

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

SOUTH COAST AIR QUALITY AIR MANAGEMENT DISTRICT
AUDITORIUM
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APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Dr. John Balmes

Ms. Sandra Berg

Ms. Dorene D'Adamo

Mr. Hector De La Torre

Mr. Ronald Loveridge

Mrs. Barbara Riordan

Dr. Alex Sherriffs

STAFF

Mr. James Goldstene, Executive Officer

Mr. Tom Cackette, Chief Deputy Executive Officer

Mr. Richard Corey, Deputy Executive Officer

Ms. Lynn Terry, Deputy Executive Officer

Ms. Sarah Pittiglio, Ph.D., Air Pollution Specialist,
Research Division

Ms. Annalisa Schilla, Climate Action and Research
Planning, Research Division

Ms. Marcelle Surovik, Air Pollution Specialist, Energy
Section, Stationary Source Division

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Brian Biering, Wildflower Energy

Mr. Bill Davis, SCCA/CCTA/CIAQC

Mr. Sean Edgar, Clean Fleets Net

Mr. Paul Shepard, Wildflower Energy, LP

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PROCEEDINGS

1
2 CHAIRPERSON NICHOLS: Good morning, everybody.
3 This is the December 6th, 2012 public meeting of the Air
4 Resources Board. I would ask you please to come to order.

5 We will begin our meeting, as usual, with the
6 Pledge of Allegiance to the flag.

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 JENSEN: Dr. Balmes?

12 BOARD MEMBER BALMES: Here.

13 BOARD CLERK JENSEN: Ms. Berg?

14 BOARD MEMBER BERG: Here

15 BOARD CLERK JENSEN: Ms. D'Adamo?

16 BOARD MEMBER D'ADAMO: Here.

17 BOARD CLERK JENSEN: Mr. De La Torre?

18 BOARD MEMBER DE LA TORRE: Here.

19 BOARD CLERK JENSEN: Mayor Loveridge?

20 BOARD MEMBER LOVERIDGE: Here.

21 BOARD CLERK JENSEN: Mrs. Riordan?

22 BOARD MEMBER RIORDAN: Here.

23 BOARD CLERK JENSEN: Supervisor Roberts?

24 Dr. Sherriffs?

25 BOARD MEMBER SHERRIFFS: Here.

1 BOARD CLERK JENSEN: Professor Sperling?

2 Supervisor Yeager?

3 Chairman Nichols?

4 CHAIRPERSON NICHOLS: Here.

5 BOARD CLERK JENSEN: Madam Chairman, we have a
6 quorum.

7 CHAIRPERSON NICHOLS: Great. Thank you.

8 I want to say, I really like this room. And I'm
9 wondering if the powers of eminent domain extend from the
10 State to the regional level and we couldn't just sort of
11 adopt this place. I like being lower down than when we
12 are in the Haagen-Smit room way up on our dais there. And
13 the sound system is very good here, too. So are the
14 pictures. So I think we should consider that.

15 We are very grateful to the Air Quality
16 Management District for allowing the use of their room
17 this morning.

18 I have a couple of announcements for anybody who
19 is not familiar with our routine. Anyone who wishes to
20 testify and has not signed up online should fill out a
21 request to speak card. They're available in the lobby
22 outside the boardroom. And we appreciate it if you would
23 turn it into the clerk, who is back in the corner over
24 there in advance.

25 If you've already taken advantage of the online

1 sign-up procedure, you do not need to fill out a request
2 to speak card. But you must check in with the Clerk or
3 your name will be removed from the Speaker's list.

4 Also, speakers should be aware that the Board
5 imposes a three-minute time limit. We appreciate it if
6 you state your first and last name when you come up to the
7 podium and then summarize your testimony, putting it into
8 your own words as opposed to reading it. Because if you
9 have prepared written testimony, we already have it.

10 For safety reasons, please note the emergency
11 exits that are in the rear and to the side here. We're
12 required to evacuate this room immediately and go outside
13 the building if there is an alert.

14 Now, before we take up the calendar, the regular
15 calendar, I wanted to mention a couple of things. First
16 of all, in the wave of retirements that is going across
17 the Air Resources Board and government in general, I
18 should say, I want to take a moment to recognize the
19 retirement of a long-time employee who is not with us
20 today, and that's Dr. Linda Murchison. I believe Linda is
21 listening on the broadcast. If you are, Linda, this is
22 for you.

23 Linda is retiring after more than 35 years with
24 the Air Resources Board. Throughout that time, she has
25 been a leader in exemplifying ARB's commitment to strong

1 technical analysis in policy development. Her dedication
2 as well as her noted management skills and creativity have
3 made her a key member of ARB's executive staff team.

4 Linda directed the development of several major new ARB
5 programs throughout her career. Let me just mention a
6 couple that illustrate the breadth of her contribution.

7 Linda joined the Air Resources Board in 1982 and
8 quickly moved into management. Early on, she transformed
9 ARB's emissions inventory into a modern database system
10 for the first time. She was the first manager of ARB's
11 toxic inventory program, developing our first regulatory
12 reporting requirements for airborne toxics. She also
13 built ARB's first community assessment and environmental
14 justice programs, including a neighborhood scale air
15 quality monitoring and modeling initiative. She was key
16 to the drafting of our environmental justice policies and
17 principles. And she oversaw the drafting of ARB's very
18 much used land use handbook.

19 More recently, Linda has turned her talents to
20 our climate change programs. Under her leadership, ARB
21 staff developed California's first comprehensive
22 greenhouse gas emissions inventory. And then a year
23 later, her staff developed and the Board adopted the
24 mandatory reporting rule and the verification program.

25 While taking on these challenges, she also

1 managed the very complex and important technical and
2 policy issues involved in the SIP planning.

3 Underlying all of these accomplishments is
4 Linda's unwavering dedication to the scientific and
5 technical integrity of ARB work. We will miss her. But
6 we can also be assured that she leaves behind a legacy of
7 excellence as well as some excellent people who she helped
8 to train who will carry on.

9 So Linda, hope you're listening. On behalf of
10 myself and the Board members and all ARB staff, we want to
11 say thank you.

12 (Applause)

13 BOARD MEMBER RIORDAN: Madam Chair?

14 CHAIRPERSON NICHOLS: Yes.

15 BOARD MEMBER RIORDAN: I'd like to just say to
16 Linda and hope she is listening how much I appreciated
17 working with her over these many years that I've served on
18 the Board, particularly in the area of environmental
19 justice and the famous land use handbook.

20 She really was wonderful at working with
21 community groups and in some more controversial areas.
22 And I just appreciated the calming and reasoning effect of
23 her efforts. And I thank her. And I'm sure we're going
24 to miss her terribly.

25 CHAIRPERSON NICHOLS: Thank you very much.

1 All right. The first item on this morning's
2 calendar is a consent item. It's the public hearing to
3 consider the approval of the San Diego 8-hour ozone SIP
4 redesignation request and maintenance plan. And I'd like
5 to ask the Clerk if any witnesses have signed up to
6 testify on this item.

7 No, they have not.

8 Thank you. Are there any Board members who want
9 to address this item or would like to have it removed from
10 the consent calendar? If not, we have a motion to approve
11 it.

12 BOARD MEMBER BERG: I don't want to move it, but
13 I would like to take one moment to say how refreshing it
14 is that we're moving something into attainment. Hate to
15 have that go unnoticed.

16 CHAIRPERSON NICHOLS: I agree.

17 I also wanted to introduce Bob Kard, if you're
18 there. Bob is the Air Pollution Control Officer for San
19 Diego. And since Supervisor Roberts isn't here, somebody
20 has to make sure that we do the right thing. But you do
21 not intend to address the Board, I believe?

22 MR. KARD: Unless you'd like me to say ten words.

23 CHAIRPERSON NICHOLS: Sure. Come on forward.
24 Might as well. This is a big day.

25 MR. KARD: Chairman Nichols and Board members,

1 it's Bob Kard, the Air Pollution Control Officer in San
2 Diego.

3 I just wanted to say thank you, because this is a
4 joint effort. CARB's support has been invaluable, I
5 should say, just priceless in helping us get there. San
6 Diego Board of Supervisors has been great. They have been
7 supportive of what we do in even difficult economic times,
8 as we're all aware of. And frankly, the staff at the APCD
9 and again ARB staff, making this possible because it's
10 great.

11 2012, we had no ozone exceedances whatsoever of
12 the 1997 standard. As compared to every day in the
13 summertime, we had an exceedance in 1990. It's tremendous
14 progress. We've gone up from 65 million vehicle miles
15 traveled per day in 1990 to 87 million a day now, or in
16 2011. This is tremendous progress. It's a credit to
17 everyone who is involved with it. And I want to thank you
18 for that.

19 CHAIRPERSON NICHOLS: That's great. So we have a
20 motion and a second. The record has been closed.

21 All in favor, please say aye.

22 (Ayes)

23 CHAIRPERSON NICHOLS: Any opposed? Passes
24 unanimously. Thank you.

25 Okay. Our second item is also a consent item.

1 Agenda Item 12-9-2, the public hearing to consider
2 approval of the 2012 particulate matter 2.5 inventory
3 submittal to the State Implementation Plan for the
4 San Francisco Bay Area.

5 I'd like to ask the Clerk again if there are any
6 witnesses who signed up to testimony on this item. No.
7 There are not.

8 Are there any Board members who want to see this
9 removed from the consent calendar? All right. If not,
10 and there is no one here even representing the Bay Area, I
11 see --

12 BOARD MEMBER RIORDAN: Move approval.

13 CHAIRPERSON NICHOLS: We have a motion to
14 approve.

15 BOARD MEMBER DE LA TORRE: Second.

16 CHAIRPERSON NICHOLS: And a second.

17 All in favor please say aye.

18 (Ayes)

19 CHAIRPERSON NICHOLS: Opposed? Great. All
20 right.

21 Now, moving on to the next item, we have an
22 informational update on the Board's research program. And
23 I'll ask our Executive Officer to introduce this item.

24 EXECUTIVE OFFICER GOLDSTONE: Thank you, Chairman
25 Nichols.

1 ARB's research program supports our public health
2 and climate goals through a combination of extramural
3 research, in-house studies, and collaboration with other
4 agencies. The program benefits from the expertise of the
5 University of California system and other world class
6 research institutions. ARB's research portfolio comprises
7 studies involving a variety of scientific disciplines and
8 approaches. Some of these studies are long term and build
9 on unique data sets, while others address specific
10 knowledge gaps.

11 Today, staff will present a brief retrospective
12 on ARB's research program and some key findings. Staff
13 selected three research areas to highlight today:
14 Children's health, diesel emissions, and greenhouse gases
15 with high global warming potential.

16 Dr. Sarah Pittiglio of the Research Division will
17 now give the presentation. Dr. Pittiglio.

18 (Thereupon an overhead presentation was
19 presented as follows.)

20 AIR POLLUTION SPECIALIST PITTIGLIO: Thank you,
21 Mr. Goldstene.

22 Good morning, Chairman Nichols and members of the
23 Board.

24 To improve our effort to communicate results,
25 ARB's Research Program plans to provide periodic updates

1 to the Board on highlights from completed research
2 studies.

3 --o0o--

4 AIR POLLUTION SPECIALIST PITTIGLIO: The goal of
5 ARB's research program is to provide timely, scientific
6 information efforts to adopt and attain health-based air
7 quality standards, reduce community exposure to air
8 toxics, and meet greenhouse gas reduction targets.

9 To achieve these goals, ARB's research program
10 has been and continues to be a collaborative effort with
11 other agencies and top tier research institutions. Over
12 the past four decades, the Research Program has gotten
13 twice the value over time through matched and leveraged
14 funding.

15 --o0o--

16 AIR POLLUTION SPECIALIST PITTIGLIO: ARB
17 participates in several research coordination groups with
18 other California State agencies to ensure that its
19 research portfolio is non-duplicative and to identify
20 opportunities to leverage the State's resources.

21 Information is shared at all stages of ARB's
22 annual research planning process. The process benefits
23 from ongoing discussions with experts from coordination
24 groups as well as with other institutions with scientific
25 expertise or regulatory authority in air pollution and

1 related fields.

2 --o0o--

3 AIR POLLUTION SPECIALIST PITTIGLIO: ARB's
4 Research Program was established in 1971. Over the past
5 40 years, the program's research portfolio has been
6 designed to meet ARB's evolving program needs in response
7 to a broad change of legislative mandates. The results
8 from this portfolio have provided vital information to
9 determine how and when to implement regulations.

10 This time line illustrates when we initiated the
11 investigation of some key research topics. Many of these
12 topics continue to be important parts of the program.

13 --o0o--

14 AIR POLLUTION SPECIALIST PITTIGLIO: However, for
15 this presentation, we will focus only on highlights from
16 the topics of children's health, diesel emissions, and
17 greenhouse gas mitigation.

18 --o0o--

19 AIR POLLUTION SPECIALIST PITTIGLIO: ARB's health
20 effect research has helped contributed to the scientific
21 basis for the development of State and national ambient
22 air quality standards.

23 The program also investigates emerging
24 toxicological issues as they relate to public health,
25 quantifies the health benefits of ARB's regulations, and

1 conducts research to verify the effectiveness of those
2 regulations.

3 While there are many program needs covered by the
4 health research program, today we will focus on children's
5 health.

6 --o0o--

7 AIR POLLUTION SPECIALIST PITTIGLIO: Research on
8 children's health began in 1992 with the Children's Health
9 Study. This study investigated the health impacts of air
10 pollution on California's vulnerable youth population.
11 This study had a sample of 5500 children who lived in 12
12 communities in southern California that had different
13 levels of air pollution.

14 This work was initiated under ARB funding to
15 follow these children from 4th to 12th grade. The study
16 is still ongoing, currently funded by the National
17 Institute of Environmental Health Sciences.

18 This ground-breaking study added significantly to
19 what is known about the impact of air pollution exposure
20 on the respiratory health of children and is highly cited
21 as one of the most significant research efforts undertaken
22 in the field.

23 Among the policy outcomes of this work was SB 25,
24 the Children's Environmental Health Protection Act.
25 Legislation requiring California to reassess its air

1 quality standards to ensure the health of infants and
2 children.

3 --o0o--

4 AIR POLLUTION SPECIALIST PITTIGLIO: Major
5 findings from the Children's Health Study include evidence
6 from persistent reductions in lung growth from air
7 pollution exposure, evidence that the risk of
8 asthma-related symptoms increased near roadways, and
9 linked air pollution to both the onset and severity of
10 asthma.

11 These findings set the stage for subsequent
12 studies which confirmed and expanded on these results.

13 These studies included quantifying exposures to
14 air pollutants in ambient air at the neighborhood level,
15 near roadways, and in a variety of enclosed environments,
16 including homes, schools, and in vehicles. Findings
17 included confirmation that in-vehicle exposure such as
18 school buses was high and linked asthma onset to exposure.
19 Current research focuses on mitigation options, such as
20 filtration in vehicles, homes, and schools.

21 --o0o--

22 AIR POLLUTION SPECIALIST PITTIGLIO:
23 ARB-sponsored research found that children living in
24 communities with the highest levels of air pollution are
25 more likely to have significantly reduced lung function

1 growth compared to those with lower exposure. The
2 investigators also found that children who relocated from
3 high to low PM community showed improved lung function, al
4 though it is unclear whether the improvement in growth was
5 sufficient to compensate for the adverse effects of
6 previous exposures.

7 The converse was also true that children who
8 relocated from high low to high PM communities showed
9 reduced lung function.

10 In addition, based on findings from the
11 Children's Health Study, we calculated in 2005 that an
12 additional 1.7 million school absences were linked to
13 ozone exposure and would be avoided if the current State
14 ozone standard was attained.

15 --o0o--

16 AIR POLLUTION SPECIALIST PITTIGLIO: The
17 Children's Health Study found that lung function was
18 reduced in children living closest to freeways. This
19 finding led to subsequent ARB-funded research on the
20 health impacts of exposure to traffic emissions.

21 Studies showed that even in areas with good
22 regional air quality, proximity to traffic is associated
23 with adverse respiratory health effects in children.
24 These findings helped to support the reviews of our
25 ambient air quality standards and inform our regulations

1 and guidelines, such as ARB's Land Use Handbook.

2 Two ARB studies of vehicle-related pollutants in
3 school buses identified the intrusion of the bus's own
4 exhaust emissions into the passenger cabin as a
5 significant source of exposure. The results supported
6 ARB's lower emission school bus program to replace older,
7 dirtier buses.

8 The results also supported ARB's air toxic
9 control measure that limits school bus idling. These
10 research findings led ARB to put a research project into
11 place last year to investigate the effectiveness of
12 filters in reducing pollution exposures in school buses
13 and cars.

14 --o0o--

15 AIR POLLUTION SPECIALIST PITTIGLIO: Research
16 from the Children's Health Study showed an association
17 between exposure to ozone and the initiation of new asthma
18 cases. Associations between traffic pollution and
19 wheezing, asthma prevalence, and increased asthma
20 medication use were also found.

21 Studies that followed found that exposure to
22 traffic-related pollutants are also linked to asthma
23 initiation. Results from the Fresno Asthmatic Children's
24 Environment Study showed a worsening of the children's
25 symptoms with increased exposure to polyaromatic

1 hydrocarbons, which are likely the result of traffic
2 sources.

3 The research program is currently following up
4 with mitigation studies that examine the effectiveness of
5 filtration in reducing particulate matter exposures in the
6 homes of asthmatic children. Results from these projects
7 are expected in 2016.

8 --o0o--

9 AIR POLLUTION SPECIALIST PITTIGLIO: The next
10 portion of the presentation will focus on the research
11 program's efforts to reduce diesel emissions.

12 The research program has funded extensive studies
13 to quantify vehicle emission rates and sources, test
14 control technologies, and monitor the long-term impact of
15 regulations for both light and heavy-duty vehicles. For
16 today's presentation, we will focus only on emissions from
17 heavy-duty vehicles.

18 --o0o--

19 AIR POLLUTION SPECIALIST PITTIGLIO: In this
20 slide, we show the main components of ARB's regulatory
21 program over the past 15 years to reduce emissions from
22 trucks, starting in 1998, when diesel PM was designated a
23 toxic air contaminant. ARB responded by developing and
24 adopting the Diesel Risk Reduction Plan in the year 2000,
25 with the goal of reducing diesel PM emissions by 85

1 percent by 2020.

2 Subsequent rules to reduce PM emission from
3 diesel started with a series of fleet rules in the 2000s
4 that reduced emissions from captive fleets. Two new
5 emissions standards were also passed to reduce PM and NOx,
6 starting with the 2007 and 2010 model year engines,
7 respectively. These rules by themselves, however, were
8 not enough to achieve the goals laid out by the Diesel
9 Risk Reduction Plan, nor to meet national ambient air
10 quality standards for PM and ozone. Because diesel
11 engines are very long lasting, ruled were needed to
12 require retrofits or vehicle turn over of practically
13 every diesel truck in the state over the next decade. The
14 drayage rule has already cleaned up diesel trucks around
15 the major ports in California, while the truck and bus
16 rule will reduce PM and NOx as needed over the next
17 decade.

18 --o0o--

19 AIR POLLUTION SPECIALIST PITTIGLIO: Here, we
20 show the main components of ARB's diesel research over the
21 last decade. The program was designed to inform and
22 verify the effectiveness of the regulatory program and has
23 played an important role in the success of the diesel
24 rules.

25 Beginning in 2000, a multi-agency collaboration

1 led by ARB measured tailpipe emissions from diesel and
2 compressed natural gas fueled transit buses with different
3 types of aftertreatment and under a range of operating
4 conditions. Continued collaboration with our partners led
5 to a major effort to characterize the effectiveness of
6 retrofitting aftertreatment technologies on existing
7 vehicles.

8 Our current efforts are focused on measuring the
9 real world effect of our major in-use diesel rules, such
10 as the truck and bus rule, using biological and chemical
11 assays to screen exhaust for overall toxicity,
12 characterizing the effects of new fuels and technologies,
13 and on achieving further NOx reductions.

14 --o0o--

15 AIR POLLUTION SPECIALIST PITTIGLIO: Such of our
16 research is done in-house and in collaboration with the
17 divisions that operate our emission testing laboratories.
18 In these laboratories, heavy-duty trucks are placed on
19 dynamometers where their exhaust is collected on filters
20 for subsequent analysis.

21 As an example of the effectiveness of diesel
22 particulate filters, also shown as DPFs, this slide shows
23 a filter sample collected from a diesel without a DPF on
24 the left and with a DPF on the right. Once the diesel
25 engines in the state have these filters, seeing a diesel

1 truck emitting black smoke such as the truck on the left,
2 will be a thing of the past.

3 --o0o--

4 AIR POLLUTION SPECIALIST PITTIGLIO: Here, we
5 show the reductions the program has observed with our
6 laboratory studies for NOx, PM, and total hydrocarbon
7 emissions. The comparison is made between 1998 model year
8 trucks and trucks that meet the 2010 standards.

9 --o0o--

10 AIR POLLUTION SPECIALIST PITTIGLIO: The research
11 division has also identified a suite of biological and
12 chemical assays that, in aggregate, provide an important
13 screening for toxicity. These assays measure markers that
14 can be related to the ability of the exhaust or PM to
15 cause oxidative stress, inflammation, or DNA damage.

16 By consistently using the same assays in the same
17 manner, this toxicity screening can be used to compare the
18 exhaust from different types of vehicles, fuels, and
19 aftertreatment technologies.

20 The drastic reduction provided a significant
21 indication that new technologies resulting in emissions
22 that are less harmful on a per mile basis. These types of
23 tests are also important in ensuring there are no
24 unintended consequences of the new technology.

25 --o0o--

1 AIR POLLUTION SPECIALIST PITTIGLIO: In addition
2 to measuring emissions in the our in-house laboratories,
3 ARB has several projects underway to understand emissions
4 as they occur on California's roadways. Shown here is the
5 mobile monitoring platform we developed. It is an
6 electric vehicle equipped with instrumentation to measure
7 key gaseous and particle species with high spacial and
8 time resolution. The platform is being used on major
9 freeways in Los Angeles to measure the emission factor of
10 vehicles traveling on those major roadways.

11 The map on the right shows the mobile platforms
12 path along the 710 freeway, which is a route that is
13 heavily used by drayage trucks.

14 --o0o--

15 AIR POLLUTION SPECIALIST PITTIGLIO: Using the
16 mobile monitoring platform on the 710 freeway, we were
17 able to quantify the immediate benefits of the drayage
18 truck rule. The step-wise reduction is due to a number of
19 factors in addition to the drayage rule, including the
20 gradual turnover of trucks from fleet rules and
21 fluctuations in the economy. Although NOx was not a
22 target of the drayage rule, this slide shows the
23 co-benefit of the rule in reducing NOx emissions in just
24 16 months.

25 --o0o--

1 AIR POLLUTION SPECIALIST PITTIGLIO: Similarly,
2 black carbon emissions on this drayage truck route have
3 been reduced by 70 percent over the last several years as
4 the drayage rule has been implemented.

5 Similar work by U.C. Berkeley has shown
6 reductions near the port of Oakland. These significant
7 reductions in diesel-related pollutants in
8 heavily-impacted communities, which includes the
9 neighborhoods adjacent to ports in California, will
10 hopefully reintroduce the prevalence of health-related
11 impacts due to exposure of emissions.

12 --o0o--

13 AIR POLLUTION SPECIALIST PITTIGLIO: In addition
14 to measuring the fleet-wide average emissions over time,
15 measurements of individual trucks are needed. Seen in
16 this video, a heavy-duty truck drives through a truck test
17 tent at a weigh station. A perforated tube in the corner
18 of the tent draws in a sample of the emissions, which
19 allows the investigator to calculate an emission factor.
20 Thousands of trucks can be tested at a weigh station in a
21 relatively short time in this manner.

22 With biannual measurements planned, we will be
23 able to assess the durability, failure rates, and the
24 degradation rates of the major aftertreatment technologies
25 used in diesel engines over time. The Board will be asked

1 to fund a similar study in the next presentation.

2 --o0o--

3 AIR POLLUTION SPECIALIST PITTIGLIO: We'll now
4 turn to ARB's climate change research, which began with an
5 estimation of the effects of climate change on public
6 health and the economy and has helped identify cap and
7 trade options.

8 The research program has expanded its climate
9 research to include sources and potential mitigation
10 strategies for greenhouse gases. These research efforts
11 have led directly to some of the regulations and programs
12 now in place to meet the 2020 greenhouse gas emission
13 goals of AB 32. Here, we provide the highlights from the
14 program's efforts to inventory and reduce non-CO2
15 greenhouse gases, which is a growing fraction of
16 California's carbon footprint.

17 --o0o--

18 AIR POLLUTION SPECIALIST PITTIGLIO: The
19 greenhouse gas inventory includes atmospheric constituents
20 that trap heat in the atmosphere. Non-CO2 gases include
21 high global warming potential gases, black carbon,
22 methane, and nitrous oxide. These gases account for 25
23 percent of California's greenhouse gas inventory.

24 The research programs's focus on non-CO2 gases
25 aims to explore potential new emission reduction

1 strategies, ways to improve emissions estimates, and
2 method to verify emission reductions over time.

3 --o0o--

4 AIR POLLUTION SPECIALIST PITTIGLIO: Over the
5 past five years, ARB has inventoried California's sources
6 of high global warming potential gases. The inventory
7 demonstrated that emissions of these gases are growing
8 rapidly in California and are produced from a variety of
9 sources.

10 Several research projects highlighted the
11 importance and cost effectiveness of reducing these
12 emissions and led directly to the adoption of rules to
13 reduce hydrofluorocarbons from commercial refrigeration,
14 motor vehicle air conditioning systems, and other sources.

15 These rules are expected to reduce annual
16 statewide greenhouse gas emissions by eight million metric
17 tons of carbon dioxide equivalent by 2020 at relatively
18 low cost and in many cases, cost savings to industry.

19 Finally, based on this research, ARB adopted a
20 protocol to provide incentives to recover and destroy
21 ozone-depleting substances as part of the Cap and Trade
22 Program.

23 --o0o--

24 AIR POLLUTION SPECIALIST PITTIGLIO: ARB research
25 on black carbon began with the creation of a California

1 inventory. Another ARB research study has observed a
2 50 percent reduction in black carbon measured at
3 monitoring sites throughout California over the past
4 20 years. This agrees with the expected emissions
5 reductions associated with California's diesel emission
6 control program. Further reductions will likely be shown
7 in the future due the ARB's Advanced Clean Car Program and
8 district burning restrictions.

9 The 50 percent reduction in black carbon
10 accounted for a 25 percent decrease in atmospheric heating
11 in California. Through our research collaboration with
12 NOAA, we were able to produce direct measurements of this
13 forcing in the atmosphere.

14 --o0o--

15 AIR POLLUTION SPECIALIST PITTIGLIO: The tower
16 network represents one of our current research efforts to
17 improve ARB's emission inventories for methane and nitrous
18 oxide. Each yellow pin you see in the video represents a
19 measurement site. The sites were established in
20 coordination with NOAA and the Energy Commission. The
21 objectives of the network are to improve air quality
22 models, refine emission inventories, determine the
23 effectiveness of new emission control technologies, and
24 improve measurement methods. We have now zoomed into
25 Mount Wilson Observatory, which is a measuring site that

1 is one of the first sites in the network.

2 --o0o--

3 AIR POLLUTION SPECIALIST PITTIGLIO: Monitoring
4 and methane at Mount Wilson began in 2007. Measurements
5 from the site helped develop a methane inventory for Los
6 Angeles, which led to several peer-reviewed publications.
7 The success at Mount Wilson led to the adoption of a
8 statewide network. The monitoring at Mount Wilson is one
9 of several methods currently being employed to understand
10 sources of methane in Los Angeles basin.

11 We have also deployed two mobile monitoring
12 platforms to better understand local sources of methane.

13 In collaboration with Scripps and NOAA, aerial
14 passes over the L.A. basin have also increased our
15 understanding of emissions and atmospheric processes in
16 the area.

17 Beginning in 2012, ARB intend to use its research
18 tools to complement a five-year federally-funded
19 greenhouse gas monitoring project to investigate the
20 sources and trends of carbon dioxide and methane emissions
21 in Los Angeles.

22 --o0o--

23 AIR POLLUTION SPECIALIST PITTIGLIO: The Los
24 Angeles basin represents an urban setting and has distinct
25 sources of emissions, such as natural gas pipe lines and

1 landfills. This contrasts with the other parts of
2 California, such as rural areas that are common in the
3 Central Valley. In rural areas, methane emissions are
4 dominated by agriculture sources. To help define
5 emissions in rural areas, another tower is located in
6 Walnut Grove, which is approximately 30 miles south
7 of sacramento.

8 --o0o--

9 AIR POLLUTION SPECIALIST PITTIGLIO: Similar to
10 our study in the L.A. basin, we have developed another
11 holistic research effort to determine methane and nitrous
12 oxide sources in a rural setting. We have installed a
13 suite of instruments on a radio tower in Walnut Grove,
14 which is currently collecting measurements of methane and
15 NOx. We have leveraged a significant amount of funding
16 with the collaboration with the California Department of
17 Food and Agriculture, CalRecycle, and California Energy
18 Commission to determine nitrous oxide emissions from the
19 application of fertilizer to a wide variety of
20 economically important crops.

21 The mobile monitoring platform is being used to
22 understand specific local sources in the area. Flights
23 have been conducted through the CalNext project. The
24 flight pattern in the upper left corner of the slide was
25 used over rice fields which are a significant source of

1 methane.

2 --o0o--

3 AIR POLLUTION SPECIALIST PITTIGLIO: Today's
4 presentation provided a few examples of how ARB's research
5 projects work together to create a sophisticated research
6 portfolio. Communicating these research results to the
7 public has become a top priority. Links to outreach
8 materials are available on the ARB research website and
9 announced on the ARB list serve. These types of
10 communication tools are necessary since the program
11 produces many final reports each year.

12 Projects from this year's annual research plan
13 will be outlined in the next presentation. These projects
14 will continue to build upon the strong research foundation
15 that we have created over the past four decades.

16 Thank you for your attention. I'm happy to
17 answer any questions you.

18 CHAIRPERSON NICHOLS: Thank you. That is a good
19 selection of a couple of key areas of our research. I
20 welcome comments or questions from members of the Board.

21 Dr. Balmes, would you like to begin?

22 BOARD MEMBER BALMES: First off, I want to
23 congratulate staff for embarking on this new effort to
24 communicate both to the Board and to the public about our
25 research, which has been phenomenal for years. But I

1 don't think we've done the best job of communicating that
2 to the public at large. I think the scientific community
3 has always recognized the quality of CARB's research. So
4 I felt this was a really excellent presentation. And I
5 look forward to more of these on a quarterly basis or
6 something, semi-annual, an appropriate interval. But we
7 have much more to do with regard to the public at large.
8 But I think this is a good first step.

9 CHAIRPERSON NICHOLS: Great. Thank you.

10 I want to particularly point to the work that's
11 done on diesel, because that's been so controversial, to
12 say that, you know, I think it's really impressive that
13 we're not just looking at the harmful effects of diesel,
14 but we're actually assessing on a continuing basis the
15 effects of our work so that we can claim credit for the
16 things that we've done that are good, but see the things
17 that are not working and use that on a continuous feedback
18 basis to really improve the program. I think that's the
19 mark of a really successful program and one that's well
20 integrated into the policy side of the organization.

21 Any other comments or questions?

22 If not, we have some research proposals to
23 consider. And this will be a good backdrop for that.

24 Mr. Goldstene, will you please introduce the
25 item?

1 EXECUTIVE OFFICER GOLDSTONE: Thank you, Chairman
2 Nichols.

3 The research to be covered by the proposals
4 before you today support ARB's regulatory priorities in
5 three key areas: Foundational science, clean air
6 strategies, and program effectiveness. Specifically,
7 these projects include air quality and climate studies
8 that will improve air quality models used for State
9 implementation planning and inform the development of
10 future strategies to meet California's climate and air
11 quality goals. They'll support successful implementation
12 of the Sustainable Communities Program and the Advanced
13 Clean Cars Regulation and will investigate the technical
14 potential and economic feasibility of further emission
15 reductions from freight transport. They will also examine
16 the effectiveness of ARB's existing programs to reduce
17 emissions from the light and heavy duty vehicle fleets.
18 These research projects were presented to you last June as
19 concepts and have now been developed into full proposals.
20 They've been reviewed by the Research Screening Committee
21 as well as reviewers at other State agencies and
22 funding organizations to promote coordination and avoid
23 duplication.

24 With that, Dr. Annalisa Schilla of the Research
25 Division will describe the research studies. Dr. Schilla.

1 (Thereupon an overhead presentation was
2 presented as follows.)

3 MS. SCHILLA: Thank you, Mr. Goldstene.
4 Thank you, Chairman Nichols and members of the
5 Board.

6 --o0o--

7 MS. SCHILLA: This morning, we will be presenting
8 nine research proposals for your consideration, which were
9 developed in response to the 2012/2013 research plan that
10 the Board approved last June. All of these proposals have
11 been reviewed by ARB's Research Screening Committee and
12 have been recommended for funding.

13 Staff have also coordinated with other funding
14 agencies, including air districts, the California Energy
15 and Public Utilities Commissions, the Bureau of Automotive
16 Repair, Caltrans, the U.S. EPA, and Department of Energy,
17 and other states to avoid duplication and to identify
18 cofunding opportunities wherever possible.

19 --o0o--

20 MS. SCHILLA: The nine research proposals we are
21 presenting today are designed to support the Board's
22 efforts to attain air quality standards and meet climate
23 goals. The majority of these new projects focus on
24 transportation-related research needs.

25 In spite of substantial improvements in

1 California's air quality over the past few decades, ozone
2 and PM2.5 levels continue to exceed health-based air
3 quality standards in both urban and downwind rural areas
4 of California. ARB has numerous studies and
5 collaborations to address key air quality research
6 questions and will continue to fund research to support
7 State Implementation Plans.

8 In the research update, you just heard about the
9 history of ARB's diesel program and the role that research
10 played. Diesel emissions from heavy-duty vehicles and
11 freight transport are major sources of criteria and toxic
12 air pollutants and greenhouse gas emissions in California.

13 To meet long-term air quality and climate goals,
14 emissions from these sectors will need to be significantly
15 reduced beyond what is expected from already adopted
16 regulations. Research will continue to examine new
17 opportunities to further reduce emissions and will
18 evaluate the effectiveness of ARB's existing diesel
19 programs.

20 Passenger travels is also a major source of
21 criteria and toxic air pollutants and greenhouse gas
22 emissions in California, and emissions from these vehicles
23 will need to be significantly reduced to meet long-term
24 air quality and climate goals.

25 Research projects proposed this year will support

1 implementation of the advanced Clean Cars Program that the
2 Board adopted in January and evaluate the long-term
3 benefits of the Board's prior efforts to reduce passenger
4 vehicle emissions through the low emission vehicle
5 program.

6 Achieving California's 2050 climate goal will
7 require dramatic changes in transportation, land use, and
8 community design. Research in this area will seek to
9 improve land use and transportation strategies, support
10 the development of community plans to meet SB 375 goals,
11 and explore the linkages between air pollution exposure
12 and compact development.

13 These research projects will strengthen the
14 scientific foundation that underpins air quality planning,
15 support strategies to reduce emissions from the light and
16 heavy duty fleets and from freight transport, and provide
17 insights into the real world outcomes of sustainable
18 community strategies.

19 --o0o--

20 MS. SCHILLA: This first proposed project will
21 update the photochemical air quality models that ARB uses
22 to develop State Implementation Plans to reflect the most
23 up-to-date understanding of atmospheric chemistry. In
24 order to predict the impact of air pollution control
25 strategies, these models must represent ozone and PM

1 formation as accurately as possible. These models are
2 updated regularly to ensure that they remain state of the
3 science.

4 This research will improve predictions of the
5 formation of ozone and the secondary organic carbon
6 fraction of PM2.5 and will assess the impact of nitrogen
7 and carbon chemistry on the formation of secondary PM.
8 These improvements will ensure that ARB's regulatory
9 efforts continue to be based on the most credible air
10 quality models.

11 --o0o--

12 MS. SCHILLA: The remaining proposals we will be
13 presenting are transportation related. The first of these
14 projects will study diesel emissions from heavy-duty
15 vehicles. This project will measure emissions from trucks
16 traveling through the Caldecott Tunnell in the San
17 Francisco Bay Area in 2014, 2015, and 2017, corresponding
18 to key implementation milestones for the truck and bus
19 rule and will assess the effectiveness and durability of
20 exhaust aftertreatment technologies over time.

21 This study will complement related research
22 examining heavy-duty trucks in the Los Angeles basin in
23 order to characterize the statewide emissions from the
24 heavy-duty truck fleet and to improve emissions forecasts.
25 Results will be used to quantify the actual air quality

1 benefits of the truck and bus rule.

2 --o0o--

3 MS. SCHILLA: The next four research projects
4 will examine passenger vehicle emissions.

5 The first three projects will support the
6 Advanced Clean Cars Program, which is being implemented in
7 close collaboration with the U.S. EPA and the National
8 Highway Traffic Safety Administration.

9 These projects will help ARB staff address
10 concerns raised by stakeholders related to consumer
11 acceptance, vehicle usage, and emissions measurement from
12 the very clean vehicles that are anticipated in response
13 to the program.

14 The fourth project will quantify the benefits of
15 the Board's prior efforts to reduce emissions from
16 passenger cars through the low emission vehicle program.

17 This first advanced clean cars project will
18 produce a statistically robust representation of the new
19 car buying population in California and other partner
20 states who may adopt California's rules in order to
21 identify the factors that influence new vehicle purchase
22 decisions.

23 The study will survey and interview the diverse
24 population of new car buyers to provide ARB with insights
25 into the potential for policies, incentives, and outreach

1 the remove obstacles or enhance motivations for the
2 adoption of zero and near-zero emission vehicles.

3 The South Coast Air Quality Management District
4 and other states are interested in administering the same
5 survey and conducting similar interviews. And staff has
6 identified at least \$325,000, in likely co funding to
7 expand the project to more households as a result of these
8 partnerships.

9 --o0o--

10 MS. SCHILLA: The next project will study the
11 actual emissions benefits associated with transitioning to
12 more electrified vehicles, accounting for the variability
13 that results from individual consumer usage and charging
14 behavior. This research topic was discussed at the
15 Board's January meeting for the Advanced Clean Cars
16 Program.

17 Plug-in electric vehicles are expected to account
18 for an increasingly large share of new light-duty vehicle
19 sales in compliance with ARB's Advanced Clean Cars Program
20 and the Governor's Executive Order on zero emission
21 vehicles. The proposed project will collect detailed
22 in-use vehicle data to quantify the share of miles driven
23 with grid-based electricity.

24 Unlike previous research, this study will
25 evaluate an entire household's travel to determine, for

1 example, whether households shift miles to electric
2 vehicles for shorter trips. Results will improve
3 emissions estimates of various electric vehicle types as
4 well as the overall light-duty fleet.

5 This project will also assess the charging
6 behavior of plug-in electric vehicle drivers in order to
7 understand possible grid impacts from vehicle charging and
8 the need for public charging infrastructure and is being
9 closely coordinated with the California Energy and Public
10 Utilities Commission and the U.S. EPA and the Department
11 of Energy.

12 --o0o--

13 MS. SCHILLA: This next proposed project will
14 address the measurement challenges presented by the
15 advanced clean cars particulate matter standards.

16 At the Board's meeting in January, the Board
17 requested that staff study whether PM could be reliably
18 measured at such low levels. This project will augment a
19 proposed coordinating Research Council project
20 investigating possible improvement to PM measurements.

21 ARB's funding contribution will ensure that
22 researchers evaluate methods for measuring at the one
23 milligram per mile level required by California's new
24 standards.

25 --o0o--

1 MS. SCHILLA: The last proposed light-duty
2 project will quantify the benefits of ARB's Low Emission
3 Vehicle Program. As older vehicles begin to exit the
4 fleet in significant numbers, emissions from the
5 light-duty fleet need to be monitored to assess emission
6 reductions over time. The proposed study will employ
7 remote-sensing devices to measure emissions from passenger
8 cars at the La Brea Boulevard onramp to Interstate 10 in
9 Los Angeles in 2013 and 2015. This study will build upon
10 prior measurements from the same location which began
11 characterizing passenger car emissions in 1999 in order to
12 allow ongoing analysis of emissions trends.

13 This project will evaluate the durability of
14 emission reduction technologies and characterize the
15 relative importance of high emitters to fleet average
16 emissions and will also explore a potential new technique
17 the identify gross evaporative emitters.

18 This project is being conducted in coordination
19 with the South Coast Air Quality Management District and
20 the Bureau of Automotive Repair and results will improve
21 ARB's emission inventory and quantify the benefits of the
22 LEV program.

23 --o0o--

24 MS. SCHILLA: Finally, three proposed research
25 projects will investigate the air quality, climate, and

1 health impacts of sustainable communities strategies.

2 The first proposed project in the research area
3 will examine traffic management approaches and urban
4 designs with the goal of identifying specific strategies
5 that minimize air pollution exposures in heavily traveled
6 urban corridors.

7 As California pursues increasingly compact
8 development to reduce vehicle travel demand, the air
9 pollution exposures of people living and walking in these
10 areas may increase. In order to ensure that SB 375
11 implementation is balanced with the need to protect public
12 health, land use, and transportation planning must
13 incorporate estimates of air pollution exposure.

14 This study will modify the existing operational
15 street pollution model, a model widely used in Europe to
16 characterize street level air pollution dispersions to
17 more accurately simulate the low rise and widely spaced
18 urban landscapes that are typical of California.

19 This project will also employ ARB's mobile
20 monitoring platform to capture micro-scale street level
21 emissions and meteorological data in multiple Los Angeles
22 street environments. This data will be used both to
23 validate the model and to quantify the exposure impacts of
24 different traffic management strategies and community
25 designs. Results will assist California planners in

1 designing and managing communities to minimize air
2 pollution exposure.

3 --o0o--

4 MS. SCHILLA: The next proposed project will
5 assess changes in travel mode for households living in the
6 vicinity of a new light rail line in Los Angeles. Many
7 communities are working to improve Citizen's access to
8 transit as part of their SB 375 planning. In Los Angeles
9 alone, there are six light rail projects currently planned
10 and a number of other regions are also planning or
11 considering them.

12 This project will collect travel mode choice data
13 from the same households as those evaluated in a study
14 that assessed the travel modes of approximately 250
15 households before the line was opened.

16 The pre-light rail study was partially funded by
17 the U.C. Sustainable Transportation Program. Results of
18 this research will help local governments and planning
19 agencies better account for reductions in vehicle miles
20 traveled and changes in other transportation mode choices
21 related to the construction of light rail infrastructure,
22 and to prioritize SB 375 strategies accordingly. These
23 findings will also allow ARB the assess the actual
24 emission benefits of SB 375 strategies.

25 --o0o--

1 CHAIRPERSON NICHOLS: Could I interrupt with a
2 question? Because it came up during our meeting that we
3 had earlier this week with the representative of U.C.
4 Irvine.

5 We were talking about some efforts that they've
6 been making to try to get light rail to bring people to
7 and from the campus. We use the word "Los Angeles"
8 loosely. Those of you from Sacramento tend to think of
9 anything, you know, south of Santa Barbara as being Los
10 Angeles, unless maybe it's San Diego.

11 But I just want to make sure that this study
12 isn't only looking literally at Los Angeles city or
13 county, but is focused on the region as a whole, because
14 SB 375 covers -- I mean, the sustainability plan covers
15 the whole metro area. Does anybody know the answer to
16 that question?

17 MS. SCHILLA: It's only looking at one specific
18 light rail line in this case. It's the expo line.

19 CHAIRPERSON NICHOLS: Just the expo line.

20 MS. SCHILLA: Right.

21 CHAIRPERSON NICHOLS: Oh, I see. Okay. All
22 right. Because I can't imagine that they're all the same.
23 But maybe this is a -- can be used as a basis for other
24 studies.

25 DEPUTY EXECUTIVE OFFICER TERRY: I think the goal

1 is to look in part about the behavioral aspects of a
2 before and after in mode shift. So certainly in concept,
3 the results could be useful elsewhere.

4 CHAIRPERSON NICHOLS: Right. I understand the
5 value, and that's the controversial area. So it's good to
6 have the data. Thank you.

7 MS. SCHILLA: And the last proposed project will
8 examine the measured emissions benefits of cool pavements.
9 Pavement materials that absorb less of the sun's energy
10 reduce urban heat islands, slow smog formation, reduce
11 building energy use, and cool the earth's atmosphere. If
12 cool pavements were used widely throughout the state, they
13 could reflect enough sun to offset the equivalent of at
14 least two million metric tons of CO2 and would have
15 significant air quality benefits.

16 This study will leverage and expand upon ongoing
17 research on cool surfaces. ARB is currently co-funding a
18 cool pavement demonstration project with the California
19 Energy Commission and the U.S. Department of Energy and
20 has funded related work to assess the reflectants of cool
21 roofs, which are much better understood than cool
22 pavement.

23 The project will measure emissions of air
24 pollutants from both cool and conventional pavement
25 materials commonly used in California and will conduct

1 greenhouse gas life cycle assessment for cool pavements.
2 This project will be cofunded by Caltrans and will support
3 the recently signed bill AB 296 requiring Caltrans and
4 Cal/EPA to work together to study cool pavement
5 technologies.

6 Results will inform the development of regionally
7 appropriate guidelines for use of cool pavements and
8 provide ARB insight into the actual climate and air
9 quality benefits of these materials.

10 --o0o--

11 MS. SCHILLA: The projects we have presented to
12 you today benefit from nearly one million dollars in
13 cofunding and funding for prior supporting research. They
14 also reflect ongoing coordination with federal agencies
15 and other funding organizations and will leverage
16 multi-million dollar funding commitments from NASA, the
17 National Institute of Standards and Technology, the U.S.
18 EPA, and the coordinating Research Council for research
19 that will directly support ARB's research needs.

20 As noted in the research update that you just
21 heard, staff have also been working hard to improve
22 research coordination among State agencies and are
23 involved in a number of research coordination efforts to
24 ensure that ARB funds are spent prudently and
25 strategically.

1 --o0o--

2 MS. SCHILLA: We recommend that the Board approve
3 these nine proposals, all of which support priority Board
4 programs and decision making.

5 Thank you.

6 CHAIRPERSON NICHOLS: Thank you.

7 Does anybody have any questions or comments about
8 any of the studies? Yes.

9 BOARD MEMBER BALMES: Not about any specific
10 study, but a general comment, if I might.

11 CHAIRPERSON NICHOLS: Sure. Of course.

12 BOARD MEMBER BALMES: Well, again, I want to
13 compliment staff.

14 As some of you know, Chair Nichols appointed a
15 subcommittee of the Board, Dr. Sperling, Dr. Sherriffs,
16 and myself, to look at the research portfolio and
17 strategic plan for the agency. And one of the things we
18 came up with was to try to focus the research on the sort
19 of immediate and short term as well as long term needs of
20 the agency with regard to regulatory initiatives. I want
21 to compliment staff. I think that this portfolio of
22 research proposals hits the mark well in that regard. I'm
23 sure Dr. Sperling would say the same thing --

24 CHAIRPERSON NICHOLS: Good.

25 BOARD MEMBER BALMES: -- since many of the

1 research proposals are in his area.

2 CHAIRPERSON NICHOLS: Well, I figured he had some
3 opportunity to review them before we came here today. I'm
4 seeing head nodding out there. Good.

5 Anything else anyone would like to add?

6 I think we can vote on these as a group then
7 rather than having to go through them one by one. So I
8 would request a resolution.

9 BOARD MEMBER BERG: Madam Chair, I will move to
10 move the nine research proposals.

11 CHAIRPERSON NICHOLS: I don't think we have to
12 read their numbers. They're sequential.

13 BOARD MEMBER BERG: Yes. They're sequential.

14 BOARD MEMBER LOVERIDGE: Second.

15 BOARD MEMBER BERG: And Ron seconds.

16 CHAIRPERSON NICHOLS: Without further ado, then I
17 don't think we need to have a single vote. We can just
18 vote by voice.

19 So all in favor, please say aye.

20 (Ayes)

21 CHAIRPERSON NICHOLS: Any opposed?

22 Any abstentions? Okay. Great.

23 Congratulations. And thank you very much.

24 All right. Our next agenda item this morning is
25 an update on AB 32. And we have some -- obviously, you

1 have had some important milestones since the Board last
2 met. We want to wrap up 2012 and look ahead to what we're
3 going to be seeing in 2013. And this is a good
4 opportunity to do it.

5 Since its passage in 2006, as I think the world
6 now knows, California has made great strides in
7 implementing our global climate law. Many of the measures
8 in the programs that were identified in the original
9 Climate Change Scoping Plan have been adopted over the
10 last five years. Implementation has begun for many of
11 those. And we're getting reductions now that are putting
12 us on track for meeting the 2020 greenhouse gas goals set
13 by the legislation.

14 For example, the State has adopted a cap and
15 trade regulation, which will provide a limit on over 85
16 percent of the state's greenhouse gases. And the first
17 auction for this program was successfully conducted last
18 month.

19 In addition, cooperation and coordination among
20 our sister agencies is at an all-time high, which is also
21 helping us to get to the 2020 goal, particularly with
22 respect to the electricity sector, and will serve us well
23 as we tackle the longer-term greenhouse gas reduction
24 goals for 2050.

25 Mr. Goldstene, you'll please introduce this item.

1 And I know there is a report here as well.

2 EXECUTIVE OFFICER GOLDSTONE: Thank you, Chairman
3 Nichols.

4 Today, staff will provide an update on activities
5 related to the Cap and Trade Program, the update to the
6 Climate Change Scoping Plan, and AB 32 related items we
7 plan to bring to the Board for your consideration next
8 year.

9 As you know, the first cap and trade auction was
10 successfully conducted last month and staff will discuss
11 the results of the auction and the next milestones.

12 In addition, staff will describe our proposed
13 approach to updating the State's Climate Change Scoping
14 Plan which was first approved by the Board in 2008. That
15 landmark plan stimulated a long list of successful State
16 and local initiatives, including several ARB measures such
17 as the low carbon fuel standard and advanced clean cars.
18 AB 32 requires that the Scoping Plan be updated at least
19 every five years.

20 The 2013 update will define our climate
21 priorities for the next five years to lay the groundwork
22 to reach post-2020 goals. We plan to bring an updated
23 Scoping Plan to the Board for your consideration next
24 fall.

25 Finally, we'll highlight the upcoming AB 32

1 related items that the Board will consider in 2013. With
2 that, I'll ask Marcelle Surovik of the Stationary Source
3 Division to begin the presentation.

4 (Thereupon an overhead presentation was
5 presented as follows.)

6 AIR POLLUTION SPECIALIST SUROVIK: Thank you, Mr.
7 Goldstene.

8 Good morning, Madam Chairman and members of the
9 Board.

10 Today, I will provide you with an update on AB 32
11 related activities.

12 --o0o--

13 AIR POLLUTION SPECIALIST SUROVIK: My
14 presentation today will address activities related to the
15 Cap and Trade Program, the update to the Climate Change
16 Scoping Plan, and AB 32 related items we plan to present
17 for your consideration in 2013.

18 --o0o--

19 AIR POLLUTION SPECIALIST SUROVIK: I'll begin
20 with an update on cap and trade related activities.

21 --o0o--

22 AIR POLLUTION SPECIALIST SUROVIK: The first
23 auction for the Cap and Trade Program was held on November
24 14th. This slide summarizes the results. As can be seen
25 in the slide, all of the 2013 vintage allowances were sold

1 at \$10.09. Over five and a half million, or roughly 14
2 percent, of the advanced 2015 allowances were sold at the
3 \$10 floor price.

4 --o0o--

5 AIR POLLUTION SPECIALIST SUROVIK: At 10:00 this
6 morning, ARB released additional statistics about the
7 auction. These statistics are based on qualified bids or
8 just those bids used to calculate the settlement price
9 after the bids have been evaluated against the holding
10 limit, the purchase limit, and bid guarantees against all
11 the submitted bids.

12 The most prominent difference between the
13 statistics based on qualified and submitted bids is the
14 ratio of total bids to the total 2013 allowances available
15 for sale. It is lower when only qualified bids are
16 considered.

17 For the November 14th auction, a very small
18 number of auction participants exceeded their purchase
19 limit, holding limit, or bid guarantee, which led to a
20 higher ratio for submitted bids.

21 Before the Executive Officer certified the
22 auction, ARB staff and the market monitor carefully
23 evaluated all the bids and determined that the auction
24 process complied with the regulatory requirements. These
25 bids did not effect the final results of the auction

1 settlement.

2 --o0o--

3 AIR POLLUTION SPECIALIST SUROVIK: There were 73
4 entities approved to participate in the auction. The
5 auction platform performed as designed, with no problems
6 detected. Auction results were released on November 19th,
7 five days after the auction was held.

8 The financial settlements from participating
9 entities for allocation purchases were due by November
10 30th. The allowances will be transferred into entity's
11 accounts tomorrow.

12 --o0o--

13 AIR POLLUTION SPECIALIST SUROVIK: Staff released
14 the auction reserve price for 2013 on December 3rd.
15 Allowances cannot be sold for bid prices below the reserve
16 floor price. The quarterly auction reserve price for the
17 November 2012 auction was \$10. This price will increase
18 for auctions in 2013 by five percent, plus the rate of
19 inflation, as specified in the cap and trade regulation to
20 \$10.71.

21 The next quarterly auction of GHG allowances will
22 be announced by December 21st and will take place on
23 February 19th of next year.

24 Starting January 1st of next year, greenhouse gas
25 emissions from covered entities will count toward their

1 compliance obligation. Covered entities will need to turn
2 in allowances and offsets for 30 percent of their 2013
3 emissions in November 2014.

4 And finally, the first quarterly allowance price
5 containment reserve sale will be held on March 8th. These
6 sales offer allowances at fixed prices to serve as a cost
7 containment mechanism and are only open to covered
8 entities.

9 --o0o--

10 AIR POLLUTION SPECIALIST SUROVIK: The State
11 proceeds from the auction will be invested as mandated by
12 Assembly Bill 1532 and Senate Bill 535 and will be
13 allocated through the State's budget process.

14 Department of Finance, or DOF, must develop a
15 three-year investment plan in consultation with ARB and
16 submit the plan to the Legislature.

17 ARB must hold public workshops in different
18 regions of the state and a Board hearing on the investment
19 plan before it is submitted to the Legislature. The funds
20 generated from the auctions must facilitate the
21 achievements of reductions of greenhouse gas emissions in
22 the state. Twenty-five percent of the available funds
23 must be allocated to projects that provide benefit to
24 disadvantaged communities and ten percent of the funds
25 must be spent in these communities.

1 Finally, the California Public Utilities
2 Commission, or CPUC must determine how the proceeds from
3 the sale of the state's investor-owned utilities
4 allowances are used. CPUC released a proposed decision on
5 use of utility proceeds in November, which is expected to
6 be voted on by the end of this year.

7 --o0o--

8 AIR POLLUTION SPECIALIST SUROVIK: Now I will
9 discuss the 2013 update to the Climate Change Scoping
10 Plan.

11 --o0o--

12 AIR POLLUTION SPECIALIST SUROVIK: First, some
13 background on the initial Scoping Plan. AB 32 required
14 the ARB to develop and approve a Scoping Plan that
15 describes the approach California will take to meet the
16 2020 greenhouse gas emissions limit set forth in the law.
17 The Scoping Plan was first approved by the Board in 2008
18 and must be updated every five years. Consequently, staff
19 plans to present an updated Scoping Plan for your
20 consideration in the fall of 2013.

21 The following slides will discuss staff's
22 approach to updating the Scoping Plan and the various
23 elements we envision in the update.

24 --o0o--

25 AIR POLLUTION SPECIALIST SUROVIK: The objectives

1 of the 2013 update to the Scoping Plan are to:

2 Highlight the State's progress toward meeting the
3 2020 GHG emission reduction goals set forth in AB 32;

4 Begin the transition for the State to meet the
5 post-2020 goals set forth in Executive Orders;

6 Provide a high level view of how the State can
7 develop a long-term strategy for reducing GHG emissions
8 beyond 2020;

9 And define the State's climate priorities for the
10 next five years.

11 --o0o--

12 AIR POLLUTION SPECIALIST SUROVIK: To address the
13 State's near-term and longer-term GHG goals, the update
14 will have both the 2020 and the post-2020 element.

15 The 2020 element will focus on State, regional,
16 and local initiatives that are being implemented now to
17 assist us in meeting the 2020 goal. Numerous measures and
18 programs identified in the 2008 Scoping Plan have been
19 successfully put in place and are well on their way to
20 achieving full implementation by 2020. The Scoping Plan
21 update will provide a status report of these programs and,
22 where applicable, staff will present revised projected
23 2020 emission reductions for them.

24 We will also include an analysis and discussion
25 of co-benefits of these measures, including reductions in

1 criteria pollutants and air toxics, green jobs, and the
2 development of green technologies and renewable power.

3 The update will also include a discussion of
4 local and regional initiatives that are underway, such as
5 those addressing land use and transportation planning,
6 that will assist the State in meeting its GHG emission
7 reduction goals.

8 Finally, the 2020 element of the update will
9 include a discussion on the latest climate science,
10 including recent understanding of short-lived climate
11 pollutants and brown carbon.

12 --o0o--

13 AIR POLLUTION SPECIALIST SUROVIK: The post-2020
14 element will provide a high level view of a long-term
15 strategy for meeting the 2050 GHG goals. These goals
16 include Governor's Brown goal for the transportation
17 sector as set forth in his Executive Order signed last
18 year. This order sets a 2050 goal of GHG emissions that
19 are 80 percent less than the 1990 level for the sector.

20 Staff plans to set a midpoint GHG emission
21 reduction goal somewhere around the 2032 time frame to
22 align line with the goals in the local air district's
23 State Implementation Plans and the regional transportation
24 plans.

25 The post-2020 element will assume the

1 continuation of GHG reduction regulatory programs that
2 have been adopted and fully implemented by 2020 and will
3 build on those regulatory programs, developing a process
4 and specific recommendations for moving forward on a
5 long-term GHG reduction strategy for the state, including
6 necessary federal, State, and local policies, research
7 priorities, and changes to the infrastructure.

8 --o0o--

9 AIR POLLUTION SPECIALIST SUROVIK: The update
10 will emphasize the integration of statewide policies. A
11 number of statewide planning tools, policies, and reports
12 have been or are in the process of being developed that
13 will assist California in transitioning to our longer-term
14 GHG emission reduction goals, as well as adapting to
15 climate change impacts that may occur in the state.

16 These tools include the Governor's environmental
17 goals and policies report, which is expected to be
18 released next year, ARB's Vision for Clean Air Report,
19 which takes a coordinated look at strategies to meet
20 California's longer term air quality and climate change
21 goals, the State Implementation Plan, the sustainable
22 community strategies by the Regional Transportation
23 Planning Agencies, ARB efforts in developing a sustainable
24 freight strategy, California's Energy Commission's
25 Integrated Energy Policy Report, Natural Resources Climate

1 Change adaptation strategy, and a number of other reports
2 released by other agencies, such as Department of Water
3 Resource Climate Action Plan and Caltrans Blueprint
4 Report.

5 --o0o--

6 AIR POLLUTION SPECIALIST SUROVIK: We plan to
7 focus on the five key topics where competing policy needs
8 may need to be resolved. These areas include the
9 transportation sector, specifically fuels, infrastructure,
10 and land use, the energy sector, including generation,
11 transmission, and efficiency, the waste sector, the water
12 sector, and the agriculture sector.

13 --o0o--

14 AIR POLLUTION SPECIALIST SUROVIK: Staff also
15 envisions a regional overlay element to compliment the
16 development of the Scoping Plan update. The purpose of
17 the regional approach is to focus on the local issues and
18 concerns, such as transportation, infrastructure, and land
19 use that are area-specific. The regional outreach efforts
20 will focus on the northern, central, and southern
21 California. They will occur through public forums that
22 will have regional co-hosts. We expect opportunities for
23 local leaders in these areas to take on key roles in
24 formulating approaches to address these issues.

25 --o0o--

1 AIR POLLUTION SPECIALIST SUROVIK: Staff plans to
2 hold initial public workshops early next year to discuss
3 concepts for updating the Scoping Plan.

4 Public forums hosted by regional and local
5 entities will be held in targeted regions in the state.
6 In addition, staff will be consulting with the
7 Environmental Justice Advisory Committee as we develop the
8 update to the Scoping Plan.

9 Staff expects to release a preliminary draft of
10 the updated Scoping Plan report for public review in the
11 summer of 2013 and present a final version to the Board
12 for approval next fall.

13 --o0o--

14 AIR POLLUTION SPECIALIST SUROVIK: I will
15 conclude my presentation with a highlight of upcoming AB
16 32 related items that the Board will consider in 2013.

17 --o0o--

18 AIR POLLUTION SPECIALIST SUROVIK: These items
19 will include regulatory amendments, new measures and
20 informational items addressing cap and trade, fuels
21 sustainable freight, and incentives.

22 In 2013, we plan to address linkage with Quebec
23 and to present amendments to the cap and trade regulation
24 to address Board direction given to staff in September,
25 address potential changes to allocation, and to propose

1 new offset protocols. Two offset project types currently
2 under review are the destruction of fugitive coal mine
3 methane and the reduction in methane due to changes in
4 rice cultivation.

5 In addition, we continue to make progress on the
6 adaptive management plan for the cap and trade regulation.
7 We are working on methods to assess potential localized
8 air quality impacts from the regulation. We are also
9 undertaking efforts to address potential forest impacts
10 from the compliance offset protocol and are expecting that
11 recommendations for a monitoring system will be provided
12 to ARB in September 2013. We expect to have public
13 working group meetings on both parts of adaptive
14 management in early 3013.

15 The Board will see a number of fuel-related items
16 next year. We plan to propose new biodiesel and renewable
17 diesel fuel specifications as well as amendments to the
18 low carbon fuel standard.

19 In addition, we plan to present amendments to the
20 E-85 fuel specifications and the engine certification fuel
21 at the end of next year.

22 Also, an Executive Officer hearing will be held
23 next spring to add fuel pathways and crude oil carbon
24 intensity to the low carbon fuel standard.

25 Staff's sustainable freight efforts will be in

1 full gear next year and staff plans to report to the Board
2 next summer on our progress in this area.

3 And finally, we plan to present the investment
4 plan for the cap and trade auction proceeds to the Board
5 in the spring. Additional incentive funding for building
6 efficiency programs will be available to the State from
7 the passage last month of Proposition 39, which provides
8 funding for clean energy projects.

9 Coordinating these two incentive programs with
10 funds from AB 118, the electric program investment charge
11 program, and other sources, will allow the State to
12 maximize its future GHG reduction opportunities.

13 This concludes my presentation. I would be happy
14 to answer any questions you may have.

15 CHAIRPERSON NICHOLS: Thank you.

16 I'm expecting we'll have a considerable
17 discussion. But before we do, we do have two people who
18 have signed up to speak to us. So why don't we take them
19 first, Paul Shepard and Brian Biering, both from
20 Wildflower Energy.

21 MR. SHEPARD: Hi. Good morning. My name is Paul
22 Shepard. I'm the Director of Asset Management for
23 Wildflower Energy, and I'm here to comment on the pre-AB
24 32 contract issue.

25 Wildflower is the owner of two peaking facilities

1 in southern California: Indigo, which is 138 megawatt
2 peaking facility located in Palm Springs and the Larkspur,
3 which is a 94 megawatt peaker in San Diego County. These
4 facilities were approved under California's emergency
5 siting procedures during the 2001 energy crisis. I
6 believe Larkspur was the first and Indigo was the third.
7 And both are currently operated under pre-AB 32 contract.

8 As peaking facilities, Wildflower's plants are
9 very flexible and can provide fast capability, energy
10 capacity, and response in market demand. The facilities
11 are needed to help ensure reliability in Southern
12 California, particularly in light of a potential future
13 energy constraints in southern California.

14 Many energy sources in southern California, like
15 once-through cooling and nuclear may not be available.
16 And the availability of emission reduction credits will
17 make it difficult to build new sources in southern
18 California area or in the South Coast basin. It will be
19 an increasing need for conventional sources like
20 Wildflower to support the growing number of intermittent
21 source, such as wind and solar. However, our facilities
22 are in serious jeopardy. They are operated under a
23 long-term pre-AB 32 contract with a power marketer
24 third-party off taker that does not address greenhouse gas
25 costs.

1 At the time, this type of long-term contract was
2 strongly encouraged during the energy crisis to help
3 stabilize California's power costs. We understand that
4 the ARB's preferred method was for both parties to get
5 together to try to renegotiate such contracts. And it
6 seems to be working for the entities that have contracts
7 with CPUC jurisdiction. But our counterparty is not
8 subject to the CPUC's jurisdiction. And despite our
9 numerous attempts to renegotiate the contract, our
10 counterparty's simply unwilling to accept any
11 responsibility for greenhouse gas costs. They have no
12 incentive to re-negotiate the contract and, instead, have
13 incentive to run our facilities even more than we normally
14 would in our peaking capacity. They've indicated that
15 will be in case starting in 2013.

16 So we're here today to ask the Board's
17 assistance, which my attorney Brian Biering, will detail
18 in further comments.

19 CHAIRPERSON NICHOLS: Thank you.

20 MR. BIERING: Good morning. My name is Brian
21 Biering. I'm with the Law Firm Ellis and Schneider and
22 Harris. I'm here today to speak on behalf of Wildflower
23 Energy.

24 The Board previously addressed this issue in the
25 context of Resolution 1233 back in September. That

1 resolution did a couple of things. It directed staff to
2 propose regulatory amendments to bring back to the Board
3 in mid 2013, which would provide for transition assistance
4 for these contracts. We certainly very much appreciate
5 that direction by the Board. But what we're hoping today
6 is that the Board can provide more clarity on that
7 direction, specifically relating to three issues that we
8 would have with the existing direction that the Board has
9 provided.

10 The first issue is about the timing. The
11 resolution -- or the regulatory amendments come out in
12 mid-2013. That means any free allocation or transition
13 assistance really wouldn't take place until 2014. In the
14 mean time, you know, we will need to assume that we
15 wouldn't be receiving any sort of transition assistance.
16 We need to move forward with procuring allowances. That's
17 going to expose the projects to a significant cost and
18 really could undermine their viability.

19 The second issue is that in speaking with staff
20 about what they're thinking with the transition assistance
21 that they would propose something along the lines of a
22 transition assistance that would basically be based on
23 assumed efficiency rate.

24 And the concern there is that our projects, as
25 Mr. Shepard mentioned, are peaking facilities. As peaking

1 facilities, they have a higher heat rate. They start
2 faster. They're designed to respond to market needs and
3 fill in demand on a short-term basis. And because they
4 have a higher heat rate, if any transition assistance was
5 based on a lower heat rate, it would really leave a
6 significant portion of our compliance obligation
7 unsatisfied.

8 The third concern is that the Board resolution
9 directs the staff to work with the Public Utilities
10 Commission. And while, you know, we agree with that and
11 there's certainly been some progress at the Public
12 Utilities Commission, we really believe the California ISO
13 is the appropriate entity for staff to be working with, in
14 part, because they're the ones that have direct
15 jurisdiction over the power marketer we have a contract
16 with and have a better sense I think of the potential for
17 market manipulation in this case.

18 So we've detailed these suggestions in the
19 context of the suggested Board resolution, which we
20 provided in a letter. And I've also brought copies of
21 that letter if that would be helpful. So we would be
22 happy to answer any questions, if you have any.

23 CHAIRPERSON NICHOLS: Thank you. Appreciate the
24 issue.

25 Before I recognize anybody else, I just want to

1 say we will respond to your letter. And we'll continue to
2 work this issue. But we do understand that it's an issue.

3 Mr. Loveridge.

4 BOARD MEMBER LOVERIDGE: I just wondered if staff
5 wants to make any initial comments. When they actually
6 came to my office, their concern seemed reasonable to me.
7 So I wanted to see if you can give any --

8 EXECUTIVE OFFICER GOLDSTONE: Edie Chang will
9 give a quick response.

10 ASSISTANT CHIEF CHANG: So we are, as the
11 gentleman said, working through this. And the Board has
12 directed us to handle the legacy contracts.

13 We will be starting workshops next year to start
14 looking at how to handle them. We are talking with Cal
15 ISO, and we are aware of the unique role that peaker
16 plants play and the grid liability within California. And
17 those are things we're going to be considering as well as
18 the specific situations that each these parties are in as
19 we work through these legacy contracts.

20 CHAIRPERSON NICHOLS: I would just underscore
21 that the relationship that we've developed with the
22 California independent system operators is close and
23 intense and we are talking to them on a very regular basis
24 about all the issues related to the electricity markets.
25 Because everything about this program has a relationship

1 to the markets. And we want to make sure that everything
2 we're doing is coordinated.

3 Ms. Berg.

4 BOARD MEMBER BERG: Thank you.

5 I would also like to encourage staff to look at
6 who controls what here. Enforcement is critical. But if
7 you have plants that were owned by a party who sold it to
8 another party who has a contract that has all of the say
9 as to how that plant runs, I'm not sure the operator is
10 the person we should be regulating here.

11 So I think there is a set of circumstances, and I
12 would really appreciate if legal would take a look at if
13 we aren't sandwiching an entity or a group of people that
14 truly do not have the ability to -- of their -- they don't
15 have control of their own destiny. And I'm really
16 concerned about that.

17 CHAIRPERSON NICHOLS: Okay. Any other comments
18 or questions on this one? If not, thank you, gentlemen.
19 Hope to be back with you soon. And we'll get this
20 resolved.

21 So back to the more general prospects for the
22 coming year and what we've done to date. I just wanted to
23 mention a couple of things.

24 The first was I'd like to go back to that slide
25 that showed the various State plans and reports that are

1 being issued in the coming year, because it's pretty
2 dramatic, actually. Thirteen, can you put slide 13 back
3 up? Whoever is in control of this. Thank you.

4 So obviously the multiplicity of these items
5 leads to several questions. Like, are these coordinated?
6 Does anybody have a sort of an overarching strategy for
7 these things? And the answer is a little bit better than
8 you might think. All of these reports and documents are
9 required by one or another statutes or directives that
10 we're involved in.

11 But, actually, the Scoping Plan is in a pretty
12 good position to integrate all of them in one place. And
13 the good news is that the Governor's Office of Planning
14 and Research has specifically asked us to do this. It is
15 they're tracking what we're doing. They are interested in
16 having us roll up these other items into the plan. And so
17 I'm actually quite optimistic that for maybe the first
18 time ever, at least the first time that I can recall, the
19 State will, in fact, have in one place the air and
20 transportation and energy strategies, at least the basics
21 of what we're doing, as well as the relationship with
22 local/regional land use planning. Not necessarily one
23 gigantic master plan. I think that would be probably
24 counterproductive because these things are developed for
25 different audiences and different purposes. But at least

1 one place that a person could go to that will track all of
2 the other plans and sort of parallel them as well.

3 And obviously, this is something that hasn't been
4 done before. It's a challenge for our staff. It's also a
5 tribute I think to ARB that people think we can do this.
6 And we're going to be getting help as well as from other
7 agencies, of course.

8 But still, it's a pretty remarkable undertaking.
9 So while this may not be kind of at the top of anybody's,
10 you know, press campaigns as they talk about AB 32, it's
11 just I think a pretty remarkable element to come out.

12 Really, my only regret about this is that Scoping
13 Plan, this doesn't sound all that exciting. It's not the
14 thing everybody is going to get excited about. Oh, boy, a
15 Scoping Plan.

16 But the reality is that the last Scoping Plan
17 that we did, which led to where we are now, had enormous
18 impact. And I think this one, if we do it right, could be
19 even more influential in kind of subtle ways. You know,
20 not that we get to tell everybody else what to do, but
21 just that we get to actually figure out how these
22 different policies could work together. So I just wanted
23 to really underscore that item, especially for those who
24 have been involved in multiple planning efforts over the
25 years, which many of our Board members have. I hope that

1 we'll be able to bring back some interesting milestones.

2 Yes, Mayor Loveridge.

3 BOARD MEMBER LOVERIDGE: If I just could add a
4 couple of sentences to the Chairman's comments. This
5 should not simply be a technical document that you declare
6 a success and it fills up a series of papers and says
7 we've integrated it all.

8 It seems to me I saw the Scoping Plan as one of
9 the most important things the State has done. And somehow
10 this update I think needs to have a similar kind of
11 status. This is not just a technical document, but a
12 document that's trying to define the future choices for
13 the state. So the success of this is not that it puts
14 everything together, but the success of it is the story
15 that it tells.

16 EXECUTIVE OFFICER GOLDSTONE: Right. Our
17 expectation is both in the development of the plan over
18 the next year and the actual publication that will drive
19 the discussion and inspire and motivate and direct the
20 action in all these areas.

21 CHAIRPERSON NICHOLS: So just another comment
22 from me, since everybody else seems to be quiet today, is
23 going back to the issue of what's next on our existing
24 programs, as I think we kind of skated over this gently,
25 there is a lot of work left to be done on the cap and

1 trade rule. And there are going to be multiple points in
2 the coming year where we're going to be looking at
3 specific items.

4 The comment here today just illustrated one issue
5 that staff has to grapple with over the course of this
6 first compliance period, as well as looking ahead to the
7 next stages of the program. And the efforts to make sure
8 that the revenues that are coming in both from the Cap and
9 Trade Program and from Prop. 39, which also covers
10 somewhat similar territory and needs to be also integrated
11 in the planning, are going to consume a lot of our staff
12 time and effort over the coming year.

13 Yes.

14 BOARD MEMBER BERG: As we're looking at that,
15 too, the research is going to be critical because as we're
16 encouraging behavioral changes and also giving choices, we
17 really need to spend these dollars wisely to be sending
18 signals to the citizens of the state of California as to
19 their choices and benefits for those choices. So that
20 adds another element. So there is, once again, a lot of
21 work to be done. It's an exciting time.

22 CHAIRPERSON NICHOLS: Just in case anyone thought
23 they could take a quiet break for next year, want to put
24 you on notice.

25 All right. Does anybody else have anything

1 they'd like to ask or add? If not, thank you very much.
2 Appreciate the update.

3 We are going to be moving next to the
4 presentation of the Haaen-Smit Clean Air Awards. But
5 before we do that, I wanted to take this moment because we
6 have a resolution, which the Board members have seen,
7 recognizing Tom Cackette on his retirement. And I spoke
8 about Linda Murchison earlier and mentioned that there was
9 a wave of retirements. Well, at the head of that wave or
10 the crest of the wave, or whatever, is our long time and
11 very highly prized head of our mobile source program,
12 Deputy Executive Officer Tom Cackette. And since I
13 frequently take credit for having been part of recruiting
14 him to the Air Resources Board, it's now my obligation to
15 also be part of his departure from us at the end of this
16 month.

17 We are noting Tom's contributions, his
18 substantive contributions to air quality. We will be
19 doing that in a few minutes. But we also have a
20 Resolution from the Board, which will be presented to him
21 in a nicer version with a seal on it and in a frame
22 suitable for hanging in his study or whenever he chooses
23 to, that I thought would be good to read and have the
24 Board formally endorse.

25 So I'm going to do that right now. This is Board

1 Resolution 12-52.

2 "Whereas, Mr. Thomas Arthur Cackette is
3 retiring from public service after a
4 distinguished 30-year career with the Air
5 Resources Board, faithfully serving five
6 Governor's, eight Chairs, and four Executive
7 Officers.

8 "Whereas, Tom started his career as a 'real
9 rocket scientists,' at Rocketdyne and then worked
10 for eight years for the United States
11 Environmental Protection Agency in their motor
12 vehicle emissions laboratory in Ann Arbor,
13 Michigan, before joining the Air Resources Board
14 in 1982 as a new program consultant and quickly
15 rising to his current position as Chief Deputy
16 Executive Officer in 1987.

17 "Whereas, Tom is leaving an extraordinary
18 legacy of establishing precedent-setting
19 emissions standards for all types of mobile
20 sources that are technically and economically
21 feasible and has effectively communicated these
22 findings in a variety of forums, including Board
23 meetings, and an untold number of public
24 workshops, legislative hearings, and regulatory
25 hearings at the State, federal, and international

1 level.

2 "Whereas, Tom's accomplishments include the
3 implementation of many first-in-the-world clean
4 air programs, such as the first low emission
5 vehicle and zero emission vehicle regulations,
6 the nation's first hydrogen fueling network, the
7 invention of on-board diagnostic systems, and the
8 first exhaust and evaporative standards for small
9 engines."

10 And he will tell you that he didn't do all this
11 by himself and that's true. But never the less, he was
12 the person in charge when all of these things happened and
13 played a very significant role. That's not in the text.
14 I'm just editorializing here.

15 "Whereas, Tom's crowing achievement was to
16 usher the world's first greenhouse gas standards
17 for passenger vehicles in 2004, which President
18 Obama then adopted nationally.

19 "Then Tom did it again in 2012, negotiating
20 with federal agencies, automotive manufacturers,
21 and others to adopt the second phase of
22 greenhouse gas standards for passenger vehicles
23 that became the template for the 2012 final
24 federal regulations, establishing a new 54.5 mile
25 per gallon national fuel economy standard for

1 2025 passenger cars and light trucks.

2 "Whereas, Tom's efforts to develop and
3 improve the smog check program are legendary,
4 particularly considering that for many years he
5 drove a diesel Volkswagon Rabbit, which
6 coincidentally was exempted from the program.

7 "Whereas, Tom wisely recognized that
8 regulations alone are not always the best
9 solution for reducing air pollution, and
10 therefore, championed and guided the investment
11 of over a billion dollars of incentive funds that
12 have been used to dramatically accelerate the
13 cleanup of diesel engines and advance the use of
14 clean fuel vehicles.

15 "Whereas, Tom's vision turned ARB's
16 Haagen-Smit laboratory in El Monte to a
17 world-class research center that has generated a
18 tremendous amount of first-of-its-kind policy
19 relevant data critical to demonstrating technical
20 and economic feasibility of new air quality and
21 greenhouse gas regulations and has further
22 enhanced ARB's excellent scientific reputation.

23 "Whereas, Tom's life work clearly reflects
24 his unique and expert ability to bridge the
25 seemingly irreconcilable worlds of highly

1 technical information with policy setting in a
2 way that pushes innovation and drives the
3 development of new technologies, resulting in
4 both substantial public health benefits and lower
5 consumer costs.

6 "Whereas, Tom's easy going demeanor and
7 pragmatic problem solving approach earned him the
8 utmost respect from the Board and staff,
9 regulated industry, environmental advocates, and
10 the air pollution control community, by
11 particularly the collective staff of the Mobile
12 Source Operations Division, Monitoring and
13 Laboratory Division, and Mobile Source Control
14 Divisions that he effectively led for so many
15 years.

16 "And whereas, Tom's legacy is embodied in the
17 vastly superior motor vehicles on the road today
18 as well as the substantial improvements yet to
19 come.

20 "ARB's enhanced scientific credibility, the
21 clean transportation policies around the world
22 that carry California's imprint, the talented
23 staff and managers that have developed under his
24 mentoring, and the improved public health and
25 welfare of every Californian resulting from

1 improved air quality.

2 "Now, therefore, be it resolved, that the
3 Board gives tribute to Mr. Thomas Arthur Cackette
4 for his contribution to the people of California
5 and extends a heartfelt thank you for his
6 accomplishments and the significant role he
7 played in shaping ARB into the world leader in
8 clean transportation.

9 "Be it further resolved that the Board
10 directs Tom to fully and thoroughly enjoy his
11 retirement with his wife, Helen, and children,
12 Laura and David, while continuing to find
13 significant pleasure in poker nights, fine wine,
14 sushi, and from time to time a PB&J sandwich.

15 "Executed at Los Angeles, California on this
16 of 6th day of December, 2012."

17 May I ask your unanimous consent for this
18 Resolution? Thank you.

19 (Applause)

20 CHAIRPERSON NICHOLS: You are allowed three
21 minutes of response time, if you would like. Yes, please.

22 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
23 thank you very much. That was a very impressive Executive
24 Order for me, and I greatly appreciate it. And I'll find
25 a place on the wall for it. And I greatly appreciate it.

1 The thing I wanted to say, working for this Board
2 has been an honor. It's been something that's been --
3 made my life pleasurable. In addition, you have an
4 unbelievable staff of people. I've been lucky to have
5 Patty working for me and making my life so much easier
6 these last few years. It's that sort of team spirit that
7 I think is all the way through the Board to pull off
8 things like the AB 32 Cap and Trade Program. When I first
9 heard about this, I thought, this is never going to work.
10 This is so much more complicated than the Advanced Clean
11 Car Program. And it was. But they pulled it off like it
12 was nothing.

13 So I think I'm really proud to be associated with
14 that for so many years. And certainly know that you're
15 probably be associated with the staff and the team here
16 that supports the goal of clean air and climate
17 improvement for the future.

18 I do want to say one thing about the diesel
19 rabbit though. Just so you know that there is always
20 balance here. That while I didn't have to take that to
21 smog check, Dr. Balmes and I who drive diesels today, we
22 have to go when the car is two years old and you have only
23 to go when the car is six years old. I'm atoning for the
24 sins here of having that little puffer from the past.

25 Other than that note, again, thank you very much.

1 And it's been a great, great honor to be working for the
2 Board.

3 (Applause)

4 CHAIRPERSON NICHOLS: Thank you, Tom.

5 Tom has had to endure -- and he's done it with
6 very good grace -- a whole series of events. And it's not
7 over yet. He's not leaving until the end of the month,
8 and the staff in Sacramento haven't had their chance to
9 wish him a farewell yet either. So this is just going to
10 continue rolling forward, Tom. We're not done with you
11 yet.

12 Not to mention what happens after you retire,
13 because we know where you live and we know how to find
14 you.

15 But we are left -- one of the things that isn't
16 really mentioned in the Resolution, but that I think maybe
17 those of us who have been following what goes on in some
18 of the corporate board rooms these days ought to take note
19 of the fact that one of the things that's been a hallmark
20 of the ARB I think in recent years is the care and effort
21 that's gone into managing transitions, that knowing that
22 we were going to be experiencing a demographic change as
23 people get older and retire, our senior staff has done a
24 really phenomenal job of teaching, training, cultivating,
25 exposing the talent that we have.

1 And so Tom's departure leaves behind a number of
2 extraordinary people whose careers he helped to shape and
3 mentor. Obviously, his successor, Alberto Ayala, who is
4 extremely well positioned to come in and take the program
5 onto the next steps, but also I know people like Eric
6 White who is right behind him and Edie Chang is another
7 and Bob Cross, of course, from El Monte and Annette Hebert
8 and all the people that have worked with him and have been
9 part of the same experience. So it's not that they all
10 shared in the accomplishments, which they did you, it's
11 also they really are all ready to carry on. And I think
12 that speaks extremely well of the organization and of
13 Tom's leadership as well.

14 This is a big day for recognizing people. And I
15 guess that's a good thing at the end of this year. But
16 this is the Board meeting at which we're going to be
17 presenting the Haagen-Smit Clean Air Awards. And we have
18 a slide presentation that goes with this.

19 And I guess since we didn't rehearse this, I'm
20 just going to read the text and the slides will be there.

21 EXECUTIVE OFFICER GOLDSTONE: They will magically
22 appear.

23 CHAIRPERSON NICHOLS: Somebody else usually does
24 it. Okay. I'll do it.

25 (Thereupon an overhead presentation was

1 presented as follows.)

2 CHAIRPERSON NICHOLS: So the last item on our
3 agenda is the ARB Haagen-Smit Clean Air Awards.

4 So it's a privilege to present this annual award,
5 where we recognize today's leaders in air pollution
6 research, technology, and policy. The Haagen-Smit Clean
7 Air Awards are made in honor of the late professor Arie J.
8 Haagen-Smit and his important contributions to air
9 pollution science and the significance of his career as
10 ARB's first Chairman.

11 Today's presentation will highlight the history
12 of the award program and the accomplishments of the 2012
13 award recipients.

14 --oOo--

15 CHAIRPERSON NICHOLS: Arie Haagen-Smit, a native
16 of the Netherlands, was a biochemistry professor at the
17 California Institute of Technology, Cal Tech, in Pasadena
18 for 16 years before beginning his air pollution research
19 in 1948.

20 It was his research that found that most of
21 California's smog resulted from photochemistry, when
22 exhaust from motor vehicles and industrial facilities
23 react with sunlight to create ozone. This break-through
24 provided the scientific foundation for the development of
25 California's and the nation's air pollution control

1 programs.

2 Leaving his plant studies behind, he continued
3 working in the field of air pollution research and
4 control, taking the smog problems in L.A. head on and
5 becoming ARB's first Chairman in 1968.

6 In 1973, in recognition of his contribution, Dr.
7 Haagen-Smit received the National Metal of Science, this
8 country's highest scientific honor. Dr. Haagen-Smit
9 passed away 35 years ago, but his legacy lives on.

10 I actually had the opportunity to meet Mr.
11 Haagen-Smit on a couple of different occasions. He was a
12 very strong-minded individual and somebody who always was
13 pushing for what he believed was right. He also had the
14 license plate "ARB1" on his car, which I've envied. I
15 don't know what happened to it. But it was quite
16 distinctive. But he drove around with that on his car.
17 --o0o--

18 CHAIRPERSON NICHOLS: Since 2001, the Air
19 Resources Board has sponsored the Haagen-Smit Clean Air
20 Awards. Over the last 11 years, 31 distinguished people
21 have received the award. I have, too.

22 I'm pleased to announce the three recipients of
23 the 201 Haagen-Smit Clean Air Award.

24 I'm going to read the information about these
25 folks, and then we'll present them with their actual

1 awards at the end.

2 So perhaps not surprisingly, in light of all that
3 we've said about him, the first recipient of the award
4 today is Tom Cackette for his work in the area of
5 environmental policy.

6 The next is Andrea Hricko for her work in the
7 area of public education.

8 And then Dr. Ron Loveridge for his work in the
9 area of environmental policy.

10 After I highlight their accomplishments, they'll
11 come up to the podium and receive their awards.

12 Although, Andrea Hricko is not able to be with us
13 today. She contacted me in early hours of this morning.
14 She was taken sick on her way back in the middle of the
15 night from an asthma talk that she was giving in
16 San Francisco, and her plane was canceled, which didn't
17 make it any better, four hours of sitting at the airport.

18 So I hope we'll have a chance to recognize her in
19 person at a later Board meeting. But we're going to talk
20 about her anyway. I said we would promise to say nice
21 things in her absence.

22 As you heard at the beginning of the meeting just
23 a little bit ago, Tom has been with the ARB since 1982 and
24 has served as its Chief Deputy Executive Officer, managing
25 some of the Board's key programs ranging from motor

1 vehicles emissions controls to the air monitoring and
2 laboratory operations.

3 He's been involved in many areas of air pollution
4 control since the 1970s, but he's most widely recognized
5 for his guidance and perseverance in mobile source control
6 regulations, many that have influenced national and
7 international policies. His most recent contributions, of
8 course, are the low emission vehicle and zero emission
9 vehicle regulations, along with the incentive programs
10 that have become so embedded in the framework of our
11 operations.

12 In 1993, he was instrumental in developing the
13 new heavy-duty vehicle standards, leading to dramatic
14 reductions in diesel particulate, sulfur oxides, and
15 nitrogen oxides. In this program, he has held together
16 throughout the past two decades resulting in new
17 developments in fuels, engine technologies, and in
18 unprecedented levels of industry and government
19 collaboration.

20 Under Tom's leadership, the Low Emission Vehicle
21 Program, which was first adopted in 1990, paved the way
22 for numerous clean air vehicle technologies. And Tom has
23 now worked not just once, but twice with federal agencies
24 to expand California's light duty vehicle programs to the
25 national level. Thanks to these advanced clean cars

1 programs, new vehicles in 2025 will be emitting 75 percent
2 less smog-forming pollution than they do today. And
3 that's after previous waves of reductions in emissions,
4 which brings us to the point where it's not true that the
5 air coming out of most cars is cleaner than what goes in.
6 But it's close to being true. Very close to being true.

7 Carrying on from the work that he began in
8 inspection and maintenance programs at U.S. EPA, Tom has
9 been fundamental in reforming that program. And it's one
10 that still -- although most people are barely aware of its
11 existence -- at least if you drive newer cars, the fact is
12 it still is responsible for some of the largest emissions
13 reductions in California. And through his leadership and
14 persistence in working with the Bureau of Automotive
15 Repair and the Legislature, new smog check testing
16 procedures are set to roll out next year, 2013, that will
17 continue to ensure an estimated 70 tons of pollutants per
18 day are reduced, while saving consumers an estimated \$64
19 million annually.

20 Tom not only understands the political, economic,
21 and technological barriers and possibilities in air
22 pollution control, he has a knack for working with all
23 stakeholders in a very productive way. He's brought
24 clarity in air quality issues in a broad range of forums
25 throughout his career as Chief Deputy Executive Officer.

1 He's dedicated his time openly to sharing his knowledge
2 and mentoring staff, assuring the legacy of highly
3 qualified committed professionals who will carry on his
4 work. Although he's retiring from the Board this year,
5 his work and his passion to improve California's air will
6 continue to be a legacy. And we thank him for his work.

7 The next person that will be receiving the award,
8 Andrea Hricko, as I mentioned is not able to be here
9 today. Many of you, however, know Andrea or have met her
10 in other occasions. She is a professor of clinical and
11 preventative medicine at the Keck School of Medicine at
12 the University of Southern California, as well as Director
13 of the Community Outreach and Education Program of the
14 Southern California Environmental Health Sciences Center,
15 a partnership between USC and UCLA, something that many
16 people don't think can be done, but she has done it.

17 She also directs the Community Outreach and
18 Translation Core of the USC, UCLA Children's Environmental
19 Health Center funded by the National Institute of
20 Environmental Health Sciences and U.S. EPA.

21 Her current work involves environmental justice
22 topics surrounding public health impacts from goods
23 movement in the ports of Long Beach and Los Angeles. She
24 served on the U.S. EPA's National Environmental Justice
25 Committee's Working Group on Ports and Goods Movement, the

1 Governor of California's Cabinet level Goods Movement
2 Action Plan and the Southern California Association of
3 Government Goods Movement Task Force, helping to formulate
4 more sustainable, transportation, and goods movement
5 policies.

6 She's also the founder of the Impact Project, a
7 nationwide, community and academic partnership focused on
8 reducing the health impacts at international trade. She
9 is widely regarded as an inspiration to the youth and
10 community members she serves and for empowering
11 community-based organizations to educate their communities
12 and local policy makers about the health effects of air
13 pollution and more effectively advocate for cleaner air
14 and better land use decision making.

15 Ms. Hricko has been recognized by South Coast
16 AQMD with an Environmental Stewardship Award by Physicians
17 for Social Responsibility, with an Environmental Health
18 Champion Award, and by the nonprofit Coalition for Clean
19 Air with an Environmental Leadership Award for her long
20 time efforts to help the public understand the science of
21 air pollution's public health impacts. We are honored to
22 add the Haagen-Smit Clean Air Award to this list.

23 And we thank her for her dedication to the
24 community and for improving California's clean air legacy.
25 So we are going to make sure she gets that award presented

1 to her.

2 --o0o--

3 CHAIRPERSON NICHOLS: And finally, our last award
4 goes to our own Dr. Ronald Loveridge. We always call him
5 Mayor, but we could call him doctor, too. He has served
6 on the Air Resources Board for eight years and has been
7 Mayor of Riverside since 1994, serving on the South Coast
8 Air Quality Management District's governing Board since
9 1995. He's also an associate professor in political
10 science at the University of California Riverside where he
11 has taught since 1965.

12 His accomplishments as mayor of regent, including
13 implementing A Strategic Action Plan to make Riverside a
14 Model Clean Air City in 2002. And in 2005, Riverside was
15 recognized with an award by the South Coast Air Quality
16 Management District as a Model Clean Air Community.

17 Also, in 2005, Mayor Loveridge appointed a Clean
18 and Green Task Force for the city. And in 2007, this Task
19 Force, with the Mayor's endorsement, put forth a
20 sustainable Riverside policy detailing eight main
21 directives including: Urban forestry, solar initiatives,
22 alternative transportation modes, green building efforts,
23 and water and air quality improvements.

24 In 2009, Riverside was officially designated as
25 the First Emerald City by the California Department of

1 Conservation.

2 As an ARB Board member, he's been a longstanding
3 champion of plug-in electric vehicles and community EV
4 readiness. He's been instrumental in achieving emissions
5 reductions from rail yards in the South Coast and
6 maintaining the integrity of the 2005 rail yard agreement
7 throughout his membership on the Board. He's also
8 frequently served as the Board's resident expert on local
9 government issues.

10 Dr. Loveridge was President of the League of
11 California Cities, a member of the Regional Council of the
12 Southern California Association of Governments, and has
13 been honored by the American Lung Association for his
14 leadership in protecting public health from air pollution.
15 He has been recently recognized by the Southern California
16 Association of Governments for his material and
17 significant contributions to the regional, transportation,
18 housing, land use, and environmental planning.

19 Ron Loveridge has the intellectual integrity of a
20 true leader. His professional and approachable demeanor
21 is irreplaceable and is going to be missed on this Board,
22 but it's not going to be happening just yet, I'm happy to
23 say. He will continue to serve for a while longer until a
24 successor is appointed. And so we're not saying goodbye
25 to him just yet.

1 I do want to add, though, that he is stepping
2 down from his post as Mayor, relinquishing the gavel to a
3 successor who seems to be quite capable also of carrying
4 on and going back to teaching at U.C. Riverside. But I
5 had the opportunity to listen to some of his fellow
6 citizens recognize him a couple of nights ago at the
7 Riverside City Council meeting. And if you think that
8 he's been spending all of his time on all of those air
9 quality and environmental initiatives that I mentioned,
10 you would be wrong, because in addition to that, he has
11 been apparently back in Riverside playing a very
12 significant role in human relations, in youth development,
13 in model programs for the deaf, in work with senior
14 citizens, in arts awareness programs, not to mention being
15 a leader in the Sister Cities Movement, which seems to
16 have sent him to many corners of the globe and gotten
17 Riverside on the map as a leading international city as
18 well.

19 So this is not a person who has limited his
20 activities to one issue area. But we are very blessed
21 that he has chosen to spend so much of his time with us on
22 the Air Resources Board.

23 So I'd like to now call the winners up to get
24 their awards and have a photo with the Board. We can do
25 that up here. And we could have public testimony, but why

1 would we do that? Nobody is going to object, as far as I
2 know. So okay. I think the record is closed on this
3 item.

4 And I'm going to call Tom up and Ron is here. We
5 will take a photo.

6 Tom, it's my great pleasure to present to you the
7 Haagen-Smit Award for Outstanding Contributions to
8 Environmental Policy. Here you go.

9 (Applause)

10 CHAIRPERSON NICHOLS: Do you want to say a few
11 words?

12 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
13 again, I'm just really honored to get this. And it's
14 humbling to be part of this group of incredibly great
15 people that have received this award, including Dr.
16 Loveridge. And it will be something I'll be looking at
17 for many days and the rest of my life, sitting on the
18 credenza somewhere. It's really appreciated.

19 Thank you so much, Mary. Thanks for hiring me,
20 too. That was probably one the necessary requisite.

21 CHAIRPERSON NICHOLS: That's true. We had to
22 lure you out here. I think the weather was the main thing
23 as I recall.

24 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That
25 was something.

1 CHAIRPERSON NICHOLS: Anyway, you got to stay
2 around. So all right. And we have also a photo for Ron
3 here. I've already told you a lot about Ron Loveridge, so
4 I'm not going to say much more.

5 But the Haagen-Smit award is obviously something
6 that means a lot to ARB and people who follow the history
7 of air quality. So I hope this will take its place among
8 your many other awards.

9 (Applause)

10 BOARD MEMBER LOVERIDGE: Well, first, I join Tom
11 in recognizing who is on this list and join those being
12 recognize today.

13 As you exit, Tom must have the seem feeling.
14 You're not only looking forward, but also looking back.

15 I would make just a couple personal comments. I
16 remember growing up in the Bay Area and doing grad work
17 there was a disc jockey who talked about air quality in
18 Southern California. He had a name Don Sherwood. He had
19 a can of clean air that on occasion he would send down to
20 southern California. I thought that was kind of amusing.

21 I remember coming down to be interviewed in the
22 wintertime at U.C. Riverside. And when I came back up,
23 someone said, "The air is not good down in Southern
24 California, not good in the inland area." I said, "It
25 didn't seem too bad to me at the wintertime."

1 And then I remember my wife, after turning in her
2 dissertation the last day at Stanford, we packed what we
3 had in the car and came to the Tejon Pass. And we looked
4 at each other and said, "My God, what is that?" And
5 literally my first day on the UCR campus, I went up to the
6 air pollution lab and talked to a fellow named John
7 Middleton who became the first head of smog control at the
8 federal level and I asked, "What is this stuff? And how
9 do people take it?" And I was interested particularly in
10 terms of a political scientist in terms of the public and
11 the community accepting what was something I didn't
12 realize quite what was there.

13 I remember one particular comment later on from
14 attending a conference where Arie Haagen-Smit was speaking
15 and someone was asking how does a world class scientist
16 decide decisions on the Air Resources Board. And I still
17 remember his answer. He kind of smiled and said he
18 listens very carefully to what people say. And then when
19 he decides to paint his reel, he stops. That was his
20 instructions he was giving by way of explanation.

21 I did a little research on what was the Clean Air
22 Act and how California got the exemption we did. It was
23 Senator George Murphy introduced it in the Senate, but the
24 critical action was in the House. This had to go through
25 the Commerce Committee, which John Dingle was a long time

1 and powerful Chair of this House Commerce Committee. And
2 there was an effort where the Southern California
3 particularly, but northern California also, sort of
4 rallied. It was republicans and democrats. It was a
5 State rally that, in effect, took this to the House floor
6 and Dingle was turned back and the California exception
7 was included.

8 I remember talking to John Dingle and he said he
9 hoped California would be cut off and float out in the
10 Pacific Ocean. He was not happy by losing that vote that
11 day.

12 But I became interested in the policy process,
13 not so much the public health, but the policy process.
14 And after elected as Mayor and as council member, I
15 thought our city needed to be -- since we were a downwind
16 place, we needed to be a leader California in terms of
17 being green and being a leader in air quality measures.

18 So I take some pride as I leave is that we're one
19 of I think the greenest cities in California. We competed
20 with Santa Monica and Jersey City and ourselves in a
21 contest by the Chamber last year. Santa Monica edged us
22 out. But we regard ourselves as competitive.

23 And then in the air quality area, as Barry
24 Wallerstein is sitting in the back will know, I've been a
25 champion of using AB 2766, not simply handing it to staff

1 to fill budget holes, but rather to see it as a policy
2 opportunity for electeds. And I think we've taken a
3 number of major steps from transits free for college
4 students. We reduced it for seniors. Last month, we
5 received the title of having the greenest public fleet in
6 the country. We worked very hard to use AB 27 in ways hat
7 reduce air pollution.

8 But I think the start of all this and maybe a way
9 of getting me out of a field and worrying about place was
10 that initial response to air quality, which in 1965 there
11 were 200 first stage smog alerts. There were 65 second
12 stage. It was a wall that you not only saw but felt. And
13 it did seem to me that one had an obligation to change
14 what one found.

15 So I'm honored to be a part of this award and
16 also honored to serve on the Air Quality Board locally in
17 the state. And one hopes one's helped to move the ball
18 down the field. But thank you to all those who have been
19 involved in this effort. Life and air is much better here
20 in southern California in 2012 than when I came in 1965.

21 (Applause)

22 CHAIRPERSON NICHOLS: In my enthusiasm, I
23 neglected to recognize that we are actually in a formal
24 meeting here. So we will move now to the public comment
25 period. We have two people who have signed up to testify.

1 So let's begin with Bill Davis. Mr. Davis, are
2 you here?

3 MR. DAVIS: I am.

4 CHAIRPERSON NICHOLS: Okay. Good. And then Sean
5 Edgar is our other witness. And again three minutes.

6 MR. DAVIS: I've heard that before.

7 Good morning, Chairman Nichols and members of the
8 Board. Welcome to what we normally call sunny Southern
9 California. The clouds will probably be gone by the time
10 you guys leave for lunch. Please accept our best wishes
11 for the holiday season and for the coming new year.

12 Mrs. Riordan, also please accept our sincere
13 condolences for the loss of your husband.

14 I'm Bill Davis. I'm now the editor of the
15 Southern California Contractors Association and California
16 Construction Trucking Association Publications. And I'm
17 an active member of the Construction Industry Air Quality
18 Coalition.

19 I'm here today in my role as reporter to report
20 to you a major problem that's emerging in the portable
21 engine registration program. CIAQC has a special standing
22 to discuss issues related to the PERP, as we were the
23 organization that got the enabling legislation passed in
24 Sacramento in the mid '90s. And we've been an active
25 partner in working with the Air Resources Board in

1 developing the original regulation and its many subsequent
2 amendments.

3 We needed the PERP to help the construction
4 industry cope with the crazy quilt of conflicting local
5 air district regulation of this category of diesel and
6 large spark ignition engine equipment. And the
7 Legislature heard our plea in the '90s. We're here today
8 to report that the local air districts are back in the
9 business of setting their own, often conflicting,
10 regulations on our equipment. This problem surfaced
11 nearly two years ago in San Diego and is now spreading.
12 We're getting reports of new requirements in the south
13 coast and San Joaquin. We're sure that more will follow.

14 And our industry, as you all know, has suffered
15 rather severely during the great recession. I'm happy to
16 report that this year our industry is up about seven
17 percent from where it's been, which is good news. But
18 seven percent brings us from a decline of 50 percent to a
19 decline of 43 percent. So we're still in trouble. And in
20 July of this year, all the construction activity you're
21 seeing on the highways is going to be reduced by roughly
22 50 percent as Caltrans' budget gets cut by that amount.

23 We brought this problem with the local air
24 districts to your staff and the PERP unit. We want to
25 particularly commend Mike Tollstrup his help. He was

1 helpful in arranging a series of meetings with the
2 California Air Pollution Control Officer Association. But
3 after a year-and-a-half of meetings with CAPCOA, I'm sorry
4 to say we have reached impasse and have been met with
5 intransigence and indifference. We have not gone to
6 these meetings alone. CIAQC has built a coalition of at
7 least ten other industries who were impacted by the local
8 district approach to the PERP.

9 Our coalition is prepared to continue the effort
10 to return PERP to its core mission of adequate regulation
11 of this equipment on a statewide basis, but not a
12 confusing collection of conflicting rules.

13 We're here today to ask the Board to appoint a
14 special subcommittee to investigate this issue, get input
15 from your staff from industry and CAPCOA on possible
16 solutions and, if necessary, draft additional amendments
17 to the program to strengthen the statewide approach that's
18 worked so well for the past 15-plus years.

19 Thank you.

20 CHAIRPERSON NICHOLS: Thank you.

21 We can't take action on this item today, I
22 believe, because it's not a noticed agenda item. But I
23 think we can direct staff to look into and to report back
24 to us.

25 EXECUTIVE OFFICER GOLDSTONE: We'd like to give

1 you a report about the work we've done to date and then
2 come up with some ideas about next steps.

3 CHAIRPERSON NICHOLS: All right. And if
4 appropriate, we certainly would consider the Committee
5 approach. But we would like to know more.

6 MR. DAVIS: Absolutely appropriate. And we're
7 happy to also participate in any future activity.

8 CHAIRPERSON NICHOLS: Great. The next step will
9 be then for the staff to report back to us, which
10 hopefully will happen before the next Board meeting.

11 MR. DAVIS: Okay. Great. Thank you.

12 CHAIRPERSON NICHOLS: Thank you for coming. Mr.
13 Edgar.

14 MR. EDGAR: Good morning, Chair Nichols and Board
15 members. I'm Sean Edgar, the Director of Cleanfleets.Net.
16 In my twelve years of appearing before the Board, it's the
17 first time I've actually seen Tom Cackette actually blush.
18 So well wishes to you, Tom. Thanks for working for many
19 of issues. I've been fortunate primarily on behalf fleet
20 associations over the last twelve years to work on
21 implementing the Diesel Risk Reduction Plan. We've had a
22 lot of issues that Tom and I have worked through, and Eric
23 and the rest of the staff. I'm sure Dr. Ayala will carry
24 on a fine tradition. Looking forward to working with him.

25 I have two brief items to share with you.

1 First -- both relate to the public outreach. So I'm
2 pleased to report that under contract ARB cleanfleets.net
3 has been out doing training on truck and bus rule
4 primarily in rural counties throughout California. So to
5 date, we've been fortunate to educate about 3,000 fleet
6 owners in about 50 counties throughout California. And
7 we're proceeding also in five western states as part of
8 the Board's effort to make sure that fleets that are
9 impacted by the truck and bus rule know that. I'm wanted
10 to report some success there.

11 And we've been particularly successful in getting
12 to small fleets, conducting some bilingual training, and
13 also conducting training in the border zone. We had
14 several bilingual sessions in the border zone, including
15 we have one next week on December 11th. And actually we
16 may ask Dr. Ayala to come down and help with his bilingual
17 skills there. So we might find another opportunity for
18 his many talents to come help us on the outreach.

19 So we've made a lot of progress on outreach.
20 There is one item that is time sensitive I wanted to bring
21 to your attention relating to the TRU transportation
22 refrigeration unit. Staff recently released a guidance
23 document on about November 15th that has some deadlines
24 here at the end of the month. And we had several
25 stakeholders that attended our training say we're more

1 than happy to do deal with this issue. And I won't bore
2 you with all the minutia except to say this relates to
3 electric standby.

4 What that means is folks that have invested in
5 infrastructure to be able to plug in units when they're at
6 a central facility are being asked to do more. And those
7 folks that have communicated with us as part of our
8 training have said they're happy to do more. The only
9 challenge is over the next 30 days they're being asked to
10 make some very big strides relative to electronics being
11 installed on those vehicles. So they're willing to do it.
12 It just seems the timing wasn't favorable relative to the
13 Board amendments of 2011 being noticed and stakeholders
14 being informed. That was one item we'd ask your staff
15 to -- we've communicated with SSD, Stationary Source
16 Division, on the issue. And we'd like a little bit of
17 perhaps direction to do some revisions and some additional
18 items that staff is amenable to. As an example, purchase
19 orders by the end of the month would satisfy a
20 requirement. And also there was staff was offering to do
21 a four-month lead time similar to the truck rule where an
22 operator had four months' lead time. Unfortunately, with
23 the timing of the advisory coming out in the November 15th
24 time frame, it doesn't allow that four months. So some
25 direction or understanding with staff we'd like to work

1 with just to make sure the effected fleets who just got
2 notice would be able to have some adequate time.

3 That's my singular request for today. But
4 staying within the tradition of my three minutes, which
5 are just about up.

6 I just wanted to say thank you so much to Mr.
7 Cackette and Dr. Loveridge. You inspire me. I feel very
8 young and old at the same time because I've been in front
9 of the Board for 12 years. And when you started at U.C.
10 Riverside, it was just about the time I was born. So
11 thank you for your contributions over many, many decades.

12 CHAIRPERSON NICHOLS: Thank you. Thank you.

13 And one of the things about being a teacher is
14 that your work product is out there in front of you
15 oftentimes for a long time to come.

16 Staff have any comment or reaction on the
17 presentation?

18 DEPUTY EXECUTIVE OFFICER COREY: This is Richard
19 Corey.

20 I want to follow up with Mr. Edgar and staff in
21 terms of the timetable issues that he brought, work
22 through and have a clear understanding and see what some
23 options are. We'll evaluate that.

24 CHAIRPERSON NICHOLS: This education program
25 we're doing with the truckers on these rules is incredibly

1 important. So definitely don't want any glitches there.

2 Okay. Any further comments? I see no one else
3 has signed up to speak. Then with no objection, we will
4 be adjourned. Thank you.

5 (Whereupon the Air Resources Board adjourned
6 at 11:17 p.m.)

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CERTIFICATE OF REPORTER

I, TIFFANY C. KRAFT, a Certified Shorthand Reporter of the State of California, and Registered Professional Reporter, do hereby certify:

That I am a disinterested person herein; that the foregoing hearing was reported in shorthand by me, Tiffany C. Kraft, a Certified Shorthand Reporter of the State of California, and thereafter transcribed into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 16th day of December, 2012.

TIFFANY C. KRAFT, CSR, RPR
Certified Shorthand Reporter
License No. 12277