. WHITE: The legislation directed ARB to allow

- 2 fleets complying via BACT provisions to take fewer actions
- 3 for the 2011 and 2012 compliance dates, and to require
- 4 fleets to make up for the difference by the 2013
- 5 compliance date.
- --000--
- 7 MS. WHITE: The current NOx BACT requirements -
- 8 shown in blue require fleets to turn over 8 percent of
- 9 their horsepower each year.
- To implement the legislation, staff is proposing
- 11 to change the turnover requirements to those shown in red.
- 12 In 2011 and 2012 fleets would only need to turn over 4.8
- 13 percent of their horsepower. But in 2013, fleets that
- 14 take advantage of the reduced 2011 and 2012 requirements
- 15 would need to turn over 14.4 percent of their horsepower.
- 16 The regulation's existing in carryover provisions will
- 17 remain in place, such that a fleet that does more than is
- 18 required one year can bank the extra credit.
- --o0o--
- 20 MS. WHITE: These bar charts show what the
- 21 schedule changes mean for the regulation's retrofit
- 22 requirements.
- 23 The current PM BACT requirements shown in
- 24 blue consist of installing retrofits on 20 percent of a
- 25 fleet's horsepower each year. To implement the

1 legislation, staff is proposing to change the retrofit

- 2 requirements as shown in red. Under the proposed revised
- 3 BACT schedule, fleets failing to meet the PM fleet
- 4 averages in 2011 and 2012 would only be required to
- 5 retrofit 12 of their horsepower -- 12 percent of their
- 6 horsepower per year.
- 7 However, in 2013, fleets that take advantage of
- 8 the reduced requirements would have to retrofit 36 percent
- 9 of their horsepower to make up the difference.
- 10 --000--
- 11 MS. WHITE: The proposed amendments contain
- 12 special provisions for fleets that meet the fleet averages
- 13 during 2011 and/or 2012, to ensure that such fleets are
- 14 not penalized by being required to take more actions than
- 15 the current regulation would require.
- 16 For example, large fleets that meet the fleet
- 17 average targets in 2012, but not in 2013, maintain the
- 18 existing 8 percent turnover and 20 percent retrofit
- 19 requirements in 2013.
- 20 ---00--
- 21 MS. WHITE: In addition to the BACT schedule
- 22 changes I just discussed, the legislation directs ARB to
- 23 provide fleets new credits for vehicle retirement and
- 24 reduced activity. I will describe these further in the
- 25 next few slides.

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1 --000--
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- MS. WHITE: First, the legislation provides new
- 3 PM and NOx credit for vehicle retirements, that is,
- 4 selling or scrapping a vehicle such that overall fleet
- 5 horsepower goes down.
- 6 Staff proposes to allow fleets to claim PM and
- 7 NOx credit for any vehicle retirements that reduce total
- 8 fleet horsepower between March 1, 2006, and March 1, 2010.
- 9 The new credit would not expire. Hence, large fleets that
- 10 have shrunk by more than 20 percent since 2006 would be
- 11 able to avoid all retrofit and turnover requirements for
- 12 2010, the first compliance year.
- 13 Retirement of any vehicle, regardless of emission
- 14 level tier, the receive credit.
- 15 --00o--
- MS. WHITE: Second, the legislation provides new
- 17 credit for reduced activity, that is, for fleets that are
- 18 using their vehicles less than in 2007. Staff proposes to
- 19 allow fleets to claim credit for reduced activity between
- 20 July 1, 2007, and March 1, 2010. Per the legislation, the
- 21 reduce activity credit could be used by fleets to satisfy
- 22 their NOx and PM BACT requirements in the years 2010 and
- 23 2011 only.
- --o0o--
- 25 MS. WHITE: The legislation specified credit for

1 active reductions be reflected from July 1, 2007, to March

- 2 1, 2010. Because activity for the largest industry
- 3 affected by the regulation, construction, cycles with the
- 4 season, it is not appropriate to look at just one day of
- 5 activity. Instead staff believes activity is more
- 6 appropriately measured over a 12-month period.
- 7 Staff proposes to use as a baseline the activity
- 8 during the 12 months centered on July 1, 2007, the date
- 9 specified in the legislation. This would be compared to
- 10 the activity during the 12-month period ending February
- 11 28th, 2010, to allow fleets to determine credit prior to
- 12 the initial compliance date for large fleets on March 1,
- 13 2010. The latter period could not be centered on March 1,
- 14 2010, because fleets need to know on that date the credit
- 15 they will receive.
- 16 --00o--
- MS. WHITE: Several fleets and construction
- 18 industry representatives requested that the initial period
- 19 be determined by the 12-month period ending on July 1,
- 20 2007. Activity was higher then, which would overestimate
- 21 the reduction in activity and result in more credit.
- 22 Staff considered this method, but does not agree that the
- 23 12 months ending on July 1, 2007, capture the average
- 24 annual activity as of that date. And staff believes this
- 25 method would not be consistent with the language in the

1 legislation. Staff balanced the need to provide relief as

- 2 directed in the legislation with the need to protect air
- 3 quality.
- 4 --000--
- 5 MS. WHITE: To receive the credit, fleets will
- 6 need to submit some records to demonstrate that the
- 7 reduction in activity occurred. After receiving feedback
- 8 during the two workshops held to discuss the legislation
- 9 and from industry representatives, staff concluded that
- 10 although some fleets have complete records, such as
- 11 vehicle hour meter or operator logs, many other fleets who
- 12 have experienced a reduction in activity would have more
- 13 limited records. For example, they might lack hour logs,
- 14 but have records of revenue or employment suggesting a
- 15 drop in activity but not corresponding directly to
- 16 operating hours or emissions.
- 17 Staff crafted its proposal such that it allows
- 18 fleets with such incomplete records to get some credit, up
- 19 to 20 percent. To receive credit greater than 20 percent,
- 20 a fleet would be required to submit hour-meter or operator
- 21 logs for each vehicle. Staff balanced the assurance of
- 22 credit with the flexibility of allowed records.
- 23 Staff's proposal ensures that credit is not
- 24 unfairly awarded to fleets that have not actually reduced
- 25 activity, but at the same time allows fleets which cannot

1 substantiate specific vehicle activity reductions to

- 2 receive some credit.
- 3 --000--
- 4 MS. WHITE: Based on comments received at the
- 5 workshops, some fleets have both retired vehicles and
- 6 reduced the operating hours of their remaining vehicles.
- 7 Under the proposal, fleets that have retired vehicles and
- 8 also have reduced activity from the remaining vehicles in
- 9 the fleet could claim credit for both. However, to
- 10 prevent double counting of the same action, a fleet could
- 11 not receive credit both for retiring and reducing activity
- 12 for the same vehicle.
- For fleets that submit usage records for each
- 14 remaining vehicle, staff proposes to allow retirement
- 15 credit for vehicles retired, and then also reduced
- 16 activity credit for activity reductions from the remaining
- 17 vehicles.
- 18 For fleets without vehicle-specific records, any
- 19 retirement credit for these fleets must be subtracted from
- 20 reduced activity credit to prevent double counting.
- 21 --000--
- MS. WHITE: The legislation will delay the
- 23 requirements of the regulation for many fleets, especially
- 24 those heavily impacted by the current recession. Hence,
- 25 there will be a slower retirement of high emitting

1 vehicles fewer repowers of vehicles with cleaner engines,

- 2 and fewer installations of exhaust retrofits. This will
- 3 result in fleets having older and higher emitting vehicles
- 4 and a loss in emission benefits compared to if the
- 5 legislation had not been adopted.
- 6 The next several slides discuss the impact of the
- 7 legislation on emissions.
- 8 --000--
- 9 MS. WHITE: This slide shows the loss in emission
- 10 benefits expected from the first part of the legislation,
- 11 the proposed changes to the BACT schedule.
- 12 The blue line in the upper portion of the graph
- 13 represents the NOx benefits before the proposed BACT
- 14 schedule changes. The red line shows NOx benefits after
- 15 the changes. The green line in the lower portion of the
- 16 graph represents the PM benefits before the proposed BACT
- 17 schedule changes. And the purple lines shows PM benefits
- 18 after the changes.
- 19 As you can see, the proposed BACT schedule
- 20 changes result in a loss in emission benefits in 2011 and
- 21 2012 of about 20 percent. But as long as fleets fully
- 22 comply with the 2013 requirements, there is no benefit
- 23 loss in 2013 and beyond.
- 24 However, as illustrated by the two shaded areas,
- 25 because fewer benefits will be achieved in 2011 and 2012,

1 there will be a commensurate loss in the health benefits

- 2 of the regulation, with this loss in health benefits not
- 3 being made up in future years.
- 4 --000--
- 5 MS. WHITE: Staff expects the second part of the
- 6 legislation, the new retirement and reduced activity
- 7 credit, will also result in a loss of emission benefits
- 8 because use of credits will allow fleets to take fewer
- 9 actions to clean up their vehicles. However, staff
- 10 recognizes that the recession has also impacted the
- 11 emissions from many affected fleets. Many fleets have
- 12 retired vehicles and reduce their vehicle activity and
- 13 thereby reduce their emissions below current estimates.
- 14 Until staff receives more data from fleets on the
- 15 level of activity reduction and fleet size, the extent of
- 16 changes in turnover practices, the type and quality of
- 17 records that fleets have maintained, and the timing and
- 18 extent of economic recovery, the overall effect on
- 19 emissions versus what was estimated when the regulation
- 20 was adopted cannot be accurately quantified at this time.
- 21 --000--
- MS. WHITE: In January, the Board requested that
- 23 staff return this fall with an update on where emissions
- 24 are versus where we estimated they would be when the
- 25 regulation was adopted. Due to the legislation, staff

1 will receive data on large fleet retirement and activity

- 2 reductions next spring. Because the proposed amendments
- 3 provide fleets hardest hit by the recession a delay in
- 4 complying with the regulation, there's now additional time
- 5 to complete staff's emissions evaluation.
- As such, staff will be able to analyze the two
- 7 competing effects of the recession and the proposed
- 8 amendments and develop estimates regarding where emissions
- 9 are. We therefore propose that the Board allow us to
- 10 postpone our update until the middle of 2010.
- 11 --000--
- 12 MS. WHITE: To mitigate the potential loss in
- 13 emission benefits from the legislation, staff is proposing
- 14 four amendments to spur early actions by fleets to reduce
- 15 emissions. These amendments are intended to encourage
- 16 fleets to install retrofits and repower vehicles with
- 17 cleaner engines earlier than they otherwise would.
- 18 --00o--
- 19 MS. WHITE: Amendments to provide incentives for
- 20 early retrofits include:
- 21 Allowing fleets to claim double credit for
- 22 retrofits that reduce NOx that are installed by March 1,
- 23 2011.
- 24 Also providing an additional 20 years for medium
- 25 and small fleets to claim double credit for PM retrofits.

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1 And, lastly, allowing fleets to claim an
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- 2 exemption for up to 15 percent of their total horsepower
- 3 from future turnover if they install a retrofit prior to
- 4 March 1, 2011. To prevent long-term NOx emission
- 5 disbenefits, it is necessary to limit this new exemption
- 6 to 15 percent of a fleet's horsepower.
- 7 --000--
- 8 MS. WHITE: Staff also proposes to add a
- 9 provision that allow fleets to accumulate NOx turnover
- 10 credit for early repowers that are installed.
- 11 --000--
- 12 MS. WHITE: Staff expects the proposed incentive
- 13 provisions will offset some of the emission impact of the
- 14 legislation. However, the overall benefit of these
- 15 proposed amendments will depend entirely on how successful
- 16 they are in spurring fleets to install additional
- 17 retrofits and repowers.
- 18 The table on this slide provides an estimate of
- 19 the emission benefits from the proposed incentives if they
- 20 spur 800 additional retrofits and 500 additional repowers
- 21 with cleaner engines.
- 22 Even with this level of early action, it still
- 23 would only partially offset the loss in emission benefits
- 24 expected from the 2011 and 2012 BACT schedule changes.
- 25 ---00--

1 MS. WHITE: Since January 2009, as staff has been

- 2 implementing the regulation and receiving feedback from
- 3 affected fleets and other stakeholders, staff has
- 4 determined that several other minor provisions of the
- 5 regulation should be clarified or modified.
- --000--
- 7 MS. WHITE: These clarifications and
- 8 modifications are shown on this slide.
- 9 These changes concern installer delays, how
- 10 community college training programs are treated,
- 11 clarification of the retrofit safety exemption, public
- 12 agency fire prevention activities, and reporting of
- 13 vehicle sales to ARB.
- 14 Staff does not expect any of these clarifications
- 15 and modifications will have a quantifiable impact on
- 16 emissions.
- 17 --00--
- MS. WHITE: Now that I've described the proposed
- 19 amendments and individual emission impacts of each change,
- 20 I will now summarize the overall effect on emissions from
- 21 the legislation and incentive provisions.
- --000--
- MS. WHITE: In summary, the first part of the
- 24 legislation, the proposed BACT schedule changes, will
- 25 cause a loss in health benefits in the early years of

1 compliance. We expect the second part of the legislation,

- 2 the new proposed reduced activity and retirement credit
- 3 provisions, to result a loss in emission benefits. But we
- 4 cannot accurately quantify this loss at this time, because
- 5 it depends on several variables for which the data is
- 6 currently unavailable.
- 7 The emission benefits of the proposed incentive
- 8 provisions will depend on their appeal to fleets. Staff
- 9 expects these new provisions will only partially offset
- 10 the loss and emission benefits expected from the
- 11 legislation.
- 12 Overall, a net loss in emission benefits is
- 13 expected from staff's proposal.
- 14 --000--
- MS. WHITE: In conclusion, staff recommends that
- 16 the Board approve the proposed amendments to the
- 17 regulation. Additionally, staff proposes to return to the
- 18 Board mid-next year to report on the impacts of the
- 19 economy and the proposed amendments.
- This concludes my presentation. Thank you.
- 21 CHAIRPERSON NICHOLS: Thank you.
- We have opportunity for Board members to ask any
- 23 questions if they want to before we hear from the public.
- Yes, Mr. Roberts.
- 25 BOARD MEMBER ROBERTS: I get concerned when I

1 hear about losses and things like this, because the

- 2 language sometimes is different.
- 3 What role does the economy take in making those
- 4 statements? What are the assumptions made? And if you go
- 5 back to your chart -- hang on -- the one that shows the
- 6 two curves with the yellow coloring. And I'm having
- 7 trouble finding it here right now.
- 8 Slide 20.
- 9 MS. WHITE: Slide 20?
- 10 BOARD MEMBER ROBERTS: Yeah. And let me
- 11 further -- I mean if the economy is such, it's a little
- 12 bit different. But if it was such that we stopped every
- 13 single piece of equipment, would we still have a loss of
- 14 emission benefits by -- I'm trying to understand the
- 15 language that you're using, because it seems a bit foreign
- 16 to me.
- 17 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 18 WHITE: Well, there's a couple things that are going on.
- 19 This particular slide -- Oh, I'm sorry.
- 20 This is Erik White with the Mobile Source Control
- 21 Division.
- 22 On this particular slide what you're seeing is
- 23 the reduced amount of actions that fleets would have to
- 24 take in 2011 or 2012 by essentially establishing a
- 25 triennial compliance period. So they'll do a little bit

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1 in 2011, a little bit in 2012, and then they'll make up
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- 2 the difference in 2013. So they get to the same point.
- 3 BOARD MEMBER ROBERTS: I understand that.
- 4 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 5 WHITE: Okay.
- 6 BOARD MEMBER ROBERTS: Help me to understand
- 7 where that blue line -- the assumptions that are made in
- 8 developing the blue line.
- 9 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 10 WHITE: Well, the blue line are the emission estimates
- 11 that we developed in conjunction with developing the
- 12 regulation. Those are based on a 2005 emission estimate
- 13 and baseline and grown into future years. So the blue
- 14 line is the line that we are relooking at in regards to
- 15 what is the effect of the economy in terms of vehicle
- 16 retirements, yes.
- 17 BOARD MEMBER ROBERTS: That's the point I'm
- 18 getting at. I mean if the actual blue line in reality is
- 19 lower than that red line, then there's not a loss then, is
- 20 there?
- 21 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 22 WHITE: Well, there still will be, because without these
- 23 changes, even with the reduction, fleets would still have
- 24 to take actions in 2011 and 2012. They would still have
- 25 to turn over a set amount of their horsepower or meet the

- 1 fleet average.
- 2 So what we've done is -- the blue line would come
- 3 down and the red line would also come down. But you would
- 4 still -- they would still be taking actions instead of
- 5 having credits, which will satisfy that obligation.
- 6 BOARD MEMBER ROBERTS: Okay. So what you're
- 7 saying, there'd be a lesser tonnage as compared to having
- 8 the rule versus not having the rule so long as there's
- 9 even one piece of equipment that's still running?
- 10 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 11 WHITE: Yes.
- 12 BOARD MEMBER ROBERTS: And there's some
- 13 measurable impact. But this is based on a -- at least the
- 14 numbers you're showing us in what we're losing here may
- 15 $\,$ not -- in terms of total tons and the effect it may --
- 16 that's a theoretical number based on a theoretical
- 17 economy?
- 18 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 19 WHITE: Correct. And one reason why we're not citing
- 20 specific numbers is we are continuing to look at that.
- 21 We're working with the Associated General Contractors as
- 22 well to try to get a handle on what is the impact of the
- 23 economy on emissions. And then with the data that we
- 24 would come in as regards to these proposed amendments, we
- 25 would have a much clearer picture of how fleets are

1 responding to the economy in terms of vehicle retirements

- 2 and activity so that we can start to put some -- pin some
- 3 numbers to those.
- 4 BOARD MEMBER ROBERTS: Okay. But in terms of us
- 5 looking at the amount of yellow and trying to, you know,
- 6 at one time in calculus I probably could have figured out
- 7 the area of that and given you a total tonnage.
- 8 (Laughter.)
- 9 BOARD MEMBER ROBERTS: But that really is based
- 10 on some assumptions that you're reconsidering now in the
- 11 light of the way the world is actually spinning.
- 12 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 13 WHITE: Correct.
- 14 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I think
- 15 what we can say is that the absolute value of the tons or
- 16 the health impact that's that shaded area will change by
- 17 the amount of activity decrease that there is. So that it
- 18 would -- if it was cut in half, then you'd probably have
- 19 half the loss of benefit or something along those lines.
- 20 But it will not go to zero unless there was zero activity.
- 21 So it's more like a percent -- the percentage is constant,
- 22 but the absolute value won't change depending on the
- 23 assumption or the actual activity that's going on.
- 24 But on this provision, there is always a loss of
- 25 benefit, because -- for these two years, because you're

1 just -- whatever actions are required, you're deferring a

- 2 part of them until the third year.
- 3 CHAIRPERSON NICHOLS: Right. But again this is
- 4 something that the decision has been made that this needs
- 5 to be done and, you know, we're implementing.
- 6 BOARD MEMBER ROBERTS: Yeah, I'm not questioning
- 7 that. I'm really trying to understand the projected
- 8 impacts here. And I think that they're probably a lot
- 9 less than we thought at one time.
- 10 CHAIRPERSON NICHOLS: I hope so, but I also fear
- 11 so, because obviously we don't want to bet against
- 12 recovery if we can possibly help it. We need to monitor
- 13 the situation, but we don't want to base our plans on, in
- 14 effect, hoping that there will be less economic activity.
- 15 In fact, the opposite. We want thee to be more.
- 16 All right. Dr. Telles, yes.
- You do need a flag to wave here.
- 18 BOARD MEMBER TELLES: I know. I'm sorry.
- 19 I have a question kind of on the same line.
- 20 What is the total NOx inventory for this segment
- 21 right now?
- 22 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 23 WHITE: Yeah, we'll pull that --
- 24 BOARD MEMBER TELLES: Well, on page 37 you say
- 25 387 tons of NOx per day. I mean if that's the inventory

1 and if -- and the reason why I'm asking this is I would

- 2 like to see one more line on this, kind of like what
- 3 Supervisor Roberts is getting to, as what's actually
- 4 happening out there. If there's a 30 percent reduction on
- 5 the activity of this industry, that takes that inventory
- 6 down to about a hundred tons of NOx. And that would be a
- 7 line that's below -- I mean it's really significant.
- 8 And to say that there's no health benefits in the
- 9 first few years, I mean there's health benefits going on
- 10 right now because of the lack of activity in this
- 11 industry. And that the emissions reductions are much
- 12 huger than what's actually being displayed on these
- 13 graphs -- emission reductions from inactivity of the
- 14 industry.
- 15 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:
- 16 Yeah. This is Bob Cross.
- 17 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes.
- 18 But I think what happens is that the line will go down;
- 19 meaning that if you pick 35 tons off there of benefit, it
- 20 will --
- 21 BOARD MEMBER TELLES: A hundred tons, a hundred
- 22 tons. Thirty percent of --
- 23 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: No.
- 24 There will still be an incremental effect. If there's
- 25 only a hundred tons -- if it was 30 percent reduction,

1 then, say, it would be 200 tons. But there would -- it

- 2 would still be that much emissions. Certain activities
- 3 would be going on under the current regulation; and fewer
- 4 activities in '11 and '12 would be going on under the
- 5 revised program. And so there's always going to be an
- 6 incremental loss. It's just the absolute value. The
- 7 width of that shaded area will shrink as the activity goes
- 8 down.
- 9 But it can't go to zero. It can't -- the blue
- 10 line doesn't go below the red line.
- 11 BOARD MEMBER BERG: But isn't the incremental
- 12 loss due to the fact that the equipment that is not
- 13 running right now because of the economy, when the economy
- 14 does pick up, it will come back in the fleet as it was
- 15 before and not with a retrofit or with the engine -- with
- 16 the NOx improvement? So isn't that really where the
- 17 incremental loss is?
- 18 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
- 19 in this one piece, the incremental loss just comes from
- 20 delayed actions that would have been required under the
- 21 rule where every year you'd have to do a certain amount of
- 22 activity. And under this rule it allows you to reduce
- 23 your house payment and make a balloon payment at the end
- 24 of three years. That's basically what it does.
- 25 So you catch up in the end. So in 2013, air

1 looks the same regardless of what activity is, whether

- 2 this bill had passed or not. But in the two previous
- 3 years the air will be somewhat dirtier. And we can't tell
- 4 you -- till we have a better understanding of the
- 5 activity, we can't tell you how much is lost, but it will
- 6 be a loss. And it may be the width of that line or it may
- 7 be half the width of that shaded area, depending on the
- 8 loss of activity.
- 9 And then on the other provisions we have less
- 10 ability to quantify at the moment. But on this one you
- 11 can -- you know, it's clear that there will be a loss.
- 12 That's all we're trying to say.
- 13 CHAIRPERSON NICHOLS: All right. I'd like to
- 14 turn to the public testimony since we have 15 witnesses
- 15 who have signed up to speak to us. And I'm sure they'll
- 16 have comments on this issue that we've just been
- 17 discussing as well.
- 18 So I don't know if you've made the witness list
- 19 available. Is it posted anywhere so people can --
- 20 BOARD CLERK VEJAR: It is out front.
- 21 CHAIRPERSON NICHOLS: Okay. So you can keep
- 22 track of where you are in the queue then if you're signed
- 23 up. And we would really appreciate it if people would be
- 24 ready to come forward when their name is called.
- 25 So I will call the first three witnesses: Tim

1 Pohle, followed by Joseph Kubsh, and Henry Hogo.

- 2 Good morning.
- 3 MR. POHLE: Hi there. I'm Tim Pohle from the Air
- 4 Transport Association. We represent the major carriers in
- 5 the country.
- 6 And we have a long history of working with our --
- 7 I just want to emphasize from the start that we've always
- 8 supported the emissions targets. We're just seeking the
- 9 right path to getting there. We still have some
- 10 fundamental concerns about this rule. But we generally
- 11 support the changes that are considered -- under
- 12 consideration today, particularly with respect to FAA's
- 13 role and making sure that FAA is in the mix in terms of
- 14 understanding what can be done safely on the airfield.
- 15 But I really want to focus on the future today.
- 16 With the passage of this rule, we now have a comprehensive
- 17 suite of rules that are affecting our fleet out -- in
- 18 California. Have the off-road diesel rules, the large
- 19 spark ignition rule, the portable engine rule. Even the
- 20 off-road diesel rule there are some pieces of equipment
- 21 that we operate on the airfield that are impacted.
- So, now we've got a comprehensive suite of rules
- 23 that are requiring a tremendous amount of effort, a
- 24 tremendous amount of expense. And as we look forward into
- 25 the future, we're seeing more and more folks talk about

1 climate change, an issue that's very important to us. We

- 2 just want to make sure that you all are cognizant of what
- 3 you've required of us thus far and make sure that all the
- 4 effort that we're undertaking isn't negated by any future
- 5 regs that might be aimed at a different category of
- 6 emissions.
- 7 And I just want to say that I'm not out here only
- 8 to speak on this rule. I'm out here to speak -- working
- 9 with airports looking at greenhouse gas emissions. And
- 10 we're working with airports to try to figure that out.
- 11 And I have to say, some of the airports are not aware of
- 12 what's going on. So I welcome the comments about trying
- 13 to quantify the GHG reductions that are going to result
- 14 from all these rules and all the efforts that we're
- 15 undertaking.
- 16 So we look forward to that.
- 17 I think too that looking to the future, the thing
- 18 that's in our -- right now so important is the economy and
- 19 the economic situation that we find ourselves in. I think
- 20 that it's important. I just want to make clear we have
- 21 always supported the emission reduction targets. We just
- 22 want to get there in the right -- in a good path, good,
- 23 efficient path that makes sense.
- I just want to -- I'm happy that you folks zeroed
- 25 right in on this issue of what isn't a benefit -- what is

- 1 a benefit loss.
- 2 I think the issue really is one -- there will be
- 3 an emissions benefit loss under any scenario when you
- 4 implement this.
- 5 The question though is -- you know, these lines
- 6 are shifting down, right? So even with the relief that is
- 7 provided, we're still I think going to be below where we
- 8 otherwise would have been under the projections that were
- 9 made earlier.
- 10 So that's really the key issue. And I hope you
- 11 all focus on that. And we need to do this in October, not
- 12 mid-2010. We need to do it in October, as was scheduled.
- 13 And I'm really in support of that.
- 14 So thank you very much.
- 15 CHAIRPERSON NICHOLS: Mr. Pohle, thank you for
- 16 that.
- 17 Okay. Mr. Kubsh for MECA.
- 18 MR. KUBSH: Good afternoon, Chairman Nichols,
- 19 members of the Board. My name's Joe Kubsh. I'm the
- 20 Executive Director of the Manufacturers Emission Control
- 21 Association. And I have a very simple message here for
- 22 you all today.
- One, the emission control industry is ready to
- 24 provide verified retrofit technologies for the off-road
- 25 rule today. We've certainly worked hard to expand the

1 retrofit options that are on the verified list. And there

- 2 are more verified retrofit options coming to provide both
- 3 PM and NOx reductions for off-road equipment. And we're
- 4 hopeful that the early incentives that are a part of this
- 5 package will be used by the industry to implement the
- 6 verified technologies that are available.
- 7 My second point is that my industry needs
- 8 regulatory certainty to build a viable business and to
- 9 create tens of thousands of jobs associated with emission
- 10 control technology; and that's implementation as a part of
- 11 this and other rules that you all have adopted.
- 12 Regulatory certainty is critically important to make sure
- 13 that these companies can continue to invest their
- 14 resources to deliver verified technologies for use both
- 15 off road and on road as a part of your regulations.
- 16 And my third point is that given the shortfalls
- 17 that will be created as a part of the provisions that you
- 18 will adopt here today, there are other opportunities of
- 19 using emission control in other mobile sources that my
- 20 industry can help to provide some additional emission
- 21 reductions to help close that gap. There are
- 22 opportunities for using emission controls on off-road
- 23 gasoline engines that still haven't been utilized by the
- 24 State of California. There are opportunities for emission
- 25 reductions on crankcase emissions that are a part of all

1 existing diesel engines, whether they be off road or on

- 2 road.
- 3 So there are other opportunities that will be
- 4 available to you to help close some of the gap that is
- 5 created by the proposals that you will certainly approve
- 6 here today.
- 7 And I thank you for your time.
- 8 CHAIRPERSON NICHOLS: Thank you, Mr. Kubsh.
- 9 Henry Hogo, followed by Mike Salm.
- 10 MR. HOGO: Good morning, Madam Chair, members of
- 11 the Board. I'm Henry Hogo, Assistant Deputy Executive
- 12 officer of our Mobile Source Division at the South Coast
- 13 AQMD.
- 14 We have submitted a written comment relative to
- 15 the proposed amendments. But first I want to say that we
- 16 commend staff for proposing amendments that address AB 8
- 17 2X and commend staff for proposing early incentives to
- 18 trying to offset some of the emission benefits loss. But
- 19 we believe that there are -- there is a need to have
- 20 further language added to the amendments to fully recoup
- 21 the emission benefits lost.
- I want to comment on Board Member Berg's comment
- 23 about the parking of vehicles. Where we see the issue in
- 24 emission benefits loss is that when a fleet receives the
- 25 retirement credit, they can use that to offset any further

- 1 action in the future.
- 2 So if a fleet has a fear Tier 0 vehicle, they may
- 3 have retired a few or taken them out of their fleet. But
- 4 the ones that are retired and will be parked could be used
- 5 again in the future. And that vehicle would have been
- 6 cleaned up under the existing regulation. So we believe
- 7 those credits, even though they're appropriate for the
- 8 economic situation today, they should be sunset after 2012
- 9 or not be used after 2012. And we have proposed that type
- 10 of amendment be added to the early credit provision.
- 11 In addition, we would like to see language added
- 12 to the adopting regulation -- I'm sorry -- adopting
- 13 resolution to monitor the economic situation. And if the
- 14 economic situation does not improve, this language could
- 15 be removed again or the Board can propose some potential
- 16 other actions to seek further relief.
- We believe the Legislature intended to really
- 18 have a temporary use of these credits. And they did that
- 19 with a reduced activity credit, that those credits can
- 20 only be used for the next couple years.
- 21 And you did receive a letter from the Legislature
- 22 stating that if there are emission losses -- or the
- 23 emission benefits are compromised, that further amendments
- 24 should be made. We fully urge you to consider this
- 25 additional language.

- 1 Thank you.
- 2 CHAIRPERSON NICHOLS: Thank you.
- BOARD MEMBER BERG: Madam Chair, could I just ask
- 4 a quick question?
- 5 CHAIRPERSON NICHOLS: Yeah, sure.
- 6 BOARD MEMBER BERG: Mr. Hogo, could you comment
- 7 on how you see this change affecting the SOON program.
- 8 MR. HOGO: We actually have had fleets applying
- 9 for SOON. And we're still oversubscribed in the sense of
- 10 fleets that do have the ability to look at replacing their
- 11 vehicles come in. And because of this lower activity, we
- 12 believe that there may be more applications to the SOON
- 13 program.
- 14 CHAIRPERSON NICHOLS: Yes, Mayor Loveridge.
- 15 BOARD MEMBER LOVERIDGE: Just at the conclusion
- 16 of testimony I'd like staff to respond to the two
- 17 suggestions offered by Henry Hogo.
- 18 CHAIRPERSON NICHOLS: Okay. We'll do that at the
- 19 end then.
- 20 Mr. Salm, followed by Alexandria Sanchez.
- 21 Is Mike Salm here? Salm Engineering and Grading
- 22 Contractors.
- 23 All right. Let's hear from Alexandria Sanchez.
- 24 Welcome.
- MS. SANCHEZ: Hi. My name's Alexandria

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Sanchez. I'm a field representative for
 2
         Assemblyman Anderson's office. And I just wanted
         to briefly read you a letter that he submitted to
 3
         you guys.
 5
             "I write this letter to request that the
         California Air Resources Board allow more time
         for the compliance with the emissions regulations
 8
         for construction equipment and other off-road
         diesel fueled vehicles, which was passed in 2007.
 9
10
             "As I've previously stated, the Board's goal
11
         when these standards were set was a noble one.
         All Californians want clean air. In fact,
12
         California's construction industry has done its
13
         best to comply with the new standards and have
14
15
         begun to use newer less toxic equipment to
16
         achieve that end since regulations were passed.
             "However, the Board must consider the
17
18
         economic environment in which we currently live.
19
         Construction in California is down dramatically.
20
         And many California construction companies, which
21
         at one time employed nearly one million citizens
22
         in our state, are looking at closing down, if
23
         they have not done so already, as they're unable
24
         to meet these new standards in the cost effective
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manner. We must not let this happen. We must

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1 get California moving forward again.
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- 2 "At this time in our State's history, we need
- 3 to balance our desire to be a national leader on
- 4 clean air with economic realities of our time.
- 5 "I ask that CARB California Air Resources
- 6 Board relax its emissions regulations
- 7 passed in 2007 and allow more time for the owners
- 8 of targeted vehicles to comply with the Board's
- 9 goals and keep this industry alive in California.
- 10 "Thank you for your consideration on this
- 11 matter.
- "Sincerely, Joel Anderson, Assemblyman."
- 13 Thank you for your time.
- 14 CHAIRPERSON NICHOLS: Thank you. Thanks, Ms.
- 15 Sanchez, and thanks to the Assembly Member for writing to
- 16 us.
- 17 All right. Michael Lewis then, followed by Scott
- 18 Erreca.
- 19 MR. LEWIS: Good morning, ladies and gentlemen.
- 20 I'm Mike Lewis with the Construction Industry Air Quality
- 21 Coalition. And I wanted to bring to your attention a
- 22 couple of things.
- 23 First of all, we support the proposed amendments
- 24 to the rule as far as they go. And we think there's three
- 25 items that we'd like to have you address.

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One is with regard to the reduced fleet activity
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- 2 and the definition of the period in which reduced activity
- 3 is calculated. We propose that it be the year-ending July
- 4 1st, 2007, as it is proposed for the March 1st, 2010,
- 5 rather than the midpoint of the year, which is what you're
- 6 staff is proposing. And I think if you look at the intent
- 7 of the legislation, that it be the period between those
- 8 two dates. It's between and not partially between.
- 9 Secondly, with regard to the sale of vehicles,
- 10 your staff's proposing to add a provision that the seller
- 11 must also notify CARB. We think that's an unnecessary
- 12 duplication of activity. The purchaser is required to
- 13 notify. They're required to register it in the DOORS
- 14 system. Your staff could easily amend the DOORS program
- 15 to allow for the purchaser to enter that data and to send
- 16 a confirming notice to the seller that they in fact
- 17 transferred it to that individual.
- 18 Thirdly, with regard to VDECS, the staff is
- 19 proposing a test, if you will, for determination on the
- 20 installation of VDECS is impossible. We think that's not
- 21 a very realistic test, that it's an unachievable
- 22 objective, and that you need to look at infeasible or
- 23 impractical as the definition for determination on
- 24 installation of VDECS.
- 25 Finally, I'd like to address the myth, if I can,

- 1 of lost benefits.
- 2 It's clear from the data that you have already,
- 3 with 97,000 pieces of equipment in the DOORS system, that
- 4 the fleet is smaller than you had originally projected, it
- 5 is newer than you had originally projected, and its
- 6 characteristics -- its operating characteristics are very
- 7 different. It's lower horsepower equipment, tends to be
- 8 newer, tends to be operated fewer hours.
- 9 Even South Coast in their comment letter
- 10 estimated that the fleet was going to be about 30 percent
- 11 smaller than had originally been the case.
- 12 Simply put, the emissions that you're trying to
- 13 reduce never existed in the first place. And I think,
- 14 Supervisor Roberts, you're right to raise the question of
- 15 where that blue line is. That blue line assumed a much
- 16 bigger fleet with older equipment and a recession that
- 17 never occurred.
- 18 If you recalculated that line, I think you'd find
- 19 that it in fact is well below where that red line is on
- 20 the staff's chart. And I hope that in October the staff
- 21 will come back with an updated accurate calculation of
- 22 those emissions.
- 23 But I think it's just ingenuous to continue to
- 24 perpetrate this myth that somehow we're losing benefits
- 25 when in fact those emissions didn't exist in the first

- 1 place.
- 2 Finally, the last time I was here I showed a
- 3 chart of what's happening to this industry. Not much has
- 4 changed except the numbers have continued to decline.
- 5 I've got an update of that chart. And if you look closely
- 6 at the numbers, you can see that virtually every measure
- 7 of construction activity in California is on the downward
- 8 trend, and is continuing so and probably will until some
- 9 time in the middle or late next year.
- 10 Thank you
- 11 CHAIRPERSON NICHOLS: Thank you, Mr. Lewis.
- 12 I have actually one question which might extend
- 13 your time for just a second. I took notes on your
- 14 comments. And I only wanted to ask you about the one
- 15 relating to notification.
- MR. LEWIS: Yes.
- 17 CHAIRPERSON NICHOLS: As I understand it, the
- 18 seller notification relates to this issue about credits,
- 19 when people are seeking credit for having reduced their
- 20 fleet size. And I'm just wondering why you would put the
- 21 burden on the buyer to be taking care of making sure that
- 22 the seller's accounting is in order.
- MR. LEWIS: Well, currently the burden is on the
- 24 buyer. Your staff's proposing to now add an additional
- 25 step where the seller has to provide notification that he

1 sold the equipment to another -- to the purchaser. And

- 2 right now the burden's on the buyer to have to add it to
- 3 his fleet for his purposes of bringing his information
- 4 up-to-date on the DOORS system.
- 5 Frankly, we see it as just one more step that's
- 6 going to create a potential violation for somebody. But
- 7 the way the system works right now, the buyer can't enter
- 8 it into the DOORS system until the seller releases it.
- 9 And what suggest is rather requiring the seller to do
- 10 that, allow the buyer to enter it and provide notice to
- 11 the seller that they can confirm that in fact they did
- 12 transfer the ownership to that individual. There is no
- 13 other way to -- you know, this isn't a DMV process where
- 14 there's -- where paperwork gets cleared and transferred.
- 15 CHAIRPERSON NICHOLS: I understand. I'm
- 16 interested in reducing paperwork burdens wherever
- 17 possible. That is why I flagged this issue when you
- 18 mentioned it.
- 19 MR. LEWIS: Okay.
- 20 CHAIRPERSON NICHOLS: Staff, I don't know if you
- 21 want to respond right now or if you want to wait until
- 22 later in terms of what you're thinking.
- 23 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 24 WHITE: No, we can address this one right now.
- 25 In conjunction with reporting your vehicles, ARB

1 issues an equipment identification number, almost like a

- 2 license plate for the vehicle. That sticks with the
- 3 vehicle for the life of the equipment.
- 4 And so what happens is that when a transaction
- 5 occurs in between the annual reporting periods, there's no
- 6 obligation for the seller to let us know that he no longer
- 7 has this vehicle. It's somebody else's responsibility.
- 8 And we hope that the buyer will tell us that that may or
- 9 may not necessarily happen. So we see this as a process
- 10 whereby when a vehicle is observed out in the field with a
- 11 particular number on it, we'll be able to clearly know
- 12 who's responsible for that vehicle, so we won't have to be
- 13 switching identification numbers, because we -- the buyer
- 14 tells us they got it but we don't necessarily know who
- 15 they got it from. And so there's a different number on
- 16 that.
- 17 And I guess I would liken it to when you sell a
- 18 vehicle, you have to let the DMV know that somebody else
- 19 has taken, you know, the legal liability for that vehicle
- 20 if it's, you know, found on the road, if it gets a parking
- 21 ticket or what have you.
- 22 So it's very much akin to a system whereby we'll
- 23 be able to follow who is responsible for a vehicle and
- 24 who's responsible for the compliance of that vehicle in
- 25 the field.

1 CHAIRPERSON NICHOLS: Okay. I understand. I'll

- 2 think about this some more, but I appreciate your comment.
- 3 Thanks.
- 4 Okay. Scott Erreca, followed by Jeff Farano.
- 5 MR. ERRECA: Ladies and gentlemen, my name is
- 6 Scott Erreca. I'm Vice President of Erreca's,
- 7 Incorporated. We've been in business in San Diego since
- 8 1955. We are a large fleet owner. And I am a former
- 9 president of the AGC here in San Diego. So I've been
- 10 involved in the industry pretty much most of my life.
- 11 The regulation is an onerous regulation and we as
- 12 an industry I think have adopted the mind-set that, you
- 13 know, it's not going to go away, it's something we all
- 14 have to live with, and it's something that we all need
- 15 because we all need clean air.
- 16 But to emphasize what Supervisor Roberts saw. In
- 17 2005 -- we budget all our equipment based on usable hours
- 18 so we know what our costs are. Our usable hours depending
- 19 on the pieces of equipment usually run between 1200 and
- 20 1400 hours. Our fiscal year this year will end September
- 21 30th. We won't have one piece exceed 500 hours. Most of
- 22 them will be between 350 and 400 hours.
- 23 I'm a union contractor. We employ operating
- 24 engineers. In 2005 I had a 125 operating engineers on the
- 25 payroll. This year I've got less than 30.

1 This is a tough, tough time for this industry.

- 2 The regulations that are coming forward are expensive. We
- 3 know that. We're trying to plan for it. But right now we
- 4 need time. We need time to be able to hold our businesses
- 5 together. I've gone from a volume of close to \$90 million
- 6 a year down to \$40 million a year, and I haven't laid off
- 7 one person that is associated with overhead.
- 8 I have to do that this Friday. I'm going to cut
- 9 my staff by 30 percent, and I hope it's enough. We need
- 10 time. And in this regulation, there's things that you can
- 11 do that can help us. The paperwork that you ask for us to
- 12 do, you also say that we can do it electronically. My
- 13 staff is pulling their hair out trying to be able to do it
- 14 electronically when the websites don't work. Don't ask us
- 15 to do something we can't do.
- 16 The update on the equipment we know has to be
- 17 done. We know right now parking the equipment, and
- 18 equipment that's usually valued at \$700,000 per piece, is
- 19 down at market level in auctions anywhere from 200 to
- 20 \$225,000, in the retrofit to bring it up to a Tier 3 level
- 21 is \$430,000.
- 22 It doesn't take an economic major to understand
- 23 it's not viable to spend that kind of money in a depressed
- 24 market. We need the time.
- 25 The last point I'd like to make. In your

1 amendment as far as safety, you mention if the VDECS can't

- 2 be put in and it's impossible. Don't give enforcement the
- 3 wording "impossible," because then you can come out and
- 4 someone can sit there and try to have us spend a fortune
- 5 to try to make it work and it still won't work.
- 6 Thank you.
- 7 CHAIRPERSON NICHOLS: Thank you.
- 8 BOARD MEMBER ROBERTS: Before you --
- 9 BOARD MEMBER RIORDAN: Madam Chairman?
- 10 BOARD MEMBER ROBERTS: Go ahead, Barb.
- 11 We've got a couple questions for --
- 12 BOARD MEMBER RIORDAN: I'm trying to decide if my
- 13 microphone is on or not.
- 14 Let me ask about this website. Certainly we need
- 15 to be very helpful in that. And so I'm just -- I don't
- 16 know the details, but I am hoping that some staff member
- 17 can meet with this gentleman and to try to work something
- 18 out, because we don't want to make life miserable. Your
- 19 life is miserable already. But, you know, we don't
- 20 need --
- 21 (Laughter.)
- 22 BOARD MEMBER RIORDAN: -- to add to it.
- No, no, no, no.
- MR. ERRECA: You have no idea.
- 25 (Laughter.)

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1 BOARD MEMBER RIORDAN: No, no, no, no. He is
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- 2 reflecting what is happening. I happen to be from the San
- 3 Bernardino County area. And I can tell you this machinery
- 4 is parked, and they have no project on the ground ready to
- 5 go. I mean it's really tough.
- 6 So we need to do everything possible to work
- 7 through the reporting system. And I don't think we can do
- 8 it publicly. But let's have somebody meet with him maybe
- 9 after this particular item.
- 10 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 11 WHITE: Absolutely, Board Member Riordan.
- 12 Just so that -- this is the first we've heard of
- 13 some problems with the website. So far we felt the
- 14 website's been very successful in terms of accepting data.
- 15 We've received information from 2700 fleets and over a
- 16 hundred thousand vehicles already reported through our
- 17 DOORS, which is our on-road reporting -- our off-road
- 18 reporting system. So it seems to have been very
- 19 successful. And we have resources available where we can
- 20 help this gentleman get his information in. And we'll get
- 21 his information after the hearing and --
- 22 MR. ERRECA: Clarification. The original website
- 23 that you had us go to to be able to work out our fleet
- 24 requirements and to plan for the future worked very well,
- 25 and actually gave us answers -- actually gave us answers

- 1 to questions on "what ifs," what we could do.
- 2 But what my staff is telling me now is that you
- 3 refer us to go to an EXCEL spreadsheet that is very
- 4 cumbersome and does not even give us the answers that we
- 5 used to get beforehand.
- 6 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 7 WHITE: I understand. Okay.
- 8 MR. ERRECA: And I can't tell you exactly what
- 9 that is. I'll put you in touch with my nephew. He's a
- 10 graduate of USC. He's no dummy. And he's very computer
- 11 literate, so he can explain everything to you.
- 12 (Laughter.)
- 13 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 14 WHITE: That sounds good. We're happy to sit down and
- 15 work with him.
- 16 CHAIRPERSON NICHOLS: Thank you, sir.
- 17 BOARD MEMBER ROBERTS: I have a question.
- 18 CHAIRPERSON NICHOLS: Oh, another question before
- 19 you leave.
- 20 BOARD MEMBER ROBERTS: Your equipment, is it all
- 21 the hourly metered equipment?
- MR. ERRECA: Yes.
- 23 BOARD MEMBER ROBERTS: And have you projected out
- 24 how -- given the credits, how this is going to work for
- 25 you?

MR. ERRECA: It's going to help a lot. You know,

- 2 it's not an end-all, as staff has told you, come 2013.
- 3 It's a bullet. It's kind of like a bridge loan that you
- 4 hope doesn't come due but it's going to come due. And
- 5 I'll tell you where we're coming from if -- looking at the
- 6 economics, I don't see the housing industry in California
- 7 coming -- you know, I've lived and breathed with how the
- 8 housing industry is probably 60 percent, 70 percent of our
- 9 volume outside of public works projects.
- I don't see, and neither do the builders see,
- 11 this industry coming back much before 2014, 2015. There's
- 12 too much inventory, there's too much unsold homes, and
- 13 there's too many foreclosures coming down the road, that
- 14 it would take an incredible unprecedented turn of
- 15 economics for us to be able to consume that kind of
- 16 inventory. It's not going to happen.
- 17 So I'm looking -- I'm gambling that Europe turns
- 18 before we do. And we can move most of our noncompliant
- 19 equipment that will need to be turned in 2013 to Europe.
- 20 And we're going to downsize, because I don't see it coming
- 21 back.
- 22 BOARD MEMBER ROBERTS: So by just reducing the
- 23 stock of equipment that you've got and shipping it to
- 24 other areas, which I guess will accomplish something for
- 25 California and less so for --

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1 MR. ERRECA: Well, it will come -- the sad
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- 2 part -- you know, this regulation is needed for health.
- 3 But unfortunately the sad part is that it's probably going
- 4 to take a really decimated effect on the industry. No
- 5 offense to CARB or anybody else. It's just this is a
- 6 perfect storm, and unfortunately this industry's going to
- 7 be the perfect loss.
- 8 BOARD MEMBER ROBERTS: I just wanted to make an
- 9 observation. It was for -- you're going through very
- 10 difficult times. There was a hundred and something
- 11 employees that don't have any work, and I suspect they're
- 12 going through an even more difficult time right now.
- 13 MR. ERRECA: Right.
- 14 BOARD MEMBER ROBERTS: And I don't think we want
- 15 to lose site of that.
- MR. ERRECA: Thank you.
- 17 CHAIRPERSON NICHOLS: Thank you, Mr. Erreca.
- 18 Okay. Jeff Farano, followed my Mike Shaw.
- 19 MR. FARANO: Good morning. My name is Jeff
- 20 Farano. I represent SA Recycling. SA Recycling is a
- 21 steel recycling firm. We recycle metals -- ferrous and
- 22 non-ferrous metals.
- 23 We would probably be considered one of the
- 24 original green companies because of what we do, taking all
- 25 the end-of-life automobiles, appliances and equipment off

1 the streets rather than going into our dumpsites, et

- 2 cetera. And so we understand the whole green industry.
- 3 We also -- we understand the CARB's intentions
- 4 and we agree with it and the need for it and these
- 5 amendments. But we do have some specific issues that we
- 6 would like to address with you today in regard to what
- 7 you're considering.
- 8 The first is -- and also I did submit a letter to
- 9 you. I think it's in your tab as number 13, is what I'm
- 10 told. It gives you a little more history of our
- 11 company, and which is important because it kind of
- 12 addresses what our issues are.
- The first one is the 2007 baseline, in which
- 14 before that that we can consider in hours of operation and
- 15 other credits. And the problem that we're having -- here
- 16 we need some flexibility in the regulations because of the
- 17 issues we have. And, that is, prior to 2007 -- or at
- 18 2007, SA Recycling grew substantially in light of the
- 19 market itself. And we have facilities now throughout the
- 20 State of California. And those were all by way of
- 21 acquisitions and mergers, et cetera. And our records that
- 22 we're still trying to figure out, our hours of operation
- 23 and equipment that we have, is -- because they're mostly
- 24 small companies, we're not very accurate. And we're still
- 25 trying to figure that out. And we need some assistance in

1 being able to determine -- in flexibility and in getting

- 2 those credits, because a lot of that equipment, as the
- 3 previous speakers, is being -- ours have been reduced.
- 4 Our business has been reduced just like everybody
- 5 else's. And in the end of 2008 that financial line
- 6 revenue didn't go at a angle. It went straight down.
- 7 But we need some assistance in helping with that
- 8 equipment. And we can establish that there's less hours
- 9 of operation the less equipment being used. But it's
- 10 difficult to do it by way of specific record. And we like
- 11 need to work with staff and in doing that,
- 12 The other option -- the other consideration is
- 13 the retrofit options. We need more. We're having
- 14 difficulties in some of the retrofits.
- 15 And then the VDECS, the 15 percent, we disagree
- 16 that it should be limited to 15 percent if it's of a
- 17 benefit. In order to provide us an incentive, it
- 18 shouldn't be limited to 15 percent. It should -- we're
- 19 having difficult economic times.
- 20 And then, finally, I would also reiterate the
- 21 term of "impossibility". That is really kind of a killer
- 22 to us, and I think you need to seriously consider that.
- 23 CHAIRPERSON NICHOLS: Your time is up, sir.
- MR. FARANO: And I appreciate your concern. And
- 25 if you have any questions for me, I'll hear and answer any

- 1 questions.
- 2 CHAIRPERSON NICHOLS: I don't want to extend your
- 3 time with more questions. We're getting -- we're slipping
- 4 here. But I do want to say one thing.
- 5 I am assuming and, staff, indicate if I'm
- 6 correct that staff is available to meet with you to
- 7 discuss the issues that you raised with regard to
- 8 interpretation of the rule, and flexibility as far as, you
- 9 know, what happens if you don't have records that you can
- 10 produce to establish your baseline and that type of thing.
- 11 I believe we have people who are available for just
- 12 exactly this purpose.
- So, Mr. White, would you please indicate that
- 14 that's correct.
- 15 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 16 WHITE: Yes, Madam Chairman, you are correct.
- 17 CHAIRPERSON NICHOLS: Okay. Thank you, sir.
- 18 (Laughter.)
- 19 MR. FARANO: Thank you.
- 20 CHAIRPERSON NICHOLS: Thank you.
- 21 Mike Shaw, followed by Debbie Day.
- 22 MR. SHAW: Good morning. My name is Mike Shaw.
- 23 I'm a local guy. I live here in La Mesa. I've been a
- 24 member of the contracting community in San Diego since
- 25 1976. And I'm a co-owner of Perry & Shaw, Inc. We are a

1 heavy grading contractor in southern California.

- 2 A few statistics.
- In 2006 we typically employed between 150 and 175
- 4 union operating engineer workers with an annual payroll of
- 5 between 10 and \$11 million.
- 6 Currently we employ in the neighborhood of 20
- 7 operating engineers and our annual payroll is just at 2
- 8 million bucks.
- 9 In 2006 all of our equipment was working and we
- 10 were running probably 25 to 30 percent additional
- 11 capacity. Today 75 percent of our equipment is idle.
- Our fleet size in 2006 was 56,000 horsepower.
- 13 Our current fleet site is about 28,000 horsepower.
- 14 Our retirements were almost entirely Tier 0. We
- 15 retired these machines because it was our understanding
- 16 early on in this process that we were going to be getting
- 17 credits for early retirements. As it turned out, we were
- 18 only getting credits for NOx in your regulation, not PM.
- 19 Now we have PM, and that will be beneficial to us.
- 20 Even with the -- we've spent over \$5 million on
- 21 repowers for our fleet. And we are currently at 34
- 22 percent Tier 3 on the large equipment. We are not even
- 23 close to compliance in the second year of the regulation
- 24 based on your current regulation.
- 25 So I have to say that these legislative changes

1 are very key to us and key to the survival of our

- 2 business.
- 3 There are more changes I feel need to be made.
- 4 We're in support of the CIAQC requests on this thing. I
- 5 think that one of the things that's a real problem
- 6 currently is the VDECS and the safety issue. And, you
- 7 know, I think that you should -- there should be a
- 8 requirement to respond in 30 days rather than 60 on a
- 9 request for a variance on the VDECS.
- 10 And I'll reiterate what everybody else is saying,
- 11 that the threshold of impossible is not reasonable on a
- 12 subjective process such as safety. And we -- you know, I
- 13 request that you take a good look at that. And it should
- 14 be something that would be modified to say something that
- 15 is practical.
- In addition, I think that it's very important
- 17 that you look at getting good data on what really is
- 18 happening, so that when your October meeting comes around,
- 19 you have the real curves in front of you to consider
- 20 instead of the stuff that was put together several years
- 21 ago with a fleet that apparently never did exist.
- 22 So these are things I would ask you to consider.
- 23 And if the real curves tell you that the emissions aren't
- 24 there, I would ask that you might consider modifying the
- 25 regulation even more to reflect what really is happening

- 1 here.
- 2 Thank you.
- 3 CHAIRPERSON NICHOLS: Thank you, sir.
- 4 BOARD MEMBER BERG: Madam Chair, can I just
- 5 clarify.
- 6 My understanding, on retirements that PM and NOx
- 7 credits were given.
- 8 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 9 WHITE: During the initial adoption of the regulation,
- 10 retirements where -- Tier 0 retirements in shrinking
- 11 fleets were granted PM credit.
- 12 Is that correct?
- 13 My staff is telling me that I am correct in that.
- 14 So PM credit was granted, is currently in there
- 15 for vehicle retirements if a shrink is -- a fleet is
- 16 shrinking and they're retiring their Tier 0 vehicles, as
- 17 Mr. Shaw has indicated they have.
- BOARD MEMBER BERG: So that's both credits?
- 19 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 20 WHITE: Both for NOx and PM, yes.
- 21 BOARD MEMBER BERG: Okay. So could you get
- 22 together and make sure that you're getting all the credits
- 23 you deserve?
- MR. SHAW: I will when we find out what you're
- 25 going to do today.

- 1 (Laughter.)
- CHAIRPERSON NICHOLS: Either way you've got an
- 3 issue. So one way or the other I think you need the
- 4 information, sir.
- 5 CHAIRPERSON NICHOLS: Debbie Day, followed by
- 6 Nick Pfeifer.
- 7 MS. DAY: Good morning. My name is Debbie Day,
- 8 and I'm the Executive Director of the Engineering and
- 9 General Contractors Association. We represent the general
- 10 engineering contractors in San Diego, those who do the
- 11 infrastructure work; the contractors who use, buy, sell,
- 12 and retrofit that big yellow iron.
- When this process started the early stages of the
- 14 regulation formation, the information provided by staff
- 15 was biased and much of it inaccurate. Data and statistics
- 16 provided to staff by the industry were immediately
- 17 suspect. It's been a long journey, and I hope today, with
- 18 your help, we can take several giant steps forward.
- 19 Because of the off-road regulation and the
- 20 convergence of the regulation, the worldwide decline of
- 21 the economy, including the U.S. banking system and our
- 22 State debacle, the construction industry in California is
- 23 at a virtual standstill.
- I am asking you today to help put the industry
- 25 back to work.

1 With few exceptions, the construction industry is

- 2 made up of reasonable, well meaning people. Recent
- 3 articles seem to imply there is empathy building in
- 4 Sacramento for the VDECS industry. If the regulation is
- 5 modified favorably to construction fleets, the VDECS
- 6 companies, an industry that didn't exist a decade ago,
- 7 might be irreparably harmed. That sentiment doesn't seem
- 8 to exist for the construction community, many of whom have
- 9 been building your infrastructure, your homes, and your
- 10 office buildings for centuries, and many of whom have had
- 11 to close the DOORS on second and third generation
- 12 companies.
- 13 In a recession, construction is always the first
- 14 to come back. We need to work together to help stimulate
- 15 the business in California by bringing back construction
- 16 jobs.
- 17 You as Board members have the ability to lead the
- 18 way to a once-again healthy, vibrant California economy.
- 19 Please today add the legislative amendments to the
- 20 off-road regulation, recognize the reduction in the size
- 21 of fleets, the resulting reduction in emissions statewide,
- 22 and the benefits therefrom to the health of our California
- 23 residents. Direct staff to review fleet data available
- 24 from company reporting, and update their model and
- 25 emission assumptions. And relax the safety determination

1 by removing the impossible language. It sets the bar too

- 2 high.
- 3 The legislative changes you are considering will
- 4 be helpful. However, there are key issues that still need
- 5 to be resolved.
- 6 Thank you for meeting in San Diego and thank you
- 7 for your anticipated help.
- 8 CHAIRPERSON NICHOLS: Ms. Day, I want to just
- 9 make a comment to you, because your remarks are rather
- 10 general in nature as well as the specific comments.
- 11 And one of the things your testimony is asking us
- 12 for is to show empathy to, you know, work with your
- 13 industry and so forth. And I believe that there's
- 14 actually a pretty good history in the development of this
- 15 rule of the Air Resources Board working with the industry
- 16 as the rule was developed.
- But in order to engage in a truly partnership
- 18 kind of relationship and discussion, there has to be some
- 19 degree of respect I believe shown on both sides. And when
- 20 you use terms like "biased inventory," those are very
- 21 loaded words. I understand that there are people who
- 22 disagree with the numbers as to what the emissions from
- 23 the fleet in California are today or even what they were
- 24 at the time that the rule was granted -- or the rule was
- 25 first passed by the staff. We went into that very

1 extensively. And at the end of the day we adopted a rule

- 2 based on the best information that we had.
- 3 But to refer to that as biased is simply sending
- 4 a message to the public and to your members that somehow
- 5 there's an agency up there in Sacramento that's trying to
- 6 use inflated numbers or deliberately somehow, you know,
- 7 distorting the situation. And that's factually not
- 8 correct. I don't believe you have any reason to believe
- 9 that that's correct. And I think when you make statements
- 10 like that, you hurt your credibility, frankly.
- 11 So I just want to make that comment to you,
- 12 because I hope you'll reconsider as you -- as we move
- 13 forward in this discussion. Otherwise I think there's a
- 14 lot of merit in your comments and I hope we're going to be
- 15 able to respond to some of them, frankly.
- 16 MS. DAY: Thank you. And I apologize if I've
- 17 offended anybody.
- 18 I do think when this process started that staff
- 19 had built the case for the regulation around incorrect
- 20 data. And they were extremely helpful in working with us.
- 21 We worked closely with a lot of your staff all over
- 22 California. EGCA is a member of CIAQC and we've worked
- 23 with CIAOC.
- It did seem that no matter what the data was that
- 25 the industry put forward, that it was rejected by staff as

- 1 inaccurate.
- 2 So I do apologize if I've offended anybody. I do
- 3 think that certainly in recent months that there has been
- 4 a lot of working together and there have been some
- 5 concessions made and we're very grateful for those.
- I didn't mean to offend staff.
- 7 CHAIRPERSON NICHOLS: And I just took advantage
- 8 of this opportunity to -- because I really think that
- 9 we're at a point where we're searching for right answers
- 10 here.
- MS. DAY: I agree. I absolutely agree.
- 12 CHAIRPERSON NICHOLS: And so hopefully we can
- 13 continue in that --
- 14 MS. DAY: And I think my comment that was
- 15 apparently offensive did have to do with the beginning
- 16 stages of putting this regulation together.
- 17 And I do think that in recent months things have
- 18 been changed, and we're very appreciative for that and for
- 19 the help that we're hoping you'll give us.
- 20 CHAIRPERSON NICHOLS: Thank you.
- MS. DAY: So thank you.
- 22 BOARD MEMBER ROBERTS: I have one question. And
- 23 I, first of all, would have associated myself with the
- 24 comments that are made. And I appreciate your recognition
- 25 and acceptance of that.

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But in addition to changing the word "impossible"
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- 2 that's come up several times I heard you associate
- 3 yourself with that it's not clear to me that the other
- 4 things -- it seems to me that the other things that are in
- 5 the staff recommendation, the changes here, that you're
- 6 also in agreement with those. Is that --
- 7 MS. DAY: (Nods head.)
- 8 BOARD MEMBER ROBERTS: There's other things
- 9 longer. You've made reference to the recognition and the
- 10 reductions in sizes, which the staff is going to be coming
- 11 back with additional information for us to look at. But
- 12 in terms of what we're doing today, it sounds -- I may be
- 13 missing something. I'm trying to pin this down, if you
- 14 would help me. The specific things with respect to the
- 15 staff recommendation today, you have a concern with the
- 16 word "impossible". Are there other specific concerns?
- 17 Because it's not clear to me.
- 18 MS. DAY: Do you want me to -- I think -- what
- 19 I'm asking is what I think most of the speakers that have
- 20 been speaking this morning having to do with the
- 21 regulation are asking for.
- I'd be happy to reread what I have.
- 23 BOARD MEMBER ROBERTS: Yeah, help me -- could you
- 24 get to the specific things with respect to the staff
- 25 recommendation that's before us today?

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1 MS. DAY: The recommendations that we are hoping
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- 2 will be considered, that you will add the legislative
- 3 amendments to the off-road regulation; recognize the
- 4 reduction in size of fleets, the resulting reduction in
- 5 emissions which has partially to do in my opinion with
- 6 the industry downturn, but it also has to do with the
- 7 impact that the regulation has made on the industry and
- 8 the benefits that have come from that reduction; and to
- 9 direct staff to review the fleet data that's available now
- 10 that the machinery has been registered, and from the
- 11 company reporting from the registration, and update their
- 12 model in emissions assumptions.
- 13 So take that information into consideration when
- 14 you're looking at proposed changes that you might be
- 15 willing to make.
- 16 BOARD MEMBER ROBERTS: Okay. I think we're
- 17 largely agreeing on everything --
- MS. DAY: Does that answer your questions?
- 19 CHAIRPERSON NICHOLS: I think so.
- MS. DAY: Okay. Thank you very much.
- 21 BOARD MEMBER ROBERTS: The only thing that's
- 22 dangling out there may be the word "impossible".
- 23 CHAIRPERSON NICHOLS: That's definitely a red
- 24 flag.
- MS. DAY: The impossible dream maybe.

BOARD MEMBER ROBERTS: Well, we've got a lot of

- 2 dreams.
- 3 MS. DAY: Thank you.
- 4 CHAIRPERSON NICHOLS: Thanks.
- 5 All right. Nick Pfeifer, followed by Sean Edgar.
- 6 MR. PFEIFER: My name's Nick Pfeifer. I work for
- 7 Granite Construction, Inc., as a member of their corporate
- 8 equipment department. And one of my responsibilities in
- 9 that position is ensuring that Granite is in compliance
- 10 with the off-road rule and other CARB regulations. And
- 11 I'm also a member of the Off-Road Implementation Advisory
- 12 Group.
- Granite's off-road equipment fleet is
- 14 approximately 1100 pieces -- or was approximately 1100
- 15 pieces. That number's constantly changing. And I'm here
- 16 today to ask the Board to approve the amendments proposed
- 17 by staff to give fleets credit for emissions reductions
- 18 over the past three years.
- 19 Granite has seen a huge decrease in activity over
- 20 the past three years. We're currently working on exactly
- 21 what that number is. What I can tell you is it's in
- 22 excess of a 30 percent reduction from 2007 levels.
- 23 And we're also seeing equipment disposals in
- 24 excess of what our initial compliance plans were.
- 25 For those reasons, we feel that the credits will

1 give fleets recognition for actual emissions reductions

- 2 and will allow fleets to bridge the gap to Tier 4 engine
- 3 technology. I think this -- you know, this reduction in
- 4 fleet size with moving the older equipment out of
- 5 California, the hope being that when things pick up, the
- 6 new equipment available is going to come with Tier 4
- 7 engines and will be the cleanest engines available.
- 8 My one concern today is something that was
- 9 mentioned with Mike Lewis. And it's the proposed
- 10 requirement for reporting an engine sale within 30 days.
- 11 This is something that I feel is an additional
- 12 administrative liability on a fleet. And I don't think it
- 13 is a necessary step to add to the process. I think
- 14 something similar to what CIAQC has proposed where the
- 15 DOORS system kicks out a confirmation that goes to the
- 16 equipment owner, or you can simply confirm that a piece of
- 17 equipment has been disposed of, rather than placing an
- 18 additional administrative requirement that could create a
- 19 possible citation, is -- I think that's a logical step.
- 20 So I appreciate the opportunity to testify today.
- 21 Thank you.
- 22 CHAIRPERSON NICHOLS: Thank you.
- 23 Mr. Edgar, followed by Lynn Devine.
- MR. EDGAR: Chair Nichols and Board members.
- 25 Sean Edgar, Executive Director of the Clean Fleets

- 1 Coalition. Thank you very much for the opportunity to
- 2 speak to you this morning. And I'd like also to thank the
- 3 Board on giving credit where credit is desperately needed
- 4 and due relative to recognizing the emissions reductions
- 5 that are ongoing. As Mr. Pfeifer referenced, the
- 6 industry's looking for a bridge. Hopefully it is a
- 7 shuffle ready bridge that we'll see to be built very soon
- 8 to a place that will bring us back to be a fantastic
- 9 golden state.
- 10 But all for today, we know that times have
- 11 changed significantly just since you were last in San
- 12 Diego in May of 2007 hearing about this particular item at
- 13 your first hearing on this item. And your staff at that
- 14 time was referencing that the economy was still a little
- 15 bit humming. Some of the contractors that you've heard
- 16 from today were perhaps still experiencing the economy
- 17 humming a little bit. And of course the bottom has
- 18 dropped out. And here we are essentially today
- 19 establishing a process that the Legislature granted this
- 20 Board to give credit where the credit is reflective of
- 21 real emissions reductions.
- 22 So we'll look forward to working with your staff
- 23 in the confines of the three elements that were discussed
- 24 to really drill down on getting credit where it's
- 25 commensurate with the reality that the equipment is

1 running less. As Mrs. Riordan was observing out in the

- 2 Inland Empire and, Mayor Loveridge, in your neighborhood,
- 3 this tremendous and significant emissions reductions. And
- 4 we obviously want to make sure that the credit reflects
- 5 what the reality is of less emissions.
- 6 And I'll just reference in closing that you heard
- 7 some very impassioned testimony from Mr. Erreca and Mr.
- 8 Shaw and Mr. Farano referencing the difficult times that
- 9 industry is in. However, you also realize that those same
- 10 folks are staring down the truck and bus rule which we're
- 11 going to work aggressively to work through the track
- 12 process to get that rule hopefully kicked off successfully
- 13 and at a good rate. However, we know we're going to have
- 14 challenges on the statewide truck and bus rule in this
- 15 same context. And your staff estimates about 76,000
- 16 heavy-duty diesel vehicles in the hands of the same
- 17 contractor community that you've heard from today. So
- 18 that's just going to -- it's going to be a very
- 19 significant effort that's going to be needed.
- So, in closing, I'll just echo Mr. Lewis's
- 21 comments to say that flexibility on the baseline date
- 22 would really be appreciated, especially in the context, as
- 23 I say, recycling had mentioned where records aren't
- 24 available.
- 25 And, Chair Nichols, I appreciate your indicating

1 that staff can be creative and reasonable on working with

- 2 industry on some flexibility provisions relative to
- 3 documents.
- 4 The VDECS, you heard from Mr. Kubsh that they're
- 5 making great strides. But they need some certainty. And
- 6 I was perhaps a naysayer in the nine years I've been doing
- 7 this. The retrofit device industry has really stepped
- 8 forward on the on-road, and I think they're starting to
- 9 launch into off-road.
- 10 And, finally, just on limiting the early carrot,
- 11 what I'll call the early retrofit provision, we'd like to
- 12 see that expanded beyond 15 percent if possible. And of
- 13 course your ongoing economic monitoring is appreciated.
- 14 So thank you giving credit where credit is due.
- 15 CHAIRPERSON NICHOLS: Thank you very much, Mr.
- 16 Edgar.
- 17 Lynn Devine, followed by Tom Swenson.
- 18 MS. DEVINE: Good morning. It is still morning.
- 19 I'm Lynn Devine. I'm testifying on behalf of the
- 20 American Lung Association to express our disappointment
- 21 with the rollback in the off-road diesel regulatory
- 22 requirements being considered by the Board today.
- 23 As you are well aware, these regulations to
- 24 control diesel emissions are cornerstone to achieving
- 25 healthy air in California and meeting federally mandated

- 1 air quality standards.
- Staff has previously indicated that modifications
- 3 to the off-road regulation as mandated in Assembly Bill X
- 4 28 are estimated to result in the 17 percent shortfall in
- 5 emission reductions needed from the off-road equipment in
- 6 2014. A critical air quality deadline.
- 7 We recognize that staff is still reviewing the
- 8 inventory and developing updated estimates of the emission
- 9 impacts of the regulations and the downsizing of fleets
- 10 that has occurred due to the economy.
- However, any loss of emissions benefits is
- 12 unwarranted due to the severe air quality and public
- 13 health situation in California. Rollbacks to existing
- 14 diesel regulations not only threaten public health, but
- 15 shift the burden of emission reductions on to other
- 16 sectors of the economy, likely at a higher cost.
- 17 If the future emissions reductions lost from
- 18 Assembly Bill X 28 are not somehow obtained from off-read
- 19 diesel equipment, these emission reductions will need to
- 20 be found elsewhere. Given that diesel emission reductions
- 21 are highly cost effective, it is likely that substitute
- 22 measures to make up for these emission reduction losses
- 23 will be even more costly.
- 24 California and the Air Resources Board have long
- 25 been a leader in reducing air pollution emissions and

1 particularly stands out for its groundbreaking efforts to

- 2 reducing diesel emissions.
- 3 My son and I both have asthma that needs to be
- 4 monitored and managed. We are greatly disappointed that
- 5 the Legislature and the Governor directed this revision in
- 6 the CARB regulation and are very concerned about the
- 7 impact of the revision on public health and the State's
- 8 clean air goals.
- 9 The ALA appreciates that the staff did include
- 10 some provisions intended to incentivize early retrofits
- 11 and off-road equipment and thereby reduce emission impacts
- 12 of the revisions.
- 13 We urge the Air Resources Board to conduct a
- 14 careful accounting of the process of the Off-Road
- 15 Construction Equipment Rule and reducing diesel emissions
- 16 and progress towards State Implementation Plan compliance
- 17 targets.
- 18 We believe the Board must carefully account for
- 19 any losses of emission reductions due to the revisions
- 20 being adopted today, and be ready with contingency
- 21 measures to make up emissions losses and to keep
- 22 California on track with its State Implementation Plan.
- Thank you.
- 24 CHAIRPERSON NICHOLS: Thank you, Ms. Devine.
- Tom Swenson, followed by William Davis.

1 MR. SWENSON: Good morning. Tom Swenson, Cleaire

- 2 Emission Controls Director of Regulatory Compliance.
- 3 We're a California manufacturer of retrofit
- 4 equipment. We're headquartered in San Leandro,
- 5 California, with manufacturing right here in San Diego.
- 6 We offer three products currently verified for off-road
- 7 equipment including one that provides NOx reductions. And
- 8 we continue to make investments in additional technologies
- 9 to bring them forward to compliance.
- 10 I'd like to echo some of the comments here around
- 11 a certainty. Wherever you folks land today or in October
- 12 or next January or I don't know when, we're making
- 13 business decisions based -- and investments based on these
- 14 decisions. Our products are not things that people go out
- 15 and buy because they want them. They buy them because
- 16 they're regulatory required to do them.
- 17 It takes us on the order of 12 to 18 months from
- 18 when we conceive of a product, develop it internally,
- 19 bring it forward to the verification folks at CARB, run
- 20 the processes there to bring it to market. So our lead
- 21 times are pretty substantial. And then that doesn't
- 22 include what we need to do relative to production
- 23 requirements and tooling and those sorts of things.
- 24 So what we're looking for you folks to do is land
- 25 somewhere, so that we can then make whatever investments

1 are appropriate, so we can bring cost effective solutions

- 2 for folks to comply with your rule.
- 3 Just one last comment. At the end of 2009 is a
- 4 popular milestone year for your regulations. We've got
- 5 the refuse and the municipal and utility vehicle
- 6 regulations. Big year for that. Plus the school bus
- 7 incentive money is coming out now, which will make the end
- 8 of the year quite busy for us.
- 9 And the other piece of the -- is the double
- 10 credit for large fleets. And we're trying to sort of
- 11 manage all that. And if it was all possible to even push
- 12 that out three months, the large fleet double credit, into
- 13 the end of March, that would be quite helpful for us in
- 14 terms of manufacturing and installation.
- Thank you.
- 16 CHAIRPERSON NICHOLS: Thank you.
- 17 William Davis, followed by Glenn Inverso.
- 18 MR. DAVIS: Good morning, Madam Chairman and
- 19 members of the Board. It's good to see you all in
- 20 southern California, and certainly a much easier commute
- 21 as I was -- I'm Bill Davis. I'm with the Southern
- 22 California Contractors Association.
- 23 So I was driving from my home in San Pedro this
- 24 morning. I was listening to the San Diego radio station
- 25 to try to get some clue about what horrible traffic I'd be

- 1 facing. And, lo and behold, here comes the big promotion
- 2 for Comic-Con, which as you -- those of you who know me, I
- 3 sort of have a literary bent. And this one brought
- 4 forward my big attraction to comic books when I was a boy,
- 5 especially one of my favorites, which was Flash Gordon.
- 6 The great villain in that series was Ming the
- 7 Merciless, who opposed Flash at every turn.
- 8 And so using that metaphor I must tell you that
- 9 when we started this journey on the off-road regulation
- 10 nearly five years ago, your agency often played the role
- 11 of Ming the Merciless for those of us in the construction
- 12 business.
- Today marks the culmination of a very long
- 14 process involving the housing bubble, the global economic
- 15 collapse, fraud on Wall Street, unrelenting pressure on
- 16 the environment, and the Legislature. We were and are
- 17 very grateful to the Legislature for providing this
- 18 opportunity for our industry to receive small
- 19 consideration due to the terrible economic situation that
- 20 you all have heard about today and over and over again.
- 21 And we hope with your adoption of these
- 22 provisions that the days of role playing for all of us are
- 23 behind us. We partnered with your staff through the
- 24 Off-road Diesel Implementation Group, the ORIAG Group,
- 25 Elizabeth and Erik and Kim, over the last year. And we

1 have broadened our understanding of the rules. We've

- 2 transmitted that broader understanding to our members.
- 3 This past week we contacted every single fleet
- 4 owner who's a member of our association and told them that
- 5 they had to get their registration in or face the
- 6 consequences.
- 7 And we were doing some of your work, I hope, for
- 8 that.
- 9 And we also think that through this process the
- 10 staff has gained a deeper understanding of our industry.
- 11 And I was pleased to see that they're expanding the ORIAG
- 12 concept into the on-road diesel regulation with a similar
- 13 group. And that's all good news.
- 14 There will be other issues and challenges ahead
- 15 of us. But it is our sincere hope that we can all, all
- 16 leave our superhero capes at the door as we go forward and
- 17 work cooperatively to resolve these issues without rancor
- 18 and based on good economics, good science, not science
- 19 fiction.
- Thank you very much.
- 21 CHAIRPERSON NICHOLS: Thank you, sir. I
- 22 appreciate your comments. And it's nice to have a
- 23 literary reference, even if it is to Flash Gordon.
- 24 (Laughter.)
- 25 BOARD MEMBER ROBERTS: I'm hopeful he'll go and

1 change into his Flash Gordon outfit and head down to

- 2 Comic-Con next.
- 3 (Laughter.)
- 4 CHAIRPERSON NICHOLS: I would take off my cape,
- 5 except it's cold up here.
- 6 (Laughter.)
- 7 CHAIRPERSON NICHOLS: All right. Mr. Inverso,
- 8 welcome.
- 9 MR. INVERSO: Yes, thank you.
- 10 My name is Glenn Inverso. We run a family
- 11 business that's been in business for 63 years in San Diego
- 12 County. This is my first time speaking, but I had to say
- 13 something. I don't know if I'm nervous or just
- 14 frustrated.
- 15 But like you heard before from the contractors,
- 16 the feeling on the street is a lot of frustration.
- 17 There's no incentive to grow, because these regulations --
- 18 remember, this is one of many regulations we deal with.
- 19 The frustration is not to grow; it's to downsize.
- 20 Everybody I talked to, and we're in the same predicament,
- 21 our equipment usage is down 60 percent or we had -- we're
- 22 half of what we were last year unemployment.
- 23 So what worries me is we keep layering more and
- 24 more regulations on the private sector. We're laying
- 25 people off. People are going on unemployment. You lose

1 your tax base, and pretty soon who funds CARB or who funds

- 2 the Government? That's what -- I mean I know it's common
- 3 sense. But I can't comprehend with the layers of
- 4 bureaucracy and trying to run a business and try to turn a
- 5 profit which is not evil to make a profit these days -
- 6 I'm just worried about small business -- we work a lot
- 7 with small and medium-sized business. The feeling in the
- 8 street is they're going to shut down, they're going to
- 9 downsize to a point where they can survive. And then at
- 10 that point they're going to shut down. So I just wanted
- 11 to make that point.
- 12 Thank you.
- 13 CHAIRPERSON NICHOLS: Well, thank you for coming
- 14 out.
- 15 BOARD MEMBER ROBERTS: Madam Chair, you might --
- 16 since small business was mentioned and you had an
- 17 announcement that went out regarding a new staff person,
- 18 you might make him aware of that.
- 19 CHAIRPERSON NICHOLS: Oh. Well, yeah, it's a --
- 20 we had not put out a formal announcement. We're going to
- 21 kind of wait until she arrives. But we have filled the
- 22 role of small business ombudsperson for the Air Resources
- 23 Board. We've made an appointment of a person who used to
- 24 do something similar for the South Coast District back
- 25 when they were first really beginning to deal with a lot

- 1 of different types of industries that they hadn't
- 2 regulated in the past. And she's achieved a lot of
- 3 recognition at the national level for her work in this
- 4 area. She's a small business person herself. Her name is
- 5 La Ronda Bowen, and she'll be joining us on Monday. And
- 6 her specific mission is to work with us to make sure that
- 7 our regulations appropriately reflect and understand the
- 8 needs of small businesses and also to make sure that we're
- 9 doing outreach across the board in a more effective manner
- 10 in terms of dealing with small businesses.
- 11 I do think our staff has in this and other rules
- 12 developed, you know, fairly good working relationships
- 13 with a lot of associations and groups. They've evolved
- 14 some pretty good techniques in terms of going out on the
- 15 road and doing demonstrations. And I know we have a
- 16 number of people on our staff whose numbers are on speed
- 17 dial to people in the industry who have questions. And
- 18 I'm sure you could be one of their regular callers if you
- 19 were so inclined.
- 20 But mainly I think we all recognize that we're in
- 21 very -- this is not just a typical cycle that we're in in
- 22 California. This is a very serious -- a very serious
- 23 economic crisis that we're in the middle of. We do need
- 24 to bend our efforts to doing what we can to help get out
- 25 of it.

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1 And I made a comment before which it may have
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- 2 seemed facetious. But, you know, in a sense I suppose you
- 3 could say one of the few benefits that you can see out of
- 4 a bad economy is, yeah, there aren't a lot of -- there
- 5 aren't as many emissions of pollution out there. It's not
- 6 as much as pollution as we thought there was going to be.
- 7 This is not the way we like to go about achieving these
- 8 results. This is not our goal. Like you, we want to see
- 9 growth, we want to see people buying new equipment, people
- 10 being able to invest in the newer, cleaner equipment
- 11 that's coming on board. That's what we are about in terms
- 12 of pushing new technologies.
- So what we're here to do today is to try to make
- 14 some modifications in the existing rules to make them
- 15 hopefully a little bit more adaptable and useful for the
- 16 people who have to live with them.
- But in the broader sense, we know that going
- 18 forward we've got a lot of work to do to try to establish
- 19 really careful and robust relationships with all of the
- 20 groups that we regulate, especially those that are
- 21 characterized by a lot of smaller businesses. Because
- 22 these are just very difficult times for everybody and,
- 23 frankly, regulating small businesses is hard it's hard
- 24 on the businesses. It's hard for the regulators too,
- 25 because there are just many more individual situations

1 that you have to be prepared to deal with. But we have to

- 2 learn how to do that better.
- 3 So we appreciate your coming and giving us your
- 4 thoughts.
- 5 Charlie Cox and Kerri Toepfer are our last two
- 6 witnesses as far as I know. If there's anybody else, you
- 7 need to make sure you've given your name in.
- 8 Okay. Mr. Cox.
- 9 MR. COX: Thank you.
- 10 Good morning, Madam Chair and members of the
- 11 Board. My name is Charlie Cox. I represent Ironman Parts
- 12 and Services. We're basically the largest retrofit
- 13 installer in the State, with more than 8,000 installations
- 14 under our belt so far. You know, when you look at the
- 15 number of retrofit installations that were performed under
- 16 the Solid Waste Collection Vehicle Rule, for example, we
- 17 did well in excess of three-quarters of those. So we've
- 18 done more than a handful.
- 19 If I could shamelessly swipe Mr. Davis's analogy.
- 20 We're the trusty sidekick in this scenario. Our task is
- 21 to make sure that the background work gets done, the
- 22 things behind the scenes get finished.
- 23 I'm also a member of the Off-Road Implementation
- 24 Advisory Group. I'm the Chairman of the Retrofit
- 25 Subcommittee. So I had couple of comments on the proposed

- 1 changes.
- You've obviously heard the word "impossible"
- 3 several times this morning. Clearly that's something
- 4 we're not fond of either. But what I would suggest is
- 5 that staff continue the progress they're trying to make
- 6 with the Occupational Safety and Health Standards Board in
- 7 terms of selecting which standards, whether they're ISO or
- 8 SAE, some form of standards that we can abide by.
- 9 Obviously as an installer and someone with a lot to gain
- 10 or lose by doing this right or doing this wrong, we very
- 11 clearly need to understand what our rules are, what the
- 12 rules of engagement are. We will abide. We just need to
- 13 know what they are very soon.
- In terms of the double credit. I wanted to point
- 15 out something that's a little -- a small change I think,
- 16 small twist from what you've heard so far, in that, you
- 17 know, clearly large fleets are not immune from these
- 18 economic changes that have been taking place. Small
- 19 fleets absolutely take a hit. Medium fleets take a hit.
- 20 But the proposal right now before you is to extend the
- 21 double PM deadline for small and medium fleets but not for
- 22 large.
- Now, that's challenging, because particularly for
- 24 larger fleets, they're looking at the bottom line, they're
- 25 trying to find a way to cost effectively achieve these

1 emissions reduction credits. And most of them are trying

- 2 to do so through the use of larger horsepower, higher
- 3 dollar machines that are harder to replace. The available
- 4 options for those fleet operators is significantly smaller
- 5 than it is for, say, medium and small engines.
- 6 So we propose potentially extending that deadline
- 7 for the large fleets, if not for the same timeframe, maybe
- 8 at least until the Board hears the update from staff,
- 9 whether that's in six months I heard a proposal for some
- 10 time next year. So whenever that update takes place, I
- 11 would like to see maybe the large fleet's deadline
- 12 extended until that point. Just a thought.
- 13 And, finally, just pointing out that we're
- 14 capable of handling many more installations than we're
- 15 presently doing. As Tom Swenson from Cleaire already
- 16 pointed out, people don't buy these because they like to,
- 17 people buy them because they have to. So we're directly
- 18 affected by your changes today as well.
- 19 Thank you.
- 20 CHAIRPERSON NICHOLS: Okay. Thank you.
- 21 We have our last witness then, Kerri Toepfer.
- 22 MS. TOEPFER: My name is Kerri Toepfer and I work
- 23 with Hawthorne Machinery.
- I wanted to basically talk about what Mr. Erreca
- 25 was talking about. In August of 2008 I was handed the

1 task of reporting our rather large fleet through the DOORS

- 2 system. And in the beginning I realized -- I think I was
- 3 like within the first 100 to report. And I know there's
- 4 been like 4,000 fleets that have reported. So I know that
- 5 everybody got really busy. And everybody was very helpful
- 6 in the beginning.
- 7 And a few months ago I made several calls. I had
- 8 several problems with the DOORS reporting system. You
- 9 said you didn't really hear of any problems. But I never
- 10 got any calls back and nobody ever even followed up with
- 11 it.
- 12 I had problems with sold equipment, passwords --
- 13 I have two passwords for my account. I could never get
- 14 that resolved. And information changed before my eyes of
- 15 stuff that I had reported. All the manufacturers changed
- 16 from Cat to Perkins. And just some weird stuff.
- So I got pretty concerned, and I resorted to
- 18 documenting everything with photographs for myself so I
- 19 could sleep at night, because it's been kind of a grueling
- 20 process. I've climbed all over engines and machines and,
- 21 you know, just done this whole thing. And, you know, I'm
- 22 done, but I just have concerns of, you know, who's
- 23 actually, you know, checking this information out or
- 24 calling people back, because nobody's called me back.
- 25 So --

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1 CHAIRPERSON NICHOLS: Would you please leave your
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- 2 card or your information with the clerk. And we will be
- 3 sure that somebody gets back to you.
- 4 MS. TOEPFER: Thank you.
- 5 CHAIRPERSON NICHOLS: Thank you. You're duly
- 6 heard here.
- 7 I have not received any other names. Is there
- 8 anybody else who thought they should have been on the list
- 9 that hasn't been called?
- 10 If not, I think we get to close the public
- 11 hearing portion and return to discussion with the staff.
- 12 I think we've heard a number of issues that have
- 13 been raised that the Board would like to probably explore
- 14 a little bit further before we vote on this item.
- I think the one that probably I saw the most
- 16 heads nodding around was the language about impossibility
- 17 as being the only way you could demonstrate that you
- 18 couldn't install a piece of equipment.
- 19 So do you want to -- being a lawyer, I tend to
- 20 move more in the direction of infeasibility myself.
- 21 But --
- 22 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 23 WHITE: Well, the choice of the word -- I won't say aside.
- 24 Actually this new provision is one of several tests that
- 25 fleets can use to demonstrate that a retrofit cannot be

- 1 installed in their vehicle.
- First, if an installer or manufacturer, someone
- 3 like Cleaire or Ironman, determines that it cannot be
- 4 safely installed, that would satisfy the safety
- 5 requirements in here and would exempt that vehicle.
- 6 Certainly in being impossible in terms of being in
- 7 conflict with a federal or state safety requirement
- 8 clearly is our intent.
- 9 And those two aside, we have a kind of a
- 10 catchall. If there's other documentation that can be
- 11 provided that would show that it can also not be safely
- 12 installed, that could serve as grounds as well.
- So this language is one of but three tests that
- 14 exist and options that exist for fleets to demonstrate
- 15 that a retrofit cannot be installed on a vehicle safely.
- 16 CHAIRPERSON NICHOLS: Okay. Well, I think -- I
- 17 think I will get support for my request that you change
- 18 that word. It's just a -- it looks like you're setting up
- 19 a barrier that is almost an impossibility literally to
- 20 prove. So let's fix that one.
- I mean overall it seems to me what we're doing
- 22 here -- what we've heard from people is that they accept
- 23 the fact that this is responsive to what we were asked to
- 24 do by the Legislature and the Governor. You know, and I'd
- 25 like to say I don't think -- this Board is not exactly

1 unaware of the fact that there are construction vehicles

- 2 parked around the state or that there's not work going on
- 3 out there. So we're not -- we didn't sponsor the
- 4 amendment. Our job is to regulate in the field of air
- 5 quality. But we certainly understand the atmosphere that
- 6 we're working in and the conditions that require this to
- 7 be done. And we're doing our best to implement the
- 8 instructions that we've received in a way that we hope
- 9 will maintain as much of the benefits as were out there as
- 10 consistent with the current situation, but at the same
- 11 time to convert as much as possible in the direction of
- 12 incentives rather than regulations. And I really do
- 13 appreciate the staff's efforts in that direction. I think
- 14 that was very positive.
- 15 However, there are clearly some indications out
- 16 there that there may be a need in the future for further
- 17 revisions or changes if by 2014 or 2013 really things
- 18 haven't turned around. And there's also a concern about
- 19 whether -- whether and when we're going to have better
- 20 data about the fleet that's out there. And I know the
- 21 staff is asking for more time for coming back to the Board
- 22 on this. But I'm wondering why you really feel you need
- 23 that amount of additional dime.
- 24 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 25 WHITE: I think that -- well, the reasons that we've asked

1 for some additional time is because of the new data that

- 2 these proposed amendments will be providing to staff. And
- 3 I think -- you heard from Ms. Day that there is always
- 4 some debate as to the appropriateness of data when it's
- 5 used to try and make projections and estimates of where
- 6 things are and where they may go in the future. And what
- 7 we have is an opportunity to get some actual data, some
- 8 hard data from fleets in California that have been
- 9 significantly impacted by the recession. And we can
- 10 understand exactly how vehicles are being retired. Are
- 11 they being retired and sold? Are they being just idled,
- 12 with the intent that when times get a little better
- 13 they'll be able to use those vehicles again? How much is
- 14 the activity down and how has this impacted finances?
- 15 So I think we'll be able to come back with a much
- 16 more robust and complete picture of what the recession has
- 17 meant on emissions and on the industry if we could do that
- 18 at a time after we have an opportunity to collect this
- 19 data as opposed to trying to do it ahead of that data
- 20 coming in.
- 21 CHAIRPERSON NICHOLS: So you expect you'll be
- 22 getting this data when?
- 23 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 24 WHITE: The data to obtain the reduced activity credit
- 25 will be submitted -- must be submitted to ARB by March --

- 1 it will come in next March.
- 2 So we feel that by taking that in the early
- 3 spring, crunching that data, we can come back towards the
- 4 middle of the year with an assessment of what all that
- 5 data is, and start to have some -- see some -- hopefully
- 6 see some signs of the economy starting to recover as well
- 7 and can report on that.
- 8 CHAIRPERSON NICHOLS: Comments or questions?
- 9 Barbara.
- 10 BOARD MEMBER RIORDAN: Madam Chair, there was one
- 11 element of concern that people mentioned. And I'm having
- 12 trouble trying to figure out what would be the problem.
- 13 And it was on the notification of sale.
- I would think if I owned something, if I was
- 15 going to get credit for something that I had sold, I'd
- 16 want that known immediately.
- 17 It occurred to me maybe we have made it
- 18 difficult. But the notification staff, hopefully tell
- 19 me this is true is very succinct and very simple. Is
- 20 it?
- 21 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 22 WHITE: That's correct. Who you are and what the
- 23 equipment identification number of that vehicle was. I
- 24 believe that's what we're asking for.
- 25 BOARD MEMBER RIORDAN: Right. And it would seem

1 to me that that would just -- you know, as much as I want

- 2 to help the industry in any way I can to make life
- 3 simpler, I would think that's just something you'd want to
- 4 do, not that you have to do it. "I want that so I can
- 5 claim my credit some day."
- 6 CHAIRPERSON NICHOLS: Well, I think the fear
- 7 would be that this would then become like a separate
- 8 violation. Somebody might be cited for that if a piece of
- 9 equipment gets -- as I understand the way the enforcement
- 10 system works is, they're inspectors out there and they
- 11 actually see equipment. And if they think they've found a
- 12 violation, they're going to go searching for the person
- 13 that owns the equipment and issue a citation. This would
- 14 help avoid conflicts over who actually owned it, so it's
- 15 helpful. From the perspective of the purchaser, it helps
- 16 them not get tagged when they don't deserve to be. But at
- 17 the same time it does open up a greater risk I guess for
- 18 the seller. That seems to be the -- just for having
- 19 failed to file their paperwork on time. Or that at least
- 20 would be what they'd be worried about.
- 21 Mr. Goldstene, maybe you can elucidate this
- 22 further.
- 23 EXECUTIVE OFFICER GOLDSTENE: No, I think that
- 24 that's perfectly described. I just wanted to make you
- 25 aware that Dr. Telles has a question.

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1 CHAIRPERSON NICHOLS: Oh, I'm so sorry.
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- 2 (Laughter.)
- 3 CHAIRPERSON NICHOLS: We need to move you over or
- 4 put you up on --
- 5 BOARD MEMBER LOVERIDGE: We're down in the pits.
- 6 CHAIRPERSON NICHOLS: I'm sorry.
- 7 Dr. Telles.
- 8 BOARD MEMBER TELLES: I had a data question too,
- 9 because I think the 2014 deadline that we're all facing is
- 10 very important. And we have a problem in San Joaquin
- 11 Valley that these numbers are being used for our PM 2.5
- 12 plan and our ozone plan and all that.
- 13 And as the American Lung Association pointed out,
- 14 that if we're not reaching our emissions reductions, that
- 15 we're into a serious problem and this will be a bigger
- 16 problem for our local industry in trying to squeeze down
- 17 more emissions from them.
- 18 So I think we need, you know, the data fairly
- 19 quickly to be able to do some of this planning. And it
- 20 seems like a simple number that should pop out rather
- 21 quickly. It's just the consumption of diesel.
- 22 I notice that the industry when they gave us this
- 23 little thing, even they stopped their diesel consumption
- 24 estimate at 2008. And I'm sure that number is available
- 25 and you probably have it. And that would somewhat

1 indirectly correlate with what's really happening in the

- 2 emissions world. And I think you could use it as a rough
- 3 estimate.
- 4 Do you have any opinion on that?
- 5 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 6 WHITE: Well, certainly the use of diesel fuel is one
- 7 indicator that we've looked at. One of the challenges
- 8 with diesel fuel use especially when you look at off-road
- 9 diesel fuel use is that, unlike gasoline that's taxed when
- 10 you sell it, that gasoline is not taxed. So you have it
- 11 going into locomotives, you have it going into
- 12 agricultural uses, both of which are not covered by the
- 13 rule, as well as the sources that are covered by the rule,
- 14 and then trying to tease out from that what portion of
- 15 that is another -- it becomes an estimate. So you've just
- 16 simply recreated another estimate that makes it
- 17 challenging.
- 18 We've tried to look at a lot of different
- 19 indicators, from housing starts to construction revenue to
- 20 diesel fuel use to try make some heads of that. And, you
- 21 know, there's certainly a range of impacts. And I think
- 22 we all agree that it's down. The question is certainly,
- 23 how far is it down? And I think we'd all like to get to
- 24 an answer that has probably a smaller error band around
- 25 it. It's been a larger one. And we feel that the data

1 that's going to come in is really going to give us an

- 2 opportunity to do that.
- 3 BOARD MEMBER TELLES: Will the data also have -
- 4 from the industry their diesel -- you know, to get a
- 5 purer picture, their diesel consumption rather than just,
- 6 you know, their taking out this vehicle or whatever, but
- 7 actually what they're actually burning?
- 8 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 9 WHITE: That's one of the records that we're proposing to
- 10 allow fleets to use to indicate how much -- how much their
- 11 activity is down. Revenues would be another, employment.
- 12 So there's a lot of I think business indicators that
- 13 aren't -- certainly aren't as accurate as having hour
- 14 meters on each vehicle, but will give us an indication --
- 15 we should get a pretty good indication of how fleets are
- 16 responding and how activity has decreased because of the
- 17 recession.
- 18 CHAIRPERSON NICHOLS: Yes, Mayor Loveridge.
- 19 BOARD MEMBER LOVERIDGE: Two kind of questions.
- One, if you could comment on the South Coast
- 21 points. And then, second, it was the PM deadlines, the
- 22 difference between small, medium, and large fleets and
- 23 what the premise is of the staff.
- 24 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 25 WHITE: Well, let me -- I'll address the first, which is

1 the comments from the South Coast and Mr. Hogo about a

- 2 sunset on the retirement credits.
- 3 And as we looked at the legislation, we looked at
- 4 the proposed amendments, one reason we did not opt to
- 5 include a sunset of that is in great deal due to the
- 6 letter we got from the Legislature clarifying their intent
- 7 on the legislation. And one of those was to develop that
- 8 credit consistent with -- as an extension of, if you will,
- 9 the existing retirement credit that is already in the
- 10 regulation which does not have a sunset on it.
- 11 And as we looked at the potential disbenefits of
- 12 that, one thing I think we all need to keep in mind is
- 13 that as these vehicles are sold out of a fleet and times
- 14 improve, the vehicles that are going to replace those sold
- 15 vehicles beginning in March of next year have to meet a
- 16 Tier 2 emission standard.
- 17 So what we're going to see is older Tier 0
- 18 equipment move out of a particular fleet and get replaced
- 19 with cleaner today Tier 1 and next year Tier 2 vehicles,
- 20 which are going to be significantly cleaner. So we felt
- 21 that the need to sunset that didn't exist in the same way
- 22 it did for the retirement credit, which the legislation
- 23 said that, you know, needed to include a sunset. And we
- 24 agreed with that.
- 25 In regards to continuing to monitor the use of

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1 the credits - I think we fully agree with that - intend to
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- 2 monitor how those credits are used in conjunction with how
- 3 we're looking at what is the impact on emissions and how
- 4 are fleets complying, and, as I think I've heard the Board
- 5 mention a couple of times, if needed, certainly report
- 6 back on what our findings are.
- 7 CHAIRPERSON NICHOLS: Other questions?
- 8 BOARD MEMBER LOVERIDGE: PM for --
- 9 HEAVY-DUTY DIESEL IN-USE STRATEGIES BRANCH CHIEF
- 10 WHITE: Oh, I'm sorry.
- 11 And the second question you had, Mayor Loveridge,
- 12 was in regards to the double credit. And one reason we
- 13 didn't extend that beyond March 1st of 2010 was that,
- 14 while I think there are a significant majority and
- 15 probably the vast majority of fleets are experiencing a
- 16 downturn, not all fleets are. We have spoken with a
- 17 number of fleets that have continued to remain profitable.
- 18 And the concern we would have is that we would be giving
- 19 double credit to fleets for taking actions to meet the
- 20 basic requirements of the regulation.
- 21 So we opted not to propose to extend that for the
- 22 larger fleets beyond what the Board's already approved.
- 23 But because the small and medium fleets have compliance
- 24 dates that are further out, we wanted to see what we could
- 25 do to maybe get those fleets to take some early actions.

1 And so we believe that by extending the deadline, we're

- 2 not going to have any long-term emission disbenefits but
- 3 we hopefully will have some short-term emission benefits
- 4 from that.
- 5 CHAIRPERSON NICHOLS: Okay. Yes.
- 6 BOARD MEMBER ROBERTS: We've heard so many
- 7 things.
- 8 First of all, I want to compliment staff. I
- 9 think that they're doing a really -- a great job on this.
- 10 The use and misuse of language has been such a
- 11 part of this, and it seems like all day.
- 12 The emissions in the air in California are down
- 13 significantly. Okay? Now, it hasn't necessarily been
- 14 caused by our action. That's a reality. The emissions
- 15 are down. That's what the Legislature has understood, I
- 16 think. And so we've got to do something.
- 17 There's been an economic train wreck, not here in
- 18 California only but all over. And because of that, not
- 19 because of any air board regulations. So the emissions
- 20 are down. If you take any projection that I've ever seen
- 21 over the last several years in what we were anticipating
- 22 for emissions, they're down. They're down across the
- 23 board in probably every category we measure. I know that
- 24 they're down with vehicle miles traveled, they're down
- 25 with every kind of business that's out there. And that's

- 1 the reality.
- 2 And to talk about we're losing benefits -- I
- 3 understand how we get to that term. But the reality is
- 4 everything we projected, we're down, not because of our
- 5 own actions but because of external forces. And I think
- 6 what staff is crafting here is a good solution.
- 7 And some of you know I have asthma. And I've
- 8 made this a case in point. I don't want to compromise on
- 9 any of those things. That's why we're retrofitting the
- 10 buses. That's why San Diego County recently increased its
- 11 fees, so that we would have more money to be able to
- 12 supplement the money that we're getting and get more of
- 13 these conversions, both in the private sector and in the
- 14 public sector, made. So these things are incredibly
- 15 important. But what we're seeing is a recommendation of a
- 16 postponement based on the enormous reductions that are
- 17 occurring because of the economy.
- And I think staff's doing a good job.
- 19 The one thing that I guess concerns me, because
- 20 we're living in such a troubled time and I want to have
- 21 the best information I wonder if there's a way though
- 22 that earlier in the year, at the beginning of the year we
- 23 can kind of assess where we are, kind of take a look at
- 24 the economy, and see at that point, not that we
- 25 necessarily make any final changes, but at least position

1 ourselves -- if this economy is still seriously ill, that

- 2 we kind of look ahead.
- 4 next year and then, you know, with a whole series of
- 5 regulatory efforts underway. I'd like to look at it maybe
- 6 earlier in the year.
- 7 The best news I heard, one of the speakers said
- 8 that maybe we'll see, if not some upturn, at least the end
- 9 of the downturn by the -- you know, sometime next year.
- 10 And I certainly hope that's the case. And we're doing
- 11 everything possible here to see that that's exactly what
- 12 happens.
- But I think we'll have a more complete picture of
- 14 all of these things, as you've suggested, by I think it
- 15 was July of 2010. But I wonder if we could just schedule
- 16 a premature meeting earlier in 2010, and at the very
- 17 earliest point, just to kind of look at where we're
- 18 projecting we're going and what the economy's doing at
- 19 that time, because this is so severe. I'm hopeful the
- 20 program you're putting forth is going to be efficient and
- 21 effective.
- 22 CHAIRPERSON NICHOLS: Yeah.
- 23 BOARD MEMBER ROBERTS: And I'm hoping things
- 24 don't get worse than we think they are.
- 25 CHAIRPERSON NICHOLS: While staff is conferring,

1 I'm going to interpret your comments here as a motion for

- 2 the -- that we consider the resolution and ask for a
- 3 second.
- 4 Do I have a second here?
- 5 BOARD MEMBER RIORDAN: Second.
- 6 CHAIRPERSON NICHOLS: All right. So we're now
- 7 moving towards a conclusion here. And this would be an
- 8 amendment that would deal with a date for reporting back.
- 9 Actually as the rule exists now, it requires an October
- 10 report. The staff was asking for an amendment to move
- 11 this off till next spring when they feel they'll have all
- 12 the data in on what's actually happening and will be able
- 13 to give us a good analysis of it.
- 14 But I think what you're hearing is just enough
- 15 concern about this -- I'm not sure frankly what we
- 16 would -- I mean without good data, just knowing that the
- 17 economy continues to be lousy, I don't know what we would
- 18 do at that point. We'd still be waiting for, you know --
- 19 BOARD MEMBER ROBERTS: Well, the best data will
- 20 be coming. But I think we'll even have more
- 21 information -- a lot more information than we do right
- 22 now. And I don't know that that would --
- 23 CHAIRPERSON NICHOLS: That's true.
- 24 BOARD MEMBER ROBERTS: I think it would give us
- 25 an earlier warning, you know. I guess I want to get a few

1 more canaries in here with us that we can see so we don't

- 2 wait for a catastrophe and then learn about it.
- 3 BOARD MEMBER RIORDAN: Would you not though have
- 4 some indication by, say, January of what's happening with
- 5 the equipment? You're going to get a trend. You've got
- 6 an implementation committee that's going to be able to
- 7 help you give you some trends.
- 8 You'll also know whether or not your stimulus
- 9 money is finally getting back to governments for projects
- 10 that are ready to go. To my knowledge, and not as a
- 11 current supervisor but as a former supervisor, some items
- 12 are ready to go if the monies flow.
- 13 But I don't know that the money has come in to
- 14 these governments to allow them to move those projects
- 15 forward. But by then, by January, we certainly would have
- 16 some preliminary ideas of where that government is.
- 17 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:
- We can do it, Yeah.
- This is Bob Cross.
- 20 We can do it. I think the quality of the
- 21 information is proportional to time in this case. But I
- 22 think we can certainly give you the best that's available
- 23 at that time and say it's getting a lot worse or it's the
- 24 same or it's getting better. And then that would be an
- 25 indicator on whether or not, you know, we need to --

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1 CHAIRPERSON NICHOLS: I'd like to see a report to
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- 2 the Board. I'm not sure that --
- 3 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:
- 4 Well, we have the truck rule going. Well, that's
- 5 December. Is that too early for us? You want to --
- 6 EXECUTIVE OFFICER GOLDSTENE: We can give an
- 7 update with whatever data we have when we come to the
- 8 Board in December.
- 9 CHAIRPERSON NICHOLS: We'll do an update in
- 10 December.
- 11 EXECUTIVE OFFICER GOLDSTENE: So you can just --
- 12 as we get the data, we'll give you what we have. You
- 13 know, it won't be as good as Bob said. But we can at
- 14 least show you the trending.
- 15 CHAIRPERSON NICHOLS: Yes.
- 16 But we should leave the July Board hearing time.
- 17 We want to give that time reserved on the schedule for a
- 18 further -- a fuller discussion.
- 19 BOARD MEMBER ROBERTS: That was my intention.
- 20 CHAIRPERSON NICHOLS: Okay.
- 21 All right. Subject to that understanding --
- 22 BOARD MEMBER RIORDAN: Second.
- 23 CHAIRPERSON NICHOLS: -- we've got the motion and
- 24 the second.
- 25 All in favor please indicate by saying aye.

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1 (Ayes.)
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- 2 CHAIRPERSON NICHOLS: Any noes?
- 3 Any abstentions?
- 4 Okay. Thank you. Thank you very much.
- 5 I think we're scheduled to take a lunch break.
- 6 EXECUTIVE OFFICER GOLDSTENE: Madam Chairman, I
- 7 just want to clarify something, that that motion also
- 8 included your change in language?
- 9 CHAIRPERSON NICHOLS: Yes, it did. Yes, it did.
- 10 EXECUTIVE OFFICER GOLDSTENE: Your "infeasible"
- 11 from "impossible".
- 12 CHAIRPERSON NICHOLS: I was taking that as having
- 13 been accepted without a formal vote, yeah.
- 14 All right. So we will take a lunch break.
- 15 Yes.
- 16 ASSISTANT CHIEF COUNSEL JENNE: I also wanted to
- 17 mention: Have there been any ex parte communications that
- 18 the Board wants to declare?
- 19 CHAIRPERSON NICHOLS: We failed to formally
- 20 disclose any -- does anybody have any ex parte
- 21 communications to disclose?
- They do not.
- 23 ASSISTANT CHIEF COUNSEL JENNE: Okay. And I also
- 24 wanted to clarify that the record will be closed now, but
- 25 it will be reopened for a 15-day comment period based on

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1 the changes that the Board has directed.
           CHAIRPERSON NICHOLS: Correct. Thank you.
           All right. We will resume at - 1:15? - at 1:15
 4 then.
 5
            Thanks, everybody.
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           (Thereupon a lunch break was taken.)
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- 1 AFTERNOON SESSION
- 2 CHAIRPERSON NICHOLS: We will now resume our
- 3 meeting with the consideration of a status report on the
- 4 Zero-Emission Bus Regulation. And we'll turn to staff on
- 5 this one.
- 6 EXECUTIVE OFFICER GOLDSTENE: Thank you, Chairman
- 7 Nichols.
- 8 In response to the Board's direction, staff has
- 9 monitored the demonstration projects of Zero-Emission Bus
- 10 technology in California and around the world and will
- 11 present a summary today of our findings.
- 12 Based on the results of California's
- 13 demonstration, staff will offer recommendations on
- 14 implementation of the new bus purchase policy and
- 15 introduce a broader goal of reducing greenhouse gas
- 16 emissions.
- 17 Mr. Craig Duehring of the Mobile Source Control
- 18 Division will present staff's presentation.
- 19 Craig.
- 20 (Thereupon an overhead presentation was
- 21 Presented as follows.)
- MR. DUEHRING: Thank you, Mr. Goldstene. And
- 23 good afternoon, Chairman Nichols, members of the Board,
- 24 ladies and gentlemen.
- We are here today to provide a status report on

1 implementing the Zero-Emission Bus purchase requirement.

- 2 --000--
- 3 MR. DUEHRING: I begin with a brief overview of
- 4 the materials being presented today. First, I will
- 5 provide a summary of the history of the ZBus regulation,
- 6 and then discuss the current regulatory requirements as
- 7 last modified in 2006.
- Next, I will provide an assessment of the state
- 9 of ZBus technology, discuss other efforts within
- 10 California and abroad, and then outline staff's
- 11 recommendation for future regulatory actions.
- 12 --000--
- 13 MR. DUEHRING: In February 2000, the Board acted
- 14 to reduce emissions from public transportation by
- 15 establishing a new fleet retrofit and modernization rule
- 16 for transit agencies and more stringent emission standards
- 17 for new urban bus engines and vehicles. Subsequently,
- 18 California has seen lower NOx emissions and an 85 percent
- 19 reduction in PM from transit buses.
- 20 Under the fleet rule, each transit agency was
- 21 required to select a compliance path, either the diesel
- 22 path or the alternative fuel path. The regulations also
- 23 included requirements for transit agencies to demonstrate
- 24 Zero-Emission Buses with the goal of developing zero
- 25 emission transit fleets.

1 A ZBus is defined as producing zero exhaust

- 2 emissions of any criteria or precursor pollutants under
- 3 any and all possible operating modes and climates. Buses
- 4 that meat these requirements include battery electric
- 5 buses, electric trolley buses with overhead twin wire
- 6 power supply, and hydrogen fuel cell buses.
- 7 The ZBus regulation contains three elements:
- 8 --000--
- 9 MR. DUEHRING: First, diesel path transit
- 10 agencies are required to initiate a ZBus demonstration.
- 11 Second, 15 percent of new bus purchases are
- 12 required to be ZBuses; and
- 13 Third, only large transit agencies whose fleet
- 14 size exceeds 200 urban buses are affected.
- There are currently ten transit agencies whose
- 16 fleet size exceeds 200 buses. They range from L.A. Metro,
- 17 with almost 2700 buses, to Golden Gate Transit, with 209
- 18 buses. The transit agencies affected by the ZBus
- 19 regulation operate 6,800 urban buses, which represents
- 20 about half of the statewide urban bus population.
- 21 --000--
- 22 MR. DUEHRING: The current regulation has been
- 23 modified twice because ZBus technology, in particular fuel
- 24 cell buses, was still in development, and as a result
- 25 costs were too high.

1 The first modification delayed the initial

- 2 demonstration. The most recent modifications approved by
- 3 the Board in 2006 included a delay in the ZBus purchase
- 4 requirement to 2011 for diesel path agencies and 2012 for
- 5 alternative fuel path agencies.
- 6 The Board also added an advanced or second phase
- 7 demonstration for large transit agencies on the diesel
- 8 path. The advanced demonstration requires a single
- 9 transit agency to place in service 6 ZBuses or allows
- 10 multiple transit agencies to participate jointly in
- 11 demonstrating at least 12 ZBuses.
- 12 The Board also directed staff to assess the
- 13 results of the second demonstration as well as other
- 14 information and report back by July 2009 on the
- 15 feasibility of implementing the purchase requirement.
- 16 This is why we are here today.
- 17 --000--
- 18 MR. DUEHRING: As required by the original ZBus
- 19 regulation, diesel path transit agencies initiated two
- 20 different ZBus demonstrations.
- 21 Santa Clara Valley Transportation Authority in
- 22 partnership with the San Mateo County Transit District
- 23 initiated a three-bus demonstration in March of 2005.
- 24 These buses used fuel cells as the sole input to the
- 25 propulsion system and did not incorporate hybrid

- 1 technology or regenerative braking.
- 2 The Alameda-Contra Costa Transit District, in
- 3 partnership with the Golden Gate Bridge, Highway and
- 4 Transportation District, initiated a three-bus
- 5 demonstration in March of 2006. Starting in November of
- 6 2007, the buses were subjected to accelerated testing,
- 7 logging 16 to 19 hours of operation per day, seven days a
- 8 week. Testing and evaluation continues today. The three
- 9 buses used a hybrid fuel cell technology with battery
- 10 storage and regenerative breaking capability. These buses
- 11 continue to run on AC Transit's daily routes.
- 12 In addition, SunLine Transit Agency, a smaller
- 13 agency not subject to the regulation, placed a hybrid fuel
- 14 cell bus in operation in December of 2005. This bus uses
- 15 the same ZBus technology as the AC Transit buses just
- 16 mentioned and is still in operation today.
- 17 --000--
- 18 MR. DUEHRING: The results from the three
- 19 demonstrations appear to be consistent, with the only
- 20 exception being fuel economy. The AC Transit and SunLine
- 21 Transit fuel cell buses showed about twice the fuel
- 22 economy of the VTA fuel cell buses and about twice that of
- 23 an equivalent diesel bus.
- 24 The lower fuel economy experienced by the Santa
- 25 Clara VTA was due to the design difference of the bus

1 which did not include the hybrid technology or

- 2 regenerative braking.
- 3 In addition to fuel economy, reliability and bus
- 4 availability are important performance metrics. The
- 5 availability of a bus is measured by comparing the number
- 6 of days the bus was scheduled to be in service with the
- 7 number of days the bus was unavailable due to maintenance
- 8 issues.
- 9 As you can see, the availability of the fuel cell
- 10 bus is not as good as an equivalent diesel or natural gas
- 11 bus, but is approaching the 85 percent target.
- 12 Reliability is a measure of the miles between
- 13 propulsion-related road calls during regular service. As
- 14 you can see, the reliability of a fuel cell bus is
- 15 substantially lower than that of an equivalent diesel bus
- 16 or natural gas bus.
- 17 The results of the initial demonstration
- 18 illustrate the need for additional demonstrations to
- 19 assess the reliability of the next generation of fuel cell
- 20 bus technology.
- --000--
- MR. DUEHRING: The 2006 modifications to the
- 23 regulation required a second demonstration. As a result,
- 24 a 12 ZBus demonstration was planned by a joint partnership
- 25 of five Bay Area transit agencies and originally scheduled

1 to begin January 2009 with preliminary results expected

- 2 for this report.
- 3 However, delays in securing funds and bus
- 4 production have forced the demonstration timeline to slip.
- 5 The first bus will not be delivered until late this year,
- 6 and the twelfth arriving in July 2010.
- 7 This larger demonstration will provide an updated
- 8 assessment of reliability, availability, and fleet
- 9 integration with refueling infrastructure.
- 10 --000--
- 11 MR. DUEHRING: Government agencies have funded
- 12 about 54 percent of the total cost for bus acquisition and
- 13 infrastructure development for the current demonstrations.
- 14 California funded 14.3 million; another 6.3 million has
- 15 come from the United States Federal Transit
- 16 Administration; and 2 million was made available from the
- 17 local air quality management district.
- 18 Additional government funds helping with the
- 19 second phase demonstration include 7 million from
- 20 California; 5.7 million from the Federal Transit Agency;
- 21 and another 2 million from the local air quality
- 22 management district.
- --000--
- MR. DUEHRING: In addition to the phases of
- 25 demonstrations required by the regulation, another

1 demonstration -- other demonstrations are taking place

- 2 here In California. We already talked about the SunLine
- 3 Transit demonstration. However, both the City of Burbank
- 4 and Foothill Transit are scheduling ZBus demonstrations
- 5 beginning early this year -- excuse me -- later this year.
- 6 Outside of California, South Carolina, and
- 7 Connecticut are currently demonstrating ZBus technology.
- 8 Connecticut will be placing in service an additional four
- 9 ZBuses later this year.
- 10 --000--
- 11 MR. DUEHRING: Subsequent efforts worldwide
- 12 include demonstrations taking place in Japan, Germany,
- 13 China, Brazil, Holland, Belgium, and Korea, with planned
- 14 larger scale demonstrations coming to London, England;
- 15 Vancouver, Canada; and Hamburg, Germany.
- Of particular interest is the 20 ZBus
- 17 demonstration occurring in Vancouver being implemented in
- 18 coordination with the 2010 Winter Olympics.
- 19 Staff plans to gather performance and cost data
- 20 from these efforts to further assess cost, availability,
- 21 reliability, and durability improvements.
- --000--
- 23 MR. DUEHRING: The demonstrations to date have
- 24 showed us that ZBus technology is still developing and
- 25 costs remain high. Battery electric buses cost

- 1 approximately 1.2 million and fuel cell buses cost
- 2 approximately 2.2 million. When compared to a similar
- 3 diesel or CNG bus, ZBuses can cost three to six times
- 4 more. Add in the cost of infrastructure, the comparison
- 5 climbs even higher.
- 6 The first phase demonstrations have shown the
- 7 technology is still under development, and improvements in
- 8 reliability, durability, and costs are needed. Staff will
- 9 monitor and assess the results from the second phase
- 10 demonstration as well as other projects worldwide to
- 11 further evaluate technology readiness.
- --o0o--
- MR. DUEHRING: Due to the delay in implementing
- 14 the second phase demonstration and resultant lack of data
- 15 demonstrating commercial feasibility, staff recommends
- 16 delaying the ZBus purchase requirement. Staff also
- 17 recommends continuing the second evaluation in the Bay
- 18 Area, which begins at the end of this year, to provide
- 19 information that can be used to assess when the purchase
- 20 requirement should begin.
- 21 In addition, staff recommends establishing in
- 22 regulation predetermined performance metrics that will
- 23 serve to trigger the mandatory purchase requirements.
- 24 And, lastly, staff is suggesting that it develop
- 25 a longer term concept that broadens the requirements to

- 1 reduce transit greenhouse gas emissions while
- 2 incentivizing innovation and increasing transit ridership.
- 3 Next, I will provide more information on each of
- 4 these recommendations.
- 5 --000--
- 6 MR. DUEHRING: The first recommendation is to
- 7 delay the purchase requirement. Staff is recommending a
- 8 delay in the purchase requirement for the following
- 9 reasons:
- 10 Initial demonstration results show promise, but
- 11 did not achieve the durability or reliability numbers
- 12 desired.
- Problems in securing funds and acquiring buses
- 14 have delayed the second phase demonstration; therefore no
- 15 additional demonstration data are available to assess the
- 16 latest ZBus technology advancements.
- 17 Finally, ZBus technology and infrastructure costs
- 18 are still too high.
- 19 For all these reasons staff suggests that the
- 20 2011 and 2012 purchase requirement should not be
- 21 implemented as scheduled.
- --000--
- 23 MR. DUEHRING: Staff believes that continuation
- 24 of the second phase demonstration in the Bay Area is
- 25 needed to provide the data necessary to assess the

1 reliability, availability, durability, cost and commercial

- 2 readiness of the latest generation of ZBus technology.
- 3 ---00--
- 4 MR. DUEHRING: In 2006, through Resolution 06-28,
- 5 the Board directed staff to consider the following
- 6 criteria while assessing the technology readiness for
- 7 commercialization:
- 8 The 2006 criteria are listed in the second
- 9 column. And the current state of technology is listed in
- 10 the last column. The purchase cost of a fuel cell bus was
- 11 to be no more than 1.25 times that of an electric trolley
- 12 bus.
- 13 The warranty of the fuel cell stack was to last
- 14 at least 20,000 hours, which is equivalent to
- 15 approximately 240,000 miles on a diesel or CNG bus.
- 16 Current diesel or natural gas buses get a factory warranty
- 17 of about 300,000 miles.
- 18 The reliability, determined by the number of
- 19 miles between propulsion road calls, was to be no less
- 20 than 10,000 miles, which is approximately what a diesel or
- 21 CNG bus can attain today.
- 22 Availability was not mentioned in the 2006
- 23 resolution but was measured during the first phase
- 24 demonstrations based on an industry standard of 85
- 25 percent.

1 Staff recommends that performance parameters like

- 2 these be placed in the regulation to serve as a trigger
- 3 for determining the commercial readiness of the technology
- 4 and implementation of the purchase requirement.
- 5 --00--
- 6 MR. DUEHRING: As a final recommendation, staff
- 7 sees value in adding greenhouse gas reduction as a goal of
- 8 the ZBus regulation. Implementation of the Transit Fleet
- 9 Rule has been successful in reducing NOx and PM emissions
- 10 from transit buses. Emissions of PM and NOx from new
- 11 buses have been reduced over 90 percent. And the legacy
- 12 fleets of buses is nearing completion of its cleanup.
- 13 At this time, the most important value in
- 14 continuing the ZBus requirement is to achieve significant
- 15 reductions in greenhouse gas emissions from transit, as we
- 16 have started to do for passenger vehicles and heavy
- 17 trucks.
- 18 To implement the recommendation, staff would like
- 19 to work with transit agencies to establish an appropriate
- 20 greenhouse gas goal for transit. This could take the form
- 21 of a declining cap on transit emissions. Such a cap could
- 22 take into consideration the positive benefits of increased
- 23 ridership and use of advanced transit technologies such as
- 24 light rail and hybrid electric buses to reduce greenhouse
- 25 gas emissions. This could also provide an incentive for

1 expanded transit, consistent with the goals of Senate Bill

- 2 375.
- 3 --000--
- 4 MR. DUEHRING: In summary, staff is requesting
- 5 the Board's endorsement of its four recommendations. If
- 6 you agree, the resolution will memorialize the Board's
- 7 intent to change the regulation to delay the purchase
- 8 requirement. This is important because transit bus
- 9 purchases for delivery in 2011 are beginning now.
- 10 The Board's direction to continue the second
- 11 demonstration in the Bay Area will allow staff to acquire
- 12 data from this demonstration to help assess commercial
- 13 readiness of ZBus technology.
- 14 Staff will also work with transit agencies to
- 15 develop a set of performance and cost criteria that can be
- 16 incorporated into regulation to serve as a trigger for the
- 17 purchase requirement.
- 18 We would plan to return to the Board late next
- 19 year with the proposed regulatory changes to formally
- 20 delay the 2011 purchase requirement and incorporate the
- 21 triggers, as well as provide early results from the second
- 22 demonstration program.
- 23 We will also begin developing a greenhouse gas
- 24 goal for transit and return to the Board with our
- 25 recommendations at a later date.

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1 This concludes staff's presentation.
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- 2 CHAIRPERSON NICHOLS: Thank you.
- I think we are going to be hearing some different
- 4 discussion points coming from those who've signed up to
- 5 speak. So why don't we just turn directly to them at this
- 6 point. And then we'll have Board discussion later.
- 7 Beginning with Paul Jablonski and then James
- 8 Gaspard.
- 9 We will keep our three-minute rule in effect
- 10 though.
- 11 Thank you.
- 12 MR. JABLONSKI: Thank you.
- 13 My name is Paul Jablonski and I'm the Chief
- 14 Executive Officer for the San Diego Metropolitan Transit
- 15 System. And I welcome you all to San Diego, which now is
- 16 a bright sunny day out there.
- 17 MTS provides rural, fixed route, paratransit, as
- 18 well as light rail service to about 70 percent of San
- 19 Diego County. Last year we carried close to 92,000,000
- 20 passengers. And that averages about 275,000 people a day
- 21 on just under 700 buses and 134 rail cars.
- Over the years as a partner with CARB, we have
- 23 aggressively pursued clean fuel strategies for our fleet.
- 24 Our rail system is obviously all electric. On the bus
- 25 side, nearly 80 percent of our fixed route fleet is now

1 powered by CNG. And by the end of this year, we will have

- 2 an average fleet age of less than six years. And our
- 3 paratransit fleet has been completely changed over from
- 4 diesel to gasoline. And we've made all this through
- 5 considerable investment in CNG and its infrastructure.
- 6 And now hybrid electric we just added to our
- 7 fleet a group of gasoline hybrid electric vehicles.
- 8 It has not come without a cost. Buses are
- 9 anywhere from 75,000 to \$150,000, an increase charge about
- 10 22, 23 percent increase.
- 11 We have already built four fueling stations for
- 12 CNG. We will shortly start our fifth. And our last one
- 13 cost close to \$6 million.
- 14 I would like to thank CARB staff for the
- 15 cooperation and the working relationship that we've had
- 16 with them in order to try to achieve the fleet standards.
- 17 And in general we support the staff's
- 18 recommendation for the ZBus purchase requirement.
- 19 The regulations -- the current regulations were
- 20 intended to spur technology to a level that would permit
- 21 its use in fixed route service. That level really has not
- 22 been reached. Transit operators have no control over
- 23 production and should not have to invest in technology
- 24 that does not work in providing public transportation
- 25 effectively.

1 What is currently being marketed unfortunately is

- 2 not reliable, affordable or durable, and it's too costly
- 3 to warrant experimentation at this time.
- 4 We along with staff also suggest that additional
- 5 demonstration projects should not be required at this time
- 6 because they are financially burdensome. And the northern
- 7 demonstration projects either have not come on line or are
- 8 too new to gain additional information, and those should
- 9 be allowed to mature.
- 10 Implementing the ZBus rule or requiring any
- 11 additional mitigation efforts instead of it could have
- 12 quantifiable and very severe financial impacts on transit
- 13 agencies, especially at a time when transit funding at the
- 14 state level has been totally decimated. For us, that
- 15 would mean taking service off the street in order to
- 16 implement this.
- 17 CHAIRPERSON NICHOLS: Mr. Jablonski, you've used
- 18 up your three minutes.
- 19 MR. JABLONSKI: Okay. So in general, I ask you
- 20 to consider staff's recommendation. And we look forward
- 21 to continuing our working relationship with you and also
- 22 implementing performance standards looking at this in the
- 23 future and working with us as an industry to help develop
- 24 those performance standards.
- I also will leave with your clerk of the Board

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1 some -- I understand that you're in town for today and
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- 2 tomorrow -- some transit passes. Get out and try the
- 3 system over the next couple of days. You can go back to
- 4 the airport by a bus stop right out here on Harbor.
- 5 So thank you very much.
- 6 CHAIRPERSON NICHOLS: Thank you. Appreciate
- 7 that.
- 8 I don't know if we're allowed to accept free
- 9 transit passes. I guess it's not the same as gift of
- 10 transportation, right?
- BOARD MEMBER ROBERTS: It does not exceed \$5
- 12 dollars in value, I can assure --
- 13 CHAIRPERSON NICHOLS: All right. Very good.
- 14 (Laughter.)
- 15 BOARD MEMBER RIORDAN: And you could give it to
- 16 staff.
- 17 CHAIRPERSON NICHOLS: Well, thank you.
- Okay. Mr. Gaspard and then Jim McElroy.
- 19 MR. GASPARD: I'm James Gaspard, Executive Vice
- 20 President, Design Line.
- I just wanted to let the Board know that the
- 22 technology does exist for battery buses, okay, not the
- 23 fuel cell stuff. We are a manufacturer of buses, been
- 24 working in electric and in hybrids and in pure electric
- 25 for over 18 years. We deliver to six countries right now.

1 University of California at San Diego has bought

- 2 two of our zero-emission buses for delivery next year.
- 3 These are heavy-duty transit buses. They currently
- 4 operate around the world, full shifts, heavy-duty cycles.
- 5 They go out and come back, can be charged up.
- 6 So the technology does exist.
- 7 I understand the need for the delay. But I just
- 8 want to say that CARB has always been looked at as the
- 9 leader around the world. We sell around the world. I'm
- 10 selling to a lot of countries around the world pure
- 11 electric buses because of the leadership CARB has shown in
- 12 having the manufacturers advance the technology.
- We've got hundreds of millions of dollars worth
- 14 of federal grants we're working with right now on
- 15 electrification of transit buses because of our
- 16 technology.
- 17 I just find it somewhat surprising after CARB has
- 18 driven this around the world that now you're going to take
- 19 a breather and sit on the sideline. I just hope that the
- 20 break is not too long. And that's all.
- 21 But we do look forward to your leadership. In
- 22 fact, currently I'm delivering buses to New York City and
- 23 Baltimore, plug-in electric buses. And because of your
- 24 leadership, people in the inner harbor in Baltimore,
- 25 Manhattan, the Bronx, Brooklyn will be breathing cleaner

1 air. And I just look forward to you reentering the game

- 2 later.
- 3 And in all, I do want to commend staff. Staff
- 4 was not aware of our product until about a month ago. We
- 5 stay below the radar, and we just talk to select clients.
- 6 We just didn't know we were so below the radar, nobody
- 7 knew of us.
- 8 (Laughter.)
- 9 MR. GASPARD: But we have been around for a lot
- 10 of years. We build the buses in the U.S., it's U.S.
- 11 technology, and it's all U.S. jobs for foreign markets and
- 12 the U.S.
- 13 Thank you.
- 14 CHAIRPERSON NICHOLS: Question for you. Hold on
- 15 just a moment.
- 16 BOARD MEMBER RIORDAN: One quick question.
- 17 What is the distance your buses can go on a
- 18 charge?
- 19 MR. GASPARD: Currently in heavy-duty transit
- 20 we're going between 90 and 120 miles a shift. And then
- 21 you come back in for charging. Or you can do fast
- 22 charging and stay out forever. We have an electric
- 23 hybrid -- like New York City's got a plug-in hybrid.
- 24 They'll run -- then they've got an on-board APU. They
- 25 take less batteries. The buses are similar except our

1 battery bus has a lot more batteries. The electric hybrid

- 2 has fewer.
- 3 And we use advanced battery technologies, the
- 4 lithiums, the sodiums. And we give very long warranties.
- 5 Our Warranties far exceed your implementation goals.
- 6 Their buses will run over half the day zero
- 7 emission. In fact, in testing in Manhattan they're
- 8 running over half the day in zero emission. And now
- 9 they're going into service. And then when the batteries
- 10 go down, the little APU comes on, which meets CARB
- 11 standards. They didn't even ask if we met EPA. They
- 12 said, "Do you meet CARB?" And then it comes on, charges
- 13 the batteries, goes off again.
- 14 BOARD MEMBER RIORDAN: Thank you very much.
- MR. GASPARD: Thank you.
- 16 CHAIRPERSON NICHOLS: Thank you.
- 17 Steven Miller.
- 18 I'm sorry. Jim McElroy, followed by Steven
- 19 Miller.
- MR. McELROY: We don't look at all alike.
- 21 CHAIRPERSON NICHOLS: No, not a bit, not a bit.
- 22 MR. McELROY: Chair Nichols, ARB Board. Thank
- 23 you for letting me speak today.
- I'm going to really keep it brief, because I
- 25 think your staff has just done an outstanding job in

1 working with us, and particularly over the last two years.

- 2 And I want to thank your staff.
- 3 And I want to thank our members. We represent 80
- 4 of the major transit systems in California. Many of them
- 5 are represented here today. And we'd like to think we've
- 6 helped coordinate -- as an association, helped coordinate
- 7 the discussion with ARB staff and with you, the Board, and
- 8 with our members.
- 9 And I think -- again, I really just want to thank
- 10 the staff, your staff, and our members for really, really
- 11 working together to try to make this the best decision
- 12 possible.
- 13 So thank you very much.
- 14 CHAIRPERSON NICHOLS: Appreciate that very much.
- Mr. Miller.
- 16 If people want to just come in and thank us, we
- 17 can extend their time, you know.
- 18 (Laughter.)
- 19 CHAIRPERSON NICHOLS: We could find a way to do
- 20 that.
- 21 MR. MILLER: Good afternoon, Madam Chair, Board
- 22 members, ARB staff. My name is Steven Miller. I'm the
- 23 Superintendent of Bus Maintenance for the Golden Gate
- 24 Bridge Highway & Transportation District in San Rafael,
- 25 California.

Before I get to my remarks I'd just like to make

- 2 a few quick observations. For one, I'm always extremely
- 3 proud and always leap at the opportunity to discuss with
- 4 anyone the tremendous strides we've made in reducing the
- 5 tailpipe emissions from our buses. I think when we look
- 6 back over the last ten years or so, it's absolutely
- 7 remarkable the amount of progress we made in such a very
- 8 short time.
- 9 Just to give credit where credit is due. It is
- 10 the ARB Board members and staff that have provided the
- 11 leadership, the motivation and much of the resources for
- 12 us to get there. So thank you.
- 13 I'm also highly motivated to make zero emission
- 14 buses a reality. I'm a firm believer that the internal
- 15 combustion engine is something that has outlived its
- 16 usefulness to us, at least in the context of public
- 17 transit.
- 18 As we move forward today though in considering
- 19 staff recommendations, I would like you to be very mindful
- 20 of the reliability component of the staff's
- 21 recommendation. That's a bit of a self-serving statement,
- 22 because I'm one of the guys who gets the phone call when
- 23 the bus is dead along the road.
- 24 You know, it's no secret that reliability is a
- 25 very necessary attribute of a successful transit system.

1 There's a lot of things that can make it unreliable - bad

- 2 scheduling, poor dispatching, vehicle availability. But I
- 3 think reliability is the number one, at least in my eyes.
- 4 And the reason for that is, if people cue up for a bus
- 5 that doesn't show up, they often get angry and maybe they
- 6 wait for the next scheduled run or maybe they go get in
- 7 their car and drive to work or wherever they're going.
- 8 When the bus shows up and they get on that bus and then it
- 9 dies on the highway, you've got an entirely another
- 10 situation on your hands. Hopefully it's not in the HOV
- 11 lane of a busy freeway, because then you're potentially
- 12 placing life and limb at risk.
- 13 So that's why I'd like you to pay particular
- 14 attention to, you know, reliability as we move forward and
- 15 craft the regulation.
- 16 Just to close. At Golden Gate Transit a majority
- 17 of our riders are riders of choice. And that's why I
- 18 wanted to speak to you today about reliability, because
- 19 those riders of choice make a decision every day to get on
- 20 our buses. So we don't want to move in a direction that
- 21 causes them to change that decision every day, because I
- 22 think we are doing a lot of good and we don't want to move
- 23 backwards.
- 24 But on the same token, I'm extremely excited
- 25 about our 12-bus ZBus demonstration. I think we're going

1 to get fantastic results. I see great news every day

- 2 coming from that program.
- 3
 I'm very excited about some of the other ZBus
- 4 demonstrations coming on line such as Foothill Transit.
- 5 That's fantastic.
- 6 So I think the Board is taking and staff are
- 7 taking the right approach here. And let's wait and see
- 8 what the results are, and then we'll move forward.
- 9 I assure you that me and my staff will do
- 10 everything possible to make ZEBs work and we'll get there.
- 11 Thank you very much.
- 12 CHAIRPERSON NICHOLS: Thank you very much.
- 13 Appreciate your leadership on these issues.
- 14 Gene Walker, followed by Durand Ral.
- MR. WALKER: Madam Chair, Board members and
- 16 staff. Thank you for having this hearing today, give me
- 17 an opportunity to speak. I'm Gene Walker. I'm the
- 18 Director of Maintenance for Golden Gate Transit, which is
- 19 the Bus Division of the Golden Gate Bridge Highway &
- 20 Transportation District.
- I am also, and have been for many years, our
- 22 transit partner with AC Transit in original ZEB bus
- 23 demonstrations. Certainly that information and data we
- 24 found from the original ZEB bus has been moved forward now
- 25 into the ZEBA, the Zero Emission Bay Area. The first

1 trials of the ZEB bus found that the design of choice was

- 2 really a hybrid rather than a fuel cell driving electric
- 3 motor for a motivation device.
- 4 So we are looking at gaining more data and more
- 5 information from the ZEBA demonstration -- advanced
- 6 demonstration to be able to move forward with
- 7 implementation and reliability.
- 8 Reliability is very important. Cost is very
- 9 important.
- 10 Reliability for Golden Gate Transit. We have
- 11 transit service that's 68 miles in one direction, 40 miles
- 12 in another direction, east and west, north and south. The
- 13 potential for passengers alongside the road is never a
- 14 good thing with a broken down bus. People out in commute
- 15 traffic trying to get on the other bus is an unsafe
- 16 situation. So reliability is always very important to us.
- 17 We also look at not excluding other near zero or
- 18 other zero technologies. We think that those should be
- 19 embraced. Those that are on the drawing board certainly
- 20 should have a chance to be a new burgeoning technology.
- 21 We also understand that these aren't socks. One
- 22 size does not fit all. So maybe for Golden Gate Transit,
- 23 AC and some in the Bay Area, the zero emission bus, ZEB,
- 24 may be the ticket. Maybe in other transit operations an
- 25 all-electric or a combination of electric hybrid or

1 something that charges alongside the road is another

- 2 opportunity for that technology.
- 3 Like I say, one size does not fit all.
- 4 But I would be certainly in error if I did not
- 5 thank the staff for all of their leadership and hard work
- 6 doing these work stations -- pardon me -- workshops, and
- 7 certainly crafting this report and their recommendations.
- 8 Our relationship goes back a long ways. We have
- 9 a relationship of mutual respect and trust to where we can
- 10 work together in our common goal of reducing emissions
- 11 from public transit.
- 12 And, again, I want to take an opportunity to
- 13 applaud your staff. They do a very good job.
- 14 So thank you.
- 15 CHAIRPERSON NICHOLS: Appreciate that.
- 16 All right. Mr. Ral, followed by Lynn Devine.
- 17 MR. RAL: Thank you, Madam Chair and members of
- 18 the Board. I appreciate the opportunity to come here
- 19 today. My name is Durand Ral. I'm the Chief Executive
- 20 Officer of our transit system in San Bernardino,
- 21 California, and we serve the valley of San Bernardino.
- 22 A few things we -- and I too want to thank staff.
- 23 It's been great working with staff, and certainly much
- 24 different than in the past. It's been a much better
- 25 relationship. We're more focused towards objectives. And

1 that's been going very well, and we really appreciate

- 2 their cooperation, their help through this process.
- 3 Alternate fuels is not a new thing to me. I
- 4 think my first alternate fuel demonstration project was in
- 5 the mid-eighties when I served at the system in Riverside.
- 6 Mayor, good afternoon.
- 7 And that was a methanol demonstration program.
- 8 And we went from there.
- 9 And then in San Bernardino we started the
- 10 compressed natural gas. We have finished our first life
- 11 cycle of CNG buses. We just received 27 new buses, and
- 12 they are replacing our first CNG buses. So we have been
- 13 on the natural gas path for quite sometime.
- 14 We fought the cost issues and all of the things
- 15 we're talking about now, with zero emission buses and
- 16 hydrogen fuel cells, when we did the CNG buses. And we've
- 17 learned that there is a cost to technology, there's also a
- 18 benefit, and that cost-benefit has to be weighed against
- 19 each other. And I think in our case now we find that that
- 20 has happened. It's taken us 12 years to get to that
- 21 point. And it's almost going to take us that long
- 22 probably with fuel cell.
- 23 The difference in today's world is our economic
- 24 situation has substantially changed. And you've heard
- 25 that from the construction industry earlier today and

- 1 you'll probably hear it from us.
- Not to beat that point, but I would feel remiss
- 3 if I did not say that that is an issue that we have to
- 4 consider going forward with this project.
- 5 Other than that, we strongly supported our
- 6 facility, Clean Air. I have -- my board members who serve
- 7 on the Air Quality Management District in the South Coast
- 8 that serve on my board of directors. So we have some
- 9 commonality in our upper leadership and elected officials
- 10 to make this happen as well.
- 11 So we're proud to be part of this process. We
- 12 just really need again to reemphasize reliability and
- 13 sustainability of service. It is not acceptable for us to
- 14 put a bus out on the street that can't stay out there a
- 15 full shift and meet the objectives of performance that it
- 16 has to do in order to meet the requirements of our riding
- 17 public.
- 18 So I thank you very much for your time. I hope
- 19 you would consider very seriously the recommendations made
- 20 by your staff to implement this new procedure. And we are
- 21 behind your staff, we're behind you in your efforts to
- 22 meet your objectives in this program.
- Thank you.
- 24 CHAIRPERSON NICHOLS: Thank you very much, sir.
- 25 Lynn Devine, followed by Bob Leiter.

1 MS. DEVINE: Good afternoon. My name is Lynn

- 2 Devine. I'm testifying again on behalf of the American
- 3 Lung Association of California in support of the zero
- 4 emission bus regulation and to stress the importance of
- 5 ongoing work to demonstrate and deploy zero emission bus
- 6 technology.
- 7 The American Lung Association believes this
- 8 regulation is an important strategy for advancing the
- 9 cleanest transportation technologies, while reducing both
- 10 air pollutants and greenhouse gases.
- 11 We appreciate the staff's work in conducting a
- 12 review of the program and we do support the key
- 13 recommendation to delay purchase requirements while
- 14 maintaining progress on demonstration programs.
- 15 We recognize that a delay is needed to address
- 16 the higher than expected costs, especially in light of the
- 17 difficult financial situations of many transit agencies.
- 18 We agree with staff that the delay will be
- 19 helpful in collecting additional data on the ZBuses, and
- 20 are encouraged that several demonstration projects are
- 21 planned in the next few years within and outside of
- 22 California that will produce new data.
- 23 As we heard, dozens of new ZBuses will soon be
- 24 deployed around the world. By reviewing the information
- 25 learned from deployment of ZBuses around the globe, we can

1 get a much clearer view of this technology and prepare for

- 2 ramping up California ZBus procurement and use.
- 3 While we appreciate the need for delaying the
- 4 purchase requirement, we think there should be further
- 5 discussion of setting performance triggers in regulation
- 6 before adopting this approach. Setting technology
- 7 performance triggers establishes a precedent, and the
- 8 implications for technology advancement should be
- 9 carefully considered.
- 10 In addition, there are operational and
- 11 maintenance factors that impact the performance of ZBuses
- 12 that also need to be taken into consideration, as these
- 13 factors are largely under the control of bus operators.
- 14 Again, we appreciate the staff's work and the
- 15 need for some delay in purchase requirements, but support
- 16 moving forward on this important program. Once fully
- 17 implemented, the ZBus program will contribute to improved
- 18 public health and greater interest in and use of clean,
- 19 quiet, and reliable transportation.
- Thank you.
- 21 CHAIRPERSON NICHOLS: Thank you very much for
- 22 your continued involvement in this program.
- Mr. Leiter, followed by Dana Lee.
- 24 MR. LEITER: Thank you, Madam Chair and members
- 25 of the Board. I'm Bob Leiter. I'm the Director of

- 1 Planning for San Diego Association of Governments.
- 2 And as you're all aware, SANDAG is the first
- 3 metropolitan planning organization in the state that will
- 4 be preparing its next regional transportation plan in
- 5 conformance with the provisions of SB 375.
- 6 And I want to take this opportunity to thank Lynn
- 7 Terry and the staff that have been working with SANDAG and
- 8 with the Regional Targets Advisory Committee to develop
- 9 recommendations on the methodology for setting targets
- 10 and, in that process, to identify some of the leading
- 11 measures that we are going to be looking at in our RTP to
- 12 address greenhouse gas emissions. I think we're making
- 13 really good progress, and I look forward to continuing to
- 14 work with your Board and your staff as we move forward on
- 15 that.
- 16 We support the points made by the Metropolitan
- 17 Transit System, and would like to add some additional
- 18 thoughts related to the development of our bus rapid
- 19 transit and arterial rapid bus projects.
- 20 We think that one of the main strategies that
- 21 you're going to be seeing in regional transportation plans
- 22 pursuant to SB 375 is the greater deployment of public
- 23 transit throughout urban areas to reduce vehicle miles
- 24 traveled. And what we've learned about public transit,
- 25 our past successes with rail and commuter bus service show

1 that people will use transit if it provides the kind of

- 2 customer experience that's an attractive alternative to
- 3 driving your car.
- 4 And SANDAG has several freeway bus rapid transit
- 5 and arterial rapid bus projects that we're currently
- 6 developing that will be implemented over the next two to
- 7 four years. These projects are being designed as higher
- 8 speed rail-like services that will incorporate a number of
- 9 passenger amenities that are designed to tap new ridership
- 10 markets. Matching the right type of vehicle to the
- 11 service being operated is one of the key elements of bus
- 12 rapid transit and arterial rapid bus experience.
- 13 Having the flexibility to choose from a wide
- 14 range of vehicles is necessary to ensure that the vehicle
- 15 has adequate seating capacity, has the right suspension
- 16 systems, provide comfort and interior design features
- 17 aimed at commuters.
- 18 If we do this right, we're going to attract new
- 19 riders, what we call choice riders. If we don't do it
- 20 right, we will continue to have difficulty in attracting
- 21 those kinds of riders. And we've done a lot of research
- 22 on this and we've tapped into a lot of research on what
- 23 makes various types of transit work. And we continue to
- 24 refine that, and we'd certainly like to share that with
- 25 your staff.

1 So bottom line is that while we think the goal of

- 2 reducing emissions in bus vehicles is an important one, we
- 3 think it needs to be balanced with the ability to ensure
- 4 the range of vehicle types that are available so that we
- 5 can match the right vehicles with the right services that
- 6 we're offering.
- 7 And we would welcome the opportunity to work with
- 8 your staff and your Board as we're developing our regional
- 9 transportation plan and as you're developing your
- 10 strategies to share our research. And we certainly look
- 11 forward to continuing our partnership.
- 12 Thank you.
- 13 CHAIRPERSON NICHOLS: Thank you. I know I speak
- 14 for all of us when I say we do too.
- 15 MR. LEITER: Thank you.
- 16 CHAIRPERSON NICHOLS: All right. Dana Lee and
- 17 then Joshua Goldman.
- 18 MS. LEE: Good afternoon, Madam Chair, members of
- 19 the Board. My name's Dana Lee and I'm with Long Beach
- 20 Transit. Long Beach Transit is a medium-size transit
- 21 agency. We serve 96 square miles with 28 million
- 22 customers a year. We have 246 buses, shuttles, vans, and
- 23 boats.
- 24 We absolutely share CARB's goals for reduced
- 25 emissions and improved air quality. In fact, we've been

1 one of the pioneering agencies for new technology. As an

- 2 example, we recently replaced 87 of our aging diesel
- 3 40-foot buses with hybrid gasoline electric buses, making
- 4 for almost 46 percent of our 40-foot bus fleet hybrid
- 5 gasoline electric. And our customers are really pleased
- 6 with these. And we're happy to be doing something to
- 7 improve the air quality.
- 8 We've invested a premium of over \$16 million
- 9 dollars for this new technology to purchase, maintain and
- 10 develop training for these vehicles.
- 11 We absolutely support staff's recommendation to
- 12 defer the purchase requirement. We believe that
- 13 technology's not ready yet for the rigorous needs of daily
- 14 transit operation. And also the costs of the vehicles are
- 15 extremely prohibitive now. We've suffered the last
- 16 several years some dire times with our state transit
- 17 funding, culminating particularly with this year where
- 18 state transit assistance was eliminated. And that makes
- 19 for a difficult time for us to invest in new technology
- 20 when many of our agencies are facing drastic service cuts,
- 21 layoffs, and fair increases.
- We support the addition of reasonable performance
- 23 measurements into the rule and look forward to working
- 24 with CARB staff on developing those.
- 25 I think of particular importance for Long Beach

- 1 Transit as a medium sized agency is to continue to
- 2 consider us when the rule is triggered. For example, if
- 3 an agency falls below the minimum bus threshold when the
- 4 rule is triggered but then grows to become over it, there
- 5 needs to be an adequate amount of time for an agency to
- 6 kind of ramp up and invest in the technology and invest in
- 7 the training to get up to speed to be able to handle the
- 8 vehicles that we'll need to purchase.
- 9 We appreciate CARB staff's efforts to work with
- 10 us, and we look forward to working together in the future
- 11 on this rule.
- 12 Thank you very much.
- 13 CHAIRPERSON NICHOLS: Thanks.
- Joshua Goldman and then Kenneth Stewart.
- MR. GOLDMAN: Good afternoon. Thank you for the
- 16 time.
- 17 I'm Joshua Goldman, Director of Business
- 18 Development for Proterra and former gasoline hybrid and
- 19 fuel cell engineer on many of the buses running here in
- 20 the State.
- 21 Proterra's an emerging vehicle manufacturer. We
- 22 were based in Golden, Colorado, with offices in San Jose
- 23 and San Diego. And we are here ramping up for production
- 24 to meet California's air emission bus needs.
- 25 We currently have three buses on order from

1 Foothill, with nine more coming down the road. And our

- 2 intent upon 500 buses a year annually with a new
- 3 production facility we're breaking ground on in order to
- 4 meet 2011 and 2012 nationwide electric vehicle supply.
- 5 Our 35-foot composite body bus can drive 30 miles
- 6 or one to two hours of urban transit bus service and
- 7 recharge at the driver break point in under ten minutes.
- 8 In other words all day bus service with zero emission
- 9 technology at a fraction of the cost for fuel cell. But
- 10 for those systems like Golden Gate Transit, that have
- 11 longer range needs, we do have hydrogen fuel cell range
- 12 extension.
- 13 This technology is emerging. We're coming to the
- 14 point now we're moving from demonstration to pilot
- 15 programs and into production. And the work we are all
- 16 working here in order to commercialize this technology is
- 17 important not just from demonstration purposes, but for
- 18 companies like us to gear up to full scale manufacturer.
- 19 And I hope that as you revise these rules and you
- 20 look yes in the delay, we understand the need for the
- 21 delay given the infancy of this system. But we also say
- 22 that a much longer delay will cause us a delay in
- 23 production to meet the longer term high volume goals of
- 24 these products.
- 25 So we look to move in demonstrations in multiple

1 cities, in multiple parts of the states during lessons

- 2 exposed upon the vehicle application and on the
- 3 infrastructure needs for these vehicles, both fast charge
- 4 battery electric and hydrogen fuel cell, such that we can
- 5 take this technology to meet the 15 percent rule and
- 6 beyond. And the bottom line is this technology must be
- 7 cost effective for it to be truly sustainable, both
- 8 environmentally and economically. And with our
- 9 technology, we're well on that way.
- 10 That \$1.2 million bus is pricey, three times that
- 11 of a diesel, given that it's such small volume. But when
- 12 we reach a hundred buses, it drops 20 percent in cost.
- 13 When we reach a thousand buses, similar to current CNG or
- 14 diesel bus orders, the technology is now less than two
- 15 times the cost of diesel. With a 12-year return on
- 16 investment, given lower energy cost, that makes a lifetime
- 17 cost less than any diesel or CNG bus.
- 18 So thank you for your time.
- 19 CHAIRPERSON NICHOLS: Thank you. Thank you for
- 20 your work in this area.
- 21 Mr. Stewart and then Mike Hursh.
- MR. STEWART: Good afternoon, Madam Chair,
- 23 members of the Board. My name is Ken Stewart. I'm Vice
- 24 President of Transportation at UTC Power. We make fuel
- 25 cells.

1 We also have been powering the AC Transit and

- 2 SunLine Transit bus programs over the last few years, in
- 3 addition to programs in Washington DC, Spain, Italy,
- 4 Belgium, and also my home town in Hartford, Connecticut.
- 5 Over 320,000 miles on these buses and over 31,000 hours of
- 6 operation.
- 7 Our position is that we believe that the existing
- 8 zero emission bus regulation should be preserved but
- 9 adjusted. And I would look to the Board and hoping that
- 10 they would provide guidance in regards to clean
- 11 technology, with continuity and certainty regarding these
- 12 rules going forward.
- 13 Why fuel cells? You've heard quite a bit about
- 14 it from the staff. I won't repeat it here. However, they
- 15 are ultimately efficient zero on-board emissions. Driving
- 16 and riding experience is vastly improved, so much so that
- 17 we have 68, 66, 140 percent fuel efficiency improvement
- 18 over other technologies.
- 19 Durability, we've seen a 300 percent improvement
- 20 in our durability life. The most recent fuel cells that
- 21 have been in operation with the demonstration fleet, many
- 22 of them have seen over 18 months of operation without ever
- 23 having to touch the fuel cell.
- Availability's been 95 percent on the fuel cell.
- 25 For the bus itself, there have been varying

- 1 degrees of availability, much like what the staff has
- 2 reported. But also we've seen recent data internally at
- 3 UTC Power that indicates we've been running at 82 percent
- 4 availability for the entire bus. And that too has been
- 5 improving.
- 6 These are vital real-world feedback systems with
- 7 the demonstration fleet. And I would ask the continued
- 8 support for these ongoing demonstration fleets, because it
- 9 gives us the feedback in order to improve in order to have
- 10 a cost effective solution. For every bus that's in demo
- 11 service today, it's the equivalent of taking 77 cars off
- 12 the road in terms of nitrous oxides. Also, these buses
- 13 will continue to provide feedback for our improvements.
- 14 We propose a timetable to adjust the regulations.
- 15 Go to a year's worth of performance data on the next
- 16 generation program that is beginning this fall. And then
- 17 there'd be a sufficient opportunity for study to
- 18 incorporate the learning at the end of 2010, and then time
- 19 to procure a 5 percent amount in 2011, which is a
- 20 different proposal than where the staff has been
- 21 recommending. But we feel it is very advantageous in
- 22 order to step from 5 percent and then to 15 percent.
- 23 These buses would then be on the ground two years later in
- 24 2013, and then time to procure the second wave in 2013.
- 25 And then the 15 percent fleet ZBus requirement on the

- 1 ground by 2015.
- 2 In short, the bus in Hartford runs at a 95
- 3 percent reduction in greenhouse gas emissions because it
- 4 uses renewable hydrogen from Niagara Falls. That is the
- 5 ultimate goal and that is achievable.
- 6 We look for clean technology with continuity and
- 7 certainty as you consider your rule-making adjustments.
- 8 Thank you very much.
- 9 CHAIRPERSON NICHOLS: Thank you.
- 10 BOARD MEMBER SPERLING: Could I ask a question?
- 11 So UTC is one of the few major producers of fuel
- 12 cells for buses in the world, right? I guess Daimler,
- 13 Ballard --
- MR. STEWART: I would like to think leading, but
- 15 yes.
- 16 (Laughter.)
- 17 BOARD MEMBER SPERLING: All right. We'll go with
- 18 that for now.
- 19 (Laughter.)
- 20 BOARD MEMBER SPERLING: Is there some step -- you
- 21 know, as we're looking into the future here, is there some
- 22 kind of step function in terms of your -- at least for
- 23 your company in terms of the development of fuel cells, do
- 24 you have another generation of fuel cells coming out at
- 25 some point? Or can you give us some insight into the

- 1 timelines?
- 2 MR. STEWART: Well, I don't necessarily feel
- 3 comfortable laying out our product plans. But I'd be glad
- 4 to do that with you or any members of the Board in
- 5 private.
- 6 However, I will say this, that we believe in this
- 7 technology. We would like to continue to invest. We need
- 8 a market. Because above and beyond UTC and our level of
- 9 corporate investment we have a supply base. And they need
- 10 to know that there's assurance of a marketplace that's
- 11 coming so that they can invest in their technology.
- 12 It takes sometimes days to make parts today. If
- 13 they were to invest a certain amount of manufacturing
- 14 capital, they could do those parts in hours or perhaps
- 15 minutes. That takes the cost down by tenfold, perhaps a
- 16 hundredfold on some parts. But they need the assurance
- 17 that it's worthy of their investment.
- 18 So the entire system needs that confidence. And
- 19 that's where I think the Board's policy could play a
- 20 significant role, is if there were certainty and
- 21 continuity for the road map, even if it were postponed,
- 22 but if we knew it was coming, then the entire supply chain
- 23 would invest and we would see the cost reductions that
- 24 we'd all like to see.
- 25 BOARD MEMBER SPERLING: Are these fuel cells

1 unique to buses or are -- are you just scaling them up?

- 2 Are they modular compared to like for cars?
- 3 MR. STEWART: I won't speak for other
- 4 manufacturers. But in our case, it is purpose built for
- 5 the bus.
- 6 BOARD MEMBER SPERLING: Thank you.
- 7 MR. STEWART: Thank you very much.
- 8 CHAIRPERSON NICHOLS: It is a chicken and egg
- 9 problem, exactly.
- 10 Okay. So our next witness is Mike Hursh from
- 11 Santa Clara and then Mr. Peeples from Alameda.
- 12 MR. HURSH: Thank you, Madam Chair. I'm Mike
- 13 Hursh H-u-r-s-h from Santa Clara Valley Transportation
- 14 Authority. I'm very happy to be here to testify today.
- I want to tell you that we support staff in
- 16 delaying and redefining the zero emission rule. I do feel
- 17 somewhat like a soldier called in from the front lines to
- 18 report on a very difficult battle situation.
- 19 I need you to know that we are in the process of
- 20 laying off -- furloughing, laying off 60 to 80 employees
- 21 and reducing service by 8 percent. This is a direct
- 22 result of the total elimination of State funding for
- 23 transit and of course the difficult economic times that
- 24 we're in.
- 25 The gap that we happen to be closing or the gap

- 1 that we're attempting to close is \$7 million. That
- 2 happens to be the same portion of local Santa Clara County
- 3 tax dollars that were spent on the first zero emission bus
- 4 demonstration program that had a total cost of over \$18
- 5 million for three buses.
- To give the Board an understanding of the
- 7 advanced demonstration that we're looking at right now, 12
- 8 buses, that project is in excess of \$33 million. We could
- 9 buy upwards of 50 2010 EPA-compliant hybrid buses.
- 10 Somehow we've lost our vision. Public transit is
- 11 the solution today. If the citizens of California,
- 12 particularly the citizens of California would leave their
- 13 car at home and switch to public transportation one day a
- 14 week, we could eliminate gas -- we could reduce greenhouse
- 15 emissions by 20 percent. Public transportation is the
- 16 solution. Clearly we need new fuel technologies, we need
- 17 new bus technologies. But this is being forced on our
- 18 backs. And the result is that we're eliminating service.
- 19 I advocate that the staff look at the total
- 20 agency. VTA has a light rail system, yet we are compared
- 21 to other agencies that operate only buses.
- 22 As you look at this rule, please consider the
- 23 entire balance of the agency. We are quite proud of the
- 24 reductions we've made in all of our emissions water,
- 25 electricity, solid waste. And please take that into

1 consideration. Look at the agency as a whole, not just

- 2 the type of bus that we operate.
- I want to thank CARB staff. I also want to thank
- 4 CTA, who's been the referee to keep us together, to get us
- 5 to play nice. And we will not be underdone by the morning
- 6 staff.
- 7 I want to leave you with a Ralph Waldo Emerson
- 8 quote: "To live in the sunshine, to swim in the sea and
- 9 drink the wild air." I think we all can live by that.
- 10 Thank you very much.
- 11 CHAIRPERSON NICHOLS: Thank you. That's a good
- 12 quote.
- Sorry. We have a question for the staff, not for
- 14 the witness. Okay.
- 15 BOARD MEMBER D'ADAMO: Just wondering if you
- 16 could put this into context, comparison of cost: Fuel
- 17 cell bus, hybrid bus, and just the standard EPA compliant.
- 18 MR. ACHTELIK: The cost -- Gerhard Achtelik with
- 19 the Air Resources Board. Sorry.
- 20 Since these are still demonstration buses still
- 21 in technology development, we did mention that the cost is
- 22 anywhere from -- I think it was three to six times
- 23 greater. So a standard diesel bus I believe is between
- 24 300,000 and 380,000. And then hybrid buses are around 500
- 25 and 600,000. And then these fuel cell buses are greater

- 1 than -- they're two million dollars, two and a quarter
- 2 million dollars. And then some of the other technologies
- 3 that were mentioned are around 1.2, \$1.5 million dollars.
- 4 Electric trolleys are around \$1 million.
- 5 BOARD MEMBER D'ADAMO: And then I think on, let's
- 6 see, slide 8 there's some information on -- well, actually
- 7 this is more based on an analysis of funding from various
- 8 agencies. But if we're looking at \$2 million now, what
- 9 was the initial costs when these fuel cell buses came on
- 10 line as demonstration projects? Just trying to get a
- 11 sense of how far they've come down and how quickly.
- 12 MR. ACHTELIK: The initial demonstration -- the
- 13 first phase of the costs were between three and a quarter
- 14 and three and a half million dollars. So we've reduced by
- 15 about a third.
- 16 BOARD MEMBER D'ADAMO: Over what period of time?
- 17 MR. ACHTELIK: Over -- it would be the second
- 18 generation. But I guess it would be four years -- yeah,
- 19 three to four years.
- 20 BOARD MEMBER D'ADAMO: Okay.
- 21 CHAIRPERSON NICHOLS: Okay. Mr. Peeples.
- MR. PEEPLES: Chair Nichols, members of the
- 23 Board. My name is Chris Peeples. I'm an elected-at-large
- 24 director of the Alameda-Contra Costa Transit District, AC
- 25 Transit, with 1.4 million constituents.

1 I'm here today to tell you a little bit about our

- 2 history with this to support staff's recommendation and to
- 3 give both my own and our staff's enthusiastic support for
- 4 the advanced demonstration.
- 5 I have to say in my 48 years of involvement with
- 6 fuel cells, they've come a long way. I saw my first PEM
- 7 fuel cell in 1960 in my uncle's laboratory in Schenectady,
- 8 New York, at G.E. where he was an investigator on the
- 9 Gemini Fuel Cell Program for NASA.
- 10 In '99 we saw the Ballard P3 bus at a conference,
- 11 borrowed it for a week or so, drove it around, decided
- 12 that this was an interesting thing to look at.
- 13 After that, in 2000 we had the Mercedes ZBus for
- 14 awhile.
- Our partner SunLine gave us an older 30-foot Thor
- 16 that had a 60 kilowatt UTC fuel cell in it. We drove that
- 17 for a couple of years. And that led us into our current
- 18 fleet of buses, which are integrated by an outside
- 19 integrator. But Gronvold bodies, UTC fuel cells, Siemens
- 20 drives. And those have made remarkable advances over the
- 21 three years we've had them, largely credited to UTC and
- 22 their constant work on it. They have a wonderful in-house
- 23 engineer that's at our place that's talking to Connecticut
- 24 three times a day. That it's made improvements in
- 25 reliability, improvements in durability.

Jaimie Levin, who will be speaking also for AC

- 2 Transit, will tell you some about the advanced
- 3 demonstration. That bus is running around on the roads
- 4 near the factory now. We should have it in September.
- 5 They've managed to cut about a third of the price and
- 6 three tons off the weight. That's in one generation.
- 7 I think this is a technology that can move along
- 8 quite well. I know that from the shop floor up, the
- 9 maintenance staff and everybody else are extremely proud
- 10 to be working on this project and extremely enthusiastic.
- 11 So my fellow board members were a little rocked
- 12 by Secretary Chu, but we're working on that.
- 13 (Laughter.)
- 14 CHAIRPERSON NICHOLS: We all are.
- MR. PEEPLES: Yes.
- Other than Jaimie, I'm probably the most
- 17 enthusiastic person in the room on fuel cells. But I
- 18 acknowledge that this is not something that's ready to go
- 19 tomorrow. Two point two million is pretty expensive for a
- 20 bus. Reliability isn't there, the durability isn't there.
- 21 So I agree completely with your staff's
- 22 recommendation. I disagree with my general manager,
- 23 because I do think you should put a date on it. I think
- 24 2014's the appropriate date. I think you need to be
- 25 prepared that that may push a little.

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1 But I think with the 12-bus fleet in the Bay
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- 2 Area, you will get an ample amount of data that will be
- 3 able to tell you down the road whether you really do want
- 4 to impose a purchase requirement on all the transit
- 5 agencies.
- 6 Thank you very much.
- 7 CHAIRPERSON NICHOLS: Thank you, sir.
- 8 Mr. Levin then. And the final witness is Glen
- 9 Tepke.
- 10 MR. LEVIN: Madam Chair, members of the Board and
- 11 staff. Jaimie Levin. I direct the Alternative Fuels
- 12 Policy Program for AC Transit. And I am the big advocate
- 13 for hydrogen fuel cells.
- 14 I don't think I have to tell this Board that we
- 15 have a carbon emissions problem, we have a carbon
- 16 dependency problem, and we have a challenge to become
- 17 sustainable. And that's the vision which has driven AC
- 18 Transit and our partners towards this new technology.
- 19 Granted, we're public transit agencies. We are
- 20 bleeding lots of blood right now from the cuts in our
- 21 budgets. But we have a future that depends on new
- 22 technology that can make us more sustainable. And that's
- 23 what drives us to continue what we feel has been very
- 24 successful to date. Not without challenges. We have
- 25 those to address and we are addressing them in this next

- 1 stage.
- What makes us optimistic about this? Number 1,
- 3 we've -- it's already been mentioned. We have over
- 4 182,000 miles of service on our buses. We carried half a
- 5 million people -- over a half a million people. Who are
- 6 those people? From Title 6 Environmental Justice
- 7 neighborhoods. Urban transit -- it was already mentioned
- 8 that over 6,000 buses of large fleets operate through the
- 9 most densely populated areas on our planet. And the
- 10 impact of those buses through those neighborhoods on
- 11 frequent service, with respect to local criteria
- 12 pollutants, with respect to noise, with respect to the
- 13 overall environmental benefit within our communities is
- 14 significant. And if we can address it, which we believe,
- 15 with fuel cell technology, then that's the direction we
- 16 need to continue.
- I might add I don't think this has been raised.
- 18 But one of the biggest benefits that our public recognizes
- 19 with this technology is noise reduction. In fact, it's so
- 20 much of a reduction that we've gone out and we've
- 21 purchased Tibetan bells from a local shop and welded them
- 22 on to the front of the bus. And that's a benefit in favor
- 23 of what we're doing.
- 24 It's already been mentioned that reliability is
- 25 an issue. Our next generation buses, which we are very

1 excited about, Chris mentioned that we've reduced our

- 2 weight by over three tons, so that they're only 2,000
- 3 pounds heavier than our diesel fleet. Even with the
- 4 burden that we now have with the current fuel cell fleet,
- 5 which is 8,000 pounds heavier, we're realizing almost 70
- 6 percent improvement in fuel economy.
- 7 So now we're coming out with a vehicle that's
- 8 6,000 pounds lighter. And our key goal is to improve
- 9 reliability, to come back to this Board with the data that
- 10 your excellent staff, from Tom Cackette to Gerhard to Anna
- 11 to Craig -- we've been spending a considerable amount of
- 12 time sharing our experience.
- 13 We see ourselves as a center of excellence. And
- 14 clearly from a policy standpoint, this chicken and egg
- 15 phenomena, how do we bridge the cost gap? Through a
- 16 center of excellence and commitment to -- those of us who
- 17 have a developed knowledge base, who have the experience,
- 18 keep ramping up that effort. We're going from 3 to 12.
- 19 We see ourselves hopefully going from 12 to 50. And
- 20 that's how we're designing our stations.
- 21 And I know my time is out. There's a lot to say
- 22 here. But the other side of this equation is not just on
- 23 the vehicle side. It's on the fuel side. And our new
- 24 fuel stations, which, thanks to CARB, will have a solar
- 25 electrolysis component to drive our reductions down to

1 zero. And we will have a fast fuel component in order to

- 2 show that we can demonstrate like operating conditions
- 3 for -- that we experience with our diesel and CNG fleets.
- 4 And we'll show scalability to go from 6 and 12 buses up to
- 5 50 and 100.
- 6 And I apologize for --
- 7 CHAIRPERSON NICHOLS: Thank you.
- 8 MR. LEVIN: -- taking the extra time.
- 9 CHAIRPERSON NICHOLS: No, you did a -- if you had
- 10 taken a breath I would have cut you off.
- 11 (Laughter.)
- MR. LEVIN: I have to live up to the reputation
- 13 of our vice president.
- 14 CHAIRPERSON NICHOLS: We have a question here?
- BOARD MEMBER D'ADAMO: Briefly. What --
- 16 (Laughter.)
- 17 BOARD MEMBER D'ADAMO: What improvements can be
- 18 made on reliability?
- 19 MR. LEVIN: Well, our target is -- and I think
- 20 this was mentioned with staff. We measure it two ways.
- 21 One is availability for pullout in the morning. We live
- 22 by the fact that when we have an a.m. pullout, any transit
- 23 agency, we have to meet scheduled service. You as a
- 24 passenger will not be a happy camper if -- whether it's a
- 25 fuel cell bus or a diesel bus has to wait or misses your

- 1 trip to work.
- So availability is number one. Standard for the
- 3 diesel industry or for any regular transit industry is 85
- 4 percent availability. Our numbers have been climbing.
- 5 Our biggest problem has not been the fuel cell
- 6 reliability; it's been the battery reliability. That's
- 7 where our real problem is. Our new buses are going to
- 8 feature a U.S. made EnerDel lithium ion battery. And our
- 9 current testing is really quite exciting. The proof in
- 10 the pudding of course is not what, one or two, three weeks
- 11 of testing or one year of operation. But it's multiyear
- 12 of operation.
- 13 The second measure for reliability is what we
- 14 call "miles between road calls." And you could see from
- 15 staff's report and from the -- and they get their data
- 16 from our NREL studies. We're very involved in data
- 17 collection so we can be credible. But it is a
- 18 considerable gap except for the fuel cell. It's close to
- 19 almost approaching 8,000 miles between road calls,
- 20 compared to our diesel fleet propulsion miles between road
- 21 calls of somewhere between 10 and 11,000.
- 22 So those are our objectives in this next stage.
- 23 I think we're at the end of the rope here. There's only
- 24 so much money we can get out of the state and out of our
- 25 funding parties unless we show evidence that there is

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1 progress and potential with this. So we are really
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- 2 looking as our primary goal to bring that reliability very
- 3 close to what our standard fleet requires.
- 4 And I know that was long answer, but...
- 5 CHAIRPERSON NICHOLS: Okay. Thank you.
- 6 Finally, Mr. Tepke.
- 7 MR. TEPKE: Thank you, and good afternoon. I'm
- 8 Glen Tepke. I'm the Transit Capital Priorities Manager
- 9 with the Metropolitan Transportation Commission in
- 10 Oakland. MTC is the transportation planning,
- 11 coordinating, and financing agency for the nine-county Bay
- 12 Area. And we provide most of the funding that the Bay
- 13 Area operators use to purchase buses. And that includes
- 14 the 12 buses that are being procured for the advanced
- 15 demonstration project.
- So thank you for the opportunity to comment on
- 17 the ZBus regulation.
- 18 MTC strongly supports the goals of the regulation
- 19 to reduce emissions, including greenhouse gases, and to
- 20 help the State meet its climate change goals.
- 21 Among other things, we've demonstrated that
- 22 support by providing \$26 million of the region's federal
- 23 funds to support the advanced demonstration project.
- 24 MTC also supports the staff recommendation to
- 25 amend the regulation to defer the purchase requirement and

1 to establish performance measures that would serve as

- 2 triggers for future implementation of the requirement.
- 3 The proposal to defer the purchase requirement
- 4 recognizes the reality that the ZEBs are still too costly
- 5 to implement at a large scale, and especially at a time
- 6 when transit budgets are under enormous stress due to the
- 7 economic downturn and state budget cuts.
- 8 In the Bay Area, the decline in sales tax revenue
- 9 and the complete elimination of state transit assistance
- 10 is going to translate into about a 10 percent reduction in
- 11 operating funds for the transit agencies. And as a
- 12 result, most of our agencies are either cutting service or
- 13 increasing fares.
- 14 And then on the capital side of the budget, in
- 15 our transportation plan we are projecting a \$17 billion
- 16 shortfall in order to meet our transit capital replacement
- 17 and rehab needs over the next 25 years.
- And in that context, the 26 million that I
- 19 mentioned that we have provided for the advanced
- 20 demonstration project are funds that otherwise would have
- 21 been available to meet other transit capital needs. These
- 22 are sort of general purpose funds. And that would also be
- 23 true if the purchase requirement were to be implemented.
- 24 So implementing the requirement in this
- 25 environment would place additional hardship on the transit

1 operators at a time when we really should be supporting

- 2 transit as part of the solution to climate change and
- 3 congestion.
- 4 So as the other speakers have said, deferring the
- 5 purchase requirement would give us time to develop the
- 6 data that we need to assess the durability and
- 7 reliability. It would also give us time to -- for the
- 8 operators to implement the fueling and maintenance
- 9 facilities required. And as we're learning in the
- 10 demonstration projects, that's one of the most challenging
- 11 aspects of implementing hydrogen.
- 12 We support the concept of the performance
- 13 thresholds and we look forward to working with your staff
- 14 to revisit and revise the measures that were developed in
- 15 2006.
- And I also want to thank your staff for all of
- 17 the collaborative work that they've done to implement this
- 18 project.
- 19 Thank you.
- 20 CHAIRPERSON NICHOLS: Thank you very much.
- 21 That concludes the list of witnesses.
- Do you have any closing -- I think it does.
- 23 Yes.
- Okay. Closing remarks.
- Mr. Goldstene.

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1 EXECUTIVE OFFICER GOLDSTENE: Well, I'm going to
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- 2 ask Mr. Cackette to make a few closing remarks, that we
- 3 make sure the Board understands what we're doing this
- 4 afternoon.
- 5 CHAIRPERSON NICHOLS: Yes.
- 6 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: This
- 7 was a status report only. So even though we've talked
- 8 about regulatory changes, it's not our intention -- well,
- 9 we can't make any today, and it's not our intention to
- 10 come back to the Board to make any that you may endorse
- 11 until about a year from now. And during that time of
- 12 course we would work with the transit agencies and other
- 13 stakeholders to try to come up with exactly what
- 14 performance criteria should be, how long the delay in the
- 15 purchase requirement should be, what the mechanism is to
- 16 trigger the delay, things like that.
- 17 The one important point though is that transit
- 18 agencies are buying buses for delivery in 2011. And
- 19 2011 -- it's the delivery date that counts. So right now,
- 20 under the rule, they should be buying these fuel cell
- 21 buses. And for some of them that would be a very big
- 22 purchase. And we agree, as they agree, that the
- 23 technology's not quite ready for commercialization yet.
- 24 So what we're relying on is that your resolution, if you
- 25 agree with us, will say that it's the Board's intention to

- 1 delay this date. And we think that's enough in this
- 2 narrow community to relieve the obligation on them until
- 3 we can come back in the fall and actually make the
- 4 regulatory change.
- 5 So that's kind of what our game plan here is.
- 6 And if you -- what we're really asking for is your sort of
- 7 endorsement in the resolution of this approach. And if
- 8 that works, we'll be back to see you with the formal
- 9 regulatory proposals in the year.
- 10 CHAIRPERSON NICHOLS: Okay. Well, I suggest that
- 11 we don't need extensive discussion at this point about the
- 12 details of how this would work, because you're going to be
- 13 taking additional input from the industry and all others.
- 14 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Right.
- 15 CHAIRPERSON NICHOLS: But there may be a few
- 16 questions or comments.
- 17 Mr. Yeager.
- 18 BOARD MEMBER YEAGER: Yes, thank you.
- I do have the pleasure of serving on the
- 20 Metropolitan Transportation Commission and also on the VTA
- 21 Board. So I understand a lot of the issues that were
- 22 being discussed here. And I certainly am in favor of
- 23 delaying the date.
- 24 And also looking at more of what we're talking
- 25 about as far as expanding the ZBus goals to include

1 greenhouse gas reductions. And hopefully we can -- maybe

- 2 you can sort of flush that out a little bit more for me
- 3 and sort of where we're headed.
- 4 I think -- as we've heard, you know, we have real
- 5 partners here with our transit agencies. I mean the whole
- 6 idea is to get people out of the automobiles and on to the
- 7 buses. And we've got to make sure that buses are there to
- 8 be running and that they are reliable.
- 9 And I know a lot of agencies are trying a variety
- 10 of other things. I mean certainly you're now purchasing
- 11 the cleaner diesel buses with the EPA standards. And I
- 12 was wondering how we're calculating that into their
- 13 overall reductions.
- 14 And some agencies, as we have in the VTA, they do
- 15 have electric trolleys as well as buses. And so as our
- 16 taxpayers have been willing to increase their sales tax to
- 17 go into trolley buses, how are they then also sort of
- 18 being considered? Because, again, these are people who
- 19 are really trying as hard as they can. They understand
- 20 the impact. They want to get people into the buses. And
- 21 I think whatever we can do to sort of help them and give
- 22 them incentives will help all of us. And as we continue
- 23 to have some of the issues that continue with the fuel
- 24 cells, of making sure that we're not discouraging them to
- 25 try other ways to reduce greenhouse gases.

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1 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Let me
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- 2 answer the last one, which is about the trolley buses --
- 3 the electric trolley buses. The regulation considered
- 4 those as being zero emission buses. And, for example,
- 5 Muni I think has essentially no obligation under this rule
- 6 because they buy and operate a large number of electric
- 7 buses.
- 8 And to the extent that battery buses come on
- 9 board and can serve some -- probably not all but some of
- 10 the transit needs, those count too. So that was
- 11 envisioned originally.
- 12 BOARD MEMBER YEAGER: I should say, but there's
- 13 still a problem if you're a fleet of over 200 and the
- 14 requirement, depending on what happens here, is still 15
- 15 percent of that, that if you haven't reduced that and all
- 16 you've done is expand your trolleys, you aren't really
- 17 getting credit for that. You just aren't sort of
- 18 expanding your bus fleet. Although hopefully you might be
- 19 doing that as well.
- 20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
- 21 if you bought ten -- you know, ten new trolleys and that's
- 22 all you bought, that would be ten ZEB buses you purchased,
- 23 so you would far exceed the 15 percent requirement.
- 24 That's why Muni doesn't have as much stake in this,
- 25 because they're already electric.

1 BOARD MEMBER YEAGER: Okay. So with VTA, as we

- 2 bring down BART to San Jose, that would also then be
- 3 included?
- 4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah.
- 5 It would count, right. And so if they bought 15 percent,
- 6 I guess, new trolleys compared to 85 percent diesels, that
- 7 would put them into compliance too.
- 8 But going back to the original question. When
- 9 this was adopted, it was adopted as part of trying to get
- 10 the smog emissions from public transit towards zero, being
- 11 that transit is often challenged and I think steps up due
- 12 to the fact that they should be a leader in environmental
- 13 control for transportation.
- I think we've, you know, pretty much achieved
- 15 much of that goal now. I mean we have -- diesel buses,
- 16 like you mentioned, are 90, 95 percent cleaner than they
- 17 used to be for both NOx and PM, at least starting in 2010
- 18 they will be. Oh, I think they are now actually.
- 19 And they've met those tough standards ahead of
- 20 the truck, for example, again showing the leadership.
- 21 But as we look at the shift towards emphasis on
- 22 climate change, just like we've done for cars, we've got,
- 23 you know, these very low emission cars out there now. And
- 24 what we're doing is we're starting to add on goals and
- 25 requirements for greenhouse gases from cars as well. And

1 we did that for trucks in -- at the end of last year, with

- 2 all the farings and things like that.
- 3 So transit I think has to be -- is a sector that
- 4 has to look at how do they get their greenhouse gas
- 5 emissions down from where it is today.
- 6 And obviously another diesel bus replacing one
- 7 that's already there, while it's cleaner from the smog
- 8 standpoint, probably won't reduce greenhouse gases.
- 9 Natural gas burned the way it is today, in a very
- 10 clean mode from a smog standpoint, gets you maybe 20
- 11 percent reduction in greenhouse gases.
- 12 And then the goal for cars, for trucks, and for
- 13 most other sectors is 80 percent.
- 14 So we've got to look at for this sector a way of
- 15 getting their greenhouse -- start getting their greenhouse
- 16 gases on a path that could ultimately achieve, you know,
- 17 something like an 80 percent reduction. And to do that,
- 18 it's essential that we have technology that has less
- 19 carbon coming out the tailpipe. But there's an advantage
- 20 with transit in that they could do other things, which
- 21 they do very well, which is, you know, encourage to get
- 22 more people out of their cars and on to a transit, provide
- 23 alternative means of transportation.
- 24 And then other technologies, like you said,
- 25 they're spending a lot of money in many places on light

1 rail. And that should count in here and there should be

- 2 incentives. You know, the rule ought to act as a positive
- 3 for us to try to see transit take a bigger role in the
- 4 greenhouse gas reduction program, which is, you know, now
- 5 quite tied into SB 375 in terms of better land-use
- 6 planning and how people are mobile within the community.
- 7 So I think that's what we tried to capture in
- 8 this greenhouse gas goal. We're still going to have to
- 9 push technology because we can't -- too much carbon coming
- 10 out buses. But we -- if we could do that, we need to also
- 11 try to figure out how it can benefit our transfer from
- 12 just being car people and driving around 1.2 people in a
- 13 car to using greater transit.
- 14 BOARD MEMBER YEAGER: Just my last point. I know
- 15 that on the performance metrics that was outlined maybe
- 16 there's also a need to include something about with price.
- 17 And the question to -- Ms. D'Adamo's question about
- 18 price. I mean, you know, we've got to get as many buses
- 19 on the road, you know, the clean diesel buses on that road
- 20 that we can. And so I would hope that that would be a
- 21 consideration as well.
- 22 CHAIRPERSON NICHOLS: Okay. Supervisor Roberts,
- 23 you had a question?
- 24 BOARD MEMBER ROBERTS: Yeah, I do have. First of
- 25 all, I need to be very careful what I say because I don't

1 want a starring role in the movie "Who killed the electric

- 2 bus?" as I have in an earlier movie --
- 3 CHAIRPERSON NICHOLS: I'd be more than happy to
- 4 defer to you on that.
- 5 (Laughter.)
- 6 BOARD MEMBER ROBERTS: And I -- like Supervisor
- 7 Yeager, I have some involvement with transit. I sit on
- 8 the Board of Directors of the Metropolitan Transit System
- 9 here as well as on the Transportation Committee for
- 10 SANDAG. So we're working on AB 32 and SB 375 in all of
- 11 these things. And we're trying to figure out what they
- 12 all mean.
- I guess I have a couple of questions. In our
- 14 efforts, one of the things we're working on is a major
- 15 expansion of our light rail system, which already
- 16 proportionately is one of the -- probably one of the
- 17 longest most anywhere in the State. The next expansion of
- 18 that -- and we'll have the environmental work done
- 19 probably by the beginning of this coming year -- it's
- 20 going to be about a billion dollar expansion. Now, that's
- 21 an all-electric system.
- 22 Like all the transit agencies that have been told
- 23 by the State, "We want you to do a better job. And to
- 24 help you we're going to cut all your funding," we're
- 25 struggling with a lot of issues. Fortunately we have

1 because of voter initiatives about half the money for that

- 2 line. And we're hopeful that the other half will come
- 3 from the federal government. And to this day, meetings
- 4 that I've had in Washington with them would indicate that
- 5 that's highly probable.
- 6 But how do you -- how -- you know, what I've seen
- 7 so far is a chart that says if you've got so many buses,
- 8 you're going to have to have so many experiments. Is
- 9 there a -- are you taking into consideration maybe that
- 10 systems like this are going to be spending a lot of money
- 11 on a lot of electrical -- other electrical stuff that in
- 12 the long run's going to claim more passengers, more
- 13 effective? I mean every index we have, it will outperform
- 14 any of this stuff that we've seen, I can tell you.
- 15 You know, we heard a lot of people testify about
- 16 all the wisdom of these fuel cells. And we know the
- 17 range, we know performance, we know cost, we know
- 18 reliability is all questionable at this point.
- 19 So how do we -- how do you look at a transit
- 20 agency and evaluate what are the efforts they're making
- 21 that really help you in the greenhouse gases but aren't
- 22 necessarily related to buses?
- 23 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
- 24 that's exactly what we want to do in that final
- 25 recommendation, which is come up with a greenhouse gas

- 1 goal that incorporates these features. So --
- 2 BOARD MEMBER ROBERTS: And that's the performance
- 3 part of it that you're looking at?
- 4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
- 5 no, beyond that. Actually come up with other incentives
- 6 that would sort of level the playing field on a greenhouse
- 7 gas basis. So, for example, we think that any transit
- 8 system will have buses. You know, there's not going to be
- 9 completely light rail.
- 10 BOARD MEMBER ROBERTS: There's no question about
- 11 that.
- 12 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah.
- 13 So those buses need to be making some progress towards
- 14 lowering their greenhouse gas emissions. If we don't,
- 15 we'll never get any kind of significant reduction from
- 16 that sector.
- But if you look at -- you know, the way we have
- 18 it now is, okay, you have to buy a bus. But what if I do
- 19 a light rail? Well, we'd like to have some kind of system
- 20 that says if you do light rail, that either you could get
- 21 credit or get GHG reduction credit for the fact that light
- 22 rail is more efficient than the bus perhaps, that it
- 23 carries more people, that it offsets -- it grows
- 24 ridership. And all of those things are good for
- 25 greenhouse gas reduction. So by putting -- perhaps coming

1 up with something like a cap or a declining cap on transit

- 2 emissions, you could do that. But you would build in the
- 3 growth factor. So that when they do good, which is get
- 4 people out of their cars, we would take credit for that
- 5 and that would offset any need to do technology changes or
- 6 things like that. And so there'd be a system-wide look at
- 7 transit, which I think could end up being, you know,
- 8 helping transit look more and more like it's providing the
- 9 societal benefits that it needs to do, not just getting
- 10 people out of their cars and to work, but also solving the
- 11 greenhouse gas problem.
- 12 BOARD MEMBER ROBERTS: Okay. Well, that -- you
- 13 know, I'm going to be interested in that.
- 14 You know, I heard a comment that, you know, we're
- 15 writing out the -- writing off the internal combustion
- 16 engine. And had we had the time yesterday, we would have
- 17 looked at all the companies here and the stuff that's
- 18 going on in San Diego with respect to development of algae
- 19 fuels and other things. And I wouldn't write off the
- 20 internal combustion engine so quick, because they could
- 21 have a negative impact -- a negative footprint with
- 22 respect to greenhouse gases and other things.
- 23 There's so many things going on right now that
- 24 are going to affect us. I don't want to see us stack the
- 25 deck in any way, shape, or form.

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1 I made a prediction on who killed the electrical
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- 2 car, that hydrogen was the fuel of the future. I'm not as
- 3 convinced of that today as I was ten years ago when we
- 4 went through this exercise with respect to cars. But I
- 5 think we have to -- if we keep in sight what we want, we
- 6 want to lower emissions, we want to lower greenhouse
- 7 gases, we want to have options that are cost effective as
- 8 well as provide the performance that we need, you know,
- 9 we'll do a far better job in the long run. It might not
- 10 be that we're for such a sexy solution as hydrogen fuel
- 11 cell.
- 12 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I think
- 13 the one thing that some of these technologies have as well
- 14 as the low emissions that will be essential for the future
- 15 is that they're efficient. Fuel cells are very efficient.
- 16 Electricity, electric motors for light rail are very, very
- 17 efficient.
- 18 BOARD MEMBER ROBERTS: Cost efficient as well as
- 19 performance efficient.
- 20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: They
- 21 have to be cost.
- 22 BOARD MEMBER ROBERTS: Okay. Cost efficient.
- 23 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: But
- 24 even when we look to algae and these other biofuel-type
- 25 things, there's going to be a lot of demand for them.

1 There's going to be probably some limited supply. And if

- 2 you put them in a normal combustion engine, you've got to
- 3 put a lot more in because those engines aren't as
- 4 efficient.
- 5 So the future for low carbon probably is some
- 6 combination of these low carbon fuels, whether it be
- 7 electricity or algae diesel or whatever, but also
- 8 efficient use of those fuels. And that combination's I
- 9 think what most people believe and Dan can certainly --
- 10 or Professor Sperling can certainly say that because he's
- 11 written books on it. But that's kind of the formula that
- 12 most people see. So I think -- that's why we wanted to
- 13 pursue both paths.
- 14 BOARD MEMBER ROBERTS: Well, and as you heard
- 15 from Paul Jablonski, we have a -- I think maybe the only
- 16 one in the country -- the CNG hybrid bus. And we're
- 17 testing that and running that --
- 18 CHAIRPERSON NICHOLS: There's still -- we haven't
- 19 heard the last from technology. But we're about to close
- 20 this item off, because some of us --
- 21 (Laughter.)
- 22 BOARD MEMBER ROBERTS: Okay. I will be quiet for
- 23 the rest of the afternoon.
- 24 CHAIRPERSON NICHOLS: -- some of us have
- 25 airplanes to catch who don't get to live here in San

- 1 Diego.
- But that was a helpful conversation. And I would
- 3 like to draw one conclusion from it, which is that, while
- 4 I tend to be persuaded by Mr. Cackette's line of thinking
- 5 about what the future is likely to look like, I'm also
- 6 very mindful of the point that you just made, Supervisor
- 7 Roberts, about the need to have performance-based
- 8 approaches to these issues and to keep as much as possible
- 9 to pushing on what we need to achieve and let technology
- 10 guide us at the end of the day as to where we're actually
- 11 going to get.
- 12 So I think those two things have to be kept both
- 13 in mind at the same time.
- 14 Hearing no objection, I would like to assume that
- 15 the Board is giving general direction along the lines of
- 16 what the staff has indicated here, that is, we all I think
- 17 are aware of the fact that it is not going to be possible
- 18 to actually meet the deadlines that were originally in
- 19 this -- planned for in the rule, that the staff will need
- 20 to come back with some amendments. And we'd like you to
- 21 keep in mind the other considerations that you've raised.
- 22 But I see people looking at me like they're
- 23 really worried that I'm about to do something illegal.
- 24 EXECUTIVE OFFICER GOLDSTENE: There's a
- 25 resolution to --

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1 CHAIRPERSON NICHOLS: Yes, I know.
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- 2 EXECUTIVE OFFICER GOLDSTENE: Oh, okay.
- 3 CHAIRPERSON NICHOLS: We have to actually act on
- 4 the resolution, I know, I know.
- 5 And before we act on the resolution, Mr. Jenne,
- 6 is there anything else we need to do?
- 7 ASSISTANT CHIEF COUNSEL JENNE: No, that's what I
- 8 was going to mention.
- 9 (Laughter.)
- 10 CHAIRPERSON NICHOLS: Okay, good. I know you
- 11 were worried that we weren't actually going to act on the
- 12 resolution.
- 13 BOARD MEMBER ROBERTS: I move approval of the
- 14 resolution.
- 15 BOARD MEMBER SPERLING: Second.
- 16 CHAIRPERSON NICHOLS: You're moving the
- 17 resolution. We have for that a second.
- Would all please signify by saying aye.
- 19 (Ayes.)
- 20 CHAIRPERSON NICHOLS: Opposed?
- 21 Okay.
- There, the resolution is passed. Thank you.
- 23 Thank you for keeping us on the straight and
- 24 narrow path.
- Okay. We do have a comment period, and we have

1 quite a number of people, unusually, who've signed up for

- 2 this. And I think some of them are part of an organized
- 3 group, but I don't think all of them are.
- 4 So my assumption is that Mr. Jefferds is not. Is
- 5 that correct, Bill, that you're -- where are you, Bill
- 6 Jefferds?
- 7 There you are.
- 8 You're first on the list. You're on your own; is
- 9 that correct?
- 10 DR. JEFFERDS: Right.
- 11 CHAIRPERSON NICHOLS: Yes. Well, why don't you
- 12 come up first then and give us your three minutes and then
- 13 we'll hear from the others.
- DR. JEFFERDS: Thank you, Madam Chair. I'm Bill
- 15 Jefferds, the Executive Director for the Southwest Defense
- 16 Alliance.
- Our chairman right now is John McQuiston, who is
- 18 the Chairman of the Board of Kern County Supervisors.
- 19 We've been in existence ten years. Our missions
- 20 are to protect military range complexes in the southwest.
- 21 We are a 501(c) of six states that have banded together to
- 22 protect those military range complexes.
- 23 So we have a great deal of interest in the CARB
- 24 and those issues that may make some problems for us as we
- 25 go along. But we want to offer our services to work with

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1 you as we come along with the issues that face that.
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- 2 We also met with the Board of Supervisors, Mr.
- 3 Cox and Mr. Horn, looking at the possibility of them
- 4 joining the Southwest Defense Alliance.
- 5 We appreciate being here today. I was a school
- 6 superintendent for 19 years. It reminds me of old board
- 7 meetings.
- 8 So thank you.
- 9 (Laughter.)
- 10 CHAIRPERSON NICHOLS: The reason I sounded so
- 11 familiar when I called him is that I worked with General
- 12 Jefferds when he was the military liaison in the Davis
- 13 administration. And he did a super job of organizing a
- 14 military base retention and reuse effort that we had
- 15 underway in those days when they were going through a
- 16 round of base closure efforts, you know, one of the
- 17 periodic BRAC projects, helping the State agencies get to
- 18 know the military base commanders and their issues and
- 19 helping us to focus on what we needed to do to have an
- 20 effective program to help California not just get rolled
- 21 over in that process.
- 22 So it was a terrific job. I want to thank for
- 23 that. Good to see you again.
- Okay. Now, am I correct that the rest of you are
- 25 more or less a part of a group?

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1 MR. GUERRY: Yes.
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- 2 CHAIRPERSON NICHOLS: Okay. Well, then you can
- 3 just organize yourselves. And I guess you each --
- 4 MR. GUERRY: Thank you. Good afternoon. My
- 5 name's Bill Guerry. I appreciate the opportunity to speak
- 6 with you late in the day. I'm an environmental lawyer
- 7 from Washington DC with the national law firm, Kelly Drye.
- 8 Today I'm testifying on behalf of the National
- 9 Marine Manufacturers, which represents over 1600 boat
- 10 builders and engine manufacturers. I will be followed by
- 11 representatives speaking for the lawn and garden industry,
- 12 followed by the furniture manufacturing industry, followed
- 13 by the California construction industry, and finally by
- 14 the California Motorcycle Dealers.
- These five diverse associations would like to
- 16 work constructively with the ARB and the Executive Office
- 17 to evaluate and try to develop recommendations through a
- 18 consensus-based process on improvements to ARB's
- 19 enforcement policies. To that end, our coalition has
- 20 developed a position paper, which I shared -- I think you
- 21 have before you. That position paper is largely based on
- 22 the work product and careful report written by George
- 23 Lawrence.
- 24 And I'm sure, Chairman, you remember George
- 25 Lawrence. He has a very distinguished 30-year career. He

1 was head of EPA's Mobile Source Enforcement Division for

- 2 12 years. And George was the proud architect of a
- 3 comprehensive 50-page EPA penalty policy matrix. And as
- 4 George explains in his report, that's been a very
- 5 effective tool in helping U.S. EPA reach fair, transparent
- 6 settlements since there's a clear litmus through that
- 7 matrix under which parties can come to an agreement and
- 8 reach a fair settlement through a much more expedited
- 9 process. It used to take EPA a much longer period to
- 10 reach those settlements.
- 11 Working with George Lawrence, the affected
- 12 coalitions urge the ARB Board to direct the Executive
- 13 Office and staff to work closely with all the affected
- 14 stakeholders and create, we believe, a very needed
- 15 transparent penalty policy and process that achieves the
- 16 following goals that we believe all of us share:
- 17 First, we should distinguish between major versus
- 18 administrative minor violations that have no impact on the
- 19 environment and do not involve any avoided compliance
- 20 costs.
- 21 Second, we should distinguish between different
- 22 grades of innocence or culpability, taking into account
- 23 whether a party undertook reasonable prudent precautions.
- 24 Third, we should be targeting and focusing
- 25 California's limited enforcement and judicial resources on

1 gross emitting in unsafe products from deliberate bad

- 2 actors, often from China, that are unfairly hurting
- 3 consumers, air quality, and reputable manufacturers and
- 4 dealers in the marketplace.
- 5 Fourth, we would like to work with you to ensure
- 6 that CARB enforcement staff are fully complying with all
- 7 California laws and due process requirements, including
- 8 those under the Office of Administrative Law.
- 9 Finally, I'd just like to note that we believe
- 10 that the ARB Board and Executive Office has an obligation
- 11 to exert leadership role in this important policy issue.
- 12 And, again, we are dealing with generic policies, not with
- 13 individual cases which we understand are held and
- 14 addressed on a case-by-case basis.
- Thank you.
- 16 CHAIRPERSON NICHOLS: Very good. Thank you.
- 17 MS. WILSON: Good afternoon, Chairman and
- 18 members of the Board. My name is Donna Wilson, and today
- 19 I'm appearing on behalf of OPEI, the Outdoor Power
- 20 Equipment Institute.
- 21 As its name suggests, OPEI represents numerous
- 22 manufacturers of outdoor power equipment, ranging from
- 23 chain saws to lawn mowers.
- 24 My comments today are directed toward ARB's
- 25 policy or, more precisely, its lack of policy with respect

- 1 to the setting of enforcement penalties.
- 2 My remarks will consist of three points:
- 3 First, what is exact issue we're dealing with
- 4 here? The precise issue is that unlike the EPA in other
- 5 states, ARB lacks a basic and transparent penalty policy
- 6 for its enforcement program.
- Now why is this important? Without such a
- 8 policy, the process of setting a penalty is imbued with
- 9 unchecked subjectivity. Indeed, even similar categories
- 10 of violations can be treated differently under this
- 11 rubric. As a result, the penalties imposed are
- 12 inconsistent with California law and Section 205 of the
- 13 CAA, under our view.
- 14 Third, what relief is OPEI seeking from the
- 15 Board?
- 16 The relief we're seeking is that the ARB
- 17 establish a penalty policy that, among other things, a)
- 18 identifies and applies objective and transparent criteria
- 19 and b) imposes a range of penalties that are reflective of
- 20 the relative seriousness of the violations.
- 21 In sum, OPEI respectfully requests that the Board
- 22 consider and act on this issue to ensure the basic values
- 23 of due process in this regulatory body.
- 24 Thank you very much for the opportunity to speak
- 25 to you today.

- 1 CHAIRPERSON NICHOLS: Thank you.
- 2 MR. MILLER: Good afternoon, Chairman Nichols and
- 3 members of the Board. My name is Clayton Miller and I
- 4 represent CIAQC.
- 5 As you know, CIAQC is a coalition. It represents
- 6 thousands of construction equipment and users. We talked
- 7 a lot about that this morning.
- 8 These companies are generally small companies and
- 9 they don't typically have the resources and sophistication
- 10 to effectively engage with CARB with regard to enforcement
- 11 matters sort of at a legal level.
- 12 CIAQC generally agrees with the comments made by
- 13 OPEI and the marine manufacturers before me.
- 14 CIAQC as an organization is comprised of small
- 15 business end users of the regulated equipment. And for
- 16 that reason we think it's uniquely interested in
- 17 developing a robust and transparent administrative hearing
- 18 process that CARB already routinely uses, much as it does
- 19 under the heavy-duty diesel inspection program.
- 20 CIAQC is aware that CARB has the authority to
- 21 utilize this administrative penalty hearing process for
- 22 virtually all violations since the passage of Senate Bill
- 23 527 back in 2001. However, I guess its application
- 24 continues to be somewhat limited beyond that.
- 25 CIAQC members are very similar to the entities

1 and companies affected by the On-Road Inspection Program.

- 2 In fact, many CIAQC contractor companies have vehicles
- 3 that fall into that regulation.
- But now in looking forward, there will be
- 5 thousands of companies subject to regulatory compliance
- 6 for the off-road/on-road portable equipment regulations.
- 7 And the provisions found therein I guess include the
- 8 idling limitation rules, reporting and in-use
- 9 requirements.
- 10 So what we want to recommend is that CARB offer
- 11 an administrative penalties hearing process for those
- 12 things moving forward. We think doing so would improve
- 13 efficiencies for limited agency staffs and private sector
- 14 staffs and limited resources, especially given the ongoing
- 15 budget crises and ever-increasing compliance regulations
- 16 moving forward.
- 17 Local air districts already utilize
- 18 administrative processes, and that could serve as an
- 19 example here.
- 20 So I wanted to thank you for the opportunity this
- 21 afternoon. And I appreciate the ability to give a
- 22 perspective and make the suggestion today.
- Thank you.
- 24 CHAIRPERSON NICHOLS: Thank you.
- MR. DUNLAP: Good afternoon. It's good to be

- 1 with you today.
- 2 I wanted to compliment Supervisor Roberts on the
- 3 nice house for having the meeting here in San Diego.
- 4 I'm John Dunlap and I'm representing the American
- 5 Home Furnishing Manufacturers' Alliance. The AHFA, as
- 6 some of you may recall, is the voice of the American
- 7 furniture industry and has been working closely with the
- 8 Board staff on the implementation of the formaldehyde
- 9 furniture regulation.
- 10 The association is particularly concerned about a
- 11 consistent predictable enforcement program that at present
- 12 is undefined despite some regulatory deadlines that are
- 13 emerging relative to compliance dates.
- 14 So they're adding their voice today to those
- 15 speaking in hopes of securing your awareness of the need
- 16 for this clear, consistent enforcement compliance
- 17 framework and requesting that a workgroup be formed and
- 18 established to discuss possible remedies. One of the
- 19 areas and I think Chair Nichols will appreciate this -
- 20 that needs to be examined is about strict liability,
- 21 whether it should be blindly applied or should involve
- 22 some enforcement discretion. If discretion is allowed,
- 23 this could encourage manufacturers in their efforts to
- 24 undertake reasonable prudent precaution in making sure
- 25 they're in compliance.

1 I know, Chairman Nichols, given your experience

- 2 federally with U.S. EPA, you understand kind of the rub
- 3 and how important it is to have things work through a
- 4 consistent framework. It gives -- in my consulting
- 5 practice I spend a lot of time working to settle
- 6 enforcement cases. It's very difficult oftentimes to
- 7 predict what people are looking at, what their exposure
- 8 is. You heard earlier today a comment I think
- 9 Supervisor -- or not Supervisor -- Board Member Riordan
- 10 brought it up about the idea of people having
- 11 responsibility on the construction side about notifying
- 12 your staff within 30 days of the sale of the piece of
- 13 equipment. Well, that issue emerged because they were
- 14 concerned about having your enforcement staff go out and
- 15 enforce that small provision and use that as a basis for
- 16 an enforcement action.
- 17 Subsequent to your discussion, we talked to your
- 18 Executive Officer. He assured us that was not likely
- 19 going to be the outcome. But nonetheless there's an
- 20 opportunity for some framework discussions and development
- 21 of a framework that we believe will benefit not only the
- 22 compliance the Board seeks, but the assurance that the
- 23 industry, you know, has a level playing field if they're
- 24 confronted.
- 25 I might add that your Board deals with some very

1 thorny regulatory issues. And you in good conscience ask

- 2 your staff to strive to implement those regulations fairly
- 3 and consistently. And they -- I believe their motives are
- 4 pure. But how those regulations are applied, particularly
- 5 in the enforcement arena, give people great pause and some
- 6 concerns.
- 7 So, Madam Chair, I think the key takeaway just
- 8 from my few minutes with you is if there's a way for you
- 9 to get behind some kind of an effort to establish a work
- 10 group to work through some of these things. I think your
- 11 experience and hopefully Mr. Goldstene's commitment will
- 12 get us where we need to be.
- 13 CHAIRPERSON NICHOLS: Thank you.
- 14 Last.
- MR. PALIWODA: Good afternoon, Madam Chair and
- 16 Board members. I'm the Executive Director of the
- 17 California Motorcycle Dealers Association, John Paliwoda.
- 18 It's a 38-year-old nonprofit trade association for
- 19 California motorcycle dealers.
- 20 We're the voice for over 350 motorcycle dealers
- 21 here -- franchise motorcycle dealers here in California.
- 22 And a majority of them are CMDA members.
- Because of the nature of our products that can
- 24 affect California's air quality, we seek to work closely
- 25 and cooperatively as we have tried to in the past with the

- 1 ARB.
- 2 However, the CMDA supports the letter from the
- 3 coalition that we belong to, of diverse associations
- 4 including OPEI, and MMA, and CIAQC.
- 5 We beseech the Board, we ask the Board to conduct
- 6 a systematic review of ARB's enforcement criteria and
- 7 procedures. And from the CMDA standpoint, enforcement
- 8 should not be concentrated and focused on innocent parties
- 9 who are often overwhelmed by the ARB's disproportionate
- 10 resources into agreeing to grossly unfair and often
- 11 undeserved settlements for what should be administrative
- 12 fines.
- 13 ARB should not seek to enforce regulations
- 14 retroactively before their effective date. ARB must
- 15 follow the California Administrative Procedure Act and
- 16 receive Office of Administrative Law approval before
- 17 prospectively applying regulations.
- 18 Senior enforcement counsel plans to pursue
- 19 enforcement actions against hundreds of dealers and to
- 20 rescind green sticker registrations from owners that allow
- 21 for off-highway recreational use on public lands for
- 22 vehicles that were sold in 2006 and early 2007. This was
- 23 a year before the effective date of amendments to the
- 24 off-highway recreational vehicle rule were approved by the
- 25 Office of Administrative Law, which was August 15th, 2007.

1 ARB enforcement is proceeding to file costly and

- 2 inefficient enforcement actions against hundreds of
- 3 motorcycle dealers that innocently sold products before
- 4 the effective date of this regulation.
- 5 To prevent these unwarranted enforcement actions,
- 6 regrettably the CMDA is filing a petition with the Office
- 7 of Administrative Law. This petition requests that the
- 8 Office of Administrative Law declare that the retroactive
- 9 enforcement of the off-road recreational vehicle rule
- 10 amounts to an underground regulation in violation of the
- 11 Administrative Procedure Act.
- 12 In closing, the CMDA did not ask for this turn of
- 13 events. We look forward to constructively working with
- 14 the Board, with the staff in trying to resolve these
- 15 issues. Please give your most serious attention. Too
- 16 many manufacturers, trade associations, dealers and
- 17 retailers continue to be the targets for these heavy
- 18 sanctions justified by staff opinions, advisories, and
- 19 interpretations that were not approved as regulations by
- 20 the Office of Administrative Law.
- 21 Thank you very much.
- 22 CHAIRPERSON NICHOLS: Thank you.
- Obvious we cannot take any official Board action
- 24 on this item.
- 25 Actually I want to say, first of all, I really

- 1 appreciate the fact that you're all here. And it may be
- 2 just one of those wonderful alignments of the stars. But
- 3 I have been having conversations with our still relatively
- 4 new Chief Counsel, Ellen Peter, who's not here today
- 5 because she's addressing the 9th Circuit Judicial
- 6 Conference in my stead about the desirability of adopting
- 7 some more formalized procedures for handling enforcement
- 8 cases.
- 9 So actually your timing is excellent. And it is
- 10 something that I think the Board should be looking to.
- 11 This is not a quick and easy process, I am sure you
- 12 realize. And there are differences in different types of
- 13 regulations and there are differences -- there may well be
- 14 differences in specific instances. For example, the case
- 15 that Mr. Paliwoda is talking about, you know, may or may
- 16 not be one that would be addressed by this kind of a
- 17 discussion.
- But in general, to have a discussion about
- 19 regularizing and formalizing penalty structures and
- 20 procedures and, as much as possible, clarifying when we
- 21 take different paths in the enforcement I think would work
- 22 to all of our benefit.
- The fact is, I can't say how strongly I
- 24 believe -- I cannot say this too strongly. An effective
- 25 enforcement program is at the heart of the work of this

1 agency. If we are not enforcing our regulations in a way

- 2 that is seen by the public to be effective and fair, we
- 3 might as well not be passing all the regulations that this
- 4 Board works so hard to adopt. So it is a really critical
- 5 piece of our agency's operation.
- 6 But rather than sort of go through, you know,
- 7 responses to the comments that were made here, I think the
- 8 best thing to do would be to simply ask Mr. Goldstene to
- 9 reflect on these comments and come up with a structure ${\hbox{\scriptsize --}}$
- 10 I know the word "task force" was used, "working group" I
- 11 think was used. I again appreciate the fact that this
- 12 particular group of people has come to us, but there may
- 13 well be others that should also be included in such a
- 14 discussion.
- 15 So I think we should leave it to you to develop a
- 16 response and let us know.
- 17 But we really do appreciate your all taking the
- 18 tame to come here and to bring this to our attention.
- 19 Thank you.
- 20 EXECUTIVE OFFICER GOLDSTENE: We will.
- 21 CHAIRPERSON NICHOLS: Okay. We will.
- 22 Excellent.
- Thank you.
- 24 Are there any further comments?
- 25 No.

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1 All right. Hearing none, then I believe we will
 2 be adjourned.
            Thanks, everybody.
 3
            (Thereupon the California Air Resources
 5
           Board meeting recessed at 3:02 p.m.)
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1	CERTIFICATE OF REPORTER
2	I, JAMES F. PETERS, a Certified Shorthand
3	Reporter of the State of California, and Registered
4	Professional Reporter, do hereby certify:
5	That I am a disinterested person herein; that the
6	foregoing California Air Resources Board meeting was
7	reported in shorthand by me, James F. Peters, a Certified
8	Shorthand Reporter of the State of California,
9	That the said proceedings was taken before me, in
10	shorthand writing, and was thereafter transcribed, under
11	my direction, by computer-assisted transcription;
12	I further certify that I am not of counsel or
13	attorney for any of the parties to said meeting nor in any
14	way interested in the outcome of said meeting.
15	IN WITNESS WHEREOF, I have hereunto set my hand
16	this 6th day of August, 2009.
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23	JAMES F. PETERS, CSR, RPR
24	Certified Shorthand Reporter
25	License No. 10063