

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

JOE SERNA, JR. BUILDING
CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY
BYRON SHER AUDITORIUM, SECOND FLOOR
1001 I STREET
SACRAMENTO, CALIFORNIA

THURSDAY, JUNE 25, 2009

9:07 A.M.

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

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

BOARD MEMBERS

Ms. Mary Nichols, Chairperson

Dr. John R. Balmes

Ms. Sandra Berg

Ms. Dorene D'Adamo

Ms. Lydia Kennard

Mrs. Barbara Riordan

Mr. Ron Roberts

Dr. Daniel Sperling

Dr. John Telles

Mr. Ken Yeager

STAFF

Mr. Tom Cackette, Chief Deputy Executive Officer

Ms. Ellen Peter, Chief Counsel

Mr. Mike Scheible, Deputy Executive Officer

Ms. Lynn Terry, Deputy Executive Officer

Ms. Brieanne Aguila, Program Operation Section, Office of
Climate Change

Dr. Marijke Bekken, Emission Research Section

Ms. Jeanni Blakeslee, Office of Climate Change

Mr. Richard Boyd, Process Evaluation Section

Mr. Michael Carter, Chief, Emission Research and
Regulatory Development Branch

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES CONTINUED

STAFF

Ms. Edie Chang, Chief, Program Planning and Management Branch

Mr. Steven Cliff, Program Development Section

Mr. Jon Costantino, Climate Change Planning Section

Mr. Bart Croes, Chief, Research Division

Mr. Renaldo Crooks, Process Evaluation Section

Mr. Bob Cross, Chief, Mobile Source Control Division

Mr. Dan Donohue, Chief, Emissions Assessment Branch

Mr. Robert Fletcher, Chief Stationary Source Division

Dr. Susan Gilbreath, Health and Exposure Assessment Branch

Mr. Robert Jenne, Assistant Chief Counsel

Mr. Kevin Kennedy, Assistant Executive Officer, Office of Climate Change

Ms. Sharon Lemieux, Emission Research Section

Mr. Aron Livingston, Senior Staff Counsel

Dr. Linda Smith, Chief Health and Exposure Assessment Branch

Mr. Holly Geneva Stout, Staff Counsel

Ms. Lucille van Ommering, Program Operation Section

Dr. Barbara Weller, Population Studies Section

ALSO PRESENT

Mr. Dan Adsit, Ford Vehicle Recycling Planning

Mr. Razmik Balian, AGC Automotive Americas Company

Mr. Will Barrett, American Lung Association

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Bruce Benda, Bayer Material Association

Ms. Susie Berlin, Northern California Power Agency

Mr. Andy Brown, Pacificorp

Ms. Lisa Brown, Toyota

Mr. John Cabaniss, Association of International Automobile
Manufacturers

Mr. Frank Caponi, Sanitation Districts L.A.

Mr. Tim Carmichael, Coalition for Clean Air

Mr. Matthew Coda, Southwall Technologies

Mr. Peter Dishart, EPGAA

Mr. Steven Douglas, Alliance of Automobile Manufacturers

Mr. Mike Edison, BASF

Ms. Erika Frank, California Chamber of Commerce

Mr. Ari Frink, Planning & Conservation League

Mr. Steven Gasworth, EXATEC

Mr. Ross Good, Chrysler

Ms. Kristin Grenfell, Natural Resources Defense Counsel

Mr. Ted Harris, California Strategies Representing
Pilkington

Mr. Charles Helget, Republic Services

Ms. Bonnie Holmes-Gen, American Lung Association of
California

Mr. Daniel Karpen, Professional Engineer & Consultant

Ms. Lili Kokkinakos, Toyota

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Nick Lapis, Californians Against Waste

Mr. Susan Lipper, T Mobile USA

Mr. Gene Livingston, Garmin

Mr. Andy Mabutol, Mitsubishi Motors

Mr. Bill Magavern, Sierra Club

Mr. Justin Malan, Price Consulting

Mr. Chris Marlia, South Coast Air Quality Management District

Ms. Michaelleen Mason, Western States Petroleum Association

Mr. Bruce McLaughlin, California Municipal Utilities Association

Ms. Patricia Monahan, Union of Concerned Scientists

Mr. Jonathon Morrison, California New Car Dealers Association

Mr. Craig Moyer, Manatt, Phelps & Phillips, LLP

Mr. Simon Mui, Natural Resources Defense Counsel

Ms. Rachel Oster, Recology

Mr. David Patterson

Mr. Norman Pedersen, Hanna & Morton

Mr. Norman Plotkin, California Independent Petroleum Association

Mr. David Raney, Honda, Environmental & Energy Affairs

Mr. Tim Reed, Kern County

Ms. Dorothy Rothrock, California Manufacturers and Technology Association

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES CONTINUED

ALSO PRESENT

Mr. Mukesh Rustagi, Pittsburg Glass Works

Mr. John Shears, Center for Energy Efficiency and
Renewable Technologies

Mr. Stephen Shuler, EXATEC

Mr. Shane Smith, Applied Materials

Mr. Larry Sweetser, Rural Counties ESJPA

Mr. James Tribble, Sekisui

Mr. Robert Vandal, Guardian

Mr. Chuck White, Waste Management

Ms. Jill Whynot, South Coast Air Quality Management
District

Ms. Cathy Woollums, Kern River Gas Transmission

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

INDEX

	PAGE
Pledge of Allegiance	1
Roll Call	1
09-6-1	
Chairperson Nichols	3
Chief Deputy Executive Officer Cackette	4
Board Discussion and Q&A	10
09-6-1	
Chief Deputy Executive Officer Cackette	16
Chairperson Nichols	19
Staff Presentation	21
Board Discussion and Q&A	36
09-6-3	
Chief Deputy Executive Officer Cackette	43
Staff Presentation	44
Board Discussion and Q&A	67
Mr. Helget	84
Ms. Oster	87
Mr. White	88
Mr. Caponi	91
Mr. Reed	93
Mr. Lapis	94
Mr. Sweetser	97
Ms. Whynot	100
Mr. Malan	103
Board Discussion and Q&A	104
Motion	116
Vote	117
09-6-4	
Chairperson Nichols	118
Chief Deputy Executive Officer Cackette	119
Staff Presentation	120
Mr. Douglas	134
Mr. Cabaniss	139
Mr. Good	141
Mr. Raney	144
Mr. Adsit	147
Ms. Kokkinakos	150
Ms. Brown	153
Mr. Morrison	156
Mr. Balian	158

INDEX CONTINUED

	PAGE
09-6-4(Continued)	
Mr. Harris	161
Mr. Karpen	162
Mr. Frink	164
Mr. Carmichael	165
Afternoon Session	168
Mr. Barrett	168
Mr. Benda	170
Mr. Shuler	173
Mr. Gasworth	176
Mr. Livingston	179
Mr. Edison	181
Mr. Tribble	183
Ms. Lipper	186
Mr. Mabutol	188
Mr. Patterson	190
Mr. Coda	193
Mr. Vandal	197
Mr. Smith	200
Mr. Dishart	203
Mr. Rustagi	205
Ms. Monahan	208
Ms. Grenfell	210
Mr. Mui	211
Mr. Shears	214
Mr. Magavern	215
Mr. Moyer	216
Board Discussion and Q&A	218
Motion	222
Discussion and Q&A	222
Ex Parte Communications	268
Vote 273	
09-6-5	
Chairperson Nichols	274
Chief Deputy Executive Officer Cackette	274
Staff Presentation	276
Ms. Whynot	286
Mr. Marlia	289
Ms. Grenfell	292
Ms. Woollums	293
Ms. Frank	294
Ms. Berlin	298
Mr. Pedersen	300
Mr. Brown	302

INDEX CONTINUED

	PAGE
09-6-5 (Continued)	
Ms. Mason	303
Mr. Frink	305
Mr. Plotkin	305
Ms. Rothrock	308
Mr. McLaughlin	309
Ms. Holmes-Gen	311
Mr. Magavern	313
Board Discussion and Q&A	314
Recess	322
Reporter's Certificate	323

1 PROCEEDINGS

2 CHAIRPERSON NICHOLS: Welcome to the June 25th
3 Public Meeting of the Air Resources Board.

4 We will -- is the sound system working?

5 Okay. Good to go.

6 We're waiting for our timer. But we don't have
7 any items that meet the timer at the very beginning.

8 So we will begin this morning with our Pledge of
9 Allegiance to the Flag.

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

12 CHAIRPERSON NICHOLS: The clerk will please call
13 the roll.

14 BOARD CLERK VEJAR: Dr. Balmes?

15 BOARD MEMBER BALMES: Here.

16 BOARD CLERK VEJAR: Ms. Berg?

17 BOARD MEMBER BERG: Here.

18 BOARD CLERK VEJAR: Ms. D'Adamo?

19 BOARD MEMBER D'ADAMO: Here.

20 BOARD CLERK VEJAR: Ms. Kennard?

21 BOARD MEMBER KENNARD: Here.

22 BOARD CLERK VEJAR: Mayor Loveridge?

23 Mrs. Riordan?

24 BOARD MEMBER RIORDAN: Here.

25 BOARD CLERK VEJAR: Supervisor Roberts?

1 Professor Sperling?

2 BOARD MEMBER SPERLING: Here.

3 BOARD CLERK VEJAR: Dr. Telles?

4 BOARD MEMBER TELLES: Present.

5 BOARD CLERK VEJAR: Supervisor Yeager?

6 BOARD MEMBER YEAGER: Here.

7 BOARD CLERK VEJAR: Chairman Nichols?

8 CHAIRPERSON NICHOLS: Here.

9 BOARD CLERK VEJAR: Madam Chairman, we have a
10 quorum.

11 CHAIRPERSON NICHOLS: Thank you very much.

12 I have a few announcements that I will make
13 before we get started.

14 First of all, we have removed Agenda Item 09-6-6,
15 which is a briefing on the new drive clean website. It
16 will not be presented today.

17 Secondly, I wish to announce, in case anybody
18 wonders, that our Executive Officer, James Goldstene, is
19 not here today. He's attending a family wedding in
20 Tennessee. So Chief Deputy Executive Officer Tom Cackette
21 will once again be reprising a role that he has played
22 many times before as the person who will introduce the
23 Board items.

24 I want to remind anybody who's not familiar with
25 our procedures that if you want to testify on any item on

1 our agenda, you should sign up with the staff who are
2 located outside the auditorium. And we appreciate it if
3 you give your name on the speaker card.

4 We will be imposing a three-minute time limit on
5 oral testimony. But of course we will accept any amount
6 of written testimony. And we appreciate it if you
7 summarize your testimony and get straight into your main
8 points. We know that you're happy to be here and that you
9 appreciate the good work of the staff. Even though they
10 like to hear about it, it's more helpful if we just hear,
11 you know, directly what you have to say.

12 I also want to make sure that everybody knows
13 that there are emergency exits at the rear of this room.
14 In the event of a fire alarm, we'll require to vacate the
15 building, go outside and across the street to the park.
16 It has actually happened. So I want to make sure that
17 people know what we're expected to stay outside until the
18 "all clear" signal is given.

19 And with that, I think we can move directly into
20 the Board meeting and start with the health update.

21 Mr. Cackette, will you introduce this item.

22 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Thank
23 you. And good morning, Board members.

24 Staff is going to present the results of a recent
25 research study that shows highly walkable neighborhoods

1 are associated with reductions in adverse health effects
2 when compared to other neighborhoods with greater degrees
3 of urban sprawl. The results of this research provide
4 additional support for ARB's continued effort with local
5 governments to implement Senate Bill 375, enacted last
6 year to reduce greenhouse gas emissions by promoting
7 better land use.

8 Dr. Susan Gilbreath from the Research Division
9 will make the presentation.

10 Susan.

11 (Thereupon an overhead presentation was
12 Presented as follows.)

13 DR. GILBREATH: Thank you, Mr. Cackette.

14 Good morning, Chairman Nichols and members of the
15 Board.

16 Senate Bill 375 requires the Air Resources Board
17 to set regional targets for the purpose of reducing
18 greenhouse gas emissions from passenger vehicles. The
19 topic of today's health update is the additional health
20 benefit that may accrue from implementation of Senate Bill
21 375 by providing an urban environment that promotes
22 physical activity and may reduce the risk for obesity.
23 Specifically, this presentation will focus on results from
24 the Portland Neighborhood Environment and Health Study

25 --o0o--

1 DR. GILBREATH: Before I discuss the study, I'm
2 going provide some background information. I will define
3 the urban environment, referred to as the built
4 environment, and I will explain some of its components. I
5 am going to discuss the obesity epidemic and how the built
6 environment can impact obesity and overweight by
7 influencing levels of physical activity. I will then
8 focus on results from the Portland Neighborhood
9 Environment and Health Study which links community design
10 with obesity and related health issues.

11 --o0o--

12 DR. GILBREATH: The built environment encompasses
13 how human activity relates to the physical environment and
14 contains three main elements:

15 The first is urban design, which includes the
16 design of the city and the physical elements within it.

17 Land-use typically refers to the distribution,
18 location, and density of residential, commercial, office,
19 and industrial activities.

20 As shown on the slide, the transportation system
21 includes components such as roads and bike paths as well
22 as traffic levels and bus frequencies.

23 --o0o--

24 DR. GILBREATH: This slide contrasts two extreme
25 types of the built environment, although communities

1 frequently contain aspects of both. Urban sprawl is the
2 spreading of a city and its suburbs at the fringe of an
3 urban area. Sprawl is characterized by a low population
4 density, so a large amount of land is urbanized in these
5 areas. Residents sprawling neighborhoods tend to live in
6 single-family homes in areas with single use zoning and
7 commute by automobile to work and other activities. The
8 increased reliance on cars is associated with increased
9 emissions of pollutants and decreased physical activity
10 levels, as walking and cycling are not viable
11 transportation options.

12 The picture on the left demonstrates the
13 difficulties in traveling from point A to point B in an
14 area dominated by sprawl.

15 Smart growth is an urban planning and
16 transportation strategy that concentrates growth in the
17 center of a city and preserves open spaces and utilizes
18 existing development. Smart growth advocates mixed
19 land-use development with compact transit-oriented,
20 walkable, and bicycle-friendly communities with a range of
21 housing choices. Reduced reliance on cars can reduce
22 greenhouse gas emissions.

23 The picture on the right shows how simple it can
24 be to travel from point A to B.

25 Smart growth can promote public health by

1 encouraging physical activity and facilitating social
2 cohesiveness. As the obesity epidemic rises, questions
3 regarding how the built environment may affect health are
4 becoming an increasingly important research focus.

5 --o0o--

6 DR. GILBREATH: Obesity and overweight are
7 defined by the body mass index, which is calculated from
8 one's height and weight. Approximately two-thirds of
9 adults in the United States are either overweight or
10 obese. Research has shown that as weight increases to
11 overweight and obese levels, the risk for conditions such
12 as high blood pressure, stroke, certain cancers, diabetes,
13 and heart disease also increases. In addition,
14 preexisting conditions can be worsened. Body weight is
15 the result of genes, metabolism, culture, socioeconomic
16 status, behavior, and the environment.

17 Public health officials state that the greatest
18 opportunity for prevention and treatment of the obesity
19 epidemic are by modifying behavior and the environment,
20 which, in turn, should decrease health risks. For
21 example, the Women's Health Initiative Observational
22 Study, a very large study covering several years, found
23 that women who exercise reduce their risk for
24 cardiovascular disease. The relationship between the
25 built environment, physical activity, and health was

1 recently reported in a series of papers and is the subject
2 of this health update.

3 --o0o--

4 DR. GILBREATH: I will be discussing findings
5 from three papers that have come from the Portland
6 Neighborhood Environment and Health Study. The study's
7 geographic area covered the Portland, Oregon, metropolitan
8 region's urban growth boundary. The urban growth
9 boundary, created as part of the statewide land-use
10 program, is a legal boundary to protect areas from urban
11 sprawl and to promote the efficient use of land. The
12 study has followed approximately 1200 residents ages 50
13 through 75 years of age over a one-year period. The
14 participants have lived at their current residence for an
15 average of eight and a half years. Physiological
16 measurements such as weight, height, and blood pressure
17 are measured annually.

18 Participants have been surveyed about their
19 demographics, physical activity levels, transportation
20 choices, and dietary habits. Each residence and
21 neighborhood was assessed for its level of walkability,
22 which is based on the land-use mix, street connectivity,
23 open and green spaces, and the availability of public
24 transit.

25 Health outcomes were compared among participants

1 living in differing areas of walkability.

2 --o0o--

3 DR. GILBREATH: When first examining the study
4 participants, the researchers found the prevalence of
5 obesity and overweight was 25 percent lower for every 10
6 percent increase in mixed land-use compared to residents
7 in areas with less land-use mix and more sprawl.

8 After one year, participants on average gained
9 four pounds, while the subset of residents living in
10 highly walkable neighborhoods, who increased their
11 activity levels, lost three pounds. Changes in blood
12 pressure after one year followed the same pattern, going
13 up slightly overall but decreasing in residents in highly
14 walkable neighborhoods.

15 --o0o--

16 DR. GILBREATH: The research findings indicate
17 that highly walkable neighborhoods positively influence
18 health. This study is important because it is one of the
19 only studies to examine the built environment and changes
20 in health over time. However, questions remains. For
21 example, although the average weight of all participants
22 at baseline was the same, it is not known if the people
23 living in the more walkable neighborhoods chose those
24 areas because they are inclined to be more active. Future
25 research is needed to address this issue.

1 The study focused on adults. But what is even
2 more important is that the obesity epidemic affects
3 children as well. Over 3 percent of children are at risk
4 for overweight and obesity, so it is vital that we
5 understand how to build our communities to encourage our
6 children to be as healthy as possible

7 Because the built environment constitutes an
8 important contributor to climate change and health
9 outcomes, alternative practices offer opportunities both
10 for improved health and reduced climate change. This is
11 addressed in Senate Bill 375, a bill enacted last year to
12 assist local governments to reduce greenhouse gases via
13 more efficient land-use and transportation systems.

14 The built environment, climate change, and public
15 health are closely connected, and strategies that reduce
16 greenhouse gases provide opportunities both to reduce
17 climate change and improve health.

18 The concludes my presentation. We would be happy
19 to answer any questions you may have.

20 CHAIRPERSON NICHOLS: Are there any questions or
21 comments from the Board?

22 Dr. Balmes.

23 BOARD MEMBER BALMES: Well, I just want to thank
24 the staff for bringing this particular series of studies
25 to the Board's attention with this update. Because to my

1 knowledge, since I've been on the Board, this is the first
2 time we've talked about the built environment and the
3 public health aspects. And it's timely given, SB 375.

4 I realize land-use decisions reside at the local
5 level. But I like supplying information that will
6 encourage smart growth decisions. And the public
7 health impacts of land-use decisions include walkability,
8 increased exercise, which plays an important role in
9 reducing the obesity epidemic we have in this country.
10 And even though these results were for adults, it's likely
11 that they would also impact kids as well.

12 So I think it's -- I'm really glad that we're
13 talking about this today.

14 CHAIRPERSON NICHOLS: Thank you.

15 Any others?

16 Yes, Dr. Telles.

17 BOARD MEMBER TELLES: I think it's -- I just make
18 a comment here too, that I think it's very important to
19 bring this to public awareness. About two, three years
20 ago the Fresno Bee did a public opinion poll asking for
21 what people thought were major problems in our area. And
22 air pollution was right at number 1, and urban sprawl was
23 at the bottom of the list at number 10.

24 In other words, there's a huge mental disconnect
25 between -- you know, urban sprawl is a major cause of air

1 pollution. And there's a huge disconnect between urban
2 sprawl and air pollution.

3 And there's also, I think, a huge disconnect with
4 understanding that the environment we live in has a lot to
5 do with our health. If you look at European cities,
6 they're probably much more healthy to live in than our
7 cities, because of the comments made here.

8 And this seems like a small issue. But one of
9 the major issues facing our country right now is the cost
10 of health care. And we could throw a lot of money at
11 taking care of people with disease. But if we don't
12 create environments which prevent those diseases, then I
13 think it's kind of a sad testimony of our public planning.

14 One comment on the Women's Health Initiative,
15 since there's a lot of women here on our Board --

16 (Laughter.)

17 BOARD MEMBER TELLES: -- that that was a study of
18 about 75,000 women age 50 to 79. And what it showed was
19 something very important, is that just 30 minutes of
20 walking five days a week reduced your cardiovascular risks
21 for new coronary events by about 30 percent. That's
22 better than Lipitor, better than Crestor. If you
23 exercised more vigorously, you could reduce your risk down
24 to about 50 or 60 percent.

25 So this type of, you know, creating an

1 environment where people just walk a little bit more has a
2 huge effect on health.

3 CHAIRPERSON NICHOLS: Thank you for that
4 reminder.

5 BOARD MEMBER TELLES: And it wasn't meant to be
6 directed at you, Mary.

7 (Laughter.)

8 CHAIRPERSON NICHOLS: I didn't take it
9 personally. Directed at the group as a whole.
10 Yes, Supervisor.

11 BOARD MEMBER ROBERTS: Yeah, let me, if I can,
12 just comment.

13 Almost ten years ago now we saw basically a huge
14 increase of obesity in children, to the point where I
15 think in excess of 30 percent of the kids were evaluated
16 to be obese. We brought about 90 different groups
17 together in San Diego and in fact created an action plan.
18 I get a little concerned when I see smart fortwo growth
19 versus I guess stupid growth, because -- you know, I'm not
20 sure that anybody's doing stupid growth in the way you
21 plan cities. All cities are -- sort of have a semi-core,
22 and everything on the edge is sprawl. And it's just not
23 that easy. And that's probably why it's at the local
24 level.

25 But the fact is an awful lot is being done in

1 this area, and you are increasingly seeing the planners
2 get together with the health officials, which is at the
3 core of all of these things. The real challenge is going
4 to be -- you know, if you look around the cores, you'll
5 find sort of medium density areas, and to be able to do
6 things there. We have walkable communities that are not
7 safe to walk in, which doesn't do you much good. And
8 we've tried to create things like walking school buses and
9 things like that that are addressed specifically at kids.

10 But I think we've come a long way beyond where
11 this sort of study is pointing right now.

12 CHAIRPERSON NICHOLS: I think -- when I first
13 heard about this, I thought, you know, isn't this just
14 demonstrating the obvious? But actually what seems
15 obvious isn't always that easy to prove. And I think the
16 fact that there was such a large number of people and that
17 they followed them over time and then really carefully
18 measured the walking that they were doing, and the ability
19 to walk, is a contribution in terms of the science of this
20 topic.

21 So I also am glad to see this being brought
22 forward and factored into the thinking that our staff is
23 doing about 375.

24 BOARD MEMBER BALMES: I was going to say, in
25 addition to the longitudinal nature of the study, the fact

1 that they had both pretty good neighborhood level data and
2 individual level data made it stronger than any previous
3 study.

4 CHAIRPERSON NICHOLS: Right.

5 But I do take Supervisor Roberts' comment,
6 because we are also hearing, as the Board knows,
7 frequently from communities where people would not like to
8 go outside their houses because of the levels of air
9 pollution that, you know, surround their neighborhoods.
10 And so how you balance the design issues along with the
11 management of the vehicles and the pollution is really not
12 that easy to accomplish.

13 BOARD MEMBER RIORDAN: Madam Chair, If I could
14 just comment.

15 Slide 4, which is the urban sprawl and the smart
16 fortwo growth. You know, in past a lot of people have
17 supported -- and particularly I come from a county that is
18 land rich. I think it would be interesting to see what a
19 factor might be when you factor in dedicated walking paths
20 and bike paths and riding trails. It might be a very
21 interesting thing. You might achieve still, you know, the
22 curves and the things that people, quote, enjoy when they
23 go through a community, not the grid pattern that is shown
24 in smart fortwo growth.

25 But if you factor in - and some of the larger

1 projects in our area have - the dedicated walking paths
2 and bike trails, et cetera -- and they are used. They are
3 really very successful. And they're beautifully
4 maintained, because a homeowners' association has been
5 able to do that. But it would be an interesting element
6 to factor into that and somebody look at that in a more
7 serious way as well.

8 Thank you.

9 CHAIRPERSON NICHOLS: Thank you.

10 I think we could move on then to our next item.

11 And appreciate the briefing.

12 And the next one is an update on our progress on
13 AB 32.

14 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Thank
15 you.

16 This item is another in the ongoing series of
17 updates to the Board on our progress in implementing the
18 landmark climate change bill and Scoping Plan.

19 When Governor Schwarzenegger signed AB 32 in
20 September of '06, the Air Resources Board received one of
21 the most challenging assignments of our 40-year history -
22 reduce California's greenhouse gas emissions to 1990
23 levels by the year 2020. The workload is huge and the
24 deadlines are tight.

25 Today, two years and nine months later, I'm

1 pleased to report that we're on schedule to meet AB 32's
2 deadlines. For example, in June of 2007, the Board
3 adopted a list of nine discrete early actions. To date,
4 you have adopted regulations to implement eight of the
5 nine, and the last one is coming in front of the Board
6 today.

7 In December 2007, the Board established the 2020
8 target of 427 million metric tons of greenhouse gas
9 emissions, which will require a reduction of 169 million
10 metric tons of greenhouse gas emissions from the
11 business-as-usual case. If the greenhouse gas regulations
12 before the Board today are adopted, the Board will have
13 adopted regulations that will achieve over a quarter of
14 the reductions needed to meet this goal.

15 Given the breadth and depth of topics involved in
16 AB 32 implementation, ARB must work closely with its
17 sister state agencies, other jurisdictions and
18 stakeholders to ensure that it implements the best climate
19 change program possible.

20 We continue to participate in the Climate Action
21 Team, which in April released its biennial report.

22 We are participating in the Climate Action Team
23 Public Health subgroup with the Department of Public
24 Health and other agencies, which was formed earlier this
25 year to provide advice and analysis on the public health

1 impacts of climate change, as well as to evaluate the
2 health impacts of the Scoping Plan's greenhouse gas
3 emission reduction measures.

4 The Climate Action Team Public Health Team has
5 also convened a workgroup to facilitate public discussion
6 of these issues, and the workgroup held its first meeting
7 just last week.

8 ARB has also been working closely with the
9 Western Climate Initiative, to which California's
10 Cap-and-Trade Program will be linked to create a regional
11 cap-and-trade system. ARB staff actively participates at
12 every level of the Western Climate Initiative planning and
13 is working diligently to ensure that the WCI program is
14 designed in such a way as to maximize benefits to
15 California while helping to advance effective climate
16 change policies in other states and provinces.

17 Today staff will provide an update on these and
18 other topics related to Scoping Plan implementation, with
19 special emphasis on the formation of the Economic and
20 Allocation Advisory Committee and the ongoing program to
21 design cap and trade regulations.

22 Ms. Brienne Aguila, from our Office of Climate
23 Change, will present the staff presentation.

24 Brienne.

25 (Thereupon an overhead presentation was

1 Presented as follows.)

2 CHAIRPERSON NICHOLS: Thanks.

3 Before you start, let me just say a word about
4 the context that this is taking place in, because I don't
5 want anyone who's listening or the Board members to think
6 that we are operating here in a vacuum, unaware of what's
7 going on at the national level or in our sister states.
8 So I just -- I do want to flag for everyone's attention
9 the fact that we are making major progress I guess, first
10 of all, close the home. The State of Oregon's Legislature
11 has just passed a low carbon fuel standard bill, with some
12 assistance from our staff which they asked for. And so
13 we're very pleased to see that this movement is spreading
14 as it should be.

15 Also, and obviously even more significance, is
16 the fact that the House of Representatives is moving
17 forward on major legislation that deals not only with cap
18 and trade but with other measures that are part of the
19 California AB 32 program. And I think it's always been a
20 goal of the State, both in the legislation and the
21 Governor's implementation of this program, that our
22 leadership should not be something that excluded others,
23 and, in fact, was really designed to attract others to the
24 cause. And so we've known for some time now that the
25 Obama Administration was determined to get a bill through

1 and that Chairman Waxman and Markey and Speaker Pelosi
2 were all committed to the cause. But I don't think anyone
3 really expected to see as much progress as has been made
4 so quickly. And it's particularly interesting to see how
5 various blocks of voters of members at least are coming
6 together behind the basic notion that action does need to
7 be taken, that economic measures have got to be a part of
8 it, new market-based program but a mix of different kinds
9 of measures and really very much following the basic
10 pattern that California set out.

11 There's also some features in the federal bill
12 that we're still concerned about, ways in which we're
13 trying to make it stronger. But the target that they have
14 set in terms of emissions reductions is a very ambitious
15 one, actually slightly more ambitious than AB 32.

16 And there's also going to be I think some
17 interesting questions about how state programs will be
18 part of and merge into the federal program. Although it's
19 clear that there's an intent that state programs will
20 exist side by side with the federal program that
21 complement and actually can implement some of the federal
22 goals. But particularly in the areas that we're getting
23 into now with cap and trade programs there's going to be
24 some questions about timing and implementation. And we
25 are proceeding on the notion that when and if there's

1 clarity about the federal program, California will be able
2 to take advantage of it and be part of it. But that for
3 the time being it's extremely important for all concerned
4 that we continue to work on these issues, because we've
5 already seen how much our willingness to get out there and
6 try things has benefited the country as a whole.

7 So sorry for that brief pause. But we'll turn it
8 over now to Brieanne.

9 MS. AGUILA: Thank you.

10 Good morning, Chairman Nichols and members of the
11 Board.

12 Though only four months have passed since we
13 first gave you a Scoping Plan Implementation Update, the
14 Air Resources Board has made significant progress on this
15 groundbreaking plan and much has occurred at the federal
16 level, in part in response to California's actions to
17 combat climate change.

18 --o0o--

19 MS. AGUILA: Today we will be updating you on
20 recent actions by the Obama Administration towards
21 implementing a federal greenhouse gas vehicle standards
22 program and actions by Congress to pass a climate change
23 bill.

24 We will provide a general update on
25 implementation of Scoping Plan measures and coordination

1 with our sister agencies. We will also discuss the
2 formation of the Economic and Allocation Advisory
3 Committee. Finally, we will describe progress on the
4 cap-and-trade regulation.

5 --o0o--

6 MS. AGUILA: In May, the Obama Administration
7 committed to the first ever national greenhouse gas
8 vehicle standards, which are planned to match California's
9 by 2016. While the federal program would start more
10 slowly than California's, we will still see greater
11 reductions in the earlier years of the federal program
12 because of its national scope. The auto industry is
13 expected to drop all lawsuits against states planning to
14 adopt greenhouse gas vehicle standards.

15 In addition, California has preserved the right
16 to establish more stringent rules in the future. We are
17 starting to work on the next round of standards that will
18 begin with the 2017 model year. We plan to bring those
19 regulations to the Board for your consideration next year.

20 We still need the waiver from the U.S.
21 Environmental Protection Agency to enforce the Pavley
22 regulations, but we expect to get that later this month.
23 This waiver will allow us to start enforcing Pavley this
24 year, initiating an earlier adoption of the standards in
25 California.

1 --o0o--

2 MS. AGUILA: In May, the House of
3 Representatives' Energy and Commerce Committee passed the
4 American Clean Energy & Security Act of 2009, also known
5 as the Waxman-Markey bill. This legislation would
6 establish a federal renewable portfolio standard of 20
7 percent. It would also establish a greenhouse gas
8 cap-and-trade program with targets 17 percent below 2005
9 levels by 2020 and 83 percent below 2005 levels by 2050.
10 Points of regulation for the electricity, transportation,
11 industrial and natural gas sectors would be roughly
12 comparable to that proposed in California's Climate Change
13 Scoping Plan.

14 The full House is expected to vote on this bill
15 as soon as tomorrow.

16 --o0o--

17 MS. AGUILA: As currently drafted, the
18 Waxman-Markey bill would impose a temporary moratorium on
19 State cap-and-trade programs from 2012 through 2017. This
20 moratorium would not apply to intensity-based
21 complementary measures such as the low carbon fuel
22 standard or other elements of our Scoping Plan beyond cap
23 and trade.

24 The bill also contains a mechanism for
25 distributing funds to states. ARB staff estimates that

1 California would receive \$90 billion in Waxman-Markey
2 funding through 2025.

3 --o0o--

4 MS. AGUILA: Now let's turn to what has been
5 happening in California. As you know, in recent months
6 the Board has been busy with the adoption of climate
7 change Scoping Plan measures.

8 In January, you adopted the AB 32 measure for
9 vehicle -- mobile vehicle air conditioning systems for the
10 reduction of refrigerant emissions from nonprofessional
11 servicing.

12 In February, you adopted the Sulfur Hexafluoride
13 limits in Non-Utility and Non-Semiconductor Applications
14 regulation and the Reductions in Perfluorocarbons and
15 Semiconductor Manufacturing regulation.

16 In March, you adopted the Tire Pressure Program.

17 And in April, you adopted the Low Carbon Fuel
18 Standard, or LCFS. The LCFS will jump start investment in
19 alternative fuels by requiring fuel providers to reduce
20 the carbon intensity of transportation fuels. This
21 first-of-its-kind standard establishes demand for low
22 carbon fuels without favoring one over the other. In
23 2020, the LCFS will reduce the carbon intensity of
24 California's vehicle fuels by at least 10 percent and
25 reduce emissions by 16 million metric tons of CO2

1 equivalent.

2 All five of these measures were included in the
3 list of discrete early actions approved by the Board in
4 June 2007. With action on these measures, the Board has
5 approved eight of the nine discrete early action measures.
6 And later today you will be considering the last of the
7 nine, the Landfill Methane Control Measure.

8 In today's Board book, you can find the Scoping
9 Plan Measures Implementation Timeline. This timeline,
10 which is updated regularly, provides information on all
11 Scoping Plan measures. The most recent version can be
12 found online at ARB's main climate change web page.

13 --oOo--

14 MS. AGUILA: Later today we will present two
15 measures for your consideration: The Landfill Methane
16 Control Measure and the Cool Car Standards and Test
17 Procedures Measure. Together, these measures will reduce
18 emissions by almost 1.9 million metric tons of CO2
19 equivalent in 2020.

20 If adopted by the Board today, the total expected
21 reductions from regulations adopted by the Board to date,
22 will be approximately 50 million metric tons of CO2
23 equivalent in 2020.

24 And later today, we will present the AB 32 Cost
25 of Implementation Fee Regulation. This rule will

1 institute a fee to cover the administrative costs of AB 32
2 implementation. These include ongoing program costs
3 incurred by ARB and other state agencies. The fee will
4 also repay program start-up loans from the previous two
5 fiscal years. The regulation will take effect January
6 2010, and we anticipate collecting the fee for the
7 2009-2010 fiscal year.

8 --o0o--

9 MS. AGUILA: ARB recently passed the first major
10 deadline of mandatory greenhouse gas emissions reporting.
11 Staff has been busy over the past several months providing
12 training for ARB's online reporting tool. About 800
13 reporting facilities and power entities are subject to
14 reporting, and about 90 percent of these are registered
15 and using the online reporting tool. ARB staff developed
16 guidance, held workshops and webinars, and provided
17 significant one-on-one assistance on the tool to help
18 facilities meet the June 1st deadline for the reporting of
19 2008 emissions. As of earlier this week, 82 percent of
20 facilities registered to use the reporting tool have
21 completed reporting. ARB staff is working with the
22 remaining facilities to complete all reporting as soon as
23 possible.

24 --o0o--

25 MS. AGUILA: ARB staff continues to work closely

1 with other agencies and stakeholders on Scoping Plan
2 implementation. We continue to participate in the Climate
3 Action Team, or CAT. In April, the CAT released its draft
4 biennial report. This report synthesizes 40 research
5 papers focused on the impacts of climate change on
6 California. The biennial report will help guide the CAT
7 and ARB develop policies to reduce greenhouse gas
8 emissions, adapt to climate change, and ensure that
9 related decisions are based on sound science.

10 ARB is also participating in the recently formed
11 CAT Public Health workgroup.

12 We also continue to work closely with the
13 California Energy Commission and Public Utilities
14 Commission on a number of issues, including improving the
15 quantification of emission reductions from energy
16 efficiency and addressing the treatment of combined heat
17 and power, or CHP, in AB 32 implementation. Staff is also
18 following each agency's renewable portfolio standard
19 assessment activities.

20 ARB is also a member of the Interagency Forest
21 Working Group, which consists of representatives from
22 seven state and federal agencies. This group has met
23 three times since forming in early 2009 to discuss Scoping
24 Plan implementation and issues related to the forest
25 sector.

1 ARB has also been involved with the Green Collar
2 Jobs Council, which is a multi-agency council with broad
3 inter-disciplinary representation. Its mission is to
4 coordinate economic development, workforce training, and
5 job creation efforts at the state level. ARB's role has
6 been to keep the council apprised of AB 32-related efforts
7 as they discuss current and economic -- future economic
8 development activities.

9 Staff is also working with the California Air
10 Pollution Control Officers Association, or CAPCOA, on a
11 joint work plan for AB 32 implementation. ARB and CAPCOA
12 meet monthly to discuss AB 32 coordination, collaboration
13 efforts, and measure-specific implementation issues.

14 --o0o--

15 MS. AGUILA: ARB is actively participating in the
16 recently formed Climate Action Team Public Health
17 Workgroup. It is an interagency group that is jointly
18 chaired by ARB and the California Department of Public
19 Health. The CAT subgroup will provide advice and analysis
20 on the public health impacts of climate change and the
21 evaluation of the health impacts of greenhouse gas
22 reduction measures. The subgroup will also focus on other
23 public have health issues such as adaptation and
24 mitigation

25 The subgroup hosted their first public workgroup

1 meeting on June 18th. At that meeting, ARB and Department
2 of Public Health staff provided an overview of recent
3 public health climate change activities in California.
4 They also presented a summary of a research project
5 developed to create a method to identify already impacted
6 communities. ARB will discuss our use of this method at
7 the next public meeting, to be held on July 6th.

8 --o0o--

9 MS. AGUILA: Now, moving on to the more complex
10 topic of California's cap-and-trade regulation.

11 We would like to take a moment to review what
12 cap-and-trade is, what its benefits are, and how it works.

13 --o0o--

14 MS. AGUILA: Cap-and-trade is a policy mechanism
15 that establishes a cap - or upper limit - on an amount of
16 pollution allowed to be released into the environment. In
17 the case of California's cap-and-trade program, we're
18 referring to greenhouse gas emissions. Each year, a
19 government agency issues permits, also called allowances,
20 for a one-time right to emit greenhouse gases. Capped
21 facilities must hold allowances equal to their greenhouse
22 gas emissions, and periodically submit the allowances to
23 the governmental agency. We expect to allow facilities to
24 use a limited number of high quality offsets for a small
25 part of this obligation.

1 The number of allowances issued decreases each
2 year, lowering the cap and forcing a decline in greenhouse
3 gas emissions. Those covered by the program must reduce
4 their emissions or compete for increasingly scarce
5 allowances.

6 --o0o--

7 MS. AGUILA: One of the advantages of a
8 cap-and-trade program is that it allows capped facilities
9 to find the low cost method of compliance. Facilities
10 that can reduce their greenhouse gas emissions for a
11 relatively low cost will sell their allowances to those
12 facilities that have a relatively high cost of emissions
13 reductions. This trading a of allowances establishes a
14 market price for greenhouse gas emissions.

15 --o0o--

16 MS. AGUILA: One of the most critical design
17 aspects of a cap-and-trade program is how allowances are
18 allocated to capped facilities. There are two general
19 options for allowance allocation: 1) at no cost to the
20 capped facilities, otherwise known as free distribution,
21 or 2) at a cost to the capped facilities, for instance,
22 through an auction. Most likely we will start the program
23 with a combination of the two.

24 Issues related to the allowance allocation will
25 be addressed in the design of the cap-and-trade program.

1 Some of these issues include emissions leakage due to
2 competitiveness from out-of-state businesses, the
3 potential for windfall profits caused by free
4 distribution, the effect of allowance price on energy
5 prices, as well as distributional equity across various
6 groups, including household types, locations, industries,
7 and businesses.

8 These are some of the issues that ARB has asked
9 the Economic and Allocation Advisory Committee to address.

10 --o0o--

11 MS. AGUILA: The Economic and Allocation Advisory
12 Committee was announced by ARB and the California
13 Environmental Protection Agency last month. This
14 committee will evaluate the implications of different
15 allowance allocation strategies and will help inform ARB's
16 continued economic analysis. We are honored to have such
17 an esteemed group of experts, chaired by Professor Larry
18 Goulder of Stanford University, advising us on these
19 pivotal issues. We look forward to receiving their
20 recommendations in late 2009. This committee will convene
21 for the first time on July 1st.

22 --o0o--

23 MS. AGUILA: Before we delve into the update on
24 the cap-and-trade rule-making, we thought you would be
25 interested in learning more about regional and

1 international efforts to implement greenhouse gas
2 cap-and-trade programs, especially the Western Climate
3 Initiative, an effort in which California is actively
4 participating.

5 To Regional Greenhouse Gas Initiative, or RGGI,
6 is a collaborative effort by ten northeastern and
7 mid-Atlantic states to establish a cap-and-trade program.
8 Their goal is to reduce CO2 emissions from the power
9 sector by 10 percent by the year 2018. Most RGGI
10 allowances are auctioned, with several states choosing 100
11 percent auctioning. So far RGGI has held four quarterly
12 auctions.

13 The Midwest Greenhouse Gas Reduction Accord,
14 composed of six Midwestern states and one Canadian
15 province, was established in late 2007. The goal of this
16 program is to also develop a regional greenhouse gas
17 cap-and-trade program. Draft recommendations released
18 this month suggest reducing greenhouse gas emissions by 20
19 percent below 2005 levels by 2020 and 80 percent below
20 2005 levels by 2050.

21 The European Union Emissions Trading Scheme, or
22 EU ETS, began operating as the largest multi-country,
23 multi-sector greenhouse gas emissions trading system in
24 2005. Its goal is to reduce electricity generation and
25 industrial emissions by 20 percent below 1990 levels by

1 2020. Its first phase was a three-year trial period
2 covering emissions in 2005 through 2007. When the first
3 bottom-up emissions inventory data were revealed in April
4 2006, the program was shown to be over-allocated in the
5 first phase, and the price of allowances for this phase
6 crashed. The program is currently in its second phase.

7 The European Commission has laid out plans for
8 its third phase. In this phase, beginning in 2013, the EU
9 ETS expects to make much greater use of auctioning, most
10 notably in the electricity sector.

11 --o0o--

12 MS. AGUILA: The California cap-and-trade program
13 will be linked to the programs of our partners in the
14 Western Climate Initiative, or W C I. The goal of the WCI
15 is to establish a regional cap-and-trade program to reduce
16 greenhouse gas emissions 15 percent below 2005 levels by
17 2020. This target is comparable to California's AB 32
18 goal. The benefits of a regional trading market are many,
19 including lower compliance costs for capped facilities,
20 reduced leakage of emission, and retention of jobs in
21 California.

22 Here you see a list of WCI committees working on
23 issues related to the design of a cap-and-trade program.
24 In February, the WCI released its 2009-2010 work plan, and
25 its committees are making significant headway in designing

1 a uniform program.

2 ARB staff and staff from other State agencies
3 have been actively participating in all WCI activities.
4 And WCI work has been closely coordinated with our efforts
5 on California's cap-and-trade rule-making.

6 Also of note, last week WCI Partner Quebec passed
7 legislation enabling it to adopt a cap-and-trade program.

8 --o0o--

9 MS. AGUILA: The goal of the California
10 cap-and-trade rule-making process is to establish a
11 broad-based California program that provides a fixed limit
12 on greenhouse gas emissions. Establishing a program that
13 covers approximately 85 percent of our emissions is no
14 small task. This requires the input of many of our sister
15 agencies, especially the California Energy Commission,
16 Public Utilities Commission, and Attorney General's
17 Office.

18 This year our focus is on soliciting stakeholder
19 input on key program design issues. Next year we will
20 expand our focus to performing and soliciting public input
21 on analyses required for the regulation. These include
22 the environmental impacts, public health, and economic
23 analyses. Though we plan to release a preliminary draft
24 of the cap-and-trade regulation later this year, our
25 continuing consultation with stakeholders over the next

1 year will assist us in refining the regulation

2 The cap and trade regulation is slated for Board
3 consideration in November 2010. This will allow us to
4 meet the target launch date for the California
5 cap-and-trade program on January 1st, 2012.

6 --o0o--

7 MS. AGUILA: The major program design elements
8 that we are addressing this year include:

9 Setting the cap, or the maximum allowable
10 greenhouse gas emissions, for each year from 2012 to 2020;

11 The overall strategy for distributing allowances,
12 and the technical methods needed to carry out that
13 strategy;

14 Emissions reporting requirements, including new
15 methodologies for capped sources that are not yet included
16 in the mandatory greenhouse gas reporting regulation;

17 Rules and processes for the use of offsets;

18 A system of market operations and oversight to
19 ensure that the program runs smoothly and fairly; and

20 An effective enforcement program to ensure
21 compliance with both AB 32 and the cap-and-trade
22 regulation. ARB, the California Environmental Protection
23 Agency, and the Attorney General's Office have met with a
24 number of experts on enforcement-related issues.

25 --o0o--

1 MS. AGUILA: So far, ARB has held 12
2 well-attended public meetings on several topics focused on
3 major program design elements. These meetings offered
4 staff and stakeholders the opportunity to discuss design
5 options for the cap-and-trade regulation.

6 --o0o--

7 MS. AGUILA: ARB staff will continue to hold
8 public meetings on the cap-and-trade regulation over the
9 next year. The topics for meetings planned for the summer
10 months include linkage of the California program to other
11 systems, reporting for cogeneration facilities, and
12 defining compliance obligations and emissions data trends
13 to assist in cap setting.

14 Over the next couple of months, we also plan to
15 release white papers on crediting voluntary early action
16 in the California cap-and-trade program, and the reporting
17 of emissions from biomass.

18 For the most up-to-date information on upcoming
19 cap-and-trade activities, we have set up a Cap-and-Trade
20 Program website. The URL for this site is shown at the
21 bottom of this slide.

22 Thank you very much for your attention today.

23 CHAIRPERSON NICHOLS: Thank you. That's a very
24 comprehensive summary of a lot of material.

25 Do Board members have any questions at this

1 point, or comments?

2 Yes, Dr. Telles.

3 BOARD MEMBER TELLES: Thank you for the
4 presentation.

5 When we approved the Scoping Plan, one of the
6 major concerns was from the Environmental Justice
7 community that some of the issues they brought up would be
8 heard. And in your presentation there wasn't really too
9 much mention of that, especially the Environmental Justice
10 Action Committee. I wonder what the status of that is.
11 And in the meetings for the cap and trade, I mean that was
12 one of their major concerns about cap and trade. Is there
13 going to be a meeting in regards to the effective cap and
14 trade on environmental justice?

15 CHAIRPERSON NICHOLS: Mr. Kennedy, would you like
16 to respond?

17 And were you at the ETAAC or did you follow the
18 discussion yesterday? I might be able to add to that
19 if --

20 ASSISTANT EXECUTIVE OFFICER KENNEDY: I actually
21 was not at the ETAAC meeting. So if you have something
22 you --

23 CHAIRPERSON NICHOLS: I can add then.

24 Go ahead though.

25 ASSISTANT EXECUTIVE OFFICER KENNEDY: But one of

1 the things that we are looking to actually use the Public
2 Health Workgroup for is to use that forum as a mechanism
3 for talking about the appropriate methodologies for
4 evaluating the sort of concerns that the Environmental
5 Justice community had around the cap-and-trade program.
6 We will then be taking -- in the cap-and-trade program
7 over the course of the next several months, you know,
8 taking a look at those methodologies, figuring out how to
9 best address the public health concerns that they were
10 raising and other sort of co-benefit issues.

11 We will have at least one workshop and probably a
12 series of them starting this fall, looking at what sort of
13 design and other issues -- other considerations we might
14 have for the cap-and-trade program in order to address
15 those concerns. So it is something that we're working
16 into the workplan overall.

17 CHAIRPERSON NICHOLS: Yeah, there's sort of two
18 separate but obviously related issues that the
19 Environmental Justice Advisory Committee has focused on.
20 One is of course the potential of a cap-and-trade system
21 to exacerbate or at least not help, not get as much
22 benefit as could be obtained for public health if it's not
23 designed properly. And the other is the economic
24 distributional impacts of the cap-and-trade program and
25 whether revenues that might be coming into the State or

1 realized -- or savings that would be realized by the
2 private sector shouldn't be also directed in a way that
3 would help deal with the problems of communities that are
4 already adversely impacted by pollution.

5 So, as Mr. Kennedy pointed out, the Public Health
6 Group is working with members of the Environmental Justice
7 Advisory Committee to sort of refine the technical
8 assessment ability that we have to look at the
9 cap-and-trade system in that regard. The other issue is
10 that the Environmental and Technology Advisory Group --
11 the Technology Advancement Group, which is another
12 statutory advisory committee that parallels the
13 Environmental Justice Advisory Committee, has actually
14 been meeting jointly with -- the two committees are now
15 meeting at least in part jointly. So Jane Williams, who's
16 the co-chair of the EJAC, as we call them, was meeting
17 yesterday with the ETAAC. And the question then came up
18 whether this new committee, the Allocation Advisory Group,
19 would look not just at kind of macro economic issues about
20 cap and trade, but would also be focusing on
21 distributional effects of the cap-and-trade program, who
22 bears the burden and so forth.

23 And it's very clear that that group has also
24 taken on as part of their charge this question of fairness
25 in the design of the whole program. So we're definitely

1 moving beyond the theoretical, which is where we were
2 probably at the time of the Scoping Plan, into the
3 practical details of how you actually make something like
4 this work. And, you know, if I hear people say one more
5 time, well, a well-designed cap-and-trade program will do
6 X, Y, and Z, you know, I'm going to bust them, because --

7 (Laughter.)

8 CHAIRPERSON NICHOLS: -- I think we now know that
9 it's up to us to make sure that this thing is well
10 designed, and now we really to have figure it out.

11 So these issues are definitely alive and well.
12 But I can't report yet on any substantive progress,
13 because they're really just getting organized at this
14 point.

15 So that's about the best I can do in response to
16 the question. But it's a very timely and important
17 question.

18 Any other?

19 Yes, Dr. Sperling.

20 BOARD MEMBER SPERLING: Speaking of well-designed
21 programs and cap and trade, what -- if the Waxman-Markey
22 climate bill is adopted in some form this fall or even
23 after that, you know, with a big cap-and-trade program,
24 what's the thinking about what California's going to do in
25 terms of moving forward with the cap and trade part of our

1 program?

2 CHAIRPERSON NICHOLS: Well, good -- take it away.

3 ASSISTANT EXECUTIVE OFFICER KENNEDY: Yes. Part
4 of what we're doing at this point is we're keeping a very
5 close eye on progress. And as Chairman Nichols mentioned,
6 we're very pleased at how rapid progress has been today.
7 Getting a bill into law this year is still going to be
8 very difficult to do.

9 So at this stage we're sort of moving forward as
10 if, you know, Waxman-Markey is not going to be adopted.
11 We're designing the cap-and-trade program to get the
12 California program ready to be operational in 2012.

13 But as we watch the progress on the federal
14 bill -- you know, as we mentioned in the presentation,
15 there is a moratorium in the bill as it's currently
16 written that would prevent us if it was in law from
17 starting our cap-and-trade program in 2012. Obviously
18 that will affect our plans.

19 Because it's a moving target on what the bill
20 will look like and when it gets adopted and when it goes
21 into force, at this point we're sort of in a watch and
22 wait and be ready to adapt to the situation as it moves
23 forward.

24 CHAIRPERSON NICHOLS: Yeah. The only thing I
25 would add is that the bill in its current form, that was

1 released I believe two days ago, is over 1200 pages long.
2 And it still is incomplete. There are many pieces of it
3 that have yet to be filled in. And even when those are
4 filled in, it seems clear that the Administration is going
5 to need to actually figure out how to implement pieces of
6 it, either with regulation or just by administrative
7 action.

8 And so I think those of us who've been in the
9 trenches on this have come to the conclusion that at least
10 for now it doesn't make sense to suspend our activities,
11 because I think they're going to be needed one way or
12 another at least as input into that process.

13 BOARD MEMBER SPERLING: And to the extent that's
14 true, you know, with this preemption clause, does that
15 affect also the distribution of the revenues, do you know?
16 In other words are we going to have any control over that
17 revenue distribution?

18 CHAIRPERSON NICHOLS: The way the plan is
19 currently designed, a significant portion of the revenues
20 are remitted directly to states, either just in whole or
21 through specific programs, like to existing state energy
22 efficiency programs or existing forestry programs, for
23 example.

24 So I haven't totaled up the percentages that
25 would actually flow through the State or how much

1 discretion the State would end up having at the end of the
2 day about how those revenues would be used. But my
3 impression is that there's quite a lot, and that people
4 are just beginning to really absorb what that could mean.

5 For example, the money that goes to the utilities
6 sector is clearly subject to oversight by utility
7 regulatory agencies.

8 Okay. Thank you very much. Appreciate the
9 update.

10 And we now move on to the implementation stage
11 with the first of our items this morning that is a
12 regulation under AB 32.

13 Mr. Cackette.

14 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Thank
15 you, Chair Nichols.

16 In June 2007, the Board identified a measure to
17 reduce methane emissions from municipal solid waste
18 landfills as a discrete early action item. Municipal
19 solid waste landfills are the second largest anthropogenic
20 source of methane. Methane is a major contributor to
21 climate change, with a global warming potential of 21
22 times that of carbon dioxide.

23 The proposed regulation is the last of the early
24 discrete action measures and will result in an emission
25 reduction of about one and a half million metric tons of

1 carbon dioxide equivalent in 2020.

2 Staff's proposal is the result of an extensive
3 investigation and consultation with representatives from
4 the solid waste industry, local air districts, and
5 environmental organizations.

6 Staff also worked closely with the California
7 Integrated Waste Management Board on the proposal and
8 greatly appreciates their assistance and support.

9 Renaldo Crooks from the Stationary Source
10 Division will provide the presentation.

11 CHAIRPERSON NICHOLS: Good morning, Mr. Crooks.

12 MR. CROOKS: Good morning.

13 (Thereupon an overhead presentation was
14 Presented as follows.)

15 Thank you, Mr. Cackette, and good morning,
16 Chairman Nichols and members of the Board. Welcome to
17 today's Board hearing to discuss staff's proposed
18 regulation to reduce greenhouse gas emissions from
19 municipal solid waste landfills.

20 --o0o--

21 MR. CROOKS: This morning I will provide you with
22 a brief overview of today's proposal covering the topics
23 on this slide.

24 --o0o--

25 MR. CROOKS: I would first like to discuss why

1 today's proposal is important and how it fits into the big
2 picture of reducing greenhouse gases in California.

3 --o0o--

4 MR. CROOKS: This proposal is one of nine
5 early -- discrete and early action measures. The proposal
6 was developed in close collaboration with the California
7 Integrated Waste Management Board staff.

8 Methane is a major contributor to climate change,
9 having a global warming potential of about 21 times that
10 of carbon dioxide.

11 The proposal requires owners and operators of
12 uncontrolled landfills to install gas collection and
13 control systems. The proposal also includes performance
14 standards for newly installed and existing gas collection
15 control systems

16 --o0o--

17 MR. CROOKS: The Landfill Methane Capture is the
18 last early action to be considered by the Board.

19 Implementation and enforcement of the proposal
20 will result in an estimated total emission reduction of
21 1.5 million metric tons of carbon dioxide equivalent in
22 2020, which exceeds the initial emission reduction
23 estimate of 1 million metric tons in the Scoping Plan.

24 --o0o--

25 MR. CROOKS: Next, I would like to provide you

1 with some background information on landfill gas
2 collection and control.

3 --o0o--

4 MR. CROOKS: Decomposition of the organic portion
5 of municipal solid waste contained in landfills leads to
6 the production of landfill gas, containing approximately
7 equal amounts of carbon dioxide and methane, along with
8 trace gases.

9 The control of landfill gas prevents methane and
10 toxic compounds contained in the gas from either being
11 released in the atmosphere as fugitive emissions or
12 migrating underground to cause groundwater contamination.

13 --o0o--

14 MR. CROOKS: Most landfills are currently
15 regulated by local air districts.

16 During the 1990s, many landfills were required to
17 install gas collection and control systems to comply with
18 district rules designed to reduce non-methane organic
19 compounds, a precursor to the formation of ozone.

20 These district rules implement federal landfill
21 gas control requirements which focus primarily on
22 achieving reductions of non-methane organic compounds and
23 not methane emissions.

24 --o0o--

25 MR. CROOKS: Landfilling is basically a

1 three-step process consisting of spreading the waste into
2 thin layers, compacting the waste, and covering the waste
3 with soil.

4 At a later date, typically within two to five
5 years, gas collection wells are installed in the buried
6 waste and connected to a gas collection system. They are
7 installed at a later date to coincide with the initiation
8 of substantial gas generation, or when a fill area reaches
9 final grade.

10 --o0o--

11 MR. CROOKS: Gas collection systems can be
12 categorized into two basic types - active and passive
13 systems.

14 Active systems consist of landfill gas moving
15 equipment which routes the landfill gas to a control
16 system for combustion, treatment, or conversion.

17 Passive systems rely on the natural pressure
18 gradient to typically vent methane into the atmosphere.

19 --o0o--

20 MR. CROOKS: This slide provides examples of gas
21 collection wells connected to passive and active systems.

22 Examples of two types of vent pipes that release
23 methane directly into the atmosphere are shown at the top
24 of the slide.

25 The picture at the bottom of the slide is an

1 example of a vertical gas collection well that is
2 connected to an active gas collection system.

3 --o0o--

4 MR. CROOKS: The collected gas is usually
5 combusted. If the landfill does not produce enough
6 methane to economically support energy recovery or
7 conversion techniques, a flare may be the most suitable
8 control method. Flares can either be open or enclosed.

9 Combustion devices that recover energy include
10 reciprocating engines, turbines, microturbines, and
11 boilers. For some of these devices, the landfill gas must
12 be pretreated to remove contaminants to ensure their
13 proper operation.

14 --o0o--

15 MR. CROOKS: Open flares are the most inexpensive
16 and represent the simplest flaring technology.

17 Open flares also emit more light, noise, and heat
18 and are more difficult to source test.

19 --o0o--

20 MR. CROOKS: This is an example of an enclosed
21 flare, which is the most common control device used at
22 landfills.

23 The enclosure reduces light, noise, and heat and
24 allows the flare to be located at ground level.

25 Unlike open flares, the amount of gas and air

1 entering can be controlled, making combustion more
2 reliable and efficient.

3 Enclosed flares can be easily source tested to
4 measure destruction efficiency.

5 --o0o--

6 MR. CROOKS: Other technologies used to convert
7 landfill gas into a product or energy are landfill gas to
8 vehicle fuel, pipeline quality natural gas, or using
9 landfill gas to produce electricity. For electricity
10 generation, we support the cleanest technologies, for
11 example: Microturbines, gas turbines or fuel cells.

12 --o0o--

13 MR. CROOKS: There are about 367 landfills
14 currently in ARB's landfill inventory that have the
15 potential to generate methane emissions.

16 In California, landfills are the second largest
17 man-made source of methane, behind livestock emissions,
18 and represent about 1 percent of the statewide greenhouse
19 gas inventory.

20 --o0o--

21 MR. CROOKS: Greenhouse gas emissions from
22 landfills were estimated to be about 6.3 million metric
23 tons of carbon dioxide equivalent in 1990, and in 2000 the
24 greenhouse gas emission level dropped to 5.8.

25 During this time period, several landfill gas

1 control measures were adopted such as ARB's suggested
2 control measure for landfill gas emissions, and local air
3 district and federal landfill gas rules.

4 Although these measures targeted primarily
5 non-methane organic compounds and volatile organic
6 compounds, it also had the added benefit of reducing
7 greenhouse gas emissions such as methane.

8 Other factors include the California Integrated
9 Waste Management Board's successful efforts to achieve
10 their 50 percent statewide recycling goal and solid waste
11 industry's commitment to reduce landfill gas emissions.

12 However, due to population growth and increased
13 waste disposal, greenhouse gas emissions are forecasted to
14 increase to approximately 7.7 million metric tons in 2020.
15 This underscores the need for the proposed regulation.

16 Factors that may affect this projection include:
17 The implementation of the California Integrated Waste
18 Management Board's best management practices, increased
19 waste diversion, and commercial recycling.

20 --o0o--

21 MR. CROOKS: At this time I would like to present
22 the requirements of today's proposal.

23 --o0o--

24 MR. CROOKS: The objectives of this proposal are
25 to:

1 Realize significant reductions of greenhouse gas
2 emissions quickly;

3 Ensure early collection and reduction of fugitive
4 methane emissions by requiring controls on uncontrolled
5 landfills;

6 Ensure that existing and newly installed gas
7 collection and control systems are being maintained and
8 operating the optimally; and

9 Finally, ensure no relaxation in conventional air
10 pollutant controls.

11 --o0o--

12 MR. CROOKS: Staff has made extensive efforts to
13 provide opportunities for participation in the rule-making
14 process.

15 Our public outreach efforts included meetings
16 with stakeholders through a series of seven technical
17 workgroup meetings and three public workshops.

18 These groups included representatives from the
19 solid waste industry, local air districts, local
20 enforcement agencies, the United States Environmental
21 Protection Agency, environmental organizations, and other
22 interested parties. Staff also created a website and
23 maintained an Email address list.

24 In developing the proposed regulations, staff
25 worked closely with California Integrated Waste Management

1 Board staff who are supportive of our proposal.

2 --o0o--

3 MR. CROOKS: This proposal applies to all
4 landfills that received solid waste after January 1st,
5 1977.

6 Hazardous waste landfills and landfills
7 containing only construction and demolition waste or
8 non-decomposable solid waste, which is incapable of
9 forming significant amounts of landfill gas, are exempt
10 from the requirements of the proposal.

11 Smaller, closed and inactive landfills are also
12 exempt from the proposal because they are not expected to
13 generate sufficient amounts of landfill gas.

14 --o0o--

15 MR. CROOKS: Smaller, active landfills would be
16 required to comply with limited reporting requirements.

17 Owners and operators of larger active, closed,
18 and inactive landfills must determine if they are required
19 to install controls based on the landfill's gas heat input
20 capacity.

21 If the landfill's gas heat input capacity is
22 greater than or equal to 3 million BTUs per hour, the
23 landfill owner or operator must either install controls
24 and comply with the requirements of this proposal or
25 demonstrate that the landfill generates an insufficient

1 amount of landfill gas.

2 The proposal requires a design plan for the
3 installation of a properly designed and operated active
4 gas collection and control system that minimizes methane
5 emissions.

6 Landfill owners and operators are allowed
7 flexibility based on a landfill's site specific
8 conditions. Landfill gas may also be routed to a
9 treatment system that processes the collected gas for
10 subsequent sale or use, or injected into the natural gas
11 pipeline.

12 If a flare is to be used, it must be an enclosed
13 flare. However, the proposal allows open flares to be
14 used if the gas quality and flow rate is insufficient to
15 support an enclosed flare.

16 Negative pressure must be maintained at each
17 wellhead and the proposal also contains a component leak
18 standard.

19 --o0o--

20 MR. CROOKS: The proposal establishes methane
21 emission limits of 500 parts per million for surface leaks
22 at any location of the landfill, and a 25 part per million
23 average over the surface of the landfill to ensure that
24 the gas collection system is adequately controlling
25 emissions.

1 Instantaneous or point source monitoring is used
2 to identify fugitive emissions from holes and cracks in
3 the landfill surface. And integrated monitoring averages
4 the point source measurements and is a good indicator of
5 how well the gas collection system is operating overall.

6 Most landfill operators, however, do not
7 currently conduct integrated surface monitoring, and
8 uncontrolled landfills do not currently monitor for
9 compliance with either surface standard. Therefore, we
10 are proposing that these requirements would become
11 effective January 1st, 2011, to allow landfill owners and
12 operators the necessary time to make system adjustments
13 and train staff in order to comply with the emission
14 standards.

15 Landfills required to install new controls are
16 required to meet these standards upon commencing operation
17 of the system.

18 --oOo--

19 MR. CROOKS: The proposal requires:

20 Quarterly surface emissions monitoring - to
21 ensure that the gas collection system is adequately
22 controlling emissions. However, the working face of the
23 landfill where waste is being placed is not subject to the
24 monitoring requirements.

25 Quarterly component leak testing - to ensure that

1 there are no point source leaks of methane exceeding 500
2 parts per million along the positive pressure side of the
3 gas transfer path.

4 Monthly wellhead monitoring - to demonstrate that
5 a negative pressure is being maintained; and

6 Finally, annual gas control system testing - to
7 ensure that the gas control devices are operating
8 optimally and meeting the destruction efficiency
9 standards.

10 --o0o--

11 MR. CROOKS: The proposal contains methane
12 destruction efficiency requirements for gas control
13 devices of 99 percent for enclosed flares and most other
14 devices, except for lean burn engines, which must meet a
15 methane outlet concentration of 3,000 parts per million or
16 less.

17 --o0o--

18 MR. CROOKS: Landfill owners and operators are
19 subject to recordkeeping and reporting requirements.

20 These requirements include, but are not limited
21 to, maintaining records of a landfill's waste acceptance
22 rates, surface sampling measurements, component leak
23 checking, gas flow rates, and control device destruction
24 efficiency testing results.

25 --o0o--

1 MR. CROOKS: The proposal provides flexibility,
2 allowing owners and operators to request alternatives to
3 the test methods, and monitoring and operational
4 requirements. For example, safety issues associated with
5 surface monitoring or the need for alternative wind speed
6 requirements for landfills located in high-wind areas.

7 Owners and operators will need to demonstrate why
8 consideration of an alternative is necessary. They must
9 also demonstrate that requested alternatives provide
10 equivalent levels of emission control and enforceability.

11 Alternative compliance options are subject to the
12 approval of the Executive Officer.

13 --o0o--

14 MR. CROOKS: The compliance schedule for
15 installing controls is as follows:

16 Landfill owners and operators must determine the
17 need for installing controls and submit a design plan.

18 Within 18 months of approval of the design plan,
19 owners and operators of active landfills must install
20 controls.

21 If the landfill is closed or inactive, controls
22 must be installed within 30 months of approval of the
23 design plan.

24 Landfill owners and operators with existing
25 control systems may need to adjust their systems for

1 compliance with the proposal and submit an amended design
2 plan.

3 --o0o--

4 MR. CROOKS: The proposal provides incentives
5 which allows the walking pattern spacing to be increased
6 from 25-foot to 100-foot intervals and the monitoring
7 frequency to be decreased from quarterly to annually for
8 closed and inactive landfills, if the landfill owner and
9 operator can demonstrate compliance with the point and the
10 integrated surface monitoring limits.

11 These incentives can continue to be used as long
12 as the landfill remains in compliance with the surface
13 methane emission standards.

14 --o0o--

15 MR. CROOKS: As discussed, there are about 367
16 landfills in the inventory.

17 Out of these landfills we can anticipate that 218
18 landfills may be subject to the proposal.

19 Of these the 218 landfills: 72 are subject to
20 reporting requirements only; 14 are uncontrolled and may
21 require gas collection control systems; and 132 already
22 have gas collection and control systems installed and are
23 subject to the monitoring, recordkeeping, and reporting
24 requirements.

25 Most of the remaining 149 landfills are likely to

1 qualify for an exemption because they are below the
2 landfill size and gas heat input capacity thresholds, and
3 are expected to generate insufficient amounts of landfill
4 gas to support a collection and control system.

5 --o0o--

6 MR. CROOKS: This diagram shows the locations of
7 the 14 uncontrolled landfills by local air district that
8 may be required to install gas collection and control
9 systems.

10 The landfills are located in the following local
11 air districts: Three in San Joaquin; two in Mojave
12 Desert; one in the Bay Area; one in San Diego; and the
13 others are located in smaller local air districts. There
14 are no uncontrolled landfills in the South Coast.

15 --o0o--

16 MR. CROOKS: As previously mentioned, landfills
17 are regulated under local air district rules that
18 implement federal requirements for landfills.

19 For this regulation, we are working with the
20 local air districts in developing a delegation agreement
21 which would allow local air districts to implement and
22 enforce the proposed regulation.

23 Also, we will work with local districts to
24 develop language that can be added to the regulation
25 clarifying that the provision of this regulation shall

1 serve as the regulatory floor.

2 Given local air districts' expertise in
3 regulating landfills, staff believes that this approach is
4 appropriate for this proposal.

5 --o0o--

6 MR. CROOKS: At this time, I would like to
7 present the environmental and economic impacts of today's
8 proposal.

9 --o0o--

10 MR. CROOKS: The staff's proposal requires the
11 installation of gas collection control systems where none
12 currently exist and improves the overall operation and
13 maintenance of the gas collection systems through
14 monitoring and recordkeeping. Therefore, the proposal
15 incrementally increases the collection of methane
16 generated from landfills.

17 In order to estimate the emission reduction
18 benefits, staff needed to develop a method that provides
19 both an estimate of the baseline emissions and the
20 incremental benefits of the proposal.

21 The first step in the analysis was to establish a
22 baseline. To that end, we used the current emissions
23 inventory for landfills and established an overall
24 statewide number. We did not conduct a
25 landfill-by-landfill analysis because data are not

1 currently available for all landfills. The baseline
2 efficiency is not intended to represent the current
3 operating collection efficiency for every landfill in the
4 state, but provides a plausible overall baseline from
5 which to estimate emission reductions.

6 To estimate the potential emission reductions
7 from the proposal, we analyzed data from a landfill in the
8 South Coast Air Quality Management District that is
9 subject to similar performance requirements as the
10 proposal and provided a robust data set. The analysis was
11 based on using surface methane emission measurements in
12 concert with an air quality model to estimate the mass of
13 emissions coming from the landfill. By comparing this
14 number to the total gas collected at the landfill, we
15 could estimate the overall collection efficiency at the
16 landfill. Using this information, in conjunction with the
17 statewide baseline, we were able to then generate a number
18 for the statewide emission reductions.

19 Staff acknowledges that this collection
20 efficiency may not be representative of any specific
21 landfill. In fact, the proposal specifically does not
22 call out a specific control efficiency requirement, but
23 rather employs design requirements, monitoring,
24 recordkeeping, and reporting requirements that taken
25 together will result in the increased collection of

1 methane. The actual collection efficiency for any
2 particular landfill may be less than or greater than the
3 values generated for the analyzed landfill.

4 --o0o--

5 MR. CROOKS: The staff acknowledges there is
6 uncertainty associated with the emission reduction
7 estimate. Baseline and controlled emissions will likely
8 vary depending on a number of factors, with a few listed
9 on this slide. These uncertainties may result in
10 emissions reductions for individual landfills that are
11 greater or less than what the staff proposed.
12 Nevertheless, we believe that the approach taken provides
13 a plausible estimate, considering that there is not yet
14 highly refined techniques for assessing emissions or
15 emission reductions from landfills.

16 We also acknowledge that other approaches may be
17 available, but these techniques are either in the
18 development stage or provide only screening level
19 information. For example, the California Energy
20 Commission is currently conducting an extensive study that
21 may provide robust data that will help improve the
22 emissions inventory, and more advanced techniques using
23 remote sensing offer even more opportunities. Staff is
24 committed to evaluate potential different approaches that
25 will help improve the emissions and emission reduction

1 estimates.

2 --o0o--

3 MR. CROOKS: Using the previously discussed
4 analysis technique, the staff estimated that the statewide
5 implementation and enforcement of the proposal is expected
6 to result in methane emission reductions of about 1.5
7 million metric tons of carbon dioxide equivalent in 2020,
8 which is greater than the 1 million metric tons estimated
9 in the Scoping Plan.

10 Installing gas collection and control systems at
11 the estimated 14 uncontrolled landfills would result in a
12 reduction of about 0.4 million metric tons of carbon
13 dioxide.

14 --o0o--

15 MR. CROOKS: The total cost of the measure,
16 expressed on an annual basis over the lifetime of the
17 proposal, ranges from 6 to \$14 million.

18 The cost effectiveness is estimated to be \$9 per
19 metric ton of carbon equivalent reduced.

20 And the cost on a per-household basis is
21 approximately ten cents per month.

22 --o0o--

23 MR. CROOKS: This slide compares the cost
24 effectiveness of the landfill measure to some of the other
25 discrete early action measures that range from 0.2 to 21

1 dollars per metric ton of carbon dioxide equivalent
2 reduced. Thus, the landfill measure is consistent with
3 the cost effectiveness estimates from other discrete early
4 action measures.

5 CHAIRPERSON NICHOLS: Is the cost that you're
6 estimating there for this rule primarily the additional
7 equipment that has to be installed or is it the better
8 recordkeeping and other sort of labor intensive -- more
9 labor intensive pieces of this?

10 PROCESS EVALUATION SECTION MANAGER BOYD: Yes.
11 This is Rich Boyd. The cost is driven primarily by the
12 additional labor that's needed to conduct the surface
13 monitoring.

14 CHAIRPERSON NICHOLS: Okay. I'm only raising
15 that point because this is a rule that really doesn't
16 require an awful lot of technology at all. It's really a
17 tightening up of existing rules or programs in a way that
18 in theory ought to have been done when they were first
19 begun, as least in my opinion, to make them actually work
20 the way they were supposed to work.

21 So I guess we have to take the cost of that on to
22 ourselves for this rule. But I just want to point out
23 that it doesn't seem to me that this is something that
24 really is all that earth shattering when it comes to, you
25 know, just asking people to maintain the systems that they

1 already have in place.

2 Sorry for the interruption.

3 MR. CROOKS: Okay. Thank you, Chairman Nichols.

4 At this time I'd like to discuss some of the
5 comments that we received from stakeholders.

6 --o0o--

7 MR. CROOKS: Industry representatives expressed
8 concern that the majority of landfill operators would be
9 unfamiliar with conducting integrated surface monitoring
10 and suggested that more time would be needed to make the
11 necessary system adjustments and train staff.

12 In response, the proposal delays compliance with
13 the 25 part per million integrated standard until January
14 1st, 2011.

15 A few municipalities have expressed concern over
16 the cost of compliance and the challenges of raising
17 funds.

18 The proposed regulation provides compliance
19 incentives. For example, less frequent monitoring and an
20 increased surface walking patterns is allowed if landfill
21 owners or operators can demonstrate that their landfill is
22 in compliance with the surface monitoring limits.

23 In addition, closed or inactive landfills are
24 allowed more time to install their control systems.

25 Environmental organizations have suggested that a

1 200 part per million instantaneous surface limit should be
2 met to qualify for the less frequent monitoring and
3 increased walking pattern spacing.

4 This issue of a 200 part per million standard was
5 discussed in detail during development of the proposal.
6 Our sister agency, the California Integrated Waste
7 Management Board, raised concerns about fires as systems
8 draw more air in to reduce the leaks from 500 part per
9 million to 200 part per million levels. Staff is not
10 recommending a change but will be gathering and evaluating
11 the monitoring data to determine if a lower surface
12 methane limit might be feasible.

13 --oOo--

14 MR. CROOKS: Some environmental organizations
15 expressed concerns about uncertainties associated with gas
16 collection efficiencies.

17 As discussed previously, staff recognizes that
18 there are uncertainties in the estimates. Gas collection
19 efficiency is a subject of intense debate since data are
20 limited and many values in literature can be found ranging
21 from as low as 20 percent to as high as 95 percent or
22 greater.

23 Consequently, staff acknowledges the need to
24 improve our understanding of landfill emissions and gas
25 collection efficiencies. Staff expects that ongoing and

1 developing studies will help in this effort and will
2 continue to monitor current and future research, and the
3 impact that research has on collection efficiency
4 estimates.

5 Some environmental organizations have also
6 expressed concerns that the collection efficiency we used
7 to estimate emission reductions will have the unintended
8 consequence of discouraging other technologies that could
9 further reduce greenhouse gas emissions. This certainly
10 is not our intent. Staff is fully supportive of efforts
11 to divert organics to other alternatives such as anaerobic
12 digesters and composting.

13 --oOo--

14 MR. CROOKS: Staff is proposing several minor
15 modifications to the proposal.

16 First, we are proposing to clarify the
17 administrative requirements for amended design plans.

18 Second, we are proposing to provide a definition
19 for "inert waste" to better characterize waste types that
20 are unlikely to produce methane.

21 And, finally, staff have identified several
22 additional minor modifications that are intended to
23 improve the clarity and readability of the proposal, which
24 are identified in Attachment B of the resolution.

25 And at this time I'd like to advise everyone that

1 a revised resolution was released at the start of this
2 item and is now available.

3 --o0o--

4 MR. CROOKS: Future activities planned by staff
5 include:

6 Developing a guidance document to assist landfill
7 owners and operators in complying with the proposal?

8 Establishing an implementation workgroup that
9 meets periodically to discuss implementation issues and
10 promote statewide consistency;

11 Analyzing instantaneous surface monitoring data.
12 Staff will use this data to determine whether or not fires
13 are likely to become an issue at landfills that
14 consistently report surface methane readings near 200 part
15 per million levels; and

16 Finally staff recommends that the Board adopt
17 today's proposal with staff's suggested modifications to
18 reduce methane emissions from landfills.

19 Thank you.

20 CHAIRPERSON NICHOLS: Okay. Thank you.

21 Any questions?

22 Yes, Supervisor Yeager.

23 BOARD MEMBER YEAGER: Yes, thank you.

24 Just a couple of questions on the incentives for
25 compliance. And, first, thanks, both you gentlemen, for

1 conversations you've had with my staff and myself on this.
2 Again, maybe it's just for clarification. I'm certainly
3 in support of the rule. But this is mainly dealing with
4 those landfills that have been doing extensive monitoring
5 for many years and probably are going to be in compliance
6 when they have the additional monitoring.

7 But here it says -- this is -- I'm not sure the
8 page matters. But it says to qualify for this incentive,
9 the landfill must demonstrate that in the past three years
10 prior to the effective date of the proposed regulation
11 that there were no measured exceedances of the surface
12 methane emission standards by annual or quarterly
13 monitoring.

14 And I guess the question is, currently, the
15 standard is for 100-foot spacing because of the federal
16 requirements; is that correct?

17 And so when it says here that they don't exceed
18 the current standards, will the 100-foot spacing qualify
19 or will they to have still go back down to the 25-foot
20 spacing to be able to qualify?

21 PROCESS EVALUATION SECTION MANAGER BOYD: I made
22 the three-year period in order to qualify. We allow them
23 to come in using 100-foot spacing. They can also come in
24 using annual monitoring, because we recognize that some
25 landfills depending on where they are in complying with

1 the federal requirements may already be there. So that's
2 why we were looking at three years, so we could make sure
3 that we had sufficient data resolution to make the
4 determination that they're able to continue being good
5 performers.

6 So they don't have to prior to coming in go up to
7 25. They could actually already be at 100 feet. And if
8 they meet those surface emission standards, then starting
9 January 1st, 2010, they could continue using 100 feet and
10 annual monitoring for the close and inactive. And the
11 active landfills still have to do quarterly monitoring.

12 BOARD MEMBER YEAGER: And just right off, would
13 you know whether many landfills would qualify for that?
14 Did you get much report back from local entities that have
15 their own landfills that they might be able to reach that
16 standard?

17 PROCESS EVALUATION SECTION MANAGER BOYD: They
18 should be able to reach the instantaneous standard.
19 Landfills outside of the South Coast are going to be
20 challenged with the integrated standard because they
21 haven't been using that. So making that demonstration
22 would be challenging for them.

23 BOARD MEMBER YEAGER: Okay. And, again, I
24 appreciate the flexibility on this. As Chairman Nichols
25 was asking, this can be expensive for local jurisdictions

1 just because of the additional monitoring and of course
2 that then gets passed on to the users. And certainly for
3 those landfills that aren't even close to compliance, it's
4 very good.

5 I think the concern was -- and certainly there's
6 one in my district that has been capturing the methane for
7 a number of years and uses it to generate power, have
8 certainly been very good environmentalists on this. And
9 their concern was the additional monitoring was going to
10 be very expensive for them. But I'm hoping that in the
11 end they'll be able to qualify because of the monitoring
12 that they've done in the past.

13 PROCESS EVALUATION SECTION MANAGER BOYD: Okay.

14 BOARD MEMBER YEAGER: Thank you.

15 CHAIRPERSON NICHOLS: Thank you.

16 Professor Sperling and then Ms. Berg.

17 BOARD MEMBER SPERLING: I haven't been following
18 this very carefully, so these might be naive questions.
19 But, you know, back in the LCFS discussion, there were
20 various companies that came and talked about the huge
21 potential for using methane as a transportation fuel. And
22 so the question is -- it seems like the numbers they were
23 talking about are a lot larger than the kind of numbers
24 you're talking about in terms of the amount of methane
25 here being released. So I have a couple related questions

1 on that.

2 And, that is, one, do these cost numbers take
3 into account revenue from using the gas for power or
4 transportation? Well, why don't we take it one by one.

5 So that's the first question.

6 PROCESS EVALUATION SECTION MANAGER BOYD: No, the
7 cost numbers look strictly at the cost of complying with
8 the requirements of the regulation. You know, we don't
9 offset them by the revenue that they might generate by our
10 sales or pipeline sales.

11 BOARD MEMBER SPERLING: Why is that? I mean
12 isn't that realistic, that they are going to use this gas
13 and for --

14 PROCESS EVALUATION SECTION MANAGER BOYD: Not for
15 most landfills. Most of the landfills that we're dealing
16 with are going to be looking at using a flare. In order
17 to look at energy recovery you need to have -- you need to
18 be a landfill of some size in order to make sure that you
19 have a sufficient generation rate to support that
20 technology. And that's a limited number of landfills that
21 can take advantage of that. When you're looking at the
22 pipeline, access to that tends to be an issue. And so we
23 did look at that. But most of the landfills are going to
24 comply by using a flare. The regulation doesn't prevent
25 them from looking at those other alternatives, but we

1 don't expect that to be the main option.

2 BOARD MEMBER SPERLING: I guess I'm confused,
3 because, you know, like in Europe -- in Sweden and
4 elsewhere I keep hearing about all this biogas that's
5 going to be produced from landfills. I mean are they --
6 what's going on here?

7 DEPUTY EXECUTIVE OFFICER SCHEIBLE: No, there's
8 substantial amounts of biogas, especially at the larger
9 landfills, that's now turned into energy - electricity or
10 heat. And under the Low Carbon Fuel Standard what we said
11 is you may have more value as an energy source by turning
12 it into pipeline quality gas or filling a vehicle right
13 there and moving it along. So those are places where
14 actually the economics work for you to collect greater
15 efficiencies.

16 We're looking at places that typically haven't
17 done that and saying you've got to upgrade your current
18 operations through monitoring. And if the monitoring --
19 if you can't meet the new monitoring requirements, you're
20 going to have to spend money upgrading your system until
21 you do. So we didn't -- in our assessment - we're
22 conservative - the costs could be lower and there could be
23 benefits to the extent that more product is produced and
24 solved.

25 STATIONARY SOURCE DIVISION CHIEF FLETCHER: This

1 is Rob Fletcher. I might just add on that.

2 I think there are seven projects right now in
3 California that are planned or operating that are using
4 biomethane to produce a transportation fuel. Several of
5 those are planned at landfills. Like Altamont is planning
6 to produce an LNG.

7 I think the difference between California and
8 Europe at this point is a lot of the European biogas is
9 generated from anaerobic digesters. They don't do as much
10 land filling as the United States does.

11 Ms. D'Adamo and I were at a biomethane symposium
12 earlier this week, and there were several hundred people
13 there that were looking at innovative ways of generating
14 and using biomethane, both as a transportation fuel as a
15 pipeline gas supplement and a power-producing opportunity.

16 And it's part of the innovation that we're
17 looking for in the LCFS that people, where they can find
18 economic ways to produce the fuel from biomethane, I think
19 they will do so. But right now it's still a little bit in
20 the development stage, and the economics depend upon
21 whether you have a source of vehicles; for example, the
22 Altamont is going to fuel the vehicles that they have -
23 the waste management vehicles basically.

24 So I think it's something that we want to see
25 developed. And there's certainly a lot of interest in

1 that right now.

2 BOARD MEMBER RIORDAN: I -- excuse me.

3 Dr. Sperling, are you finished?

4 BOARD MEMBER SPERLING: Okay, to follow up. Then

5 I guess DeeDee is going to follow up on that. But, you

6 know, the one other thought is, can this land -- does this

7 rule preclude in any way this gas getting credit either

8 through the LCFS or through some kind of offset program?

9 STATIONARY SOURCE DIVISION CHIEF FLETCHER:

10 (Shakes head.)

11 BOARD MEMBER SPERLING: No? Okay.

12 STATIONARY SOURCE DIVISION CHIEF FLETCHER: No.

13 BOARD MEMBER D'ADAMO: Just in follow-up.

14 Would there be anything about the systems that

15 would be implemented that would prevent conversion at some

16 point or could they easily be integrated for fuel

17 dispensing and collection in the event that it becomes

18 economically feasible for these facilities?

19 PROCESS EVALUATION SECTION MANAGER BOYD: Yes, if

20 a landfill is currently using a flare and the conditions

21 arise where they can consider going to energy recovery,

22 they're able to do that. There's nothing that's

23 restricting them from doing that in the rule.

24 STATIONARY SOURCE DIVISION CHIEF FLETCHER: And

25 one of the considerations of course is they have to clean

1 the gas up. So, you know, it's half methane and it's half
2 CO2, or thereabouts. And so in order for it to be used in
3 power production or as a transportation fuel or putting in
4 the pipeline, you have to make significant expenditures to
5 clean that gas up first. That's the only constraint.

6 CHAIRPERSON NICHOLS: Yes, Ms. Berg.

7 BOARD MEMBER BERG: Thank you. Good morning.

8 In looking at the written comments, I'd like to
9 echo Supervisor Yeager's comment on the fact that if a
10 landfill has in fact monitoring and things in place that
11 do meet the spirit of the rule to add this additional
12 cost, I'd like to be very careful about we're not adding
13 additional cost where we don't need to.

14 For example, the County of Santa Barbara has
15 seemed to have put together a program within their
16 landfill. And I just want to make sure that we're being
17 mindful and reviewing the comments that are being
18 submitted and working with these people in a way that,
19 where we don't need to add extra costs, that we're not
20 going to.

21 Would that be a fair comment?

22 PROCESS EVALUATION SECTION MANAGER BOYD: Yes.

23 BOARD MEMBER BERG: Okay. Great.

24 Then, secondly, the issue of closed landfills,
25 such as the one in the City of Sunnyvale where they have a

1 closed landfill for 16 years and seemed to have a program
2 to monitor that particular landfill. And so I was
3 wondering how the rule applies to closed landfills and if
4 there are mechanisms in place in which they have closed a
5 landfill and monitoring it as such and capturing the
6 methane gas. How does that fall into the rule?

7 PROCESS EVALUATION SECTION MANAGER BOYD: Well,
8 the closed landfills do have to continue to -- if they're
9 generating sufficient landfill gas, do have to do the
10 surface emissions monitoring. I think the issue you're
11 referring to is the option that we provide landfills that
12 are demonstrating good compliance to have reduced sampling
13 periods and a looser walking pattern spacing.

14 Landfills that are -- right now the way the rule
15 is structured, landfills that are able to demonstrate
16 compliance with the surface emission standards for a
17 period of a year, using four quarterly monitoring periods,
18 have the ability to go to 100-foot spacing. Then if
19 they're closed or inactive, they can also go annual
20 monitoring.

21 And so that's a provision that the Sunnyvale
22 landfill will be able to -- or any other landfill for that
23 matter will be able to exercise.

24 We also have a provision in there, as Supervisor
25 Yeager was referring to, for those landfills that have

1 history of compliance with the surface emission standards.
2 We don't make them do that one-year demonstration. We
3 allow them to come in immediately upon the effective date
4 with the 100-foot spacing and the annual monitoring for
5 the closed and inactive landfills.

6 BOARD MEMBER BERG: So I can be pretty
7 comfortable in the fact that these landfills are able to
8 come to you, explain to you what they're doing, and if in
9 fact they are meeting the compliance, they don't need to
10 add the additional monitoring costs?

11 PROCESS EVALUATION SECTION MANAGER BOYD: I think
12 that's something as we move forward that we'll take a
13 closer look at and see if we need to make some adjustments
14 to the regulation to accommodate those situations where
15 the landfills clearly do have a long history of data - and
16 in some cases the landfills do have that - and to find a
17 way to accommodate that.

18 EMISSIONS ASSESSMENT BRANCH CHIEF DONOHUE: This
19 is Dan Donohue.

20 The biggest issue for us is that historically a
21 lot of these landfills have the point measurements - they
22 go around and do that - and they haven't done the
23 integrated, which really takes a look at the entire
24 surface is really what's happening; how good of a seal is
25 the entire surface versus the thing? And that's the point

1 where we do need to have some way of looking at some type
2 of monitoring data historically that would look at that
3 rather than just these large emission points. And that's
4 where we're having, you know, the issue. I think there's
5 a possibility to relook at that some and find some way to
6 look at some of the site-specific data that would require
7 some additional, you know, relook at the reg to see how we
8 might do that.

9 BOARD MEMBER BERG: Do you feel the regulation as
10 written gives you the flexibility to be able to look at
11 this?

12 EMISSIONS ASSESSMENT BRANCH CHIEF DONOHUE: No,
13 it doesn't. Because one of the issues we've done here is
14 we've anticipated that this reg would then be implemented
15 and enforced at a local level. And the more flexibility
16 you put in there, the more difficult it is to have
17 consistent things. So if we were to come up with
18 something that we decided that we weren't going to require
19 some level of integrated surface measurements before we
20 allowed people to have a less frequent or smaller grid
21 size, that's going to -- you know, that would require some
22 additional -- probably some additional changes in the
23 regulation.

24 BOARD MEMBER BERG: I'm probably of the camp that
25 I want it all. I certainly do want -- I certainly do want

1 the emissions reductions. But I also want to be extremely
2 mindful that the municipalities and even the private
3 landfills who are serving the municipalities are under
4 great budget restraints. And so however we can figure out
5 how to get the emissions, that's without question, and
6 keep that cost of monitoring at a minimum that assures us
7 that we're getting the emissions I think is really
8 critical at this time.

9 EMISSIONS ASSESSMENT BRANCH CHIEF DONOHUE:

10 Okay. And you could -- I'm assuming you can and
11 you will direct us to go back and look at that issue a
12 little bit further and see if we think there are some
13 additional changes that might be needed to the regulation
14 to provide that. And that would also include going out
15 and talking specifically to some of these municipalities
16 that have that data to see what's there and see if
17 there's -- if we think that there is sufficient existing
18 data that would allow us to feel pretty comfortable that
19 they in fact are in compliance and likely to continue to
20 be that way.

21 BOARD MEMBER BERG: Thank you.

22 And then my final question is in regards to
23 newly -- new landfills or new construction. Is there
24 going to be a mechanism in place that as part of any new
25 landfill under consideration would have to have these

1 methane control mechanisms as part of a permitting process
2 to allow them to open?

3 PROCESS EVALUATION SECTION MANAGER BOYD: Well,
4 I'm not sure I'm following the question.

5 The way the process works, when the landfill goes
6 to the permitting stage we're typically working with the
7 local air districts, and the local air districts do issue
8 permits for various components of the landfill - a gas
9 collection system, the flare, various other devices.

10 It's our regulation in the agreement that we
11 would have with each district that would require them to
12 meet the surface emission standards and the other
13 requirements in the regulations. So that may or may not,
14 depending on how a district wanted to do it, end up in a
15 specific district permit and they may vary from district
16 to district. It mostly certainly probably would not be in
17 a permit issued by a city or a county.

18 BOARD MEMBER BERG: Well, I appreciate your
19 clarification. And I think what I was trying to drive at
20 was it would be a condition that you would need to meet
21 our regulation prior to opening. There would have to be.

22 So I apologize that I got the permitting confused
23 in there. I didn't mean to do that.

24 So I think you answered my question. Thank you
25 very much.

1 STATIONARY SOURCE DIVISION CHIEF FLETCHER: But
2 If I could just clarify a little bit. They are not
3 required upon opening under our regulation to install a
4 gas collection system, if I have this understanding
5 correct, and staff can correct me if I'm wrong.

6 My understanding is is that our requirement kicks
7 in when they generate sufficient amount of gas to support
8 a gas collection system. So it isn't necessarily a
9 condition of a new build, but it's certainly a recognition
10 that when the gas generation rates coincide with the
11 support of a gas collection system, that is what our
12 regulation requires. Is that correct?

13 BOARD MEMBER BERG: But they would have some
14 reporting right off the bat.

15 PROCESS EVALUATION SECTION MANAGER BOYD: There's
16 some reporting. But let me just step back just a little
17 bit.

18 When the collection system is installed and ready
19 to operate, they have to be able to demonstrate compliance
20 with the regulation at that time.

21 CHAIRPERSON NICHOLS: Are you saying -- now I'm
22 confused. I thought I understood how this would work.

23 Are you saying somebody would actually begin
24 landfilling somewhere without having planned out a gas
25 collection system as part of doing that?

1 PROCESS EVALUATION SECTION MANAGER BOYD: Well,
2 the 14 uncontrolled landfills currently don't have active
3 gas collection and control systems.

4 CHAIRPERSON NICHOLS: But these are relatively
5 new ones? I'm trying to think, brand new landfills.
6 Somebody goes out and starts a landfill in a canyon
7 somewhere.

8 PROCESS EVALUATION SECTION MANAGER BOYD: Well, a
9 brand new landfill or a new waste cell at an existing
10 landfill, they will have to do a design plan once they
11 reached a point where that portion of the landfill was
12 generating sufficient gas to be collected and controlled.
13 When waste is first added -- let's say it's a brand new
14 landfill and they don't have any waste before. They're
15 going to have very little tons of waste in that particular
16 landfill. And so the amount of gas that they generated is
17 going to be very low and it's going to be challenging to
18 capture and control --

19 CHAIRPERSON NICHOLS: But does it make sense for
20 a construction perspective to start dumping waste in and
21 then go back in and retrofit?

22 PROCESS EVALUATION SECTION MANAGER BOYD: Well,
23 they wouldn't do that. There's other requirements from
24 our partners at the Waste Board that really get at the
25 design of a landfill. And so when they're starting to

1 build those new cells, we're going to have to go in and
2 look -- for example, they're going to have to, you know,
3 put in the liner, they're probably going to be starting
4 doing their planning right away. They're certainly going
5 to know about our regulation. And so a brand new landfill
6 should have a leg up in terms of they know what's coming
7 and so they should be planning from the beginning to make
8 sure that they have --

9 CHAIRPERSON NICHOLS: I think my question's maybe
10 overly simplistic also.

11 DEPUTY EXECUTIVE OFFICER SCHEIBLE: I think they
12 have to design and operate it in the initial stages, so
13 that when they get done putting the waste in place, they
14 can then install the gas collection system and it's all
15 part of one big program. They know -- they're going to
16 know in advance that a year or two or three down the line
17 they're going to need a gas collection system when they --
18 before they close up the area, any work they have to do in
19 advance they'll put in there. And I imagine that'll be
20 part of the complete permitting process, because these
21 things are subject to multiple environmental restrictions
22 and permits.

23 CHAIRPERSON NICHOLS: Right.

24 DEPUTY EXECUTIVE OFFICER SCHEIBLE: Our
25 regulations will be -- show us how you're going to not

1 only protect the water quality but also comply with the
2 local air district permit -- air district regulations and
3 the Air Board regulations.

4 CHAIRPERSON NICHOLS: I guess I'm just looking
5 for some sign of hope that there is integration going on
6 somewhere.

7 DEPUTY EXECUTIVE OFFICER SCHEIBLE: I'm sure some
8 of the witnesses can confirm that they are doing that.

9 CHAIRPERSON NICHOLS: Well, we'll look to them
10 for --

11 DEPUTY EXECUTIVE OFFICER SCHEIBLE: If not, I'll
12 be shocked.

13 CHAIRPERSON NICHOLS: Okay. Any other questions
14 or comments? If not, we could go to our witnesses.

15 All right. We'll start -- and each of you has
16 three minutes. There's a timer, and a light will go on I
17 guess to warn you when you are close to and then when
18 you're out of time.

19 So we've got eight witnesses starting with
20 Charles Helget, followed by Rachel Oster, then Chuck
21 White.

22 MR. HELGET: Chair Nichols and members of the
23 Board. I'm Chuck Helget representing the Republic
24 Services, one of the country's largest waste handling and
25 recycling companies.

1 On behalf of Republic Service I'm offering
2 general support for the regulations to the proposed
3 landfill methane reduction really action regulations with
4 the recommended changes that have been submitted to you
5 and to your staff in written and verbal comments. And I
6 think as we've -- as I understand the staff presentation,
7 many of those recommendations are being included or will
8 be considered during the second phase of these
9 regulations.

10 But those regulations -- or recommendations
11 briefly include establishing an implementation working
12 group, which we think is integral just judging from the
13 discussion that's gone on already this morning; technical
14 changes that will ensure that the timelines for upgrades
15 to existing gas collection system design plans coincide
16 with the compliance deadlines; and clarifying that
17 facilities that handle only inert waste are exempt from
18 the regulations.

19 Republic has participated in the extensive work
20 group sessions that helped these regulations, and we stand
21 ready to continue to work with CARB to produce a
22 regulation that will provide real methane reduction in
23 landfills throughout the State.

24 However, there are still aspects of the proposed
25 regulations that remain of concern. The proposed

1 regulations will impose a stringent end cost to the new
2 monitoring and reporting requirement on most landfills in
3 California. And in fact I think it was noted by staff
4 that 14 closed sites will be impacted and probably 218
5 sites will be required to add additional gas collection
6 and control systems to meet these requirements.

7 Therefore, landfills, local enforcement agencies
8 across the State, and your own staff will be adapting to
9 these new regulations within the next several years. We
10 believe that over these next few years as we begin to
11 implement these regulations, our experience will show that
12 the aggressive requirements of the proposed regulation can
13 have unintended negative impacts such as significant air
14 intrusion in the landfill gas control systems resulting
15 from the enhanced landfill gas capture needed to meet the
16 new integrated surface standard.

17 This air intrusion could, as has been discussed,
18 have a negative impact on the operations of existing
19 energy facilities, as has been asked by Mr. Sperling, and
20 can also potentially cause underground fires. So we need
21 to discuss those and continue to discuss that.

22 Finally, the work group sessions on these
23 proposed regulations were often filled with controversy.
24 We believe firmly that the proposed regulations will
25 impose requirements that -- we would argue that they would

1 impose some requirements that are technically infeasible
2 and economically unjustified. Other stakeholders will
3 argue that they're absolutely necessary. In other words,
4 no one is truly happy with these regulations, and your
5 staff has probably done a pretty good job.

6 (Laughter.)

7 CHAIRPERSON NICHOLS: Thank you for that.

8 (Laughter.)

9 CHAIRPERSON NICHOLS: Rachel Oster, and then
10 Chuck White and Frank Caponi.

11 MS. OSTER: Good morning, Madam Chair, members of
12 the Board. My name is Rachel Oster with Recology,
13 formerly NorCal Waste Systems.

14 I know that, Madam Chair, you said to cut the
15 niceties. But I just wanted to make a comment about
16 working with Renaldo and Richard. It's been a long but
17 good process.

18 Having said that, there are still some
19 implementation issues that we need to work out, some
20 disconnects in the regulation that will make the
21 implementation of it difficult and confusing. And Richard
22 and Renaldo talked about this in the slides, mostly having
23 to do with design plans, amending current design plans to
24 meet the regulations and be compliant with the
25 regulations. There's really no administrative process in

1 the regulations right now for amending current design
2 plans. So we look forward to the establishment of an
3 implementation group so we can talk about these minor
4 issues that might make implementation difficult and
5 confusing.

6 So we look forward to continuing to work with
7 you. And, again, thanks, Richard and Renaldo, for putting
8 together a package that not everyone is happy about.

9 Thanks.

10 CHAIRPERSON NICHOLS: Thank you.

11 Chuck White and then Frank Caponi.

12 MR. WHITE: Thank you, Madam Chair, members of
13 the Board. Chuck White with Waste Management.

14 Most of you know Waste Management is the largest
15 waste company in North America. Probably many of you also
16 know we're the largest collector, processor, and marketer
17 of recycled materials.

18 You may be surprised to know we're one of the
19 fastest growing renewable energy companies in North
20 America. We currently provide enough renewable power from
21 waste and landfill gas to produce power equivalent of a
22 million homes. We hope to double that, to be two million
23 homes by the year 2020.

24 For this reason, Waste Management's and early and
25 vocal supporter of AB 32. And we certainly support the

1 ongoing efforts of this Board to address greenhouse gas
2 emissions.

3 Waste Management already has an extensive program
4 to control methane emissions from our landfills. We're
5 investing millions of dollars right now to put a, as some
6 have referred to, a 13,000 gallon per day liquefied
7 natural gas plant at our Altamont landfill, just about 70
8 miles southwest of here. We'll be using gas that is
9 currently being flared, and we'll be using power from our
10 engines that are running off of landfill gas to power this
11 refinery. It's going through the final commissioning
12 stages. It's almost fully constructed. We hope to have
13 it up and running in a couple of months.

14 We're a leader in developing advancing tunable
15 diode laser technology to access greenhouse gas emissions
16 from our landfills working collaboratively with your
17 staff, with the Energy Commission, and with the Integrated
18 Waste Management Board.

19 The bottom line is we already believe we're
20 exceeding and meeting these standards, all of our
21 landfills, doing everything we can to control greenhouse
22 gas emissions from our landfills. It's a little bit
23 difficult for us to wholeheartedly support these
24 regulations because they are expensive, and they may be in
25 conflict with existing federal and some of the existing

1 air district regulations that are already in place.

2 However, that being said, we are prepared to
3 fully meet and exceed these standards that you'll be
4 expected to adopt today.

5 We fully support the staff's recommendation not
6 to lower the instantaneous emission standard from 500 down
7 to 200 but continue to monitor that issue during the early
8 few years of this process and to see if it makes sense
9 later on to lower it. But for right now we don't think
10 there's enough information. We are concerned about a 200
11 standard might generate fires in some of our landfills.
12 So we appreciate holding off on that.

13 We also appreciate in your resolution your
14 commitment to -- during the 15-day comment period to
15 clarify how inert wastes will be regulated under this
16 rule; and also to clarify the administrative process on
17 the development and amendment of design plans for the
18 implementation of the landfill gas control systems.

19 But most important, your last resolution
20 statement on page 6 of your draft resolution -- proposed
21 resolution is to provide further guidance and to
22 coordination with local air districts and an
23 implementation workgroup. There are over 350 landfills,
24 there's 35 air districts, all of which need to coordinate
25 this process and this complicated rule. And that's going

1 to be an ongoing process that we really think is important
2 to have a workgroup to do.

3 And, finally, I want to really appreciate the
4 effort that Richard Boyd and Renaldo Crooks have
5 implemented in this process. It's been a learning process
6 for us all, and we look forward to going forward.

7 Thank you.

8 CHAIRPERSON NICHOLS: Thank you.

9 Frank Caponi, then Tim Reed and Nick Lapis.

10 MR. CAPONI: Good morning, Madam Chair, members
11 of the Board. My name is Frank Caponi with Los Angeles
12 County Sanitation Districts. I'm sure you're aware of the
13 level of waste management that we conduct down in the
14 southland.

15 Just before I get into my testimony, I will make
16 a comment that we are starting up a landfill from scratch.
17 And integral to the design of that landfill is gas
18 collection, water quality protection, so on and so on. In
19 fact, it's in the desert, and we even have to protect the
20 desert tortoises out there. So everything is integrated
21 and everyone's working together on that.

22 I also want to -- I'll just up front thank the
23 staff, Richard, Renaldo, Dan. And I don't want to leave
24 out the Integrated Waste Management board staff that
25 worked very closely on this regulation. Everyone I think

1 took a lot of tough issues and came to a conclusion that
2 we're here today to discuss.

3 Our support here is -- I'll say, is conditional.
4 We do support the regulation. We're going to do our job.
5 I think the industry will do their job to get this thing
6 done. And we're going to see real methane reduction here
7 in the State of California as a result of this regulation.

8 But as you've heard, there's issues that we
9 certainly have. Cost is one of the issues. I think there
10 are real costs. Every time you present an average number,
11 it always looks good. In reality if you look at landfill
12 by landfill, you're going to see much higher numbers. But
13 once again, we're all committed to move forward on this.

14 In terms of gas collection, Chairman Nichols was
15 concerned that is every landfill doing enough. I think --
16 as Chuck White said, I think the landfills are really
17 doing the best job we can in extracting every bit that's
18 really available. And there's such a thing as
19 over-controlling a landfill, and that's what we really
20 need to watch in this regulation and collect the data.

21 And so that's why we really need to have this
22 implementation workgroup, because it's going to work as we
23 move along and getting through these issues and looking at
24 the data as we collect it. So this is I think a work in
25 progress as we move along on this regulation.

1 I think you're also going to hear today from
2 others that this regulation doesn't go far enough. Well,
3 I'm here to tell you as someone that's really been in this
4 business for 25 years that this is an extremely aggressive
5 regulation. It's based upon the South Coast AQMD
6 regulation, which is the most stringent regulation in the
7 State. And then it notches that down further. So a lot
8 of the landfills in the State are going to have a real
9 tough implementation stage of coming into compliance with
10 this. Once again, why we need this implementation
11 workgroup, so we could all work together on these issues
12 and see where we're at on a lot of these things.

13 Just one comment on collection efficiency that's
14 used in some of the analysis of -- I guess I'm getting
15 close to the end here. We feel that this has been
16 underestimated in the regulation. I think you'll hear
17 others that say it's probably been overestimated. The
18 usual under-and-over-type discussion that you always hear.
19 But our information is really based upon data that we've
20 collected and others that have collected in the industry.

21 So thank you very much for your time. I
22 appreciate it.

23 CHAIRPERSON NICHOLS: Thank you Mr. Caponi.

24 Tim Reed, followed by Nick Lapis and Larry
25 Sweetser.

1 MR. REED: Good morning, Madam Chairman. This is
2 Tim Reed, Kern County Waste Management Department.

3 I just have a brief comment on the process. As a
4 county, we have all the fiscal constraints as any other
5 county. And we do appreciate the efforts that the staff
6 has taken in accommodating the concerns that we have.
7 Also, the fact that our county, being in a very dry
8 region, has different circumstances that most northern
9 California or some southern California landfills have.
10 And we appreciate the efforts that the staff has taken to
11 accommodate that, that we believe that we've already met
12 the goals of AB 32 from our landfills, because we don't
13 produce as much landfill gas as most people would expect
14 of a landfill our size.

15 So some of the efforts that have been made to
16 adjust for those accommodations have been appreciated, and
17 we look forward to complying with those.

18 Thank you.

19 CHAIRPERSON NICHOLS: Great. Thank you very
20 much.

21 Nick Lapis, Larry Sweetser, then Jill Whynot.

22 MR. LAPIS: Good morning, Chair Nichols and Board
23 members. My name is Nick Lapis. I'm with an
24 environmental group, Californians Against Waste.

25 We submitted a letter, we submitted it this

1 morning. But we've been presenting these ideas to staff
2 for a long time. The letter was co-signed by us, Sierra
3 Club, Center for Biological Diversity, City of San
4 Francisco, and the Alameda County Waste Management
5 Authority.

6 So I'm just going to summarize quickly what we
7 submitted in this letter.

8 We've been a part of this process from the very
9 beginning. We were one of the groups that was pushing for
10 this early action measure. We've been at every single
11 workgroup meeting.

12 So, interestingly enough, the bulk of our comment
13 on isn't in the actual rule. It was in the analysis that
14 was done after the rule was adopted. And that had no
15 public workshops, no opportunities for input, and real --
16 no public analysis of any kind.

17 And what I'm referring to here is the collection
18 efficiency estimate. In order to quantify the benefits of
19 this rule, the staff analyzed a landfill in South Coast
20 AQMD, and they said that that landfill has an 85 percent
21 collection efficiency. We have a 75 percent collection
22 efficiency statewide as an average. That's an increase of
23 10 percent.

24 We think that this is totally unjustified. The
25 85 percent, first of all, was using a methodology that

1 we're not familiar with, that hasn't been publicly vetted,
2 and that isn't recommended for this purpose by U.S. EPA.

3 The other problem is that this is one landfill.
4 This one landfill is completely closed and it's been
5 closed for two decades.

6 So saying that the emissions from a single
7 landfill that's been closed for two decades are
8 representative of all landfills in California, including
9 ones that are open, that are active, that have
10 uncontrolled working faces, we think is just ridiculous on
11 its face.

12 So we would ask you to direct staff to go back
13 and look at that collection efficiency. There are other
14 ways to figure out what the emission benefits of this rule
15 are that don't involve a collection efficiency. One way
16 would be to look at gas collected at landfills in the
17 South Coast AQMD and compare that with gas collection
18 across the State and look at a marginal increase. There
19 are other ways as well and we've presented them to staff.

20 And I think at this point we definitely need to
21 go back and look at how we're counting the collection
22 efficiency. And this seems like an arcane issue, but it
23 really has a big impact on all our organics diversion
24 policies, because most of those policies are based on
25 methane avoidance and quantifying how much methane you're

1 avoiding at landfills. Well, if we arbitrarily say that
2 we've reduced a third of the methane at landfills, that's
3 two-thirds -- that's only two-thirds of the same benefit
4 that we're going to provide for organics diversion
5 opportunities.

6 Now, on the rule as a whole, we do think it's a
7 positive step. It's going to reduce methane emissions.
8 But it's been significantly weakened every step of the way
9 from two years ago. When it was originally introduced it
10 was much stronger. In almost every regard it was
11 stronger. But since then it's been slowly weakened as
12 industry has raised concerns. We think that it could have
13 been a much more aggressive rule. This more or less takes
14 what South Coast was doing and applies it statewide.

15 At this point we believe that since this
16 industry's not under a cap, it's not subject to mandatory
17 reporting, and these are really the only regulations that
18 are going to apply to it, we really should have done more.
19 And we look forward to fine tuning this and adding more
20 measures once the data starts coming in.

21 Thank you.

22 CHAIRPERSON NICHOLS: Thanks.

23 Larry Sweetser, Jill Whynot, and then Justin
24 Malan.

25 MR. SWEETSER: Good morning, Board members.

1 Larry Sweetser on behalf of the Rural Counties
2 Environmental Services Joint Powers Authority. We have
3 twenty-two rural counties in California. Many of those
4 have landfills as well.

5 We did take a neutral on the card, more so
6 because we have support on some items and concerns on
7 others, and it kind of balanced out that way.

8 First, I also want to echo appreciation of the
9 staff and their efforts. They were always available for
10 meeting, particularly Renaldo and Richard.

11 As I said, our members operate many landfills in
12 California. Many of those are very small landfills. In
13 fact, we have a couple that are less than ten tons per
14 day. That's less than a garbage truck for an entire
15 community in one landfill.

16 And many of those don't generate enough gas to
17 even detect, let alone capture. So we do appreciate
18 greatly the exclusion for the smaller sites that's in the
19 regulations.

20 We do want to assure you if there are any gas
21 problems at the landfills, if you want monthly
22 inspections, we'll have local enforcement agencies and the
23 Waste Board inspections, that if anything does get
24 detected of any magnitude with gas, that that would be
25 addressed even without this rule.

1 I do want to mention two issues: The operational
2 implementation and the cost analysis. We did sign on to
3 the industry letter with the public and private sector,
4 and you have those comments.

5 As far as the operation, it will be difficult in
6 many small sites to comply with some of these regulations.
7 One of the estimates I did on a small hundred-ton-a-day
8 landfill, on a quarterly basis somebody would have to
9 spend all day walking that site in order to meet the grid
10 pattern.

11 So that's quite a bit of an effort on a site that
12 doesn't have many staff. So it does -- it will be
13 difficult to implement.

14 We do greatly appreciate the special
15 circumstances exemptions in there. One of the points we
16 made is sometimes our landfills are covered in snow. So
17 it would be very difficult to be walking that site. So
18 regulations do acknowledge that and we appreciate it.

19 There's also an allowance for wind. We have some
20 sites that have 40, 50 mile an hour winds that pick up and
21 they have close the landfill. The standard in the
22 regulations is pretty stringent, less than 5 miles per
23 hour on the wind, but we would have to request for an
24 exemption and so some of our sites will be doing that.

25 On the cost analysis we do share the concerns.

1 We think that is greatly understated of what the cost will
2 be for the sites. The letter mentions remediation costs.
3 There's other costs, particularly for smaller sites.
4 There's one number used for the entire State. We would
5 have preferred a range of cost, particularly on smaller
6 sites. We think the ten cents per household will be a
7 very low number in some of our smaller areas that have to
8 implement the measures.

9 But with that, the time will tell the true cost
10 of this measure. And that's why we do greatly support
11 having the workgroup as part of the implementation measure
12 to look at this as we go along.

13 So thank you very much.

14 CHAIRPERSON NICHOLS: Thank you.

15 Jill Whynot and then Justin Malan.

16 MS. WHYNOT: Good morning, Madam Chair and
17 members of the Board. My name is Jill Whynot. I'm
18 Director of Strategic Initiatives at the South Coast Air
19 Quality Management District, and I'm here today very
20 pleased to be able to support from the staff level this
21 regulation.

22 As people have testified in the staff
23 presentation, also enumerated, there are some differences
24 between the South Coast local rule and the rule that you
25 will adopt today.

1 Basically our staff will recommend that we update
2 our rule. And we think that will make it a much easier
3 system for our facilities, one stop where they can find
4 all the requirements.

5 We also very much appreciate the option in the
6 rule provided that local districts can enter into an
7 agreement to become the implementation mechanism. We
8 think this is consistent with AB 32, where the measures
9 are supposed to be developed to minimize administrative
10 burden of implementing and complying with the regulation,
11 it reduces duplication, and it also is a much more cost
12 effective and integrated way to do this.

13 We think this is an excellent example where we
14 can leverage local district staff and Air Resources Board
15 resources to make this more efficient, better customer
16 Service, and reduce costs.

17 We will also seek our board's approval for us to
18 enter into this agreement with you.

19 We've experienced very good collaboration during
20 the rule development process with your staff and we look
21 forward to working with them through the implementation
22 workgroup and other forums to work through a number of
23 detailed implementation issues that will need to be
24 resolved.

25 We have a comment letter for you today. And we

1 had two relatively minor suggestions for the rule and
2 provided some draft language should you decide to
3 incorporate those that would help improve the enforcement.

4 In our experience, when people have had problems
5 with some of their systems and they've needed time to
6 install wells, our rule allows 45 days. The proposal that
7 you have is 120 days. And in our experience we have not
8 had problems with facilities meeting the 45 days. So you
9 could shorten that time period up and make sure that
10 people moved quickly to correct problems.

11 The second example has to do with just moving
12 some of the language from the exemption from the testing
13 into the alternative compliance section.

14 So in a situation where you might have a wet or
15 icy slope or a construction site or other unsafe area for
16 monitoring, in our experience we've found it's better to
17 have people come to us and document what specific areas
18 and why. And then we can incorporate that into their
19 permits and their plans, rather than have them just say
20 this is exempt because it falls into this. And then there
21 could be some question about whether the area is or
22 exactly why they made that determination.

23 So with those two minor suggestions for your
24 consideration, I just want to say thank you very much and
25 we support the rule.

1 CHAIRPERSON NICHOLS: Thank you.

2 MS. WHYNOT: You're welcome.

3 CHAIRPERSON NICHOLS: Our final witness, Justin
4 Malan.

5 MR. MALAN: Madam Chair, Board members. Justin
6 Malan with Alameda County Waste Management Authority.
7 Thank you for this opportunity.

8 In general, we believe the rule is very positive.
9 But we do have a number of concerns that we echo with the
10 Sierra Club and Californians Against Waste. And we have
11 submitted them in a joint letter with our comments.

12 But most specifically, we are concerned that the
13 rule may have some unintended consequences, some negative
14 consequences on the organics diversion policies of the
15 State.

16 And I know that this has been a hard fight. It's
17 been very difficult to figure out exactly how to come up
18 with the most appropriate collection of efficiency
19 estimates. We know that that's a difficult challenge.

20 We do support looking at alternative ways of
21 estimating these so that we don't have this negative
22 impact and we don't actually encourage the use of the
23 disposal of organics into these waste landfills.

24 So with that, thank you again to your staff and
25 to the Board, and we look forward to working with you.

1 CHAIRPERSON NICHOLS: Thank you.

2 That concludes the list of witnesses on this
3 item, unless there's anyone else who failed to get their
4 cards in.

5 If not, I think we should turn back to staff if
6 you have any final comments.

7 EMISSIONS ASSESSMENT BRANCH CHIEF DONOHUE:

8 Chairman Nichols, what I wanted to just cover is
9 what we heard as far as, you know, possible direction back
10 to the staff. And just briefly on that, that what we
11 would like to do is to, you know, be directed that we go
12 back into the rule and look at clarifying the definition
13 for the treatment of inert waste and we relook at the
14 administrative process for amendments to the design plan
15 and make sure those flow properly.

16 An additional, we'd like to look at the South
17 coast AQMD comments and make a decision whether those
18 changes are appropriate those look on the surface as good
19 improvements. We'd like to be directed to re-examine the
20 provisions allowing the use of existing data to streamline
21 the monitoring requirements for sources with demonstrated
22 history of compliance. That's the Berg amendment.

23 (Laughter.)

24 EMISSIONS ASSESSMENT BRANCH CHIEF DONOHUE: We'd
25 like to be directed to relook at the collection efficiency

1 procedure that we used and to look at an alternative
2 approach as identified by the Californians Against Waste,
3 et al. And then the other provision was -- that didn't
4 specifically come up, but we've alluded to it in the
5 resolution, that we want to work with the districts to add
6 language to the regulations to clarify that the
7 requirements of the rule would serve as the regulatory
8 floor.

9 So those are the -- I think those are six, you
10 know, additional things.

11 CHAIRPERSON NICHOLS: Okay. I appreciate those
12 comments.

13 I'm actually going to want to talk to you about
14 number 5, the collection efficiency approach issue,
15 separately. So just so you know, I don't -- I'm not
16 satisfied with the suggestion as it currently exists.

17 I don't think the others are particularly
18 controversial from anything I've heard.

19 Yes, a question?

20 BOARD MEMBER YEAGER: Yes, just going back to the
21 Berg amendment. I just wanted to make sure. So those
22 that their data is only from the instantaneous readings,
23 you'll consider those as you look at the exemptions that
24 might be possible rather than just -- because I know many
25 outside of the South Coast don't have the integrated

1 readings.

2 EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUÉ:

3 We're going to have to go back and look at what
4 level of the instantaneous readings versus the integrated
5 sampling and see if we think that there -- you know, if
6 there is something that can be done on that.

7 CHAIRPERSON NICHOLS: Some kind of sufficiency of
8 data in the motion, right.

9 BOARD MEMBER YEAGER: Yeah, that would be great.

10 BOARD MEMBER BERG: The data be very clear.

11 CHAIRPERSON NICHOLS: Yeah.

12 BOARD MEMBER BERG: I would like to clarify, that
13 I am not suggesting that we compromise on data, but that
14 we do in fact have a workgroup together to implement. And
15 I want to make sure that there is a mechanism that if in
16 fact staff were to learn, discover, realize that there was
17 a way to make the monitoring more efficient, that you have
18 that ability to keep the cost down.

19 EMISSIONS ASSESSMENT BRANCH CHIEF DONOHOUÉ:

20 Okay. I understand that.

21 BOARD MEMBER BERG: That's really where I'm going
22 with that, Chairman.

23 CHAIRPERSON NICHOLS: Thank you.

24 Okay. Let's just officially close the record at
25 this point. And make it clear that the record will reopen

1 when there's a 15-day notice of public availability that
2 is issued, and that there will not be any further comments
3 accepted on this item until that record is reopened. And
4 then people can comment on the proposed changes. So
5 that's how the process works going forward.

6 Those final comments get considered and responded
7 to in the final statement of reasons for the regulation.

8 Okay. So here's my concern about this issue
9 about the measurement efficiency. I get it, that we're
10 dealing with estimates here. And this is a discrete,
11 early action measure. It's supposed to be a quick,
12 simple, relatively speaking, way of getting some emissions
13 in the bag, so to speak, that we can count towards our
14 2020 goal and that will help us move in that direction.
15 And I don't think anybody has challenged the fact that the
16 proposal that's before us today will do that.

17 The question is, from the perspective of the
18 environmental groups who have spent a lot of time and
19 given thought to this issue, is that they don't think that
20 we're being ambitious enough. And they're worried that
21 the way we're doing it may make the landfills look better
22 and then somehow -- so, therefore, somehow create an
23 inducement to people to use landfilling as a solution for
24 organic materials that have a higher and better purpose if
25 they could be used as fuel directly or converted directly

1 to fuel.

2 And I am very sympathetic with that view. I
3 think there's a lot going on around the ARB, as Professor
4 Sperling alluded to earlier, to try to find new ways to
5 use what otherwise would be waste materials for fuel
6 purposes, both to make electricity and for transportation
7 fuel as well. This is a very active area right now,
8 without a doubt.

9 One of the things that I really want to see us
10 doing I think if we're going to spend time and effort on
11 monitoring the impacts of waste materials is to go beyond
12 landfills and look at other places where wood waste or
13 construction wastes or agricultural wastes are sitting
14 around, you know, out in the open and creating methane,
15 that undoubtedly is contributing to the problem of global
16 warming, as a large state with a lot of land mass, a lot
17 of remaining forests and ground cover, et cetera. We are
18 definitely in a position to help develop more advanced
19 policies in this area.

20 You know, I'd like to see us using some of our
21 research capacity to come up with better ways to actually
22 monitor what's coming out of these landfills -- or
23 non-landfills, these other sources of methane emissions.
24 You know, I don't know whether there are satellite
25 infrared tools that could be used or whether there's other

1 forms of measurement, monitoring that could be used, but I
2 think there is a lot of potential out there that we should
3 be really trying to help move forward on and help to lay
4 the groundwork for offsets or other types of regulatory
5 programs that might come forward in the future.

6 So I didn't hear anybody telling us not to adopt
7 the rule. But I did hear this kind of underlying unease
8 and disappointment that we're -- you know, we're not being
9 ambitious enough, we're not doing enough. And I resonate
10 to that kind of criticism. I'm concerned about that.

11 But I'd like to see us do it in a way that
12 actually has broader applicability to it, as opposed to
13 just haggling over what the actual percentage efficiency
14 of recovery is from the landfills.

15 So that's why I flagged that Item No. 5, because
16 I'm just not sure how much additional work needs to be
17 done to try to put a finer point on this percentage
18 efficiency number. But I would welcome a response back
19 from the staff on this issue

20 Mr. Scheible looks like he's ready.

21 DEPUTY EXECUTIVE OFFICER SCHEIBLE: Yes. Well, I
22 think the way our estimate was characterized was, one,
23 it's not as bad as it was characterized. There's
24 uncertainty. But I think we've used it in a reasonable
25 way, which is we had to get a reasonable idea of what

1 types of improvements in emissions -- reductions in
2 emissions would occur if we make people improve their
3 practices. And that was the major purpose. It clearly
4 did not demonstrate that if everyone follows what is in
5 the rule, all the landfills will be 85 percent controlled,
6 and we know that. And it shouldn't be used for that. And
7 if we allow -- if we've used it in the report in a way
8 that states that, we need to go back and modify it as we
9 address the final statement of reasons and we put it out.

10 Secondly, we need to act to improve to find out
11 how well this rule does work. And if it works really well
12 and we document that, that's great. And that's not to
13 allow more landfilling of waste. It's simply to say,
14 where they've been landfilled, we want to reduce the
15 emissions as much as possible. And where it's not working
16 as well, you know, in terms of total control and we get
17 methods to quantify that, then we need to put those
18 methods in place and improve the rules.

19 So we want to move ahead and improve it. We're
20 open to the suggestions we've got on other ways to look at
21 it as we go through the 15-day changes and incorporate
22 them into our analysis. And I think we agree that we
23 don't want it overplayed where other parties will say,
24 "Well, because you've done this, it's so" -- "you've got
25 such good control of landfills, we really don't need to

1 worry about diversion or other things."

2 And I don't think those things will occur. I
3 think the checks in place are adequate. But obviously
4 some parties will try to use whatever we put out there to
5 argue their case. And we need to be very careful and
6 state that carefully.

7 CHAIRPERSON NICHOLS: Well, since we're going to
8 be having an ongoing relationship with this industry and
9 with the Integrated Waste Board as a result of this
10 working group, I guess there will be plenty of opportunity
11 to make sure we're communicating our message accurately.

12 BOARD MEMBER RIORDAN: Madam Chair?

13 CHAIRPERSON NICHOLS: Yes.

14 BOARD MEMBER RIORDAN: I think that at least in
15 the time that I was seated on a board of supervisors and
16 we operated all the landfills, there was a very clear
17 message from the Integrated Waste Board, which was "You've
18 got to reduce what you're putting in this landfill," and
19 the numbers were pretty substantial. I'm believing today
20 that they are still working in that framework. And the
21 penalty was very stiff. If you didn't meet those
22 percentages of reduction, it was significant.

23 Now, I don't know whether that is true today.
24 But I think at the time it was at least about \$10,000 a
25 day of penalty for not reaching your goal of -- or the

1 Waste Management's goal of reduction of landfill. So you
2 kind of have a pressure point from another board that's
3 saying, you know, you should not be landfilling anything
4 that you can send somewhere else to be recycled and reused
5 in a better way.

6 DEPUTY EXECUTIVE OFFICER SCHEIBLE: And to the
7 extent that there's value -- energy value or carbon
8 reduction value in the products, it's not very efficient
9 to put it in a landfill and have to wait 5 to 30 years for
10 it to slowly convert to the carbon form that's useful.
11 You really want to look at methods that you've put it
12 directly in a digester or use another means so that you
13 get the energy value out of it quickly in a much more
14 managed way.

15 CHAIRPERSON NICHOLS: But obviously there's a
16 cost differential.

17 DEPUTY EXECUTIVE OFFICER SCHEIBLE: There's a
18 cost difference.

19 CHAIRPERSON NICHOLS: Supervisor Roberts, did you
20 have a comment?

21 BOARD MEMBER ROBERTS: I think Ms. Riordan really
22 summed it up very -- there's a lot of things going on that
23 are impacting the quantities and everything else. You
24 know, San Diego may be unusual. There was one offending
25 landfill, it happens to be on a marine base in San Diego.

1 So, you know, it isn't something we had access to, unless
2 these guys know otherwise, because I checked this out.

3 So, you know, most of the closed landfills have
4 collection systems in place, if not all. The new ones are
5 being designed with this equipment.

6 You know, I honestly thought this would be a real
7 quick item, because there's so much being done by others
8 in this area.

9 CHAIRPERSON NICHOLS: All right. Ms. D'Adamo.

10 BOARD MEMBER D'ADAMO: Well, I would like to get
11 back to some of the comments that you raised, Madam Chair.
12 And I do -- based on my limited experience in the valley,
13 I don't think there's a lot landfilling going on with
14 agricultural waste, for example, food processing waste.
15 But you do raise an important point and, that is, I think
16 we should get a better handle on what the emissions are.
17 And as I recall when we were reviewing the Scoping Plan,
18 there was some discussion about agricultural emissions and
19 additional research. Are we following up on that in this
20 context regarding agricultural waste and food processing
21 waste?

22 DEPUTY EXECUTIVE OFFICER SCHEIBLE: I don't think
23 we're following up in the landfill context, because that's
24 not where it goes. We are, for example, with low carbon
25 fuel standard going to go and work with how do you take

1 that and create a usable fuel. And I'd have to check back
2 with what we're doing on inventory improvement just in
3 general to see how we're looking at that from a global
4 warming standpoint.

5 BOARD MEMBER D'ADAMO: Yeah, I think that would
6 be helpful, because I think a lot of it's getting applied,
7 you know. It's land application, so it's concentrated but
8 not terribly concentrated. It's being spread out. So I
9 wouldn't have any idea, you know, what those emissions
10 might be and what the potential is for value-added for
11 fuel or energy production.

12 STATIONARY SOURCE DIVISION CHIEF FLETCHER: Well,
13 I can respond to that a little bit. In terms of when we
14 did the LCFS, one of the exercises that we went through
15 was to look at the resources available for, you know, what
16 we called economically available resources. And in that
17 we looked at forestry waste, we looked at agricultural
18 waste, we looked at landfill waste. We looked at all
19 sorts of renewable fuels. And as part of that, we then
20 looked at what -- you know, how many biorefineries, for
21 example, we thought could be produced that would support
22 the use of these resources. So there is work going on,
23 and that work is continuing to be refined.

24 The California Biomass Collaborative is all over
25 this issue in terms of looking at available resources and

1 how you get them out and what the cost is. The issue of
2 the definition of renewable biomass is certainly one
3 that's getting a lot of attention and was one of the
4 amendments that was made in the proposed Waxman-Markey.
5 So it is something that is getting a lot of attention to
6 look at those resources and how can they best be used.

7 Also in sort of response to Chairman Nichol's
8 broader view, there is a lot of work that is going on
9 looking at digesters that are looking at how you use these
10 resources. In the LCFS, for example, we have -- under the
11 \$25 million that we got several years ago we funded three
12 different projects that looked at the conversion of waste
13 into biomethane and the production of fuels from that.
14 And the AB 118 funds from the California Energy Commission
15 have -- in their investment plan has \$10 million
16 identified for renewable biomethane projects. So that's
17 like ten projects at a million dollars apiece.

18 So there is a fair amount of effort looking at
19 this issue globally. The Governor's Office of course is
20 very interested in the issue of digester waste, area
21 digester, food processor, or sewage treatment. So there
22 is a lot of I think effort. I know our division has a
23 group that is dealing heavily with digesters and trying to
24 see what can be done there.

25 CHAIRPERSON NICHOLS: Sounds like what we're

1 beginning to need here is a Board briefing, which I
2 realize we don't have a lot of time for. Certainly not
3 next month's meeting and we're off in August. But
4 normally I don't think we're planning to meet in August.

5 But maybe we could ask for something to be put on
6 a board agenda that would really encompass, you know,
7 what's going on around the organization as well as
8 statewide that might be relevant to having a more
9 coordinated policy here on what we're doing about organics
10 as it relates to air pollution and to methane emissions.
11 That would be very helpful.

12 All right. I'm guilty of having extended this
13 beyond the time that Supervisor Roberts thought this item
14 was going to take. I'm definitely part of the problem
15 here. But I will attempt to be part of the solution and
16 move us towards a conclusion here.

17 Are we ready to have a resolution here and move
18 to a vote?

19 BOARD MEMBER D'ADAMO: So moved with the
20 suggested changes by staff.

21 BOARD MEMBER RIORDAN: I'll second that, Madam
22 Chairman.

23 CHAIRPERSON NICHOLS: Thank you. And that's
24 including the six items which we generically described as
25 being additional direction from the Board but which you

1 are going to have to incorporate into something written
2 for us. But I think we're okay with all of those.

3 Before we take a vote we're required to disclose
4 any meetings that we've had that are outside the scope of
5 the hearing here today.

6 We're allowed, and encouraged, in fact, to have
7 those communications. But if you learn anything as a
8 result of them, you're supposed to put it onto the record.

9 So does anybody have any ex partes that they need
10 to disclose at this time?

11 Seeing one.

12 BOARD MEMBER YEAGER: I met with members of the
13 City of San Jose and the City of Sunnyvale

14 CHAIRPERSON NICHOLS: Okay. Very good. Thank
15 you.

16 All right. With that, I think we're ready for a
17 vote.

18 Will all in favor please say aye?

19 (Ayes.)

20 CHAIRPERSON NICHOLS: Opposed?

21 Great. Thank you very much.

22 I think our court reporter could use a break.

23 It's 20 of 12. We have two major items coming
24 up.

25 The question is, when do we want to take a lunch

1 break?

2 Do you want to do it early, later?

3 I see no heads nodding at the moment.

4 BOARD MEMBER RIORDAN: It's up to you, Madam
5 Chair.

6 CHAIRPERSON NICHOLS: It's up to me. I have to
7 take responsibility here.

8 All right. Let's take a ten-minute break then
9 and come back and we'll -- we'll start with the staff
10 report and then take a break. We'll do the staff report
11 and then take a break.

12 Thank you.

13 (Thereupon a recess was taken.)

14 CHAIRPERSON NICHOLS: We have a couple of members
15 who are in the back but are able to listen from where they
16 are.

17 The next item that we're going to be taking up
18 here is the staff's proposal for new standards that would
19 affect the light- and medium-duty vehicle sector. And
20 they're known collectively as the Cool Car Standards,
21 which establish requirements for the use of solar glass --
22 solar management glass.

23 The California Global Warming Solutions Act of
24 2006 has directed the staff to develop a number of early
25 action measures to reduce greenhouse gas emissions. This

1 was one of the measures -- Cool Cars was one of the
2 measures that was identified back in June 2007 as an item
3 to be considered for early adoption.

4 It's gone through some permutations and revisions
5 as the staff has delved into this area and learned more.
6 And today the staff is going to present a summary of their
7 proposed new regulation.

8 Mr. Cackette, are you ready to present this item?

9 BOARD MEMBER RIORDAN: Madam Chairman?

10 Excuse me, Mr. Cackette.

11 Madam Chairman, before you begin, I do have to
12 make a statement, which is that very late yesterday
13 afternoon I discovered, and it was confirmed by our legal
14 counsel's office, that in this particular item I have an
15 economic conflict of interest. So I have to recuse myself
16 from either the discussion or the vote or any of the
17 presentations. So I'm going to absent myself from the
18 dais and leave.

19 CHAIRPERSON NICHOLS: Thank you.

20 BOARD MEMBER RIORDAN: Thank you.

21 CHAIRPERSON NICHOLS: Okay. We'll miss you.

22 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Okay.

23 Thank you, Chairman Nichols.

24 The regulation staff is proposing today affects
25 automobile manufacturers who sell light- and medium-duty

1 vehicles in California. We are proposing standards that
2 would require the use of solar management window glazing
3 or glass in new vehicles beginning with the 2012 model
4 year.

5 The goal of the regulation is to reduce the
6 interior temperature of vehicles that have been parked in
7 the sun. And lower internal temperatures result in less
8 air conditioning use and allow a smaller air conditioning
9 unit to be equipped on the car, which increases
10 efficiency. Both of these changes would reduce fuel use
11 and, thus, greenhouse gas emissions as well as make the
12 vehicle more comfortable.

13 So Dr. Marijke Bekken -- oh, I also wanted to say
14 that the fuel savings that go along with this would fully
15 offset the capital costs of the higher costs of the
16 windshields over the life of the vehicle.

17 So Dr. Marijke Bekken of our Mobile Source
18 Control Division will make the staff's proposal.

19 (Thereupon an overhead presentation was
20 Presented as follows.)

21 DR. BEKKEN: Thank you, Tom. Today we are here
22 to present our Cool Cars proposal.

23 I will be presenting a little background on the
24 proposal, the original cool paint proposal you heard in
25 June 2007, the rule development process we went through

1 for the Cool Cars proposal, the current proposal, issues
2 that have been identified with the proposal, some 15-day
3 changes we want to propose for the regulation and the
4 staff's recommendations.

5 --o0o--

6 DR. BEKKEN: Assembly Bill 32, California's
7 Climate Change Reduction law, requires California to
8 reduce its carbon dioxide emissions to 1990 levels by
9 2020, about a 25 percent reduction. An Executive Order
10 further requires an additional 80 percent reduction by
11 2050.

12 In 2007, staff identified a number of greenhouse
13 gas reduction measures that could be adopted and
14 implemented on a relatively short timetable. One measure
15 identified would reduce motor vehicle air conditioning use
16 by reducing the interior temperature of vehicles soaking
17 in the sun. It was termed the "cool paints" proposal.
18 The cool paints measure was based on the use of solar
19 reflective paints for automobiles.

20 --o0o--

21 DR. BEKKEN: The projections and recommendations
22 for the original cool paint proposal were based on work
23 completed by Lawrence Berkeley National Lab and published
24 literature, particularly a Japanese assessment of the
25 reductions in interior temperatures achieved with solar

1 reflective paint applied to a Toyota.

2 In addition, staff believed ongoing research with
3 architectural paints would be transferable to the
4 automotive arena. But it turns out that architectural and
5 automotive paint requirements are very different
6 requirements and the transferability of these
7 architectural pigments to the automotive arena was
8 problematic. This led to concerns about the availability
9 of suitable pigments needed to develop a full color
10 palette including the deepest blacks by the proposed 2016
11 effective date.

12 Further, some of the available pigments were not
13 compatible with emerging paint processes that reduce
14 emissions during paint application. These issues,
15 together with suggested increases in the original cost
16 projections presented in 2007, and refinement of the
17 benefits assessment, led staff to focus the current Cool
18 Car effort on window glazing.

19 Therefore, staff decided to hold off on the paint
20 portion of the proposal until more pigment development
21 work has been completed. And the solar management glazing
22 was determined to be another way to reduce vehicle cabin
23 temperatures and air conditioner use.

24 The remainder of this presentation will focus on
25 window glazing.

1 --o0o--

2 DR. BEKKEN: First, a little background. We all
3 know that a car sitting in the sun can quickly get hot on
4 the inside, much hotter than the ambient air around it.
5 This picture shows what happens to the solar energy when
6 it impacts a window. The energy is either reflected off
7 the glazing, transmitted through the glazing, or absorbed
8 by the glazing. If it is absorbed, the energy is
9 ultimately released either out into the environment or
10 into the vehicle, depending on factors such as relative
11 temperatures and wind speed. These approaches will be
12 discussed further over the next few slides.

13 --o0o--

14 DR. BEKKEN: The window glazing can be formulated
15 in many ways. Traditional automotive glazing is lightly
16 tinted but does not offer significant solar control. Two
17 common types of solar control glass technology are solar
18 absorb glass and infrared reflective glass. Solar
19 absorbing glass is made by the addition of materials such
20 as iron into the molten glass before the glass is shaped
21 into a window. Solar absorbing technology can be used in
22 laminated glass as you'd see in a windshield, as well as
23 for tempered glass typically used in other glazing
24 positions on a vehicle.

25 The infrared reflective approach offers increased

1 solar control, but only works with laminated glass. This
2 is because it relies on the use of very fine particles
3 sputtered onto glass or onto a film sandwiched between two
4 layers of glass. The material could corrode if left
5 exposed to the air. It must be sealed within the two
6 sheets of glass.

7 Most of the solar reflective glass relies on fine
8 metal particles to reject the sun's energy, although there
9 are non-metallic films available as well.

10 --o0o--

11 DR. BEKKEN: This slide shows in graphical form
12 the effect of reflective glass. Much of the solar energy
13 is prevented from entering the vehicle and is reflected
14 outward. The energy that does enter the vehicle is
15 reduced. A small amount of energy that is absorbed by the
16 glass is either re-radiated out or into the vehicle. This
17 re-radiation is represented by the purple arrows at the
18 bottom of the glass. This same concept is used in home
19 and building windows to control heat gain.

20 --o0o--

21 DR. BEKKEN: Infrared reflective technology has
22 been used in a variety of vehicles. This list includes
23 some, although not all, of the makes that have used
24 infrared reflective glazing. Most models are luxury
25 units, but it has been offered in a number of mid-price

1 vehicles as well.

2 --o0o--

3 DR. BEKKEN: This slide shows in graphical form
4 the effect of solar absorbing glass. Rather than being
5 reflected, the solar energy's absorbed by the glass. The
6 portion of the absorbed energy that is radiated outward
7 never enters the vehicle. The portion re-radiating inward
8 does result in solar heat gain. Under parked conditions,
9 this type of technology will allow more energy to enter
10 the vehicle than the reflective approach. However, under
11 driving conditions, the reflective and absorbing glass
12 have similar benefits.

13 --o0o--

14 DR. BEKKEN: Staff's proposal sets different
15 requirements for windshields than for other glazing
16 positions. The windshield is currently laminated for
17 safety. The laminate technology has two pieces of glass
18 glued together with polyvinyl butyral. Because the
19 windshield is laminated, it is already positioned to use
20 the better infrared reflective technology. The proposed
21 solar control level currently can be met using infrared
22 reflective technology, although technological advances
23 could allow other approaches in the future.

24 --o0o--

25 DR. BEKKEN: This slide shows a graphic of the

1 assembly of a laminated piece of glass. The two pieces of
2 glass can protect a metallic coating from corrosion and
3 other degradation effects.

4 --o0o--

5 DR. BEKKEN: Most side and back windows currently
6 use a single layer of tempered glass. Tempered glass is a
7 single piece of glass that has been heat treated to make
8 it stronger. Roof glass is a mix of tempered and
9 laminated technology, depending on the vehicle model.

10 Staff's proposal is based on the use of less
11 effective solar-absorbing solar technology for the side
12 and back windows. We rejected a more stringent and
13 effective approach that would require the use of solar
14 reflecting technology because it would require side and
15 rear windows to switch to laminated glass. Replacing
16 tempered glass with laminated glass would increase costs
17 and possibly require a redesign of movable window
18 mechanisms. Because the side and back windows tend to be
19 more vertically oriented, they do not allow the transfer
20 of as much solar energy into the vehicle as does the
21 windshield. The additional cost for the all-around
22 approach would be substantial for the limited additional
23 benefits achieved.

24 --o0o--

25 DR. BEKKEN: Staff's proposal establishes a

1 performance of solar control glass that's available today
2 and the costs relative to each other. Current technology
3 for the 40 percent level is achieved using the direct
4 coating process, but it is anticipated that films will
5 also be able to achieve this level of solar control in the
6 near future. Solar-absorbing PVB interlayers can
7 currently achieve levels around 55 percent.

8 --o0o--

9 DR. BEKKEN: In determining its cost estimates,
10 staff spoke with glass manufacturers, automobile
11 manufacturers, and other interested stakeholders. To
12 comply with the Tier 2 level, the initial increased cost
13 for solar management glazing is expected to be 70 to \$80.
14 If this glass breaks and needs to be replaced, the
15 replacement glass will also be a little more expensive.
16 Assuming a windshield is replaced every eight years, and
17 accounting for increased finance and other costs, the
18 total cost per vehicle at the Tier 2 level is projected to
19 be \$111.

20 --o0o--

21 DR. BEKKEN: Based on the modeling presented in
22 the staff report, the solar management glazing
23 requirements will result in an estimated .7 million metric
24 tons CO2 benefit in 2020 and a 1.2 million metric tons CO2
25 benefit at full implementation. Reduced fuel use was

1 estimated at 161 million gallons per year at full
2 implementation. This results in an estimated savings to
3 the consumer of \$16 per year per vehicle. This means that
4 the total \$111 cost would be paid back to the vehicle
5 owner in about seven years.

6 --o0o--

7 DR. BEKKEN: Three broad issues have been raised.
8 They are the rate of implementation, electronic
9 interference with the reflective coating technology, and
10 requests to allow alternate approaches to compliance.

11 --o0o--

12 DR. BEKKEN: Staff has proposed a two-year
13 phase-in for the Tier 1 windshield standard of 50 percent
14 TTS, beginning in 2012 at 75 percent compliance.

15 Auto makers have argued for more time to
16 phase in the Tier 1 windshield standards, ranging from
17 keeping it at two years but with a lower percentage in
18 2012, to a five-year phase-in. One glass manufacturer
19 asked for a one-year delay. A few commenters asked that
20 the standard be relaxed to 55 or 60 percent TTS. On the
21 other hand, manufacturers with coating technologies
22 suggest the staff proposal is fine and they can meet any
23 demand.

24 --o0o--

25 DR. BEKKEN: Staff proposes that the Tier 2 40

1 percent TTS windshield standard be fully implemented in
2 2014. Auto manufacturers have varying views, ranging from
3 this being feasible to not completing the phase-in until
4 2019. Several glass manufacturers asked for a two-year
5 delay until 2016 to provide more time to develop improved
6 window technology. Again, those glass manufacturers with
7 advanced coating technology suggest 2014 is doable.

8 The general issue relating to the glass
9 manufacturers is whether more time should be allowed to
10 let those with less advanced technology catch up with
11 those who've invested and have the technology already.
12 And if more time is not given, can those with the
13 technology meet the entire demand of industry. For some
14 car manufacturers, it is the same issue as Tier 1 - more
15 time desired to make sure electronics work and windows
16 meet their specifications. Those asking for a relaxation
17 of the standard basically want to stick with the
18 technology they currently have, such as absorption
19 windshields.

20 --o0o--

21 DR. BEKKEN: Several car manufacturers have
22 suggested that because reflective coating windshields can
23 reduce the strength of signals from electronic devices
24 such as GPS and garage door openers, much more time is
25 needed to verify operation or move antennas to outside of

1 the passenger area. This is an issue of timing or
2 phase-in rather than technical feasibility, because some
3 European cars already use reflective windshields and some
4 use reflective solar control on all glazing, and do so
5 with current electronic devices. The proposed regulation
6 allows areas where the reflective coating can be deleted
7 to improve the signal transmission for devices inside the
8 car. The addition of external antennas also addresses
9 this concern.

10 --o0o--

11 DR. BEKKEN: Automakers have suggested that they
12 should be able to suggest alternative ways to meet the
13 goal of the proposed regulation. For example, a less
14 effective glass could be used if other methods of cabin
15 cooling were provided.

16 Staff is generally supportive of such flexibility
17 if it can assure that the alternative is truly as
18 effective as the regulation is written. What limits the
19 attractiveness of alternatives, especially ones that
20 involve alternate test procedures, is the substantial
21 amount of staff effort needed to assure that the
22 alternative is equally effective. We are not equipped to
23 do this on short notice, and this becomes a especially
24 difficult if multiple manufacturers suggest different
25 alternatives.

1 Staff believes this is better addressed by the
2 affected industry developing standardized procedures
3 through an organization such as SAE, and then seeking ARB
4 approval. We are willing to participate in any such
5 endeavor.

6 In addition, the alternate compliance approach
7 has the potential for gaming the system. This is
8 compounded by the lack of a standardized assessment
9 procedure.

10 --o0o--

11 DR. BEKKEN: In response to industry comments,
12 staff is proposing several 15-day changes.

13 A section was reserved in the proposed regulatory
14 language for labeling requirements. The glass
15 manufacturers are generally in agreement that labels can
16 and should be used for the glass. Staff will work with
17 manufacturers to determine appropriate labeling language
18 for including in the final regulation.

19 --o0o--

20 DR. BEKKEN: Next, the regulatory language
21 includes the statement -- can we move on?

22 Okay.

23 -- that the glazing's performance should be
24 determined referenced to four millimeters thickness. Some
25 automotive manufacturers and glass suppliers have

1 Staff recommends that the Board adopt the Cool
2 Cars proposal with the 15-day changes suggested today.

3 CHAIRPERSON NICHOLS: All right. Thank you very
4 much.

5 Are there any questions from Board members at
6 this time on the staff presentation?

7 We have a fairly extensive list of witnesses, and
8 we had indicated that we were going to break. But do you
9 want to get started or you want to -- Yeah, all right.
10 Let's get started. I see people ready to go.

11 All right. We're going to start through the list
12 of witnesses then. But we will take a break at one
13 o'clock for lunch. So we'll just get us far as we can.

14 We'll begin with Steve Douglas from the Alliance
15 of Automobile Manufacturers.

16 Good morning.

17 MR. DOUGLAS: Good morning, Madam Chair.

18 CHAIRPERSON NICHOLS: Well, it's not quite
19 morning.

20 Then John Cabaniss, Ross Good.

21 MR. DOUGLAS: Good afternoon, Madam Chair. And I
22 had a presentation as well.

23 CHAIRPERSON NICHOLS: Okay.

24 MR. DOUGLAS: I'll go ahead and get started.

25 (Thereupon an overhead presentation was

1 Presented as follows.)

2 MR. DOUGLAS: I'm Steve Douglas with the
3 Alliance. Those are the member companies of the Alliance.

4 And I'd like to -- we will recommend today -- if
5 you can go to the next slide.

6 --o0o--

7 MR. DOUGLAS: -- a number of things:

8 First, allow a performance standard alternative.
9 It's in the history of ARB. It's been very successful in
10 the past. We would encourage you to adopt that.

11 Second, consider adopting an absorbing standard
12 in lieu of a reflective standard. It achieves about 85
13 percent of the benefit at about 10 percent of the cost,
14 and it doesn't have any of the complications of reflective
15 glazings.

16 Third, a technology review in 2012. Regardless
17 of what you do, there's a lot of uncertainty about this,
18 from the electromagnetics or the wireless systems to the
19 Tier 2 standards.

20 If there is a reflective standard, if you do
21 adopt that, we do need more lead time, both with the 2012
22 and with the Tier 2 standards.

23 Roof light standards are currently at 30 percent.
24 That yields a sunroof that's effectively black. So
25 there's no light coming through that.

1 Exemptions. We're looking for exemptions for
2 plastic windows, both polycarbonate and the collapsible
3 that you'd see on convertibles and such. And also
4 vehicles that don't produce CO2, such as electric
5 vehicles.

6 And, finally, we'd ask that you authorize staff
7 to adopt some technical changes in the 15-day notice.

8 If you'd go to the next slide.

9 --o0o--

10 MR. DOUGLAS: Vehicle performance standard.
11 Again, the goal interior temperature. Mr. Cackette said
12 that in the beginning. That's all we ask. You've been
13 very successful in the past. You didn't specify catalytic
14 converter standards. You specified vehicle exhaust
15 standards. We improved the efficiency of the catalyst as
16 well as the efficiency of the combustion chambers. Fuel
17 injectors are a result of performance standards for the
18 vehicle. It allows innovation.

19 So all we're asking here is you'll allow the
20 Executive Officer to approve other methods that achieve
21 the same reductions, the same interior temperature.

22 Next.

23 --o0o--

24 MR. DOUGLAS: There are issues with the reflected
25 standards of metal oxide coating. It does reduce wireless

1 signal strength. Cell phone coverage will be reduced.
2 There'll be more dropped calls. Portable GPS devices will
3 be impacted. Fasttrack electronic toll booths will have
4 problems. Tire pressure monitoring systems, those will
5 have to be validated. Garage door openers, so on and so
6 forth.

7 The next slide.

8 --o0o--

9 MR. DOUGLAS: There has been a discussion about
10 the proposed reflective standard. And I'd just say that
11 you do get -- and this graph is from the ARB staff report.
12 It's the staff's numbers. The benefit of an absorbing is
13 about 85 percent of the benefit of a reflected standard
14 that's proposed. There are no issues with wireless
15 communications. And what's more is there's no difference
16 in the benefit once the vehicle starts moving. We would
17 encourage you to adopt an absorbing standard, at least
18 initially, rather than the reflective.

19 And next slide.

20 --o0o--

21 MR. DOUGLAS: If you do go with the reflective
22 standard, manufacturers have to verify every wireless
23 system on every vehicle and we have about a year to do it.
24 So we do request a longer phase-in for that.

25 CHAIRPERSON NICHOLS: Thank you, Mr. Douglas.

1 MR. DOUGLAS: All right. Thank you very much.

2 CHAIRPERSON NICHOLS: I'm sorry. The three
3 minutes goes by fast. But we do have your written
4 presentation.

5 MR. DOUGLAS: All right. Thank you.

6 BOARD MEMBER SPERLING: Could I ask a question?

7 CHAIRPERSON NICHOLS: Yes.

8 BOARD MEMBER SPERLING: You advocate this idea of
9 performance standards. How do you imagine that -- and as
10 the staff said, a key issue is the test method. How do
11 you imagine these test methods being developed and how
12 soon could that happen?

13 MR. DOUGLAS: That's an excellent point, Dr.
14 Sperling. I think we can do it in six months. I think we
15 have to do it in six months. If we're going to be
16 building vehicles for 2012 using performance standards,
17 we'd have to get the test procedures put together.

18 Compared to the other test procedures we have,
19 it's relatively simple. We're looking at temperature in
20 the vehicle. And kind of the variables are the color of
21 the vehicle, the color of the interior, and the material
22 of the interior. We do far more complex test procedures
23 with far more variables, and we've been doing it for
24 decades now. So -- and we could develop through the
25 Alliance with -- or through the auto makers one proposal

1 that we could bring to the staff for their review and
2 approval.

3 And also I think that some of my colleagues will
4 have a little more detail on what they had in mind for
5 test procedures.

6 CHAIRPERSON NICHOLS: Thank you.

7 MR. DOUGLAS: Thank you.

8 CHAIRPERSON NICHOLS: Okay. John Cabaniss.

9 MR. CABANISS: Good morning. I also have some
10 slides, and I suspect you have them already. Thank you.

11 Go to the next one please.

12 (Thereupon an overhead presentation was
13 Presented as follows.)

14 MR. CABANISS: I just wanted to reinforce a few
15 of these thoughts that Steve Douglas brought up -
16 performance standard option, expanded phase-in. And also
17 one new thing that he didn't cover, which is small volume
18 manufacturer provision.

19 Next please.

20 --o0o--

21 MR. CABANISS: The performance standard option
22 would add regulatory provision, the way we view it today
23 at least, because we don't have this test procedure worked
24 out. We simply would ask that you add some regulatory
25 flexibility, a provision to allow this option with the

1 Executive Officer approval, and then we would work with
2 staff to establish a protocol over the next few months, as
3 Steve mentioned. This would allow manufacturers
4 flexibility to use a systems approach to meet the
5 requirements. And it would also promote innovation, as he
6 mentioned.

7 Next please.

8 --o0o--

9 MR. CABANISS: The expanded phase-in. Of course
10 the benefits of the Cool Car role, as was explained by
11 staff earlier, is really -- has two elements: The glass
12 itself, and then redesigning the air-conditioner to take
13 advantage of the reduced thermal load.

14 Regardless of when the glass gets imposed in the
15 vehicle, implemented into the vehicle, the air
16 conditioning redesign will not be able to be occurring in
17 the same timeframe just because of all the reengineering
18 that has to be done. And, in fact, when you look at the
19 background of what other things are going on in the air
20 conditioning area, one of the foremost is the introduction
21 of new global warming potential refrigerants, which is
22 being done worldwide on a 2012 to 2017 timeframe. And so
23 the schedule for glass should be considered in this
24 context, because -- not that the glass can't be done
25 somewhat earlier. But the real payoff is going to be when

1 the air conditioning redesign is done, and that's going to
2 be on a somewhat different schedule.

3 Next.

4 --o0o--

5 MR. CABANISS: And, finally, the small volume
6 manufacturers. There are several independent small volume
7 manufacturers, companies like Ferrari, Aston Martin. They
8 produce a few hundred vehicles each year in California.
9 Those phase-ins -- or the types of phase-ins that are
10 being recommended here are very difficult for companies
11 like that due to their low volume and the very limited
12 models that they have. So, you know, their ability is
13 really to comply or not comply, not to phase-in.

14 So we would just simply request that a provision
15 be added for these independent small volume manufacturers
16 to comply in the final year of the phase-in, whatever it
17 ends up being, as was done with the AB 1493 regulation.

18 And that's all I have. Thank you very much.

19 CHAIRPERSON NICHOLS: Thank you.

20 Ross Good, followed by Dave Raney.

21 MR. GOOD: Good morning Chair Nichols and members
22 of the Board. My name is Ross Good. I'm Senior Manager
23 of Government Relations for Chrysler Corporation --
24 Chrysler Group LLC. Got to get that right now. I'm
25 asking for your careful consideration to alternative

1 measures to the cool glazing rule before you today.

2 As I've worked with my colleagues back at our
3 headquarters in Auburn Hills, Michigan, on this issue over
4 the past several months, I've asked them to keep one thing
5 in their mind, and, that is, how we can help the ARB staff
6 accomplish their goals.

7 The goal in this case is to reduce the CO2
8 generated by lowering the resting vehicle cabin
9 temperature and thereby reducing the number of days
10 throughout the year that we Californians need to utilize
11 our air conditioning systems.

12 As they stand now, the staff recommendations in
13 the proposed rule focus on a single technology offered by
14 a single manufacturer produced at a single plant in the
15 United States. There is hope that at least one other
16 manufacturer will develop the material, develop the
17 process, build a plant in time to fill these needs. But
18 it doesn't really -- that's a lot of hoping, and it's very
19 difficult to build credible business cases on hope.

20 So Chrysler engineers took the question of how we
21 can help to heart. We recommend that -- the recommended
22 solution is to apply the more relaxed standard of the side
23 and rear windows to all the way around the vehicle, except
24 for the roof. And this according to our estimate can be
25 accomplished very quickly, very effectively, very

1 inexpensively, and without all the technical difficulties
2 associated with the proposed technology.

3 By "quickly," I mean Chrysler can launch into the
4 program by the initial 2012 model year.

5 By "effectively," I mean we can accomplish 70 to
6 85 percent of the goal -- 75 to 85 percent of the goal.

7 By "inexpensively," I mean we can do it for about
8 10 percent of the price, and without all the nagging
9 problems that have been discussed.

10 There are other issues with the proposed rule as
11 well, including an exemption for plastic windows. This is
12 very important to Chrysler. The very popular Jeep
13 Wrangler fitted with a soft convertible top uses flexible
14 roll-up side windows which are not capable of meeting the
15 side window standard. And outlawing the soft top would
16 require us to use the hard-top vehicle with the hard
17 windows, which would add significant weight to the vehicle
18 and reduce the -- and increase the CO2 every mile the
19 vehicle is driven, not just when the air-conditioner is
20 being used.

21 And, second, the global electric motor, or GEM
22 car vehicle, which Chrysler produces - I believe Chair
23 Nichols is a proud owner of - uses plastic on side -- rear
24 windows as well.

25 And switching to conventional glass would reduce

1 the vehicle's operating range while offering no AC benefit
2 at all. In fact, these vehicles don't even offer AC as an
3 option, so there's no real problem to solve there.

4 Third, it seems reasonable that an exemption for
5 zero emission vehicles as a class might be a wide
6 consideration. Certainly there are -- issues with how and
7 where the electricity to power and run these vehicles and
8 AC systems is generated is a point. But that's maybe
9 picking at nits, and we should probably be moving the
10 boulders out of the way first.

11 Finally, I know that you've heard and will hear
12 testimony from a lot of people representing a lot of
13 companies, environmentalists, the ARB staff, and everyone
14 pointing forward. But when it's time to march, we all
15 seem to be headed off in a little bit different direction
16 here. And I think that points out that the rule just
17 isn't quite ready yet. Maybe a little bit more time to
18 align our goals would help us to get to march in the
19 same --

20 CHAIRPERSON NICHOLS: Okay.

21 MR. GOOD: Thank you.

22 CHAIRPERSON NICHOLS: Thanks. Thank you.

23 David Raney, followed by Dan Adsit.

24 MR. RANEY: Good afternoon, Madam Chairwoman,
25 ladies and gentlemen of the Board. My name's David Raney.

1 I'm the Senior Manager of Environmental & Energy Affairs
2 for Honda in the United States.

3 I would say that we're trying to come to you
4 today with a can-do attitude, and hopefully my comments
5 will reflect that.

6 What I may say may appear to not be in that vein.
7 But when I conclude, I hope we can both come to agreement
8 that's our case.

9 We echo what you've heard so far, that a
10 performance-based approach is what we consider the best
11 approach. And that's based on the fact that we believe a
12 performance metric which would require the development of
13 a new standardized test procedure is important; it could
14 be applicable nationwide; and it gets at I think what
15 we're most interested in and what will bring benefit to
16 us, not necessarily focusing on the temperature of the
17 interior compartment but what we believe is most important
18 and, that is, AC system load.

19 We believe a systems approach to this is
20 important. And we believe getting at load through many
21 mechanisms, not just reducing it through solar flex coming
22 in through the glass, is most important. We're pretty
23 smart fortwo at developing our vehicles today and managing
24 electronic control systems and the inherent fuel injection
25 process based on load, and we'd like to be given the

1 opportunity to pursue that in this vein as well.

2 Not abandoning what the staff has proposed.

3 While the performance test procedure is being developed, I
4 can't tell you if it would take six months or three years.
5 But I believe that doing it right would take some time. I
6 think, importantly, going beyond what would happen here in
7 the State of California, it needs to be addressed
8 nationwide. I believe there should be some harmonization,
9 frankly, between the U.S. EPA and California as we look at
10 national greenhouse gas standards.

11 But while the test procedure's being developed,
12 we're firmly committed to telling the Board and staff
13 today that we could commit as a company to offering 60
14 percent TTS absorption glass not only in California but
15 nationwide. We can do it soon. And the reason for doing
16 that is because we wouldn't have to perform what has been
17 reported to you so far of reengineering all of our
18 electronic systems.

19 I must be clear, that we cannot meet the proposal
20 as presented by the staff today. The proposed requirement
21 of TTS 50 percent of 100 percent in 2013 is simply not
22 feasible for my company. The proposed requirement of TTS
23 40 percent is simply not feasible either. There's two
24 primary reasons for that, one being lead time. We have a
25 staggered phase-in of full model development, full model

1 change. And we have limited engineering resources. We
2 float engineering teams around individual model
3 developments, and each one of these is focused on
4 reengineering for the new glass.

5 The second one is a supplier situation. And that
6 is the need to make sure we've got adequate supply.

7 Thank you for your time. And I hope we can
8 engage with you in this constructively.

9 CHAIRPERSON NICHOLS: Thank you very much.
10 Next -- we have two witnesses who signed up for Toyota.
11 We don't usually -- oh, I'm sorry, after Dan.

12 Excuse me, Mr. Adsit. I apologize. I'd already
13 called your name and forgot you hadn't spoken yet.

14 MR. ADSIT: Thank you, Madam Chair. I represent
15 Ford Motor Company.

16 Ford supports the goal of reducing interior
17 temperature of vehicles parked in the sun. We do request,
18 however, some changes to the proposed standard.

19 One is a performance-based compliance
20 alternative. We think that encourages innovation,
21 competition, and cost efficiency. We think performance of
22 alternate cooling technologies could be determined by
23 simple test procedures.

24 What we envision is taking a few vehicles and
25 heating them, one with standard glazing; one with glazing

1 as proposed by the standard; one with alternate
2 technologies that cool the interior, measuring the
3 interior temperatures. If the alternate technologies cool
4 the car as well, what we'd like to do is submit our test
5 data to the Executive Officer and request that the
6 alternative technologies be allowed.

7 We understand too that the alternative
8 technologies must be independent of driver action.

9 Ford did develop a draft test procedure. We have
10 supplied it to staff. We've shared it with our other
11 automobile companies. And we do think that a test
12 procedure could be developed quickly, within six months.

13 So what we'd request is that the alternative
14 compliance language that are in the written Alliance
15 comments be added to the standard. And we also request
16 that there be a requirement to develop a test procedure to
17 measure performance.

18 Additionally, we would like to see more of a
19 phase-in for the reflective windshields. At Ford we're
20 moving to deep bend windshields, which have more
21 curvature. And the issue for us is in 2012 we'll have
22 half of our windshields that are these deep-bend
23 windshields.

24 There's two ways of doing this reflective
25 windshield. One is coated film. That for us is the

1 go-fast way of approaching this. We would do that for the
2 2012 model year.

3 The problem is with deep-bend windshields there
4 can be wrinkling cling and distortion of this film around
5 the edges. Coating on the glass is a better way to
6 approach it for deep-bend windshields, but it has longer
7 lead time for us. Our suppliers aren't set up to do that.

8 So we would request more of a phase-in for the
9 windshield portion.

10 Also, that would give us flexibility for
11 implementing the windshields. We could do it in a more
12 cost effective manner. It wouldn't require us we think to
13 do two windshields within the period of two years for each
14 parked vehicles.

15 We'd also like to see the addition of a
16 technology review. Presently, as has been mentioned,
17 there's only a few suppliers that may be able to meet the
18 40 percent TTS requirement in 2014. There are electronic
19 device interference issues.

20 There are issues with implementing other kinds of
21 glazing such as polycarbonate glazings. And we think with
22 a technology review, there'd be time to discuss those
23 issues and possibly make changes as required.

24 So we do support the goal, and we would like to
25 see those three changes made to this standard.

1 Thank you.

2 CHAIRPERSON NICHOLS: Okay. Thank you very much.

3 We have two witnesses from Toyota. We don't
4 normally let people double their time by splitting up
5 their presentations. But if one of you is just going to
6 focus on the radio wave issue --

7 MS. BROWN: Yes.

8 CHAIRPERSON NICHOLS: Okay. Well, why don't we
9 just -- we'll hear that one separately. And then the
10 other one, don't talk about that at all. You can talk
11 about your other points. You've got a lot of slides here.

12 (Thereupon an overhead presentation was
13 Presented as follows.)

14 MS. KOKKINAKOS: Good afternoon. I have a
15 presentation.

16 Good afternoon. My name is Lili Kokkinakos from
17 the Toyota Technical Center. And I would like to present
18 an overview of Toyota's opinion about the Cool Cars draft
19 rule, concerning in particular the front windshield, roof,
20 and plastic windows.

21 Lisa Brown from our Electronic Systems Division
22 will discuss some detailed technical issues after this
23 presentation.

24 We understand and support the intention of this
25 Cool Car regulation.

1 CHAIRPERSON NICHOLS: Could you speak up a
2 little. We're having a hard time hearing you. Maybe if
3 the mike gets closer to you.

4 MS. KOKKINAKOS: Before I start, I would like to
5 note that Toyota has direct experience with solar
6 reflective glass windshields and adopted in some vehicles
7 in the 1989 through 1994 timeframe in Japan.

8 But we moved away from using it largely due to
9 the obstacles with radio wave interference and concern
10 that this might cause inconvenience to our customers as
11 more and more radio wave devices that are being used.

12 Some examples of problems we had in Japan were
13 with the VICS smart car system, infrared speed detection
14 cameras, et cetera, et cetera, future technology.

15 Next slide.

16 --o0o--

17 MS. KOKKINAKOS: Of the front windshield,
18 adopting a 40 to 50 percent TTS standard as is in the
19 current draft of the Cool Car rule would necessitate using
20 solar reflective glass. Adopting solar reflective glass
21 on our vehicles would be a major change which would
22 require that we would -- we'd have adequate time to
23 perform necessary redesign such as moving antennas, study
24 of deletion areas, performing reliability and performance
25 testing to ensure no unintended consequences due to our

3 Due to these issues, we propose adopting a 60
4 percent TTS standard for the windshield, which will allow
5 us to provide solar control without radio wave issues and
6 concerns about glass supply. We are then dedicated to
7 working both internally and with our suppliers to study
8 methods to address our technical concerns and resolve mass
9 production issues so that we would be able to have a
10 technology review in two-years time to consider what would
11 be 15 model year and later standard.

15 --o0o--

21 Also, roof lights we're concerned with regarding
22 the standard at 40 percent TTS. This would force very
23 dark roof lights that would be too dark for customer
24 preference and also potential issues with the design
25 because it could be heavier and thicker.

1 In summary, Toyota supports the goal of the Cool
2 Cars regulation, but we have significant concerns about
3 the unintended impact of the level of stringency in the
4 proposed requirements, particularly for the windshield,
5 plastic glazing, and roof lights.

6 Thank you.

7 CHAIRPERSON NICHOLS: Thank you.

8 Ms. Brown.

9 MS. BROWN: I also have a presentation, if you
10 could pull that up please.

11 (Thereupon an overhead presentation was
12 Presented as follows.)

13 MS. BROWN: Good afternoon. My name is Lisa
14 Brown and I'm an electrical engineer from the Toyota
15 Technical Center. I'd like to highlight some technical
16 concerns that Toyota has regarding the current draft of
17 the Cool Car rule.

18 Increasingly more and more radio wave systems are
19 being adopted on to vehicles. It is essential that we
20 maintain the performance and reliability that our
21 customers expect. So adoption of the current draft means
22 we need to verify all of these systems, in many cases make
23 major design changes.

24 We know that currently other manufacturers have
25 adopted some solar reflective glass, for example, in

1 improve the sensitivity.

2 Another consequence is that a new or modified
3 hole must be placed through the roof for the cable. This
4 has a major impact on the body structure, which will need
5 to be verified and possibly redesigned. Water intrusion
6 is another potential issue that must undergo thorough
7 testing.

8 Redesign of the GPS antenna is a major change
9 which requires significant testing and potential redesign
10 of many other areas of the vehicle, and we need adequate
11 time for implementation.

12 Next slide please.

13 --o0o--

14 MS. BROWN: In the U.S. tire pressure monitoring
15 is mandatory for all vehicles, and we are concerned about
16 meeting both TPMS and current draft Cool Car requirements.
17 A dominant path for the radio waves from the front tire to
18 the receiver is through the front windshield, as this
19 figure shows. And using present technology solar
20 reflective glass would greatly reduce the signal strength.
21 Other auto manufacturers who currently use reflective
22 windshield mitigate this problem by adding many extra
23 antennas. This is not a practical solution to implement
24 across a whole vehicle product line because it's cost
25 prohibitive and a major redesign is again required.

1 A wide area deletion across the bottom of the
2 windshield or other emerging technologies that allow
3 adequate passage of radio waves could be potential
4 solutions for the future, but they're currently not
5 feasible. Using mass deletion across the bottom would
6 violate the current rule threshold. And other options
7 such as the wide area laser deletion and other emerging
8 technologies are not ready for mass production at this
9 time.

10 Next slide please.

11 --o0o--

12 MS. BROWN: In conclusion, there are many
13 technical issues that still exist in implementing the
14 current draft Cool Car rule with technology that is
15 presently available for mass production. And we hope the
16 Air Resources Board will consider Toyota's proposed
17 changes to the rule as presented earlier by Lili
18 Kokkinakos.

19 In addition to me, we have experts today from
20 Japan, and we'd welcome any questions that you may have.

21 Thank you very much for your time.

22 CHAIRPERSON NICHOLS: Thank you.

23 Jonathon Morrison, followed by Razmik Balian.

24 MR. MORRISON: Hi. My name is Jonathon Morrison.
25 I'm with the California New Car Dealers Association. We

1 represent the dealers that buy the cars from the
2 manufacturers and sell them to customers. And we are the
3 face of the auto industry for most customers that are
4 buying cars or having them fixed.

5 We're in a bit of a strange situation here. We
6 absolutely love the idea of having cars that are cooler
7 when they've been sitting out in the sun. We love the
8 idea of saving our customers four or five gallons of fuel
9 a year. But we have some real concerns if the mandated
10 technology to achieve that could interfere with GPS
11 systems, cell phones through blue tooth, and garage door
12 openers.

13 We think a perfect solution to this potential
14 problem would be to allow for a performance requirement,
15 to require mandated -- to allow technologies to meet these
16 requirements that may not necessarily be solar reflective
17 glass. Perhaps the absorbing glass would be a good
18 solution to this, or leave it up to the manufacturers that
19 design these vehicles.

20 That's one big concern.

21 Another concern we have, actually it's more of a
22 technical issue, is with the record retention
23 requirements. We're also going to be the people that are
24 fixing these cars. And if there's a crack in the
25 windshield needs to be replaced, they may do this at one

1 of our collision repair centers or they may have this
2 replaced by the automotive dealers service center.

3 With that regard, we actually have requirements
4 under existing automotive repair law that requires dealers
5 to maintain all these documents. This would be the
6 invoice from the glass company and all other parts
7 invoices. These have to be maintained for three years
8 after the service. The proposed regulation would require
9 that the automotive repair dealer keep these for five
10 years. So not only is there a bit of an overlap and, you
11 know, some inconsistencies with the existing law; we also
12 have some concerns because, as new car dealers, we're
13 covered by federal and state privacy laws. We have to
14 keep confidential consumer information in-house. We can
15 only give this out in certain circumstances, mainly if
16 it's pursuant to a properly executed warrant or subpoena
17 for those documents.

18 And we would ask that since we already have laws
19 out that there that require these records to be
20 maintained, that those laws be allowed to do their work as
21 intended and that section of the proposed regulation be
22 removed.

23 Thank you.

24 CHAIRPERSON NICHOLS: Thank you.

25 Mr. Balian.

1 MR. BALIAN: Good afternoon. My name is Razmik
2 Balian. I represent AGC Automotive. Thanks for this
3 opportunity.

4 As a brief introduction, AGC Automotive supplies
5 glass components and glazing systems to one out of every
6 three vehicles produced globally, from 21 facilities
7 around 14 countries.

8 AGC Automotive and our parent company, AGC Group,
9 has supported CARB to create effective regulations and
10 strongly believes that CARB's leadership is of critical
11 importance to reducing greenhouse gas emissions.

12 We would like to summarize our position as
13 follows:

14 For 2012 regulation, current available
15 technologies can meet the required specifications for
16 windshields, side lights, and back lights. Sunroof
17 regulations need further revisions to balance weight and
18 cost issues. However, we believe that we may be
19 underestimating the resources required to fully and
20 effectively implement these technologies, especially for
21 reflective windshields.

22 The numerous models that need to be developed for
23 model year 2012 and 2013 could potentially overwhelm the
24 supply base.

25 To allow the automotive industry's product

1 validation procedures and go from design development
2 testing, tooling, validation, and mass production is a
3 great task for one vehicle, let alone for a number of
4 models that are coming up to be redesigned in a short
5 period. And this is a challenge for both suppliers and
6 OEMs.

7 We strongly recommend an addition -- one-year
8 addition into the phase-in of the 2012 regulation. And we
9 believe that this would provide a more lasting and
10 widespread benefit of CARB's regulation for greenhouse gas
11 reductions.

12 Now, as for 2014 regulation, we are confident
13 that triple metallic layer coating and other film
14 technologies will satisfy CARB regulation. But as
15 mentioned before, we may be underestimating the time
16 needed to prove the technology through testing and
17 validation before significant resources are dedicated to
18 implementing this technology in a mass scale.

19 Please note that all windshields are not equal.
20 Each windshield is a unique part, with its own
21 characteristics, and has got to be taken into account
22 separately.

23 In particular, if not implemented properly, a
24 number of poor technically -- technically poor performing
25 windshields with low manufacturing yields can consume a

1 substantial portion of the industry's capacity. We need
2 to be very careful for the industry not to fail.

3 We are recommending for the 2014 model year
4 windshield regulation to be revised to 2016 with a gradual
5 phase-in period.

6 Thank you for this opportunity.

7 CHAIRPERSON NICHOLS: Thank you.

8 Ted Harris, then Daniel Karpen and Ari Frink.

9 MR. HARRIS: Hello. I'm Ted Harris on behalf of
10 Pilkington Glass. I'm with California Strategies.

11 I'd like to first thank you for your time today.
12 And, one, I want to come to say we're in support of Tier
13 1. We fully recognize that there are some manufacturers
14 that have issues. But from a supply side, you know, it
15 currently exists and can be supplied.

16 We respectfully request that the timeline for
17 Tier 2 be as adjusted.

18 There are 383 vehicle models that are required by
19 2014, including 2012, 2013, and 2014. So to back up, the
20 requirement is for all vehicles produced in 2014, and then
21 every replacement windshield for 2012 and 2013. From just
22 a sheer vehicle model number, that is an incredible task
23 for the industry.

24 The benefits to get to that point are mostly
25 accomplished through Tier 1. So 75 percent of the benefit

1 is accomplished by Tier 1. And in 2014, 2015 all that
2 benefit would continue through. So the idea is to find
3 kind of that sweet spot where we can achieve the benefits
4 but not have a train wreck where the industry cannot
5 supply all 383 vehicles.

6 We supplied a seven-page letter. And if you have
7 any questions, I'm glad to respond.

8 Thank you.

9 CHAIRPERSON NICHOLS: Thank you, Mr. Harris.
10 Daniel Karpen.

11 MR. KARPEN: My name is Daniel Karpen
12 K-a-r-p-e-n. I'm an independent inventor. I came here
13 from Huntington, New York, with my own money. I hold the
14 patent to add neodymium oxide to the glass of the
15 windshield to eliminate the glare from the rising and
16 setting sun.

17 Have all of you seen my letter dated June 1?

18 Mary, have you seen my letter?

19 CHAIRPERSON NICHOLS: Yes, I have.

20 MR. KARPEN: Okay. For those of you, the
21 audience, who haven't seen, basically I will summarize
22 what's in the letter.

23 Neodymium oxide is a component of glass,
24 selectively absorbs the yellow light. And when you do
25 that, you get rid of the glare from the rising and setting

1 sun.

2 Implementation of this regulation would preclude
3 the use of neodymium-built glass for automotive
4 windshields.

5 I am not opposed to the regulation as it pertains
6 to rear glass, side glass, on sunroofs. I am, however,
7 concerned about what it would do for my invention.

8 In the end of my letter I did suggest the idea of
9 some sort of automatic device to open windows so it would
10 cool the car. And then after I wrote the letter, I got
11 ahold of my Toyota 2010 Prius book, and it says they have
12 a solar roof. The available solar roof in the third
13 generation Prius is imbedded with solar panels. When
14 Prius is parked in direct sunlight, these solar panels can
15 power a fan which brings in cooler outside air,
16 ventilating the cabin close to the ambient outside
17 temperature.

18 I wonder why the Toyota representatives didn't
19 tell you about this.

20 I'd like to give a little demonstration of how
21 neodymium-doped glass cuts out the yellow light. And here
22 we have the rising sun. George Harrison says, "Here comes
23 the sun." And if we put the piece of glass in front of
24 it, you will notice a substantial reduction in glare. I
25 wish I had it on my car.

1 Actually for the last 30 years, I've never owned
2 a car that had operable air conditioning. I would always
3 lower the windows. And the old Dodge Darts and Plymouth
4 Valiants had side vent windows you could turn and twist
5 and you'd get lots of air flowing through.

6 Basically I think my invention is viable. But
7 the California Air Resources Board is halting its
8 implementation on vehicles. I made a two-minute
9 presentation to the executives at Ford Motor Company last
10 month.

11 I'd like to ask every one of you a question,
12 would you like to have a neodymium-doped windshield on
13 your vehicle? Please let me know.

14 CHAIRPERSON NICHOLS: I'm afraid your time is up,
15 sir. Thank you.

16 Mr Frink.

17 MR. FRINK: Good afternoon. My name is Ari
18 Frink. I'm here on behalf of the Planning and
19 Conservation League, just saying that we support the Cool
20 Car standards.

21 These regulations are the kind of low-hanging
22 fruit to help solve the climate crisis, save consumers at
23 the gas pump, and keep consumers cooler in their cars. So
24 we urge you to support these standards.

25 CHAIRPERSON NICHOLS: Okay. Thank you.

1 I have Tim Carmichael next on the list.

2 MR. CARMICHAEL: Good day, Chairman Nichols,
3 members of the Board. Tim Carmichael with the Coalition
4 for Clean Air.

5 I find myself in the awkward position of having
6 more confidence in the automakers' ability to develop and
7 implement and integrate new technologies in their vehicles
8 than many of them seem to have.

9 I have been before this Board criticizing the
10 auto industry on many occasions for not pushing far enough
11 soon enough in implementing technologies. But here we
12 have a situation where the glass industry is telling you
13 the technology is available and they can do it. Many of
14 them are saying they can do all of the regulation and some
15 of them are saying they can do most of the regulation.
16 And you've got the major automakers saying, "It's going to
17 be too complicated for us to integrate this system in a
18 timely way."

19 This is genuinely low-hanging fruit when it comes
20 to the California climate strategy for reducing greenhouse
21 gases, for improving the operations of our vehicles.

22 If the industry genuinely can't do this, we're
23 going to have a really tough time. And I think you're
24 going to see more technical testimony from some of my
25 colleagues in the environmental community supporting and

1 clearly laying out that this is very doable. It's doable
2 on the timeline that your staff has called for. In fact,
3 the environmental community all support incorporating this
4 for every window in the vehicle, not just the windshields.
5 And that's what you should be pushing for.

6 Thank you.

7 CHAIRPERSON NICHOLS: Thank you very much. We're
8 not going to let you leave though.

9 Please turn off the timer there.

10 Tim, I think we all know that today is your last
11 Board meeting with us. And on behalf of my colleagues - I
12 think I can speak on their behalf. They may wish to add a
13 few words. But we all want to commend and congratulate
14 you on your many years of really distinguished service to
15 the environmental community and to the cause of clean air.
16 I know that the Coalition for Clean Air will go on and
17 will do great work. But you have personally been a
18 fixture at our Board meetings, I think we could almost
19 say. Certainly a regular. And, you know, we haven't
20 always done what you wanted us to do. But we've
21 definitely paid attention to what you asked us to do.
22 You've been a really effective advocate and a leader in
23 environmental policy in this state for many years.

24 I know you're planning on taking some time off
25 for a sabbatical, which is surely deserved and I'm sure we

1 all envy you that. But we really want to wish you the
2 very best and to thank you for all that you've done for
3 this Board and for the State of California.

4 Thank you.

5 MR. CARMICHAEL: Thank you very much. I really
6 appreciate that.

7 (Applause.)

8 CHAIRPERSON NICHOLS: I think maybe that's a good
9 point at which to take a lunch break. We'll be back in an
10 hour.

11 (Thereupon a lunch break was taken.)

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 AFTERNOON SESSION

2 CHAIRPERSON NICHOLS: On our meeting notice, but
3 I didn't announce when we broke that we were going to have
4 an Executive session. We did in fact have an Executive
5 session and were briefed on pending litigation. There
6 were no Board actions taken. But for the record, that
7 occurred while the Board was on break and over our lunch
8 period.

9 And now we're ready to get back to work on the
10 Cool Car rule as soon as we get everybody assembled.

11 Oh, people are actually looking at the
12 windshields. That's what's going on. Okay.

13 While people are making their way back, we can
14 resume the witness list -- make sure I have the right one
15 here.

16 Okay. I have an updated list. I should get rid
17 of the old one.

18 So the first witness is going to be Will Barrett,
19 followed by Bruce Benda.

20 MR. BARRETT: Good afternoon, Chairman Nichols,
21 members of the Board and staff. My name's Will Barrett.
22 I'm representing the American Lung Association California.

23 We support the goals of the Cool Car standard to
24 reduce greenhouse gas emissions and smog-forming emissions
25 by reducing the demand for mobile air conditioning.

1 To achieve the greatest greenhouse gas and air
2 quality benefits of this measure, we encourage the Board
3 to adopt the more stringent option identified by staff to
4 require solar-reflective glazing in all windows at the 40
5 percent solar transmission level as opposed to the
6 windshield alone.

7 Also, as noted before the break, several
8 manufacturers are ready to meet such a standard, and we
9 would reject proposals to delay or extend the phase-in
10 requirements.

11 Public health is suffering in California due to
12 fossil fuel consumption. Reducing the drain that mobile
13 air conditioners have on fuel efficiency will reduce both
14 greenhouse gases and the criteria air pollutants that
15 contribute to California's air quality crisis and
16 contribute to tens of thousands of asthma attacks,
17 hospitalizations, and other negative health outcomes each
18 year in California.

19 In fact, staff's proposal estimates that in 2020,
20 NOx emissions could be reduced by roughly 180 tons per
21 year, while hydrocarbons could be cut by 65 tons annually.

22 A more stringent option could help to further
23 maximize the air quality co-benefits of this early action
24 measure. We feel that adoption of an expanded reflective
25 glazing requirement will support existing policy and

1 technological advances to improve vehicle efficiency and
2 encourage other jurisdictions to adopt similar stringent
3 standards.

4 We believe that the stronger Cool Car standard
5 offers a simple cost-effective way to help consumers
6 further improve their fuel efficiency and therefore
7 maximize reductions in fuel -- fossil fuel consumption and
8 greenhouse gases and criteria air pollutants.

9 Again, the Lung Association supports the adoption
10 of the more stringent option to require reflective glazing
11 on all windows and rejects policy to delay implementation
12 and extend the phase-in for this measure.

13 Thank you very much.

14 CHAIRPERSON NICHOLS: Thank you.

15 Bruce Benda.

16 (Thereupon an overhead presentation was
17 Presented as follows.)

18 MR. BENDA: Hello. My name's Bruce Benda and I'm
19 the head of Automotive Marketing for Bayer Material
20 Science. I'd like to thank you for giving me the
21 opportunity to speak today.

22 Next slide please.

23 --o0o--

24 MR. BENDA: Bayer Material Science is part of the
25 Global Bayer Group. And although we're more recognized

1 for our aspirin, we happen to also be one of the leading
2 suppliers of high technology innovative materials such as
3 polycarbonate.

4 Polycarbonate is a clear durable organic polymer
5 and therefore -- it has low density, therefore it is
6 lightweight. And it's processed at relatively low
7 temperatures. It's a material which is very appropriate
8 as a glass replacement for automotive glazing.

9 We are recognized as a leading supplier in this
10 particular area; and therein lies our interest in this
11 particular standard. We believe that the -- we support,
12 first of all, the goals of AB 32 in reducing greenhouse
13 gas emissions. We believe that the inclusion of
14 polycarbonate would actually enhance the proposal.

15 Next slide please.

16 --o0o--

17 MR. BENDA: Why do we believe this?

18 Inclusion of polycarbonate would assist CARB in
19 doing more of what you actually want to do and, that is,
20 reduce greenhouse gas emissions. Exclusion of
21 polycarbonate or setting unrealistic targets on
22 polycarbonate does not advance the CARB cause and, in
23 fact, stymies the approach. Polycarbonate glazing offers
24 design flexibility like aerodynamics, which leads to fuel
25 economy; integration of potential cost savings for

1 manufacturers and consumers; weight savings, which leads
2 to fuel economy, which leads to greenhouse gas emissions
3 facts that will be supported by my industry colleagues
4 from EXATEC.

5 An independent study from a very renown
6 Vienna-based company indicates also that is a favorable
7 lifecycle analysis that shows that over the life - that
8 means production, use, and waste - polycarbonate has a
9 favorable carbon dioxide footprint as well, which is
10 detailed in the comments that I submitted publicly on
11 behalf of our company.

12 Next slide please.

13 --o0o--

14 MR. BENDA: Polycarbonate is not new to this
15 industry. In fact, the first serious application was back
16 in 1998, the very small car you see there up in the
17 left-hand corner, a small rear quarter window.

18 There are many other applications such as you see
19 on the right-hand side - three models of Mercedes that are
20 exemplified here, plus the very large panel on the smart
21 fortwo. And polycarbonate is recognized by authorities
22 around the world, including professional organizations.

23 Next slide please.

24 --o0o--

25 MR. BENDA: And, in summary, we support again the

1 AB 32 objectives. We oppose the regulation as written and
2 recommend the inclusion of polycarbonate. We oppose also
3 a delayed implementation of polycarbonate under the levels
4 recommended for glass. And we support the calculations
5 which will be demonstrated by the industry colleagues from
6 EXATEC.

7 Thank you very much.

8 CHAIRPERSON NICHOLS: Thank you.

9 Mr. Shuler from EXATEC.

10 MR. SHULER: Good afternoon. My name is Stephen
11 Shuler. I'm the Chief Technology Officers for EXATEC.

12 EXATEC's focus is the development of
13 polycarbonate automotive glazing. We are part of SABIC,
14 which is part of the -- one of the largest five chemical
15 companies in the world.

16 EXATEC supports the overall goal of AB 32, the
17 reduction of greenhouse gas emissions from automobiles.
18 Polycarbonate glazing, due to its inherent low density and
19 ability to reduce vehicle mass, facilitates the goal of AB
20 32, to reduce greenhouse gas emissions, by providing a
21 lightweight alternative to a traditional glass technology.

22 Reducing vehicle mass will result in direct CO2
23 reduction benefits, as detailed in our comments and those
24 of Bayer Material Science.

25 The auto makers this morning have presented

1 support for polycarbonate glazing. Comments submitted by
2 the Auto Alliance and AIAM agree that plastics should be
3 exempt or a higher TTS applied that recognizes the CO2
4 benefits of weight savings.

5 We have had extensive discussions with the CARB
6 staff. And these discussions have been focused on how to
7 set an appropriate standard for polycarbonate glazing.

8 Our objection to the draft regulation, that it is
9 fundamentally based in its conception and its analysis on
10 glass technology. Due to physical and chemical
11 differences, the solar absorption or reflection technology
12 use for glass cannot be used for polycarbonate. While
13 polycarbonate can achieve CO2 reduction by weight savings
14 alone, there is not a current technology path to achieve
15 the levels of TTS stipulated in the regulation.
16 Therefore, the draft regulation will preclude the use of
17 polycarbonate glazing, effectively limiting future
18 vehicles to only glass window options.

19 AB 32 is intended to contribute to CO2
20 reductions. Each material should be judged on its own
21 abilities to meet AB 32's goal of reducing CO2 emissions.

22 The draft regulation is a glass-only focused
23 technology regulation. And, as such, it should be applied
24 only to glass. If similar requirements are to be imposed
25 on a material that was never the subject of the study, the

1 requirements should recognize polycarbonate's unique
2 properties as compared to glass and its capacity to reduce
3 CO2 emissions by decreasing vehicle mass. Using CARB
4 staff's study EXATEC is to provide alternative regulatory
5 language to the staff to accomplish this result.

6 We have followed the presentations that have
7 recommended a performance standard. We recognize that
8 this is not what is in the proposed rule. If the Board's
9 preference is to develop such a performance standard, we
10 stand ready to engage with your staff to develop that
11 standard in a way that it deals appropriately
12 polycarbonate glazing.

13 In conclusion, we urge the Board to set a
14 separate material-appropriate standard for polycarbonate
15 glazing that recognizes the inherent physical and chemical
16 differences between glass and polycarbonate, and that
17 would be consistent with other CARB actions within the
18 overall AB 32.

19 If the weight reduction benefits of polycarbonate
20 are taken into account, it can achieve the same CO2
21 reductions as is expected from limiting total solar
22 transmission through glass.

23 Thank you.

24 CHAIRPERSON NICHOLS: Thank you.

25 Steven Gasworth, followed by Gene Livingston and

1 Mike Edison

2 MR. GASWORTH: I have some slides.

3 Thank you.

4 (Thereupon an overhead presentation was

5 Presented as follows.)

6 MR. GASWORTH: Good afternoon. My name is Steve

7 Gasworth. I am a senior technologist at EXATEC.

8 My colleague just explained why the draft

9 regulation should be made applicable only to glass. He
10 also explained that if polycarbonate is included in the
11 regulation, then there should be a material-appropriate
12 standard for it.

13 --oOo--

14 MR. GASWORTH: At EXATEC we developed an approach

15 based on the proposed regulation to equalizing the CO2

16 benefits afforded by glass and polycarbonate. We

17 recommended a change to the regulation that recognizes the

18 weight reduction benefits of polycarbonate. I would like

19 to explain the analysis that underlies our recommended

20 change.

21 We relied on the same national renewable energy

22 laboratory study that is the basis for the draft

23 regulation so that our analysis would be consistent with

24 that of the staff -- the CARB staff.

25 For the same reason, our analysis is based on the

1 Cadillac STS used in the NREL study, is the vehicle which
2 CARB's initial statement of reasons accepts as
3 representative so that they can apply to the broad fleet
4 the relationships developed by NREL.

5 We also relied on an MIT study which shows that
6 for a 10 percent reduction in the weight of a vehicle,
7 there is a 6 to 7 percent improvement in miles per gallon.
8 We independently confirmed this ratio through our own
9 testing under EPA's federal test procedure, FTP 75. Of
10 course this weight reduction benefit from polycarbonate
11 glazing accrues year-round independent of driver behavior.

12 We consulted on several occasions with NREL to
13 confirm the logic and application of our analysis, and are
14 grateful for their assistance.

15 Our analysis proceeds in three steps:

16 First, we used the NREL study to determine the
17 reduction in annual fuel use expected from glass of a
18 given TTS. Here it was necessary to generalize the
19 results of the NREL study, which involved a specific IR
20 glass from PGW.

21 Second, we calculated the percent reduction in
22 vehicle weight due to the use of polycarbonate in place of
23 glass and determined the associated reduction in annual
24 fuel use according to the ratio in the MIT study.

25 Finally, with fuel use now linked to both TTS and

1 weight, we calculated the TTS reduction that would be
2 equivalent to the weight reduction in terms of its
3 beneficial effects on fuel use and, in turn, on CO2
4 emissions. We refer to this equivalent TTS reduction as a
5 spread.

6 Next slide please.

7 --o0o--

8 MR. GASWORTH: Our analysis yields a simple
9 formula, which is polycarbonate TTS equals glass TTS plus
10 spread. When polycarbonate TTS and a glass TTS are
11 related this way, the CO2 benefits are equalized.

12 Next slide.

13 --o0o--

14 MR. GASWORTH: We took each TTS limit proposed
15 for glass in the draft regulation and added an
16 application-specific spread - 25 in this case - to arrive
17 at an appropriate TTS limit for polycarbonate glazing in
18 the same location.

19 CHAIRPERSON NICHOLS: I'm sorry. Your time is
20 up.

21 MR. GASWORTH: Thank you for your attention.

22 CHAIRPERSON NICHOLS: We do have your written
23 submittal. Thank you.

24 Okay. Gene Livingston, then Mike Edison.

25 MR. LIVINGSTON: Madam Chair, members of the

1 Board. I'm Gene Livingston. I'm with the Law Firm of
2 Greenberg Traurig. And I'm here today on behalf of Garmin
3 International. Garmin produces GPS devices.

4 Garmin only learned about this regulation this
5 week. As the consequence, Garmin engineers have not had
6 an opportunity to sit down with your engineers and talk
7 about the data about what this regulation would mean to
8 the operation of their devices.

9 But that data would indicate that as much as 18
10 decibels could be lost with this glazing that you're
11 proposing in this regulation. That means that it could
12 take as long as 15 minutes for the devices to acquire the
13 satellites and become functioning. It also means that in
14 areas where there are other attenuating circumstances,
15 that the device would not function at all. Those
16 attenuating circumstances could be urban buildings, tall
17 trees, mountains.

18 The deletion window that is proposed in the
19 regulation does not address these problems either. That
20 window is going to be fixed in the windshield. Satellites
21 move around. The car moves around, changing direction
22 constantly. You have to acquire different satellites in
23 order for that device to work. And so the deletion window
24 is not the answer here.

25 The other aspect of this that you should be aware

1 of is that GPS devices are used in emergency vehicles,
2 such as fire, police, and ambulances - situations where
3 every second counts. And if that device is slow to come
4 on line or fails during a trip, that can have really very
5 serious adverse consequences.

6 Also, I want to just point out that the cell
7 phones have GPS devices to help locate missing people. In
8 addition, cell phones are now synchronized with devices in
9 cars in the event that there is an emergency to send out
10 an automatic signal. That would be adversely impacted by
11 this glazing regulation.

12 Now, I know that you're proposing this because
13 you want to reduce the use of fuel -- the fuel
14 consumption, and the estimate is something like four and a
15 half gallons per year per vehicle. And when you multiply
16 that, sure, that adds up to a great deal. But how much
17 gas is wasted if a person drives into a traffic jam that
18 they could have avoided with a functioning GPS? How much
19 gas is wasted by a person making a wrong turn because
20 their GPS failed to function at a critical time? I submit
21 that you could very well end up destroying the
22 effectiveness of these devices and achieve nothing in
23 terms of reduction in the emissions.

24 What I would urge you do is to take no action on
25 this regulation today. I would like the Garmin engineers

1 to have a chance to sit down with your engineers and talk
2 about these issues, these problems, and talk about some
3 possible solutions.

4 Thank you.

5 CHAIRPERSON NICHOLS: Thank you.

6 Mike Edison, then James Tribble.

7 MR. EDISON: Hello, Chairwoman, members of the
8 Board, members of the audience. My name is Mike Edison.
9 I represent BASF Corporation, which is a very large German
10 chemical company.

11 (Thereupon an overhead presentation was
12 Presented as follows.)

13 MR. EDISON: My role in that chemical company is
14 very small. I have only a small portion of
15 responsibility. And we in general are suppliers not to
16 the tier suppliers to the automotive industry but possibly
17 the second or third level.

18 Next slide please.

19 --o0o--

20 MR. EDISON: What I'm here for is to publicize
21 potential solutions or using our products or technologies
22 for current or future legislation for cool cars.

23 BASF strives for sustainable solutions. It's one
24 of our four pillars. And we do this through chemistry.
25 We make products that hopefully reduce CO2 emissions.

1 Some of these products are used currently in the roofing
2 industry and other industries as well. Mainly they are
3 pigments and functional additives.

4 Next slide.

5 --o0o--

6 MR. EDISON: How can BASF do this? We have three
7 technologies that are important for cool cars:

8 One is near IR reflecting pigments, which are not
9 unique. There's other companies that have those as well.

10 We have near IR transparent black pigments, which
11 don't absorb any IR.

12 And we have near IR absorbing additives for
13 transparent applications these can be used in plastics and
14 they can be used in glass, and they can be used in paints
15 also.

16 And one thing I want to stress is these can be
17 used in combination or alone to help solve some of these
18 problems. I've heard a lot about things that can and
19 cannot be done. But I think there's some possibilities
20 that may exist that people are not aware of.

21 Next slide please.

22 --o0o--

23 MR. EDISON: We have three examples here.

24 The top one is a coatings application where we
25 reduce the temperature by about 20 degrees C in comparison

1 My name is James Tribble and I'm representing
2 Sekisui S-LEC.

3 Sekisui is a leading supplier of solar control
4 absorbing type and other state-of-the-art interlayer
5 films. We'd like to offer our support to the State of
6 California and to the ARB.

7 I'd like to start just with a couple of
8 performance details. Solar control film does not create a
9 greenhouse effect, which means that the air temperature
10 near the dash and the steering wheel during the hot summer
11 months becomes quite hot and this heat is reabsorbed by a
12 solar-absorbing type and re-radiated outside of the
13 vehicle with the aid of the wind, as you can see in the
14 model.

15 Number two, SCF does not block or impede the use
16 of electromagnetic wave transmission, which would mean
17 garage door openers, sensors, and GPS, some of the things
18 mentioned today.

19 Three, needless to say cost, as those before me
20 have already stated. It's considerably less to use a
21 solar control absorbing type.

22 Four, this technology is already in use
23 worldwide. It's being used in up to four million vehicles
24 worldwide and already contributing to the lower reduction
25 of greenhouse gases, not to mention being used in some

2 Regarding soak temperature, which seems to be a
3 primary basis for which staff has come up with their
4 suggested standard, the reflective would seem to be
5 better. But we would like to also look at the whole
6 driving cycle, because we feel it could be more important
7 after three minutes -- could you go to the next slide
8 please.

9 --o0o--

10 MR. TRIBBLE: -- after three minutes, after
11 driving with the aid of the wind, performance is reversed,
12 as you can see. We have -- it's a faster reduction rate.
13 And we think this warrants attention as well, because when
14 would a person use the air conditioner, you know. It
15 warrants more concrete testing and research.

16 Also, we think this is a quicker approach to the
17 goal of CO2 reduction. There's a start-up cost of
18 reflective and there's a -- you know, a lower production
19 yield, including material costs, which could delay our
20 goal, not to mention the conduction cooling, which I've
21 already mentioned, better performance while driving.

22 But to be fair, the reflective type seems to
23 perform better while parking. But we would also like to
24 note that solar control is better while the vehicle's
25 moving. And we would like to have real-world testing and

1 data on especially -- when the doors are open, when a
2 passenger gets into the car, what is the effect -- what
3 effect does that have on the soak temperature? We'd like
4 to allow the competition to go on and create innovation in
5 the market and to show equivalency through the reduction
6 of CO2 and a performance-based evaluation and request
7 technical -- further technical review after the first
8 stage.

9 CHAIRPERSON NICHOLS: Okay. Your time is up.

10 MR. TRIBBLE: Thank you, Ma'am.

11 CHAIRPERSON NICHOLS: Thank you.

12 All right. Susan Lipper.

13 MS. LIPPER: Good afternoon, Madam Chair and
14 members of the Board. I'm here today as the Senior
15 Manager of Government Affairs for T Mobile Wireless.

16 And we also just learned of this issue this week.
17 Our national trade association, CTIA, along with CMTA and
18 TechAmerica, did send a letter I think just yesterday to
19 the Board. So we apologize for being late to the table.

20 But we are very concerned that right now we don't
21 have a way to know with certainty whether some of the
22 proposals that have been identified for this fix will in
23 fact take care of wireless signals from cell phones in
24 cars. I mean you can have whatever opinion you want to
25 have about people driving and using their phones in their

1 car. But if you need to make a 911 call and the material
2 in the window blocks it, that's an issue. And metal
3 oxides and certain coatings can be a barrier to wireless
4 signal strength.

5 I know that in the staff report, they've
6 indicated that in Europe there are Mercedes that have the
7 ability to work well. We haven't been able to validate
8 that yet, at least our company standing here today,
9 because of just hearing about this. We tried to get to
10 Europe and ask the question but didn't have enough time
11 unfortunately.

12 I think, you know, we're also concerned whether
13 the deletion area windshield, such as you saw outside,
14 would in fact really be enough to take care of the signal
15 strength. And, you know, we're concerned about our
16 customers getting in cars, not having their phones
17 working, and then the worst-case scenario, get in an
18 accident or have medical emergency and not be able to make
19 a call.

20 So all we would ask is if you would either build
21 in some additional time to Tier 1 and Tier 2 or ensure
22 that testing that occurs as you're working and
23 implementing the regs fully considers the wireless impact,
24 because we weren't knowledgeable about this previously,
25 couldn't participate in the workshops, haven't had our

1 engineers talk to your engineers.

2 And we just think it's a very laudable goal,
3 support the whole AB 32 idea, but just want to make sure
4 we don't create something bad for wireless phone users in
5 the stead.

6 So thank you very much.

7 CHAIRPERSON NICHOLS: Thank you.

8 Andy Mabutol - I'm sorry if I'm mispronouncing
9 your name - from Mitsubishi, followed by David Patterson.

10 (Thereupon an overhead presentation was
11 Presented as follows.)

12 MR. MABUTOL: Good afternoon, Madam Chair, Board
13 members, and ARB staff. My name is Andy Mabutol, Senior
14 Engineer of Regulatory Affairs and Certification for
15 Mitsubishi Motors.

16 These slides present some alternative
17 technologies that can be used to lower the interior
18 temperature of the vehicle and reduce the automotive AC
19 system's greenhouse gas emissions by reducing engine power
20 consumption.

21 Next slide please.

22 --o0o--

23 MR. MABUTOL: One example of an alternative
24 technology is shown on our concept vehicle, the i MiEV
25 Sport with solar panel roof, shown here.

1 The solar panel roof powers a fan and panels that
2 automatically open and close to vent the vehicle's
3 interior. The fan is underneath the panels.

4 I have a laser pointer.

5 They're located behind the panels in the roof.

6 The interior temperature can only be lowered to
7 the outside ambient temperature. So if the vehicle is
8 parked outside in the San Joaquin Valley in the middle of
9 summer, for example, the fan can only equalize temperature
10 inside and outside the vehicle.

11 Next slide please.

12 --o0o--

13 MR. MABUTOL: This slide describes our new high
14 efficiency automotive AC system. In 2007, Mitsubishi
15 Motors, together with Mitsubishi Heavy Industries, won the
16 U.S. EPA Climate Protection Award for its work in
17 developing a new high efficiency automotive AC system.
18 The system includes a new scroll compressor and operating
19 controls that reduce power consumption by 39 percent and
20 improves cooling performance by 7 percent.

21 The current Outlander crossover utility vehicle,
22 shown here, utilizes this system.

23 No technology will reduce the thermal load in all
24 extreme conditions. But there are more alternative
25 technologies than just solar reflective glazing that can

1 reduce interior temperature in an AC system's greenhouse
2 gas emissions.

3 But as the regulations are currently written,
4 neither of these technologies that I have presented can be
5 applied.

6 Next slide please.

7 --o0o--

8 MR. MABUTOL: David Patterson, also from
9 Mitsubishi Motors, will have more comments about the
10 current proposal and will present our suggested changes in
11 order to have a successful regulation.

12 Thank you.

13 CHAIRPERSON NICHOLS: Thank you.

14 Mr. Patterson.

15 MR. PATTERSON: Hi. I'm Dave Patterson with
16 Mitsubishi Motors. I'm Senior Manager responsible for
17 Regulatory Affairs and Certification.

18 Next slide please.

19 --o0o--

20 MR. PATTERSON: To talk about this a little bit
21 I'm going to follow along with what Andy was talking about
22 here and talk about some of the assumptions that were made
23 in this regulatory package.

24 One of the assumptions was the assumption of
25 downsized AC units. Now, that cannot be done obviously,

1 because we look at the extreme temperatures. We look
2 at -- when we take our vehicles and we validate them, we
3 validate them out in Death Valley in July. When you're in
4 the San Joaquin Valley or you're in the Mojave Desert and
5 you get into your car, if it's -- that soak temperature of
6 that car is usually anywhere from 140 to 180 degrees. If
7 the glazing does reduce the interior temperature by 14
8 degrees, you're still at 120 something degrees. You're
9 still going to run that air conditioning system as fast as
10 possible. And as an OEM, you're going to expect us to
11 make that cooling as fast as possible also.

12 So we're not going to be able to downsize that
13 air conditioning system. But with technologies like Andy
14 was just talking about, we might be able to make that more
15 efficient.

16 We have customers that pay for premiums for
17 automatic climate control. It's unlikely they're going to
18 turn that AC condition -- that AC unit off.

19 Also, talking about shoulder months. If I have a
20 convertible, that's the time that I'm going to drop the
21 top. And I don't need to have solar glass to keep my
22 interior cool.

23 And also, one of the issues is the compliant
24 sunroofs. It's just going to be too dark and we need to
25 have a different standard there.

1 Next slide please.

2 --o0o--

3 MR. PATTERSON: As Andy talked about, we have
4 some of these innovations that we could put into use. But
5 if we have to focus on this technology, if we are choosing
6 technology winners and losers, we might be choosing a
7 loser here.

8 Next slide please.

9 --o0o--

10 MR. PATTERSON: One question we'd come up on is
11 about the amount of lead time. And this -- you know, I
12 wanted to go through this in a little bit of detail.

13 If you think this regulation, even if it's passed
14 by the Board today, is enacted fast track six months
15 through OAL, that means that it's going to be enacted by
16 January of 2010. And if you think about it, 2010 model
17 year vehicles are already nearing the end of their
18 production cycle; 2011s are already in their production
19 cycle; 2012s are in design freeze. There is very little
20 probability that we would be able to get into 2012. And
21 even 2013 would be difficult.

22 Therefore, we ask that 2014 be the implementation
23 of your Tier 1 standard.

24 And also, one of the things we're talking about,
25 wireless communication. But the other thing that's not

1 talked about at all is the safety validation. If we
2 change the formulation of this glass, we need to validate
3 it through safety to meet the National Highway Safety
4 Association regulations.

5 And you have the rest of my comments in writing.

6 Thank you.

7 CHAIRPERSON NICHOLS: Thank you.

8 Okay. Matthew Coda, then Robert Vandal.

9 MR. CODA: Madam Chairwoman and members of the
10 Board. Thank you for giving me the opportunity to speak
11 to you today. My name's Matthew Coda and I'm here
12 representing Southwall Technologies.

13 Before I move on to my comments, I would like to
14 say how much of a pleasure it's been to work with the ARB
15 staff over the last year. It's been fascinating and very
16 educational. Thank you.

17 Southwall Technologies is a small publicly traded
18 California company headquartered in Palo Alto, with a
19 30-year history of developing and marketing products for
20 automotive and architectural glazing to reduce energy use
21 and cut the production of greenhouse gases. Southwall is
22 considered a leader in automotive reflective -- solar
23 reflective glass technology. Our product, which enables
24 all manufacturers to add IR reflective performance to
25 their existing glass products, has been installed on

1 approximately 20 million vehicles, primarily in Europe,
2 over the last 15 years.

3 Southwall fully supports the implementation of
4 the Tier 1 performance as outlined in the existing
5 regulation in 2012 and 2013. This level of performance
6 accomplishes the majority of greenhouse gas reduction
7 associated with the regulation in the first phase of
8 implementation. The technologies associated with these
9 levels of performance, not just windshields but side
10 lights and roof lights, are available worldwide today and
11 are already in use extensively.

12 We believe that this approach offers the biggest
13 bang for the buck in the reduction of greenhouse gases.

14 Southwall also supports the implementation of a
15 second higher tier performance for windshields with a
16 slight change to the regulation as it's currently written.
17 We respectfully request to shift the implementation of
18 Tier 2 from 2014 to 2016 for the following reasons:

19 First, implementing a 40 percent TTS regulation
20 in 2014 will result in a limited number of automotive
21 glass suppliers who are able to service the marketplace.
22 We believe this will adversely affect product availability
23 and product cost.

24 Shifting to 2016 will allow virtually all
25 automotive glass suppliers, if not all, to service the

1 market.

2 Second, though not guaranteed, we believe that
3 harmonizing the regulation with the projected changes in
4 cafe standards and the implementation of GHG emission
5 standards at the federal level, both scheduled for 2016,
6 are the likeliest way to have this -- the adoption of this
7 glass roll out nationwide voluntarily.

8 We think that the end result could be a
9 greenhouse gas reduction emissions of 3 to 10 times
10 greater than California alone as outlined in the staff
11 presentation.

12 Third, implementing the second tier in 2014
13 forces a highly accelerated implementation of
14 manufacturing technologies to meet the regulation. This
15 places an onerous financial burden on all companies, but
16 particularly small companies like Southwall who's been
17 trying to navigate this period of economic turmoil.

18 We hear a lot about jobs leaving California as a
19 result of AB 32 regulations. For Southwall, we believe
20 that the Cool Car regulation will have the exact opposite
21 effect. As business dictates, we will reopen our
22 mothballed California manufacturing facility and bring new
23 green manufacturing jobs to the State of California.

24 So in summary, we fully support the Tier 1 level
25 of regulation. We also support the second tier, with the

1 slight modification of its implementation change from 2014
2 to 2016, and we urge you to consider that during your
3 deliberations.

4 Thank you.

5 CHAIRPERSON NICHOLS: Thanks.

6 We have a question for you.

7 BOARD MEMBER YEAGER: Mr. Coda, have there been
8 problems with using electronic devices with the glazing on
9 your windshields?

10 MR. CODA: Well, I'm not a mobile devices expert
11 and I'm not an OEM representative. We do have, as I've
12 said, 20 million vehicles, primarily in Europe, that have
13 our technology in the windshield already. We think that
14 the total market in Europe is something on the order of a
15 hundred million vehicles. They've been able to find a way
16 to get around that. Understand that this was implemented
17 15 years ago, long before they had any regulations about
18 restricting the use of hand-held mobile devices during
19 driving. So our understanding is that that's certainly a
20 problem that can be overcome.

21 BOARD MEMBER YEAGER: Thank you.

22 BOARD MEMBER SPERLING: Can I add.

23 So most of these cars in Europe that have the
24 reflective technology are from many earlier years, they're
25 not -- they have not been put on recently?

1 MR. CODA: Oh, no. We're still selling actively
2 in Europe.

3 BOARD MEMBER SPERLING: Okay. Because I know
4 that there were some U.S. cars that were -- in the
5 nineties, I believe the GM minivans that had it, and then
6 they stopped using it.

7 MR. CODA: That's correct.

8 CHAIRPERSON NICHOLS: Okay.

9 MR. CODA: Thank you.

10 CHAIRPERSON NICHOLS: Thank you.

11 Robert Vandal, followed by Shane Smith.

12 MR. VANDAL: Madam Chair, members of the Board.
13 Thank you for the opportunity to comment on this
14 regulation. My name is Robert Vandal. I'm the Director
15 of Product Development for Guardian Automotive.

16 Guardian Automotive supports the Cool Cars
17 proposed regulation. Although we feel it does not take
18 advantage of all the commercially available benefits, we
19 agree it constitutes a great start.

20 We urge the Board to actually apply the 40
21 percent TTS as far as they can in the vehicle.

22 Guardian has been manufacturing products like
23 this, solar reflective glazing, of the types specified for
24 the regulation for more than a decade in Europe. And we
25 do supply it to multiple vehicles.

1 We're prepared to supply the product specified in
2 the regulation as Tier 1 as well the Tier 2 in 2014.

3 I'd like to take this opportunity to address,
4 with some common sense behind it I hope, some of the
5 concerns we've seen raised in the last few days of
6 commentary.

7 Firstly regarding manufacture ability and
8 technology. The thin film technology used to achieve
9 solar reflective windshields or other automotive glazing
10 is the same technology that has been used to create Low E
11 glass for residential and commercial applications for in
12 excess of 20 years. This is not a new technology at all.

13 We process at Guardian coated glass like this in
14 15 locations around the world, 6 of which are domestic
15 today; so have plenty of capacity to make such products.

16 The energy savings itself has been justified for
17 use in buildings, commercial and residential, for those
18 numbers of years and to the point that it is specified by
19 many building codes in many states today. So why
20 shouldn't we use this available technology in all glazing
21 apertures?

22 I've heard the comment today as well that roof
23 lights under the 30 percent TTS requirement will be so
24 dark, there'll be no point having them anymore.

25 I would actually submit that if the roof lights

1 do employ solar reflective technology, they'll transmit
2 more light and meet that requirement than they do today as
3 simple privacy monolithic glass.

4 We hear all the concerns about RF-based devices,
5 cell phones, et cetera. It's true that there's
6 attenuation from the coatings, but its also true that the
7 same attenuation occurs in buildings when this is applied.
8 But we still use our cell phones in buildings. Many
9 vehicles employ this technology today, as we said, in
10 Europe.

11 Are we to believe that the owners of certain
12 models of BMWs, Audis, Porsches, Mercedes, Bentleys, just
13 to name a few, don't use their cell phones, navigations or
14 toll passes in their cars?

15 Some of the vehicles already employ solar
16 reflective technology in more apertures than currently
17 stated in the proposed regulation.

18 The point is, these vehicles provide evidence
19 today that there are reasonable engineering solutions to
20 overcome the RF attenuation issues. The allowance of the
21 10 percent deletion area in the standard is more than
22 ample to satisfy this.

23 The standard also does not account for the
24 unrealized benefit of cars in traffic and other
25 situations - a dynamic benefit. We only rely on soak

1 benefit.

2 Thank you very much for your time.

3 CHAIRPERSON NICHOLS: Thank you.

4 Shane Smith, followed by Peter Dishart.

5 (Thereupon an overhead presentation was

6 Presented as follows.)

7 MR. SMITH: Board, thank you for allowing Applied
8 Materials to comment today, and the work that the staff
9 has done. I'm here on behalf of Applied Materials to go
10 over our role and what we played in multiple industries
11 utilizing thin film technology.

12 Next slide please.

13 --o0o--

14 MR. SMITH: One of the things that Applied
15 Materials is noted for is driving down cost. And I know
16 that's been a big concern here today. We've demonstrated
17 this for over 40 years as a company in our semiconductor
18 businesses, our display businesses, and our solar and
19 energy conserving businesses of glass coating technology.

20 As Applied Materials is a California-based
21 company, we feel that this regulation where it is today
22 should actually be urged to be advanced to the 40 percent
23 TTS level for the entire car set due to the benefits that
24 we've realized already in the building sector.

25 Next slide please.

1 --o0o--

2 MR. SMITH: If you look at the regulations that
3 we've put in place for the residential and commercial
4 energy codes, this here shows that California has
5 continued to show leadership in our buildings. Which, by
6 the way, this building here has Low E technology. And if
7 I check during the break, I could use my cell phone.

8 As you can also see in a commercial side,
9 California is one of the three states that is driving this
10 in terms of green energy and energy reduction -- cost
11 reductions.

12 Next slide please.

13 --o0o--

14 MR. SMITH: There's been discussions about
15 coaters and not having enough capacity worldwide. We've
16 actually shown right now there's over 400 -- we have over
17 178 coaters worldwide, 7 new coating lines are being
18 installed this year.

19 Next slide.

20 --o0o--

21 MR. SMITH: The overall worldwide coating
22 capacity - this is for architectural and automotive - is
23 about 450 million square meters today. The actual coater
24 utilization is down globally by about 20 percent due to
25 the construction downturn and also some of the impact from

1 the automotive sector. So it's actually under-utilized.

2 In addition to, if you look at the 2006 numbers
3 of 7.6 million auto sales, and assuming the four square
4 meters for the entire car set, that equates to about 30
5 million square meters of glass, which is dwarfed by what
6 is used in the architectural markets.

7 Next slide.

8 --o0o--

9 MR. SMITH: The other thing that's came up was
10 cost to coat. By going to the full set, this is one of
11 the ways to drive volume. And driving volume is what
12 drives down cost. By going just from a low volume coater
13 of approximately 2 million square meters to a high volume
14 coater of 5 million square meters, you can achieve a 47
15 percent cost decrease in coating.

16 Next slide.

17 --o0o--

18 MR. SMITH: And the other was, the coating
19 technology is already out there and existing today. If
20 you look at the automotive suppliers today, the top nine
21 that is shown here, out of that seven today serve the
22 architectural markets with coating technology that is
23 similar to what would be used in this regulation of 40
24 percent TTS. Out of those nine, five are actually serving
25 the EU market today.

1 And, lastly, one of the reasons for pushing the
2 higher TTS -- thank you.

3 CHAIRPERSON NICHOLS: Thanks.

4 MR. DISHART: Chairman Nichols and ladies and
5 gentlemen of the Board. My name is Pete Dishart, and I
6 represent the Enhanced Protective Glass Automotive
7 Association. And the EPGAA is an industry organization
8 for suppliers in the laminated glass supply chain. And
9 that's important, as Dr. Bekken said earlier, is that
10 laminated glass is indeed the vehicle which enables the
11 incorporation of the technologies that allow the glazing
12 to achieve TTS levels below 60 percent. And that's why
13 I'm here and the EPGAA is here, to say that we support the
14 proposed regulation for cool cars and the mandate for
15 enhanced solar performing glass.

16 Now, with that said, we do have a concern that
17 the proposed regulation doesn't go far enough. And in
18 particular we're concerned about the 60 percent TTS level
19 for side glass and the rear door glass -- or the rear
20 window glass. And the reason is this technology has
21 basically been around since the 1980s; and if you look at
22 that technology and if we haven't put that technology in
23 the vehicles today, you can see the slow pace of
24 technology adoption without continued regulation.

25 So we believe that in order to get the most

1 benefits in terms of CO2 reduction, all glass should be
2 affected. And we believe - and in fact our message today
3 to you is - that the technologies that are available today
4 and be presented for use in the windscreens are also
5 available for all glazing locations in the vehicle.

6 And, in fact, I think again, as Dr. Bekken
7 stated, if you go into the marketplace and look, you will
8 find that these technologies are indeed available today at
9 the 50 percent TTS level on roof glass, on door glass, and
10 on our rear window glass. And the EPGAA recommends that
11 the Board adopt a standard that mandates that level of
12 technology, whether it's achieved through -- that's
13 achieved through laminated glass, whether it's through
14 coatings, inner layers, or films.

15 And the EPGAA recognizes that this level of
16 technology isn't in the current spec. And we're also
17 concerned that any significant change in the spec could
18 potentially cause a delay in implementation. And we think
19 that's something that should be considered unacceptable.

20 So what we recommend is if we can't reach the
21 consensus to go forward with a 50 percent TTS across the
22 board, that the Board at least put in place a mandate that
23 says let's put together a time schedule to take a look at
24 this and mandate this type of glazing in the future.

25 Thank you very much.

1 CHAIRPERSON NICHOLS: Thanks.

2 Mukesh Rustagi, and then Patricia Monahan.

3 MR. RUSTAGI: I have some slides as well.

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

6 MR. RUSTAGI: Madam Chairwoman and the Board.

7 Thank you very much for this opportunity.

8 Before I get started with what's on the slides, I
9 do want to talk about the performance standard that's
10 being suggested of that 60 percent TTS. And to echo what
11 Pete Dishart just said, 60 percent TTS glazing is
12 currently available in most of the vehicles. It's been
13 around since 1980s. So to regulate it to that standard
14 would basically be endorsing the status quo.

15 So we believe there's a lot more opportunity here
16 to improve the performance in the vehicle and that's where
17 the Board should go.

18 --oOo--

19 MR. RUSTAGI: Now, let me address the issue of
20 the electronic signal interference.

21 We took a standard vehicle which we can buy on
22 the market - we didn't buy it, we just rented it - and
23 installed an IR reflective windshield with TTS of 50 with
24 standard deletion areas, and we tested it for the
25 electronic signals that are on this chart.

1 The green light in the symbol column says that
2 there were no issues with any of those devices. The only
3 device that we had to specifically design on this was the
4 GPS antenna, because that's located in the instrument
5 panel.

6 And as far as the aftermarket devices are
7 concerned, the staff has already allowed for specific
8 deletion areas for aftermarket devices.

9 Now, even though the angle of a car may change
10 with respect to the satellites, the angle of the
11 windshield with respect to the attached device does not
12 change if the device is mounted on the windshield. And
13 that's the intent of the Board's -- the staff's
14 recommendation in the regulation.

15 Next slide please.

16 --o0o--

17 MR. RUSTAGI: In terms of manufacturing
18 readiness, I don't know if you've had an opportunity to
19 look at the windshield that's on display outside. That
20 windshield was produced at one of our production
21 facilities using current production equipment, and it
22 meets the Tier 2 level of TTS of 40 percent. So we
23 believe we're ready. We can meet the necessary
24 requirements for volume in the marketplace. We could have
25 met it for 2012, but we are in support of the 2014 if

1 that's the staff's recommendation.

2 Next slide please.

3 --o0o--

4 MR. RUSTAGI: In terms of the future
5 technologies, this concept of keeping the heat out of the
6 car is going to be just as relevant in the future as it is
7 today. And less heat coming in means less heat has to be
8 removed, which means less energy is going to be used.

9 Next slide please.

10 --o0o--

11 MR. RUSTAGI: One recent study that showed the
12 impact of this reflective glazing -- I'm sorry.

13 Thank you.

14 CHAIRPERSON NICHOLS: Okay. Thank you.

15 BOARD MEMBER BERG: Madam Chair, I just had a
16 quick question.

17 CHAIRPERSON NICHOLS: You had a quick question?
18 Okay.

19 BOARD MEMBER BERG: Excuse me, sir.

20 Did you have an opportunity to test the radio
21 frequencies with the TTS 40 percent -- at 40 percent?

22 MR. RUSTAGI: We did not test the radio
23 frequencies. But the fundamental concept is the same.
24 The signal does not travel through the coating itself. So
25 whether you have a 50 TTS coating or a 40 TTS coating is

1 not really going to make any difference on the radio
2 frequency signal.

3 BOARD MEMBER BERG: Thank you, sir.

4 MR. RUSTAGI: You're welcome.

5 CHAIRPERSON NICHOLS: Okay. Patricia Monahan and
6 then Kristin Grenfell.

7 MS. MONAHAN: Good afternoon, Madam Chair and
8 members of the Board. My name is Patricia Monahan. I'm
9 the Deputy Director for Clean Vehicles at the Union of
10 Concerned Scientists. And I'm here to discuss four
11 points.

12 My first point is that we strongly support the
13 CARB proposal. California is again in the vanguard on
14 reducing vehicle pollution. And we think this is a
15 no-brainer policy. It's a win for the environment, it's a
16 win for the consumer, it helps in the comfort level of the
17 passengers of the vehicle, and it reduces global warming
18 pollution.

19 The second point I want to make is that the
20 standard could be stronger. As you've heard, the side and
21 back window standards are pretty much the status quo
22 today. And we can go further than that.

23 The stronger standards for the side and the back
24 windows don't just help in terms of reducing the load on
25 the air conditioner, but they also provide additional

1 benefits in terms of crime prevention and safety in
2 accidents.

3 The third point I want to make is that we agree
4 with Honda, the Alliance for Automobile Manufacturers, and
5 others that a performance standard would be preferable to
6 a technology -- to a standard that requires a particular
7 technology. In general, we think that it's better to go
8 for performance standards that are more comprehensive and
9 will allow for a variety of solutions in terms of better
10 insulation, cool materials, ventilation systems, and how
11 the actual cool air is directed on to the passengers of
12 the vehicles. These are all potential strategies for
13 reducing load on air conditioners, and we think in the
14 future it would be better to have a performance-based
15 standard.

16 So my fourth and last point, which is actually a
17 recommendation, is that we have a technical review. And
18 ideally this technical review would involve not just
19 California but auto manufacturers that are currently using
20 these technologies in vehicles, as well as U.S. EPA, to
21 review whether stronger standards are possible for the
22 side and back windows, what a performance standard could
23 look like, and also to look at some of these questions
24 about electronics control integration.

25 But I want to leave you with just our strong

1 support for the standard; our recommendation that we go
2 and implement this standard; but as we move forward, we
3 have some kind of technical review.

4 Thank you.

5 CHAIRPERSON NICHOLS: Thank you.

6 BOARD MEMBER D'ADAMO: I have a question.

7 CHAIRPERSON NICHOLS: Yeah, a question.

8 BOARD MEMBER D'ADAMO: What is your
9 recommendation for the side and back windows?

10 MS. MONAHAN: Forty percent TTS.

11 BOARD MEMBER D'ADAMO: Thank you.

12 CHAIRPERSON NICHOLS: Okay. Thanks.

13 Kristin Grenfell and then Simon Mui.

14 MS. GRENFELL: Good afternoon. Kristin Grenfell
15 from NRDC. My colleague Simon will have more detailed
16 comments in a moment, so I'll be brief.

17 AB 32 required the Board to identify and
18 implement early action measures to reduce greenhouse gas
19 emissions because we needed to get started yesterday.
20 2020 is just over ten years away, and many of the measures
21 will not be taking effect for several years. So the Cool
22 Car standards are something we can do to get started now,
23 and we need to move forward with it.

24 In addition, for anybody who has had the
25 experience of coming to one of these Board meetings and

1 having to park on the top level of the parking garage in
2 the sun and then coming back after the Board meeting and
3 burning your hands on the steering wheel, this can save
4 you that experience and make attending Board meetings that
5 much more pleasant.

6 (Laughter.)

7 MS. GRENFELL: So we urge you to move forward.

8 CHAIRPERSON NICHOLS: That's worth a lot. We'll
9 have to factor that in.

10 Simon.

11 MR. MUI: Thanks, Kristin.

12 Good afternoon, Chairwoman Nichols, members of
13 the Board. Thank you for this opportunity to speak on
14 behalf of NRDC. I'm Simon Mui and I'm a scientist working
15 on clean vehicles and fuels.

16 I'd like to thank staff for their hard work
17 pursuing this important area.

18 I looked up this statistic. It's staggering to
19 think that a simple thing like using AC ends up consuming
20 the equivalent of 10 percent of all our imported oil.

21 NRDC, together with eight other environmental-
22 and health-based organizations, have provided a letter
23 that supports ARB moving forward on a strong Cool Car
24 standard that achieves the 40 percent all around.

25 Staff estimates that using air conditioning

1 roughly turns your 25 mpg car into a 21 mpg car, and
2 tomorrow's 80 mile-per-gallon car into a 50
3 mile-per-gallon car. This is a problem. We've already
4 seen this effect in today's hybrids, with engines that sip
5 fuel which the AC and accessories gulp it down. This
6 regulation will help address this problem by reducing the
7 energy used by your vehicle, and it will help us save
8 money at the pump.

9 And this makes sense. This is why the State
10 identified cool cars as a discrete early action measure.
11 If we can't figure this out and do the simple things to
12 solve global climate change, then what does it say about
13 meeting our shorter term and longer term 2050 goals?

14 We've heard from the suppliers. The auto makers
15 and NGOs all testified today. Nearly all of us did agree
16 that the purpose of this regulation makes sense. Now, the
17 question is really how hard and how fast.

18 NRDC understands that some of the glass companies
19 and auto makers may not be as far along as some of the
20 others. But without the windshield at 40 percent TTS, all
21 we're just talking about is the existing technology that's
22 being used today. We're talking about the status quo.

23 There is no need to set the bar at the lowest
24 common denominator and have a weakened standard, because
25 there are ways to be reasonable and flexible in a

1 regulatory context that do not compromise on the
2 environmental benefits. So how can we set the bar high
3 and help everyone get there?

4 Well, there's three items that would help.

5 The first one is that we can expand the different
6 compliance options to include other energy efficiency
7 technologies, including the use of things like cool
8 paints, better insulation, automatic ventilation. This
9 would probably go a long way to resolving some auto makers
10 who may be having issues.

11 The second recommendation is that ARB can move
12 for the post-2014 timeframe towards more of a broader
13 framework to address cabin energy efficiency through a
14 performance-based approach. This would allow other
15 technologies to come in and allow additional emission
16 reductions to be achieved.

17 And, finally, a technical review can be included
18 to assess the status and availability of current and new
19 technologies so that we can decide whether the regulation
20 could go harder and faster.

21 CHAIRPERSON NICHOLS: Thank you. Your time is
22 up.

23 MR. MUI: Thank you very much for your time and
24 consideration.

25 CHAIRPERSON NICHOLS: Okay. John Shears and then

1 Bill Magavern.

2 MR. SHEARS: Good afternoon, Chair Nichols and
3 members of the Board. And for the sake of full
4 disclosure, my grandmother owns NS Class and I'm a T
5 Mobile user.

6 (Laughter.)

7 MR. SHEARS: CEERT supports the more stringent
8 options in the proposed regulations for the Cool Car
9 standards as an early action measure under AB 32. We feel
10 that this standard is transparent and direct in its
11 approach to reduce engine loading and associated global
12 warming and air pollution by reducing the cab temperature
13 of vehicles.

14 While CEERT generally supports regulations that
15 employ performance standards, we think that the staff
16 proposal is the best approach for addressing this issue at
17 this time. That is not to say that we are unwilling to
18 continue exploring issues with all of the parties as they
19 relate to developing associated performance standards, so
20 long as any standards that might be developed can avoid
21 gaming and unnecessary ZEV-like entanglements with credit
22 generation and tracking.

23 CEERT also supports the idea of conducting the
24 technical review that's been referred to by many parties.
25 And, you know, this obviously could have lots of spinoffs

1 in terms of discovering other applications such as for
2 medium and heavy-duty vehicles.

3 We respectfully recommend that the Board adopt
4 this regulation.

5 And I'll keep it brief because it's a long day.

6 CHAIRPERSON NICHOLS: Thank you.

7 Bill Magavern. And then our last witness will be
8 Craig Moyer.

9 MR. MAGAVERN: Bill Magavern with Sierra Club
10 California in support of the standards.

11 It's fitting that this is an early action measure
12 today, because in the years before greenhouse effect
13 became household words often the best way to explain it to
14 people was to say, "You know how on a sunny day the inside
15 of your car really heats up when the windows are closed?"
16 And that's how the heat gets trapped. So it's great to
17 see that now we're actually going to do something about
18 that.

19 I think for the consumer what it will mean is the
20 car won't be as hot on a sunny day, you'll save a little
21 money on gasoline, and also your air conditioning won't
22 need to be serviced as often. So this will be a plus for
23 drivers in California.

24 It's too bad that the auto companies are
25 opposing. But we know at one time they opposed seat

1 belts, airbags, catalytic converters, fuel economy
2 standards, and greenhouse gas standards, as you're very
3 familiar with.

4 So we've seen time and time again that it does
5 require the government, often this Board, to get the auto
6 companies to put the improved technologies on the
7 vehicles. And then those improved technologies become
8 basically status quo and very popular.

9 We do support the strengthening proposals that
10 have been offered by NRDC and UCS, and also believe that
11 in the future it would good idea to go further with
12 measures to cool the insides of vehicles through better
13 insulation, more reflective paints, and ultimately through
14 a performance standard.

15 Thank you.

16 CHAIRPERSON NICHOLS: Thank you.

17 Mr. Moyer.

18 MR. MOYER: Good afternoon. I'm Craig Moyer with
19 Manatt, Phelps & Phillips.

20 (Thereupon an overhead presentation was
21 Presented as follows.)

22 MR. MOYER: I have very brief comments, really
23 focused on the legal standard under AB 32.

24 CHAIRPERSON NICHOLS: And you're representing who
25 here today?

1 MR. MOYER: Applied Materials.

2 CHAIRPERSON NICHOLS: Okay. Just want to make
3 sure. Thanks.

4 MR. MOYER: First of all, we -- as you heard from
5 Shane Smith, we're urging the 40 percent TTS for the
6 entire car set.

7 Again, I'm going to focus on the legal standard.
8 As you know, AB 32 requires the maximum feasible
9 technology that's cost effective.

10 As far as maximum feasible technology, whether or
11 not it's maximum, it's certainly feasible. It is
12 available. It's out there in your lobby out here with
13 this.

14 As far as cost effective, it's a negative cost.
15 It actually pays out and the entire car set pays out.
16 Staff has done a slide, which was up there a minute ago,
17 and shows that there's actually a savings even when the
18 entire car set has the application.

19 These are staff's numbers. Happy to, you know,
20 defer to them. I actually believe they're quite
21 conservative. But even if you again take those numbers,
22 you'll see that there is a payout. So there's a net
23 negative cost here. If we don't go all the way here,
24 what's going to happen? What kind of precedent are we
25 setting for when we actually do have real costs?

1 We've also talked a little bit about co-benefits.
2 You've heard about co-benefits today. Clearly there are
3 tremendous co-benefits to this rule, including less
4 toxics, less criteria pollutants. All of these together
5 confirm that this is an easy one.

6 I have no opinion on the timing. You've heard
7 one of the suppliers say they could do it in 2012. You've
8 heard another one say, "2014 is pushing it. We can do
9 it." And I think you haven't heard anybody say they --
10 any of the suppliers say it can't be done.

11 So, again, I would urge your Board on this very
12 important -- disproportionately important regulation to go
13 all the way to the 40 percent for the entire car set.

14 Thank you very much.

15 BOARD MEMBER D'ADAMO: Question.

16 CHAIRPERSON NICHOLS: Question.

17 BOARD MEMBER D'ADAMO: Could we keep that chart
18 up?

19 Maybe staff could comment, at what level of TTS
20 on the different proposals?

21 DR. BEKKEN: All of the proposed glazing on this
22 analysis was assuming a 40 percent TTS glazing. So the
23 proposal is the windshield at 40 percent. Then the
24 windshield's at 40 percent plus the front side lights and
25 going on down to the bottom where all of the glazing was

1 at 40 percent around the sides. The roof light would
2 still be at 30 percent.

3 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: But the
4 staff proposal, the top one would be 40 for the windows,
5 60 for everything else, 30 for the roof light.

6 And then the rest of them is what happens if you
7 add in those other windows at 40 percent? So you can see
8 that it becomes less cost effective. But Mr. Moyer's
9 point was that it still saves money over the lifetime of
10 the vehicle even if you made every window be the 40
11 percent number.

12 MR. MOYER: If I can respond on the concept of
13 cost effective, which is also defined in AB 32. It
14 requires that your Board evaluate cost effectiveness, as
15 opposed to other measures, other Scoping Plan measures.
16 Here your Scoping Plan is clearly going to have measures
17 that have -- that do not have a net negative cost, that do
18 not pay back. So compared to those measures, there's no
19 question it's cost effective. Compared to virtually
20 anything your Board does on a daily basis, it is -- it's a
21 cost savings.

22 CHAIRPERSON NICHOLS: Thank you.

23 Are there any other issues relative to the
24 windows, the front and back versus side issues, in terms
25 of specifications that they have to meet or difficulties

1 of fitting them into the car or whatever, that caused you
2 to make the decision to recommend the way you did without
3 putting all the windows in?

4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes,
5 there is. I mean we did use the idea of low-hanging fruit
6 that so many people have talked about. And one of the
7 things that distinguishes the windshield from everything
8 else is the windshield uses the laminated glass, which you
9 can coat the glass or coat the film. And you don't have
10 to actually change physically the size of the window, the
11 weight, how it mounts.

12 All the other glass pieces, there is at least
13 some argument that there would be other engineering
14 changes; for example, you would have to go from what you'd
15 call a safety glass to a -- or single-sheet glass to
16 laminated. And then that could be thicker. That means
17 that you have to sometimes change the window mechanisms
18 because the glass might weigh more. Things like that,
19 that seemed like it was another extra step that perhaps
20 would have delayed things and made it more difficult. And
21 these -- together they were worth 50 percent of the
22 heating, but individually they were much less important
23 than the windshield. So that was kind of our logic.

24 CHAIRPERSON NICHOLS: So it's really based on, in
25 terms of these discrete early action measures, things that

1 you felt legitimately could be done fast?

2 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Right.

3 Although this one's not in the discrete category, it's in
4 the --

5 CHAIRPERSON NICHOLS: Well, it's just early
6 action.

7 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE:

8 -- early category. But still we'd basically --
9 we're pretty close to that schedule. So, yeah. I mean we
10 didn't want to spend three or four years evaluating all of
11 this to the great nth detail and sort of passing up the
12 opportunity to do what was relatively straightforward at
13 least in the staff's view.

14 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:
15 Yeah, per staff.

16 CHAIRPERSON NICHOLS: Okay. Thank you.

17 All right. That concludes the list of witnesses.

18 We've also, I'm sure, received all kinds of
19 communications by mail and Email. And we'll put all of
20 our ex partes into the record before we vote on this.

21 But we've heard a lot of suggestions of various
22 kinds for tweaking this rule in one direction or another,
23 but essentially no opposition to the idea that we should
24 be moving forward and that we can move forward
25 constructively to lower the temperature inside of the

1 vehicle and reduce air conditioning load with a relatively
2 straightforward technology.

3 So having said that, I think my preference
4 procedurally would be to put the staff proposal on the
5 table as our working template here. And then if people
6 want to make recommendations for additions, changes or
7 whatever, work off of that.

8 So could I have a motion to --

9 BOARD MEMBER SPERLING: So moved.

10 CHAIRPERSON NICHOLS: All right. A second?

11 BOARD MEMBER BERG: Second.

12 CHAIRPERSON NICHOLS: Second. Okay, good.

13 So now we can move into discussion, which could
14 include more questions for the staff if people have them,
15 I guess.

16 And we'll start with Ms. D'Adamo, who looks like
17 she's ready.

18 BOARD MEMBER D'ADAMO: Well, I'm interested in
19 expanding beyond -- first of all, if we could get that
20 chart up. And maybe staff has its own version or an
21 improved version that would include additional
22 information.

23 But I'm interested in going beyond --

24 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: This is
25 Mr. Moyer's --

1 BOARD MEMBER D'ADAMO: The last witness.

2 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah,
3 those are our numbers.

4 BOARD MEMBER D'ADAMO: Those are your numbers?

5 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes.

6 BOARD MEMBER D'ADAMO: Okay. But it may not
7 provide all the information that we need as far as the
8 different levels of TTS, as you pointed out, Mr. Cackette.
9 And so I'm interested in doing more on the side and back
10 windows. But I don't feel confident enough to say, you
11 know, at what point. Right now the current proposal is at
12 60 percent TTS. It sounds like a lot of the environmental
13 advocates are pushing for 40.

14 The concern that I have is that I do think that
15 there probably needs to be some additional time if we were
16 to provide for some additional requirements for side and
17 back windows, in light of what said as far as thickness of
18 the glass and all that.

19 So I don't have a specific proposal. I'm curious
20 to hear if other Board members are even inclined in going
21 this direction. But it would be something along the lines
22 of in later years, beyond 2012, perhaps 2014. And I'd be
23 open to suggestions on the TTS amount.

24 And the question that I have for staff, if you
25 could comment or maybe help guide this discussion, is

1 there a difference on the safety issue and engineering and
2 thickness of the glass between 40 and 50 TTS? Or at
3 that -- once we go that point you have to reengineer
4 anyway?

5 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: No,
6 when you go from 60 to 50, I think that probably dictates
7 the switch from tempered glass, single layer glass to
8 laminated glass. They're both safe.

9 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: So
10 then you can go to 40 if you want.

11 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: And if
12 you go -- then the question was, if you go to 40, well,
13 that's just -- as one person testified, that's just a
14 different coating or multiple coatings on the windows. So
15 you'd still have laminated glass with a different coating
16 process.

17 BOARD MEMBER D'ADAMO: Okay.

18 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: I
19 think part of it also is --

20 BOARD MEMBER BERG: Is there a weight --

21 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: Oh,
22 I'm sorry.

23 We really were thinking first step in all of
24 this, because it -- in other words the windshield was
25 already laminated, the side glass was already tempered.

1 And we were sort of saying, what's the maximum you can do
2 quickly on both of those parts of the car to kind of get
3 things going? And I think we saw on the side glass that
4 it's not quite as easy to do it. It's still we believe
5 fairly easy to change from tempered to laminated glass.
6 Laminated glass is stronger and quieter, but it costs
7 more. So we felt like the first step was to -- was that,
8 and then keep it moving.

9 BOARD MEMBER D'ADAMO: I absolutely agree. And
10 that's why I want to give more time.

11 What I want to try and avoid is having to go
12 through, you know, recalendaring and then -- you know, we
13 hear the same thing from the auto makers that, you know,
14 they've already got their model year in design and, you
15 know, they won't be able to meet it. So I would just like
16 to throw out there for discussion, and then just hear from
17 other Board members, see if others are interested.

18 And then I imagine others are interested - I know
19 Dr. Sperling is - on the performance standard. I think
20 that we ought to look at a comprehensive performance
21 standard at some point.

22 CHAIRPERSON NICHOLS: Okay. Actually I had Ms.
23 Kennard next, then Ms. Berg.

24 BOARD MEMBER KENNARD: Thank you.

25 I'd like to take us back at least to the

1 threshold question as to whether or not -- before we get
2 into the details of whether we're going far enough,
3 whether this is the right way to go in the first instance.
4 I think in the first -- I mean I don't think there's any
5 question that this is a no-brainer that we should be doing
6 it. The question I have is whether we are being too
7 prescriptive to the industry and whether we should say,
8 "This is the performance standards in which we're
9 anticipating. And you get there in a method that makes
10 best sense to you." And I was kind of struck by even the
11 Union of Concerned Scientists suggests that that might be
12 a more appropriate strategy in this case. So I'd like to
13 kind of hear from staff on --

14 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: Can
15 I jump in for a second, because I feel really strongly
16 about this one?

17 I think that the -- and then you can -- we
18 considered the staff proposal to be a performance standard
19 on the glass. So essentially what -- in other words there
20 is a test procedure already. There's no doubt technically
21 that lower transmission of heat through glass will cool
22 the interior. And there's no doubt that that will help in
23 terms of AC load and customer comfort and timing of AC.

24 And we felt that the most - again thinking early
25 action - the most appropriate way to do that was, like I

1 believe the architectural industry probably does, just set
2 a spec on the glass that dictates what performance it has
3 to meet as a function of time.

4 And our concern about it in terms of a broader
5 performance spec -- I think we all agree that there are
6 other approaches to it. We're concerned that if you jump
7 too fast into it, we're risking gaming in the sense of
8 having a poorly designed procedure or too much time to
9 develop it, which then sidelines the whole thing.

10 So I guess we would suggest if you want us to do
11 performance standard, to maybe push it off a little bit
12 and make sure that it's not on the same fast track as the
13 proposal that we have here today.

14 CHAIRPERSON NICHOLS: Well, I think that it's
15 always more attractive given the history of this Board to
16 think in terms of a performance standard that allows
17 multiple pathways. And although in theory there could be
18 other pathways, as a practical matter I think we know that
19 there is not a lot of technologies that will achieve the
20 results as far as windshields are concerned.

21 So in that sense, it seems appealing to go with a
22 broader approach. But I didn't hear anybody suggesting a
23 way to do that right now, today. I think the goal would
24 be to get to such an approach as we're phasing in other
25 technologies that are going to get to our overall

1 greenhouse gas standards. We know that there are going to
2 be changes in the air conditioners in the vehicles as part
3 of both the State and now federal greenhouse gas emissions
4 standards. So we know there's going to be redesigning
5 going on in that realm.

6 I think moving towards a greenhouse -- a
7 comprehensive greenhouse gas base standard for the cab or
8 the inside of the vehicle would make a lot of sense. But
9 I would not be in favor of deferring action today or
10 delegating it to staff to try to figure that out, because
11 I think it's probably -- that would probably not get us
12 where we need to go. It would just delay any kind of a
13 response to this.

14 I do think that there's probably a way that we
15 could send the signal that the next time we revisit the
16 Pavley standards, for example, that this might be part of
17 what we would be considering as well. We know we're going
18 to be looking at those soon and that our current standards
19 are going to have to be replaced for the 2016 -- for the
20 2016 model year vehicles. So that's not far off from the
21 time period that we're talking about in this rule or that
22 people are suggesting. Even those who wanted more time
23 were suggesting 2016 as the year that they'd be willing to
24 go to all 40 percent TTS.

25 So there's some room in there I think for some

1 progress.

2 Yes, Mr. Roberts.

3 BOARD MEMBER ROBERTS: I didn't know if Dan was
4 first. But I definitely want to make comments here.

5 CHAIRPERSON NICHOLS: Okay.

6 BOARD MEMBER ROBERTS: Who's next?

7 CHAIRPERSON NICHOLS: I thought you --

8 BOARD MEMBER BERG: You're next.

9 BOARD MEMBER ROBERTS: Okay. Maybe it's the
10 architect side of me, but I think we're going way in the
11 wrong direction. And I think the standards would have
12 been very easy to develop.

13 I think -- when I first heard about it, it was
14 because of the controversy of color paint. And it was
15 clear to me we were going the wrong direction then. And
16 what we've done is we've folded that out of it because we
17 didn't know how to deal with it. What we should have done
18 is dealt with the envelope.

19 Air conditioning in a car is a different thing
20 than an air conditioning in a building. Okay, air
21 conditioning in a building you try to get the air
22 temperature to a -- so you can move around the building.
23 Air conditioning in a car, it's different. You want the
24 air blowing in your face. And that's why you do it. The
25 temperature in a car might be a lot higher. But you get a

1 sense of comfort out of the fact that the way the air
2 conditioning is used. That's why I have some very strong
3 doubts that the changes that you're suggesting are going
4 to result in the air conditioning load being decreased to
5 the extent you're talking about. I don't have a
6 confidence in that.

7 But having said that, it seems to me that, you
8 know, the only thing you care about is sort of the cab.
9 And you could take the horizontal area there, and it's
10 made up of solid parts and glass parts and, you know,
11 one's a windshield and this -- I don't care what -- you
12 know, there are side windows. You could have a standard
13 so the automotive manufacturers could give you designs
14 based on your overall standard. And we wouldn't care what
15 kind of glass they're using or what color paint they're
16 into or anything else. You could achieve everything in
17 the same way we did with buildings. Nobody told you you
18 had to use this glass or that glass.

19 You know, I think from the start you've broken
20 this into components and you've come up with a
21 prescriptive. You're not into a performance; you're into
22 a prescriptive standard. And you're going to end up
23 telling people, "This is the way you've got to do it."
24 And I think there are far greater choices, you'll have far
25 fewer problems than I see coming with this. And I think

1 those standards could be developed in a reasonably short
2 period of time.

3 You know, we're talking about greenhouse gas.

4 Okay. All of a sudden we're going to -- this is not going
5 to solve the problem of greenhouse gas overnight. I think
6 it is more incumbent upon us to have a long-term solution
7 that makes sense. And I think this is out of sync with
8 the way we've done things in the past. And I honestly
9 think that if manufacturers want to deal with the whole
10 envelope as a designer, there's other -- there's things
11 you can do. It's not just the glass. But there's things
12 you can do to the roof. There's things that you could do
13 to the side windows. There's design solutions for the
14 rear windows. You're right to be asking those questions
15 because they should all be included in. But the sum --
16 it's the sum total of all that and the way it works as a
17 system, not as a series of pieces. And we're prescribing
18 a series of pieces. To pick out a windshield is just -- I
19 think is a nonsensical approach to solving the bigger
20 problem here. And it's -- I can tell you as an architect,
21 it just --

22 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: I'm
23 not sure I disagree with you completely. I think the
24 problem is the level --

25 BOARD MEMBER ROBERTS: Well, I said I disagree

1 with you completely.

2 (Laughter.)

3 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: But
4 it's the level. In other words if you're going to do the
5 envelope, then you have to have a level that specifies the
6 whole envelope. And recognizing that, you would get
7 probably more than you would get just from glass, if you
8 went glass and ventilation and color in the roof and
9 insulation and all that. So you'd have to start looking
10 at the entire envelope in terms of its capability as well.

11 BOARD MEMBER ROBERTS: Well, the entire envelope
12 is your roof and your window. I mean that's -- it
13 isn't -- you know, I don't think the doors and the -- with
14 your hood color and all that make -- you know, insulation.

15 Here you've got -- you know, if you look at the
16 horizontal area, that's your cab. Whether it's an SUV or
17 it's a two-door sedan, you've got a certain horizontal
18 area that you could say, "Here, we're going to have a
19 standard and you've got so much heat gain per square foot
20 of that area. Now, you go out" -- you know, "go out and
21 figure it out." We've got a lot of competent engineers.
22 And to get into specifying what the windshield, the color
23 and reflectivity and everything else in a windshield I
24 think is -- we're off on a mission here that I think
25 missed the mark. And I think it's an easy one to correct.

1 CHAIRPERSON NICHOLS: Okay. I'm going to call on
2 Dan Sperling.

3 BOARD MEMBER SPERLING: I sympathize with the
4 spirit of what Supervisor Roberts said. Let me try to
5 cast it a little larger. And, that is, you know, what
6 I -- I talked to many engineers from the various supply
7 companies and car companies. And what impressed me is how
8 many ideas there are, how many techno -- so it's how many
9 technologies are available, how many different ways of
10 designing the cabin. I mean the idea of, you know, the
11 cool paints can be brought in here. There's so many
12 ways -- it struck me there's so many ways of improving the
13 efficiency and therefore reducing the greenhouse gases.
14 And that in fact what it made me think is that the kind of
15 reductions we're talking about for 2016, we can probably
16 even do much better than that, not in 2016, but not so far
17 after that.

18 And so that's what makes me, you know, very
19 sympathetic to this idea, even advocative of this idea of
20 really trying to figure out how to use performance
21 standards as the main mechanism here. And it's partly
22 because it stimulates innovation in a much broader way
23 than just having a specific standard for the glass.

24 But it's also because what we do here, we want --
25 we're not doing it just for California in 2016. You know,

1 we're doing this for the U.S. and for the world. And so,
2 you know, we're going to make a much better contribution,
3 much bigger contribution if we do figure out how to come
4 up with a policy mechanism that can be adopted elsewhere
5 and would be adopted elsewhere.

6 So I think that we -- I think everyone -- you
7 know, almost everyone here agrees that eventually we
8 should go to a performance standard, a broad performance
9 standard, you know. And so, yeah, there is a distinction.
10 There's a performance standard for the glass, there's a
11 performance standard for the cabin. And even, you know,
12 it should include the air conditioner, because what I've
13 also learned is there are different kinds of air
14 conditioners that -- some of them, like in the Prius, has
15 a variable speed, variable capacity, that actually is
16 quite a bit more efficient than the standard air
17 conditioners. And so there's all this kinds of
18 innovation.

19 So my first suggestion would be what Chairman
20 Nichols said, is take her kind of vague suggestion about
21 really creating a performance standard for Pavley 2 and
22 make it more than just a vague suggestion, but that it be
23 the, you know, the resolution of the Board or -- I'm not
24 sure of the exact language of it, but it be the intent of
25 the Board that we roll into Pavley 2 a robust performance

1 standard, you know, for off-cycle, for everything in the
2 cabin that links together the air conditioner and the load
3 on the air conditioner.

4 So then the question becomes, what do we do until
5 then? And I mean I -- I'm nervous about this reflective
6 technology. Now, we're not, you know, engineer -- we're
7 not the automotive engineers here. We're not designing
8 the cars. And when so many people say there might be
9 problems with, you know, all of the radio waves and, you
10 know, everything from garage door openers to tire sensors,
11 you know, ABS sensors, you know, and so on, it makes me
12 reluctant to mandate a technology that creates that kind
13 of problem.

14 So I would suggest -- you know, I'm not going to
15 come up with the precise suggestion quite yet. But I
16 think a slight delay is probably in order. You know, 2012
17 is very soon. I mean I think the analysis to me suggested
18 that at least if you have good solar absorption technology
19 across -- you know, around all the windows, you get some,
20 you know, pretty substantial improvements. And then the
21 question becomes, you know, how do you go beyond that.

22 So, you know, the TTS seems -- you know, 60
23 percent, 55 percent seems to be what I keep hearing about.

24 CHAIRPERSON NICHOLS: But Tier 1 was only 50
25 percent, the 2012 number, which is what I think a number

1 of even the OEMs said was doable. Not all of them. But
2 the first part of this thing is kind of -- I'm sorry. You
3 finish your proposal and then I'll -- we'll move on.

4 (Laughter.)

5 BOARD MEMBER SPERLING: Well, we should -- that's
6 enough. I mean actually, you know, one way to deal with
7 that might be to say -- instead of saying every vehicle
8 has to meet that 50 percent number, that there maybe be
9 the average for the fleet of that company has to meet
10 whatever number that might be, whether it's 55 percent or
11 50 percent that -- you know. And that's kind of the
12 intent here with the 75 percent with the phase-in period.
13 And, you know, maybe we can -- I'm not convinced what that
14 number should be. But it's the reflective tech -- I think
15 the real problem here is this reflective technology, that
16 there seems to be serious questions about it that creates
17 potential problems. And if we can figure out some way to
18 provide more flexibility in moving to these advanced
19 technologies and -- so to me that means the alternative --
20 you know, I come back to this alternative compliance
21 pathway. And, you know, some of the companies said they
22 could do it in six -- you know, they could put together a
23 test procedure in six months. You know, I'm, you know --
24 Mr. Cackette's shaking his head, and I'm skeptical as
25 well. But, you know, maybe in a year that -- and you put

1 the burden on them as an industry. Because if they're
2 going to use an alternative compliance method, it's their
3 interest to come up with a test that they can agree on.

4 So I guess that would be my suggestion, is a
5 full-blown thing for Pavley 2, an alternative compliance
6 path with a performance standard before then. We can
7 argue on an exact number that that -- whether we want to
8 defer the numbers a little bit. And it doesn't have to
9 be -- that test shouldn't be the one that's going to go
10 into Pavley 2. It might be a simpler test and a less
11 robust test.

12 But I rambled a long time.

13 CHAIRPERSON NICHOLS: Ms. Berg.

14 BOARD MEMBER BERG: I am also in agreement with
15 the performance standard for the later years. And also
16 hopefully that performance standard would allow us to have
17 even a stronger result.

18 I also would like to see for 2012, if it's
19 possible, if we were to throw in an alternative of the
20 solar absorption glass at 55 percent, but require all cars
21 within the U.S., would we get our numbers? So in other
22 words, manufacturers could have a choice of doing 50
23 percent TTS or the reflective glass in California only
24 and -- or the solar absorption glass at 55 percent, which
25 I understand is doable in absorption glass, which my

1 understanding would eliminate the radio frequency issue;
2 but nationwide, in order to make up for the going 55
3 percent instead of 50. And then wouldn't we have our
4 greenhouse gas emissions -- since it's a global issue,
5 wouldn't we take care of the intent?

6 CHAIRPERSON NICHOLS: So a compliance option that
7 the manufacturer could show that every car that they sold
8 in the U.S. met the 55 level versus the 50 percent for
9 California --

10 BOARD MEMBER BERG: And it would be absorption.

11 CHAIRPERSON NICHOLS: -- just to understand.

12 Well, it doesn't -- you're not going to specify
13 how they do it.

14 BOARD MEMBER BERG: No, not -- but you're right,
15 55 percent would include the absorption technology.

16 CHAIRPERSON NICHOLS: It could. It could.

17 BOARD MEMBER BERG: So I guess I'm looking at
18 staff to see if --

19 CHAIRPERSON NICHOLS: That's a question.

20 BOARD MEMBER BERG: -- if my assumption --

21 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I
22 wasn't sure whether I wanted to jump in the middle of
23 this.

24 BOARD MEMBER BERG: -- if my assumption --
25 sorry -- if the assumption of doing nationwide versus

1 California, does that have any merit to it?

2 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, I
3 don't think we know for sure whether manufacturers at any
4 one standard are going to make one windshield for the
5 nation or make two, one for California and one for the
6 rest of the nation. They've alluded to us that that's
7 what they would do if the standard's too tough or if the
8 timing is not good enough.

9 So I think there's probably, you know, less
10 chance of them making a California-only one in Tier 1 than
11 2. But the exception of that would probably be the
12 Japanese manufacturers who seem to be wedded to the
13 absorption technology. And so they might be the ones that
14 would clearly take, you know, take advantage of that.

15 You know, I think if we knew that they were only
16 going to do it in California, unless we provided this
17 option, then it would be a good deal. The question is of
18 course we don't know if they wouldn't have done it
19 nationally to some degree anyway. So I can't give you a
20 precise number or tell you whether 55 nationwide would
21 truly provide the same benefits, more benefits, or less
22 benefits, cause we just don't know what they're going to
23 do. But --

24 BOARD MEMBER BERG: I understand that. But we
25 do --

1 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: -- the
2 direction, yeah, it makes sense.

3 BOARD MEMBER BERG: -- we do -- we do
4 calculations though and we have an emissions
5 calculation -- is my assumption correct, that our
6 emissions calculation is based on the number of California
7 cars?

8 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah,
9 our basis would be just California alone, yeah.

10 BOARD MEMBER BERG: So in trying to protect the
11 emissions savings by giving an alternative compliance
12 option of 55 percent, but then the manufacturer would
13 agree that it was nationwide, has a potential of
14 protecting our emissions savings?

15 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah,
16 the calculation would be more tons, yes.

17 CHAIRPERSON NICHOLS: You know, I -- Okay. I'm
18 going to jump in here now and give my views on this issue.

19 I don't hear anything that gives me the least bit
20 of qualm whatsoever about Phase 1 of this rule. The only
21 companies that we have heard from who have concerns about
22 it are the Japanese manufacturers who just haven't looked
23 at it and want more time to study it. And I get that they
24 want more time to study it but they don't have to do
25 everything right away. So I don't see it as that big a

1 deal.

2 The glass is out there. It's being used. I
3 think this radio frequency issue is a total red herring.
4 I think you guys are being distracted by spaghetti that's
5 being thrown at every wall around us, because there's no
6 evidence that they can't put the stuff into the car and
7 then, you know, figure out a way to use all the radio
8 frequency stuff that everybody wants in their cars and
9 that customers are going to insist on having.

10 They didn't start out with this stuff on their
11 low-end cars. They started out with it on their
12 highest-end cars where people use the most electronic
13 gizmos. You know, I admit I'm not an electronic gizmo
14 person. I don't have a garage door opener because I don't
15 have a garage. But, you know --

16 (Laughter.)

17 CHAIRPERSON NICHOLS: -- it doesn't -- I
18 certainly use my cell phone enough, you know. I just
19 don't think they're going to sell cars that people can't
20 use their cell phones in.

21 So I'm concerned about, you know, what we heard
22 of the ability of glass manufacturers potentially to
23 supply all the glass that's needed. Because my view about
24 AB 32 is this is not just another car regulation. We're
25 supposed to be in the business of helping to transform

1 technologies and bring about opportunities for people who
2 make products that are going to be helpful in leading the
3 transformation towards a more energy efficient world. And
4 that includes reflective glass. And we have companies
5 here, including California companies, saying, you know,
6 "We're going to be making glass and, you know, we're going
7 to be helping to save the world by doing it." And I think
8 that's a very good thing, that we would be -- that we
9 would be allowing that to happen.

10 Yes, Dr. Balmes.

11 BOARD MEMBER BALMES: Well, I want to make a
12 philosophical comment rather than weigh in on the
13 specifics here.

14 I feel much more comfortable with
15 performance-based standards where there are alternatives
16 available, because I just think we get into trouble when
17 we try to be too prescriptive about any one specific
18 technology. I understand the staff argument and I'm not
19 at this point saying I'm against certainly meeting the
20 Tier 1 requirement that Chairman Nichols just mentioned.
21 I think it probably is achievable. But I'm very much in
22 favor in general - sort of announcing that for the future,
23 because I think this is going to come up multiple times -
24 that to me flexibility for industry to achieve -- I'd
25 still want to achieve the same ends, but I would like to

1 have flexibility for industry. I think it makes the most
2 sense, especially in tough economic times. And it
3 probably spurs innovation as well.

4 CHAIRPERSON NICHOLS: I think that would get
5 unanimous support from the Board.

6 BOARD MEMBER BALMES: Well, but I think we forget
7 about that a lot of times.

8 CHAIRPERSON NICHOLS: I think the staff was
9 honest in saying they're looking at the windows and coming
10 up with a performance standard for windows. Maybe that
11 was too narrow an item.

12 BOARD MEMBER BALMES: That's --

13 CHAIRPERSON NICHOLS: But it's not a -- but it is
14 a -- they did not specify a technology that the windows
15 had to be.

16 BOARD MEMBER BALMES: I guess I would be in favor
17 of a broader approach as Supervisor --

18 CHAIRPERSON NICHOLS: The broader the better to
19 achieve the goal. I agree with that.

20 BOARD MEMBER SPERLING: Chairman Nichols?

21 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: Part
22 of that is because of the early action that we were trying
23 to do. I mean if we'd had another year or two to work on
24 it, I think we could have pursued a performance standard.
25 I think it's just, you know --

1 CHAIRPERSON NICHOLS: Well, and the other --

2 BOARD MEMBER BALMES: And I realize that it is an
3 issue in terms of the speed with which we're trying to
4 move.

5 CHAIRPERSON NICHOLS: Yeah. And this isn't speed
6 just because we happen to feel like it. It's speed
7 because, you know, every ton that's going out into the
8 atmosphere today is going to stay there for a long, long
9 time.

10 BOARD MEMBER D'ADAMO: Well, we're required to
11 under AB 32 to adopt early action. I mean obviously we
12 have to have analyze it, but we do have a mandate.

13 BOARD MEMBER SPERLING: But a couple little
14 clarifications here. First of all, you know, this
15 reflective technology -- you know, the idea of innovation
16 and technology leading, the reflective technology is not
17 this fabulous new technology. It's been known for awhile,
18 and at least two different suppliers said this is not
19 rocket science. They haven't done it very much. But that
20 doesn't mean it's -- none of them said this is hard to do
21 it. It'll take time, you know, to actually do it.

22 So if we're talking about innovation, and if
23 we're talking about large reductions, having that option
24 at least for a broader performance approach or alternative
25 approaches to do it is likely to stimulate much more

1 innovation that's going to have a much larger impact in
2 the medium term and the long term and maybe even the near
3 term. So I would think under any circumstance we need --
4 we should have in this a means for companies to pursue
5 these other innovations and an incentive to do that.
6 Because this reflective technology is not the be-all and
7 end-all and it's not, as I was told, rocket science. So I
8 just want to make sure that we do have that built into
9 whatever we do here.

10 CHAIRPERSON NICHOLS: I don't hear anybody saying
11 that there's innovations in terms of technology that they
12 were planning on using if they didn't have to use better
13 glass. I heard them saying they might redesign the
14 interior, so they dealt with the air flow differently. I
15 mean I'll grant you that this isn't brand new technology.
16 But then very little that's coming about as a result of
17 having to put a price on carbon or think about carbon
18 right now is brand new technology either. A lot of it's
19 stuff like electric cars, that were around, you know, many
20 years ago but are only now becoming attractive again
21 because of people caring about carbon. So I'm not going
22 to give up on that argument. It's a matter of bringing to
23 the fore good technologies that will actually help but
24 that were deemed too expensive to use before people began
25 to care about greenhouse gas emissions.

1 Yes.

2 BOARD MEMBER YEAGER: I need just further
3 clarification on the Tier 2 timeline. I know we've heard
4 a variety of opinions, even from some Board members, on
5 whether that is something that can be reached. I know
6 with the further discussion that we've had, if you have a
7 reaction as far as whether the industry is going to be
8 ready for that 2014 timeline.

9 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, I
10 guess on the testimony that suggests that it would. And
11 this is brought largely what we based our recommendation
12 on, was that two, and now I understand it's three, glass
13 manufacturers say they have the technology. And two of
14 them you heard testify today saying they can ramp up
15 production, they have production in many countries, that
16 the amount of glass that's needed is small compared to the
17 total amount of glass they produce with this technology.
18 So they're saying they can do it.

19 And then we had one car company who didn't
20 testify to it but it's in the record here that basically
21 said 2014 for the 40 percent -- a hundred percent
22 compliance of the 40 percent standard was fine. That was
23 Ford. So I guess that gives you, you know, some balancing
24 sense that some people think it's doable. And then of
25 course on the other side there was a lot of testimony

1 saying, "Give us more time."

2 CHAIRPERSON NICHOLS: Others wanted 2016, I
3 think. And there was one 2015 in the bunch.

4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Right.

5 BOARD MEMBER YEAGER: Yeah, it was just the
6 question of, I mean, particularly from Mitsubishi saying
7 that their 2013 model year are already in final design.
8 Which of course these open 2014. But I just -- I assumed
9 you had looked at all of this. But it --

10 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yes.

11 BOARD MEMBER YEAGER: -- I just wanted to make
12 sure as far as what we were talking about was going to be
13 practical enough that the car industry could actually
14 incorporate it into their 2014 design. But it just sounds
15 like --

16 CHAIRPERSON NICHOLS:

17 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: We
18 think so. But it's a --

19 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:

20 Forty percent of the cars today have it.

21 BOARD MEMBER YEAGER: Thank you.

22 CHAIRPERSON NICHOLS: Forty percent of the cars
23 today?

24 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:

25 Forty percent of the cars today have solar

1 absorbing technology.

2 CHAIRPERSON NICHOLS: Have the absorbing
3 technology.

4 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:
5 Which is most of the requirement.

6 BOARD MEMBER D'ADAMO: At what percent of TTS --

7 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: We were
8 talking about 40 percent of -- the 40 percent TTS I think,
9 right? So that's not on cars today.

10 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:

11 Yeah, the 40 percent TTS is -- or the 60 percent
12 TTS is on cars right now; 40 percent of them have it. And
13 then the 50 percent is the new requirement, but it's being
14 done to an existing piece, which is --

15 BOARD MEMBER YEAGER: If you could repeat it, and
16 maybe talk a little louder.

17 CHAIRPERSON NICHOLS: Say it louder and slower
18 please.

19 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: I
20 get excited about this.

21 Forty percent of the cars today have 60 percent
22 glass on them already, roughly. And that is the staff
23 proposal for 2012 -- 13? -- 12. This is the glass except
24 the windshield.

25 The windshield currently -- I'm not sure what the

1 level is, frankly. But it's -- yeah, it's probably the
2 same. But we would require them to change the technology
3 on the windshield in both tiers, first and second tier.
4 And I think that's what's caused all of the excitement,
5 because they would be going from a coating which is
6 non-metallic to a metallic coating in the windshield.

7 CHAIRPERSON NICHOLS: All right.

8 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: But
9 the answer is that most of it's done.

10 CHAIRPERSON NICHOLS: Okay.

11 Yes.

12 BOARD MEMBER TELLES: All right. You know, I
13 drive a Mercury Mariner hybrid in the San Joaquin Valley,
14 which is pretty hot. And if I turn the air conditioner
15 on, I get 27 miles per gallon; and if I turn it off, I get
16 34.8. So it makes a big difference if you run the
17 air-conditioner or not. I understand that. But if our
18 true goal is to reduce greenhouse gases, I think the most
19 important thing we can do is to write a regulation that,
20 as Ms. Berg is suggesting, that is not just used in
21 California but is used throughout the United States. And
22 if we have something that is too prescriptive or whatever,
23 that is not being -- that cannot be incorporated in the
24 rest of the United States, then we -- then we haven't
25 really accomplished our goal. We've just kind of put a

1 little bit of water in the bucket but didn't fill the
2 bucket.

3 And, you know, if the cell phone really doesn't
4 work and we don't -- you know, some people says it does,
5 some people says it doesn't in a car that it has this 40
6 percent glass -- I think we should make sure that it does
7 or does not and have our engineers speak with their
8 engineers and make sure that this is a technology that
9 really does something, especially coming from a -- I'm a
10 cardiologist. And, you know, 70 percent of my patients
11 come to the hospital in an ambulance which was picked
12 up -- which has a GPS device to find the patient. And I
13 don't know if they scared Mary, but they scared me a
14 little bit, that I would want to make sure that those
15 devices work and that they're not so expensive in a
16 redesigned vehicle that they're cut out or whatever, that
17 I think we have to do a little bit more homework on some
18 of these issues.

19 CHAIRPERSON NICHOLS: Staff want to respond?

20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well, I
21 mean we've met with those who are the skeptics and those
22 who believe it's doable. And I think the only issue that
23 we're really hearing from the skeptics on whether this is
24 going to work or not has to do with how much time for them
25 to absolutely verify that it works okay for their vehicle,

1 that there isn't any, you know, risk at all that there's
2 some loss in cell phone or that the GPS won't work if it's
3 put in a certain place or whatever. And the skepticism
4 comes from -- principally from the Japanese manufacturers
5 who just don't have any experience with the coated glass.
6 They use the absorbing glass.

7 But if you look at people who do have experience
8 with it, both the glass manufacturers, Europeans, they're
9 not troubled by this. I mean Mercedes gave us comments.
10 And the only thing that they asked for was there like one
11 more year to do the phase-in. So I mean they've done it.
12 They are not worried about this.

13 Ford apparently is not worried about it. I have
14 to believe that Ford worries about the electronics in
15 their cars and whether it will work or not.

16 So I think you've got -- you know, it's a matter
17 of what you know and what the risk is. And that's what's
18 causing this spread in the viewpoint here.

19 BOARD MEMBER TELLES: I hear what you're saying.
20 But, you know, a company like Garmin comes here - and
21 they're probably one of the biggest producers of GPS
22 devices - and said they just heard about it yesterday and
23 they don't know if it will work or not.

24 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That's
25 just not true. I mean they may have just heard about the

1 meeting here --

2 BOARD MEMBER TELLES: Well, I don't think you can
3 question their veracity.

4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
5 what I can question is that if you pick up the instruction
6 manual for their Garmin GPS system, it tells you -- inside
7 there it says on some cars they have reflective windows
8 and you might need to put an external antenna, "which
9 we'll give to you," to go on the out -- somewhere else on
10 the car, a spot where it could go through the window or on
11 the external side. They all say that. So they already
12 know they've got this problem, because vehicles use this
13 technology now. And so they've got a solution in place.

14 And the lasering out of the, you know, we'll
15 call, the masking areas where you would not have the
16 reflective mirroring on this is another way that you
17 can -- you can decide where you're going to put these
18 devices. You know, like an instruction manual for a
19 Garmin would say put it in the middle of windshield or put
20 it on the left -- right side of the windshield because
21 that's where the deletion area is, and then it would work.
22 And so --

23 CHAIRPERSON NICHOLS: Can I just -- bringing us
24 back to where we are today in June of 2009. We're talking
25 about a rule that's supposed to begin to take effect for

1 the 2012 model year vehicles. And I have not heard much,
2 other than philosophical dislike for addressing this issue
3 at all, to suggest that we can't do it in 2012. But we
4 can't do it in 2012. You don't want to do a glass rule.
5 You want to do an alternative kind of rule.

6 BOARD MEMBER ROBERTS: I was going to offer a
7 suggestion to --

8 CHAIRPERSON NICHOLS: Oh, okay. I'm sorry.

9 BOARD MEMBER ROBERTS: I've been trying to get
10 your attention, but it's been difficult.

11 CHAIRPERSON NICHOLS: No, no. I was looking in
12 the wrong direction. I apologize.

13 BOARD MEMBER ROBERTS: There's a group of us down
14 here.

15 (Laughter.)

16 CHAIRPERSON NICHOLS: I know there are. There
17 are several of you. You're the left-hand side though.
18 And I'm left handed, so I naturally turn towards the
19 right.

20 BOARD MEMBER ROBERTS: Okay.

21 CHAIRPERSON NICHOLS: I will --

22 (Laughter.)

23 CHAIRPERSON NICHOLS: I was going to actually
24 offer a suggestion, but I'll defer to you.

25 BOARD MEMBER ROBERTS: Can I try something?

1 CHAIRPERSON NICHOLS: Go ahead.

2 BOARD MEMBER ROBERTS: Because, you know, I
3 really do think we got -- I think we got off on the wrong
4 track here, and I think its evidenced by the withdrawal of
5 the paint. And it's not just the paint. The paint covers
6 the solid parts of the car, and the solid parts of the car
7 transmit some degree of heat also, which has been
8 recognized. But I still think that -- you know, it may be
9 that you can go ahead with a first step with instructions
10 to staff to come back here with an alternate performance
11 standard that we can put into effect. A performance
12 standard wouldn't have taken any longer than what this has
13 taken. I'm comfortable if I had a small team of
14 engineers, we could put this together for you very
15 quickly. And I think the benefits are going to be a
16 lot -- or significantly better, and I think it's going to
17 ease the staff's workload in the future.

18 There's a lot of things that are happening to
19 cars. And I think to have the ability to be able to look
20 at the envelope, as opposed to look at the pieces, is a
21 far more practical way. I've noticed there's probably 10
22 percent of the cars in San Diego they're driving around
23 where people have paid probably 3, \$400 to have a film put
24 in there windows, you know.

25 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:

1 Supervisor, I agree with you in terms of our --

2 CHAIRPERSON NICHOLS: Well, excuse me. This
3 isn't a debate. Okay? I'm sorry. This is the Board
4 time.

5 BOARD MEMBER ROBERTS: Well, if he wants to say
6 he agrees, I'll let him.

7 (Laughter.)

8 CHAIRPERSON NICHOLS: Well, I'm beginning to feel
9 like we're having group therapy here --

10 (Laughter.)

11 CHAIRPERSON NICHOLS: -- rather than a board
12 dealing with a regulation.

13 BOARD MEMBER ROBERTS: No, but I -- you know, if
14 we're in agreement, that's -- that's what I'd like to see
15 us do, rather than go down a prescriptive-only path.

16 CHAIRPERSON NICHOLS: I think that's a good
17 suggestion. And I don't hear the staff disagreeing that
18 that's the approach that they would like to take. I agree
19 with you.

20 BOARD MEMBER BERG: So could I suggest that we
21 amend the motion to move forward with the 2012 staff
22 proposal, but to grant an additional year for phase-in,
23 and that way giving the car companies three years instead
24 of the two years, with 25 percent in 2012, 50 percent in
25 2013, and a hundred percent by the 2014? And that way it

1 gives them the opportunity to do the testing, to get
2 things out on the road. And then for staff to come back
3 to us in a year, that they're going to tell us right here
4 pretty quickly, for a technology review and a performance
5 standard to go forward rather than the Phase 2 of 2014.

6 CHAIRPERSON NICHOLS: I want to make sure I'm
7 understanding you.

8 So the 50 percent TTS under your proposal --

9 BOARD MEMBER BERG: Correct, as staff --

10 CHAIRPERSON NICHOLS: -- would phase in --

11 BOARD MEMBER BERG: Correct.

12 CHAIRPERSON NICHOLS: -- beginning in 2012?

13 BOARD MEMBER BERG: Correct.

14 CHAIRPERSON NICHOLS: And it would be carried
15 through to 2014 but ramping up?

16 BOARD MEMBER BERG: Correct.

17 CHAIRPERSON NICHOLS: Okay. And we would not go
18 beyond that level until we had heard back from staff about
19 a performance-based approach --

20 BOARD MEMBER BERG: Correct.

21 CHAIRPERSON NICHOLS: -- to dealing with the
22 greenhouse gas emissions?

23 BOARD MEMBER BERG: Correct.

24 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So to
25 be clear, there would not be a 40 percent TTS standard

1 then as part of this motion?

2 CHAIRPERSON NICHOLS: So the 40 percent TTS never
3 gets adopted, or you'd adopt it as a default but ask for
4 the --

5 BOARD MEMBER BERG: Adopt it as a default.

6 CHAIRPERSON NICHOLS: The equivalent thereof --

7 BOARD MEMBER BERG: The equivalent of their --

8 CHAIRPERSON NICHOLS: The equivalent of a 40
9 percent. But 40 percent for all the glass equivalent or
10 40 percent only for the windshield equivalent?

11 BOARD MEMBER D'ADAMO: Well, you know where I'm
12 on that.

13 CHAIRPERSON NICHOLS: Yeah. And I'm with you on
14 that too. I think it should be for the whole thing.

15 BOARD MEMBER D'ADAMO: I mean the challenge with
16 the rest of the car --

17 CHAIRPERSON NICHOLS: -- yeah, is it's a
18 performance standard.

19 BOARD MEMBER D'ADAMO: -- is that we need more
20 time, and we here we are getting more time in order to
21 provide --

22 CHAIRPERSON NICHOLS: Right.

23 Okay. I'm now going to look down at this end so
24 I'm not guilty of ignoring my colleagues here.

25 So, Ms. Kennard.

1 BOARD MEMBER KENNARD: I'm comfortable, I guess.
2 I mean I'm still at the 50,000 square foot level, which is
3 we care about the temperature of the inside of the car and
4 that we ought to be able to find -- let the industry
5 figure out how to reduce that temperature to some kind of
6 standard, whatever -- well, what it is is -- for TTS.

7 But I will go along with my colleagues to the
8 2012 provided that beyond that it is a true performance
9 standard, it is not just about the glass, that there could
10 be other mechanisms to allow the industry to meet that
11 standard.

12 CHAIRPERSON NICHOLS: I think that's what the
13 proposal that Ms. Berg is putting forth is, that the staff
14 would have to develop an alternative proposal that would
15 get the equivalent result in a true performance standard,
16 and then let the industry choose what their method would
17 be for meeting it. But that standard would be -- would be
18 in effect beginning in the 2014 model year under her
19 proposal. So --

20 BOARD MEMBER KENNARD: In other words not
21 restricted to the glass --

22 CHAIRPERSON NICHOLS: Correct. No, the glass
23 is -- we're just using the glass as the surrogate, as the
24 measurement technique, I believe.

25 BOARD MEMBER D'ADAMO: I want to make sure I

1 understand. Performance standard as an alternative
2 compliance path.

3 CHAIRPERSON NICHOLS: Well, yes, or -- cause
4 either way you could get it through doing the --

5 BOARD MEMBER D'ADAMO: Right.

6 CHAIRPERSON NICHOLS: -- if you wanted to. At
7 least that's the goal.

8 All right. Further thoughts, suggestions,
9 amendments?

10 Does this fit with your thinking?

11 BOARD MEMBER ROBERTS: It does.

12 CHAIRPERSON NICHOLS: Is it close to where you
13 are?

14 BOARD MEMBER ROBERTS: I think we might find a
15 time that the performance -- you may want to just allow
16 that to replace what you have, because I honestly think
17 you can do better than you're doing --

18 CHAIRPERSON NICHOLS: Right, I think you're --
19 you made your point. But I think you're right.

20 BOARD MEMBER ROBERTS: -- if you -- but I
21 think -- that's the whole thrust of what I'm saying. I
22 think you can even do better by using a performance
23 standard. But I --

24 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Could I
25 ask -- I'm not clear at least on what you're talking about

1 for the 20 -- I guess it would be 2015 now. Since we had
2 a three-year phase-in, that would be -- for TTS 50 Tier
3 one, that would be '12, '13, and '14.

4 And so then in '15, is there a standard or not?

5 And let me make an argument for it just for your
6 consideration.

7 You know, we want to work on something that's
8 broader that would bring in these extra things, because I
9 think the tons -- the milli -- metric tons per day would
10 go up. The problem is is that I would like to keep the
11 pressure on the industry to come up with the alternative.
12 And one way of doing that is to go ahead and set the 40
13 percent standard and then say we'll come back with the
14 review, and if everyone chips in and we come up with a
15 good alternative way of doing this, a broader-based
16 standard, then it would -- you know, it would replace the
17 40. But without that there, I'm afraid we will --

18 CHAIRPERSON NICHOLS: As it is today, what I'm
19 understanding our proposal to be is 40 percent for the
20 entire vehicle, for all the windows.

21 BOARD MEMBER SPERLING: For 2016.

22 CHAIRPERSON NICHOLS: To take effect in 2016,
23 according to you.

24 Then what happens in 2015?

25 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: What

1 happens in '15 then?

2 BOARD MEMBER BERG: Well, I guess I --

3 BOARD MEMBER SPERLING: Forty-five percent.

4 We'll do 45 percent.

5 (Laughter.)

6 CHAIRPERSON NICHOLS: We pause.

7 (Laughter.)

8 CHAIRPERSON NICHOLS: We rest.

9 Would you accept 2015 as the date for that?

10 Because then that accomplishes what Mr. Cackette is
11 suggesting, which is that it allows the staff to go out
12 and start working now on an alternative to bring to us;
13 that people know that if they don't come up with the
14 alternative, that's what they're going to get.

15 BOARD MEMBER BERG: Yeah. The only reason I
16 chose the 2016 is because that's what we heard from
17 several of the glass manufacturers along with industry.
18 So that's what I had my date. That's all.

19 CHAIRPERSON NICHOLS: Yeah, fair enough, fair
20 enough. I think the 2015 could -- I think they could make
21 it in 2015.

22 All right. Is anybody offering any other --

23 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: I'm
24 still not clear. Which is it for 2015? We need to know
25 the number if it goes in for 2015.

1 CHAIRPERSON NICHOLS: Pardon me? We're going to
2 make it 2015.

3 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So it's
4 40 percent vehicle around in 2015, a hundred percent of
5 the cars.

6 CHAIRPERSON NICHOLS: Right, or an alternative
7 compliance path to be developed.

8 Yeah, which is really --

9 BOARD MEMBER SPERLING: I'd feel more --

10 CHAIRPERSON NICHOLS: -- 2015 model year. So --

11 BOARD MEMBER SPERLING: I'd feel more comfortable
12 with 2016, because, you know, what we're asking for is a
13 lot of innovation and a lot of rethinking of the interior
14 cabin and the materials and the design. And I mean I
15 think an extra year is not -- I mean what we're trying to
16 do is get it right and not be disruptive.

17 CHAIRPERSON NICHOLS: But if we do it right, this
18 is not going to happen. I mean if what the staff thinks
19 they're doing is correct, they're going to be coming back
20 to us with a performance-based rule in time to take
21 effect.

22 BOARD MEMBER SPERLING: Well, when we say 40
23 percent, we're saying or the equivalent, right? That's
24 what I was interpreting this, 40 percent or the equivalent
25 reduction.

1 CHAIRPERSON NICHOLS: Right. Do you think that's
2 still too demanding for 2015?

3 BOARD MEMBER SPERLING: Because we're saying all
4 the way around. So, yeah, I do. I'd feel better -- I
5 mean it's not that much difference in terms of the -- to
6 get greenhouse gas reduction, and yet it provides a little
7 time to really get their engineers engaged in --

8 BOARD MEMBER KENNARD: Well, let me make the case
9 for the earlier year, believe it or not.

10 (Laughter.)

11 BOARD MEMBER KENNARD: And I'll tell you why.
12 One, to Bob's point about keeping -- and Tom's point as
13 well to keeping the pressure on them. And also we're
14 giving them the opportunity to use any number of different
15 alternatives, not just the glass. So this is a huge
16 benefit to them, or at least I hope that they would view
17 this as a benefit to be innovative, and as opposed to
18 being in this narrow band of just the glass. So --

19 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: If
20 we get through the study that we do to develop the
21 performance standard, we learn that they can -- by using
22 all these technologies, they can be 40 percent all the way
23 around, I'm assuming -- or asking the Board if we should
24 pursue going beyond that.

25 CHAIRPERSON NICHOLS: To be more ambitious.

1 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS:

2 Yeah, to be more ambitious. Because it may turn
3 out with all these new technologies that they can do
4 better. And I guess if we're going to be told to develop
5 a procedure, then asked for the charge to do that --

6 BOARD MEMBER SPERLING: I think we should defer
7 that to Pavley 2.

8 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Yeah,
9 I -- you know, in terms of timing, remember, Pavley 2 is
10 next summer. So that's actually the shortest timeframe
11 for the reg adoption. And the time to develop this
12 procedure for substituting for a 2015 or 2016 standard
13 would probably not be summer of 2010. It might be at
14 least --

15 CHAIRPERSON NICHOLS: We're supposed to be
16 hearing back from you guys by the end of this year about
17 your thoughts, and then moving to a rule-making next
18 summer for Pavley 2. So folding this into that time
19 schedule is not such a bad --

20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
21 I'm just suggesting that that's pretty tight. I just want
22 you to know that's the quickest pathway, is Pavley. It's
23 not like the longest one. Even though the implementation
24 of Pavley wouldn't be till 2017, we're planning on taking
25 it to the Board in less than one year from now. So --

1 BOARD MEMBER SPERLING: Yeah, but the distinction
2 is the Pavley 2 would be a -- what we're really doing is
3 talking about creating a true robust performance standard.
4 So that while, yes, that in terms of the rule-making it
5 would be quicker. But it would provide a clearer
6 framework for industry to -- you know, to be innovative
7 and to be planning ahead and how to be creative and the
8 rewards.

9 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Well,
10 the reason I bring it up is because -- I agreed with
11 Supervisor Roberts about, you know, the platform concept.
12 But I can pretty much tell you for certain that when we
13 get into this, it's going to be pretty darn complicated.
14 Because, as you said, sometimes it's the blowing the air
15 on you that feels good. They have cooled seats. They
16 have ventilated seats. You know, temperature isn't the
17 metric necessarily that determines whether you're
18 comfortable. And all of these require procedures, and
19 that's the tough part.

20 BOARD MEMBER ROBERTS: Temperature isn't
21 necessarily what we're talking about. We're talking about
22 heat gain through the envelope. And that's why it's --
23 we'll talk after the meeting, because I honestly think
24 it's easier than what you're thinking and it's easier than
25 some of the speakers would like to lead you to believe.

1 BOARD MEMBER D'ADAMO: Well, we're going to get
2 all kinds of ideas because --

3 CHAIRPERSON NICHOLS: I'm sure.

4 BOARD MEMBER D'ADAMO: -- we're on a date, and
5 it's going to force the industry to come back to us with
6 ideas.

7 CHAIRPERSON NICHOLS: Right.

8 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: So
9 we'll do the best we can on any timeframe you want us to
10 do.

11 CHAIRPERSON NICHOLS: Well, I mean I think the
12 only live issue here is whether we're going to 2015 or
13 2016. Otherwise we've agreed that this rule starts as
14 proposed in 2012 and ramps up over a three-year period in
15 terms of the numbers of vehicles, the percent that are
16 covered. Right?

17 So I don't have a --

18 BOARD MEMBER TELLES: If we do the 20 -- I mean
19 if we do all the side lights and everything, it's actually
20 a more rigorous rule than what we initially started with,
21 and I think the 2016 makes more sense.

22 CHAIRPERSON NICHOLS: All right. I can live with
23 that. I can live with that.

24 BOARD MEMBER BERG: Yeah, let's go with 2016.

25 CHAIRPERSON NICHOLS: All right. Then we'll go

1 with 2016.

2 All right. Everyone is now thoroughly convinced
3 that the correct approach here is --

4 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Would
5 it help if I repeated what I think we --

6 CHAIRPERSON NICHOLS: Would you please.

7 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: -- for
8 the record?

9 CHAIRPERSON NICHOLS: Yeah.

10 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Okay.
11 My understanding would be that 25 percent of the cars in
12 2012 would have to meet a 50 TTS standard for the
13 windshield. And the rest of the proposal, 60 on the other
14 windows and 30 on the skylight as proposed by staff.

15 CHAIRPERSON NICHOLS: Correct.

16 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: That
17 the percentage of vehicles that have to comply in 2013
18 would go to 50 percent, in 2014 would go to 100 percent,
19 in 2015 would stay at 100 percent with the 50 TTS, and in
20 2016 it would drop -- the windshield and everything else,
21 all the side windows and back window would drop to 40 TTS.

22 And we would do a -- attempt to have a technical
23 review and proposal as part of Pavley 2, which would be in
24 the summer of 2010. And the purpose there would be to see
25 if there are alternative ways to achieve the same

1 objective and to see whether there are ways to exceed the
2 objective of 40 percent all the way around.

3 CHAIRPERSON NICHOLS: Okay. Yes, I believe
4 you've accurately stated what we have come to.

5 BOARD MEMBER BERG: But it is in fact "or
6 equivalent." So it isn't that -- I mean we're going to
7 get -- we're going come up -- we're going to let industry
8 come to us with alternative plans. And if it matches,
9 then they'll be able to do that, correct?

10 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Right.
11 Although on our side we might be, you know, trying to beat
12 it.

13 BOARD MEMBER BERG: Well. That's okay.

14 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: But,
15 yes. There wouldn't be an alternative unless it was as
16 good as 40 percent all the way around. Is that what
17 you're --

18 BOARD MEMBER BERG: And hopefully it's better.

19 CHAIRPERSON NICHOLS: And hopefully it's better,
20 right.

21 Okay. Before we can vote on this item we have to
22 go through the ex parte, which I think are going to be
23 more extensive on this one than they were on the last one,
24 since there weren't any on the last one.

25 So I'll start with mine. Just going quickly

1 through this. Beginning on June 9th, meeting with
2 California Strategies; the 23rd with Allied Materials;
3 23rd with the International Auto Manufactures; the 23rd
4 with Toyota; 24th with Pittsburgh Glass; 24th with
5 Chrysler; the 24th with Alliance of Automotive -- of Auto
6 Manufacturers, the Alliance; and with Ford, all on the
7 24th. Yeah, it was a big glass day yesterday.

8 And I believe every one of them used the same
9 written materials that they've used here with us today.

10 And it was very useful in giving me a preview of
11 what they were going to say, but nothing other than what
12 we've already heard.

13 And I'll start down on this end.

14 BOARD MEMBER BALMES: Yes. I had a phone call
15 with Robert Vandal of Guardian Automotive, where basically
16 he made a similar case that he did today. On the same day
17 I had a phone call with Dan Adsit and Rich Bell of Ford
18 Motor Company, basically saying points that were made
19 today. And then on June 23rd was Steven Douglas of the
20 Alliance of Automobile Manufacturers. Again, same points
21 as made today.

22 BOARD MEMBER ROBERTS: I didn't talk to anybody.
23 But one of my staff members did take a call from Dan Adsit
24 and Rich Bell from Ford. And according to what he told
25 me, it was consistent with the testimony we heard today.

1 CHAIRPERSON NICHOLS: Great.

2 BOARD MEMBER ROBERTS: By the way, his name was
3 Jason Farran.

4 CHAIRPERSON NICHOLS: Okay. Thank you.

5 None. Alright.

6 BOARD MEMBER YEAGER: Yes, on June 12th I had a
7 meeting with representatives from California Strategies
8 and Southwall Technologies. And the conversation very
9 closely mirrored what we heard today.

10 BOARD MEMBER BERG: On June 15th, I had a phone
11 call with members from California Strategies on behalf of
12 Southwall Technology and Pilkington, and a follow-up Email
13 from Ted Harris on June 23rd.

14 On June 18th, I had a meeting with Mitsubishi's
15 representatives.

16 On June 19th, I had a meeting with the Glass
17 Coating Products Division of Applied Materials.

18 On June 22nd, I had a phone call with Honda and
19 Toyota and their representatives. Also on that call was
20 Chrysler.

21 And then I had a separate phone call from
22 Solutia, a glass company or technology.

23 And on June 23rd, I had a phone call with Steven
24 Douglas from the Alliance of Automotive Manufacturers.

25 On June 24th, I got an Email from John Dunlap on

1 behalf of Nissan.

2 On June 25th, I got an Email from NRDC and a
3 letter of support from the nine environmental- and
4 health-based organizations.

5 All of my communication was consistent with the
6 testimony that we've heard today.

7 CHAIRPERSON NICHOLS: You just reminded me. I
8 got an Email about Nissan as well. Thank you.

9 BOARD MEMBER TELLES: Last week I talked to Mr.
10 Richards with California Strategies on the phone. And his
11 testimony today was kind of a mirror of what he talked
12 about then.

13 BOARD MEMBER D'ADAMO: June 18th, a call from
14 Glass Coating Products, Applied Materials, and an
15 associate from Manatt, Phelps & Phillips. Also a call
16 from Steven Douglas at Alliance of Automobile
17 Manufacturers.

18 June 22nd, a call with California Strategies on
19 behalf of Southwall Technologies. A call with Tony
20 Franois on behalf of EXATEC.

21 June 23rd, a call with Mr. Kwang with Solutia.

22 June 24th, received an Email from John Dunlap
23 representing Nissan.

24 June 25th, call with James Tribble representing
25 Sekisui S-LEC.

1 And the discussions mirrored the testimony
2 presented today.

3 I don't believe that Nissan testified though.

4 CHAIRPERSON NICHOLS: They did not. They --

5 BOARD MEMBER D'ADAMO: Okay. So their Email
6 requested a delay in the regulation.

7 CHAIRPERSON NICHOLS: Correct.

8 BOARD MEMBER SPERLING: June 17th, a call with
9 the Alliance of Automotive Manufacturers.
10 June 18th, Sekisui, James Tribble.

11 Also on June 18th, a call with Southwall
12 Technologies, Pilkington, and California Strategies.

13 Also on June 18th, a call with Applied Materials
14 and their associates, Manatt, Phelps & Phillips.

15 June 19th, EXATEC and KP Associates, a phone
16 call. Also that day with Chrysler, Ross Good.

17 June 23rd, Solutia.

18 June 23rd, also with NRDC. And also a call with
19 Saint-Gorbain Sekurit, Dr. Offermann. Also a meeting with
20 Toyota, several people from Toyota.

21 June 24th, the Association of International
22 Automobile Manufactures, a meeting. A meeting also with
23 Pittsburgh Glass Works. A call with David Raney. And a
24 couple of those Emails with Nissan and Enviros.

25 And as best as I can recall, they were consistent

1 with testimony or not.

2 CHAIRPERSON NICHOLS: Before we vote - and I
3 think based on our comments, it's clear how the vote is
4 going to go - I'd just like to say that if anybody thinks
5 that the Air Resource Board is a rubber stamp or a one
6 mind on all issues, this discussion today surely proves
7 that the opposite is true, and in a very, very healthy way
8 I think. Because what we've ended up here with is a rule
9 that, although it phases in more slowly than had
10 originally had been proposed, actually ends up with a much
11 more aggressive approach a little bit further out and a
12 directive to staff to bring us something which is
13 consistent with their practice and ours and which we all
14 agree will be a more comprehensive approach to reducing
15 the greenhouse gases from the vehicles.

16 So while it took a little bit longer than we may
17 have expected at the beginning, I think where we've ended
18 up is in a really good place. And I want to thank
19 everybody for helping to bring us to the conclusion.

20 So I think we can do this on a voice vote.

21 Will all in favor of the proposal please say aye.

22 (Ayes.)

23 CHAIRPERSON NICHOLS: Opposed?

24 Very good.

25 Thank you.

1 And we will take a break now for approximately
2 ten minutes and then come back.

3 Thanks.

4 (Thereupon a recess was taken.)

5 CHAIRPERSON NICHOLS: Okay. Our next item is a
6 public hearing to consider adoption of a proposed AB 32
7 cost of implementation fee regulation, and proposed
8 amendment to the existing regulation for the mandatory
9 reporting of greenhouse gas emissions.

10 And we have a list of 15 people who've signed up
11 to testify. And I think if we move smartly, we may
12 actually be able to get through the list and still get
13 people out at a reasonable hour this evening. So that
14 would be my goal.

15 And I think we will get started. We have a
16 couple of Board members who are in the back but they can
17 hear.

18 So why don't we start with the staff
19 presentation.

20 CHIEF DEPUTY EXECUTIVE OFFICER CACKETTE: Okay.
21 Thank you.

22 As you know, the Board has approved the Climate
23 Change Scoping Plan, which is California's -- well, you
24 know what it is. The plan calls for ARB, in coordination
25 with many other State agencies, to implement over 70

1 measures to reduce greenhouse gas emissions. The plan
2 stated that the implementation of AB 32 will require a
3 stable and continuing source of funding, which ARB would
4 pursue with an implementation fee. The revenues from the
5 fee also will allow us to meet our obligation to pay back
6 loans that had been used to fund the program to date.

7 Staff has worked closely with other State
8 agencies and stakeholders to develop this proposed
9 regulation to provide funding for implementation of the AB
10 32 program. All fee regulations are a challenge, but
11 staff believes we have crafted a fair and equitable
12 proposal that recovers fees from 85 percent of the State's
13 greenhouse gas emissions while minimizing the
14 administrative burden on both the State and the fee
15 payers.

16 We are also proposing that those covered by the
17 existing mandatory reporting rules be required to use the
18 online reporting tool developed for the mandatory
19 reporting regulation in order to reduce administrative
20 burden and ensure data quality.

21 Now, I'd like to introduce Jeannie Blakeslee, who
22 will make the staff's presentation.

23 (Thereupon an overhead presentation was
24 Presented as follows.)

25 MS. BLAKESLEE: Thank you, Mr. Cackette.

1 Good afternoon, Chairman Nichols, members of the
2 Board.

3 Today's proposal consists of two regulatory
4 items: Adoption of a fee regulation to support
5 California's AB 32 program; and an amendment to the
6 existing mandatory reporting regulation.

7 We are all aware that California's present
8 economic environment is less than favorable, and this is a
9 difficult time to propose a fee. Yet, we do not want to
10 lose sight of our long-term goals. Staff have gone to
11 great lengths to ensure that this fee will be reasonable
12 and will not be overly burdensome to anyone.

13 --o0o--

14 MS. BLAKESLEE: ARB staff is proposing to
15 establish a fee schedule to support the implementation of
16 AB 32 by ARB and other State agencies. The fee would be
17 based on California's annual greenhouse gas emissions and
18 the budgeted administrative costs for the State agencies.

19 Staff also propose to require the use of the
20 Mandatory Reporting Tool, which is currently voluntary, to
21 collect data for both the fee regulation and the Mandatory
22 Reporting Regulation.

23 Today I will begin with some background and then
24 provide an overview of staff's proposal, followed by
25 discussion of the proposed change to the Mandatory

1 Reporting Regulation.

2 --o0o--

3 MS. BLAKESLEE: Adopted in 2006, AB 32 put
4 California in the forefront of the efforts to address
5 climate change, setting the first comprehensive
6 economy-wide reduction goals. As you've already heard
7 today, we are in the process of implementing the Scoping
8 Plan with 12 regulations adopted and many more regulations
9 and programs to come.

10 A stable funding source for continued
11 implementation of the program is needed. The first years
12 of this program have been funded with loans from special
13 funds. The Legislature has directed that ARB establish a
14 fee to cover ongoing costs and to repay these loans with
15 interest and with a defined payback period?

16 --o0o--

17 MS. BLAKESLEE: AB 32 gave ARB the authority to
18 establish a schedule of fees for its purpose of
19 implementation. This proposal will provide the dedicated
20 revenue needed to support California's climate mitigation
21 program.

22 This concept was initially discussed in the Draft
23 Scoping Plan one year ago at the June 2008 Board meeting,
24 and was also included in the Scoping Plan approved by the
25 Board.

1 The last three state budgets anticipated this fee
2 and specified payback of the start-up loans from this
3 revenue.

4 --o0o--

5 MS. BLAKESLEE: The fee needs to be broad-based.
6 And today's proposal assesses the fee on 85 percent of
7 California's total greenhouse gas emissions, specifically
8 on the fossil fuels that are combusted in California,
9 including fuels used for transportation and electricity
10 generation by industry, and in residences and commercial
11 buildings.

12 The fee will cover the major sources of
13 industrial process greenhouse gas emissions. And the fee
14 will cover imported electricity.

15 In order to minimize the number of entities
16 subject to the fee, we propose to assess the fee upstream,
17 meaning at the earliest point in the California's economy
18 where fuel delivery or production is intended for delivery
19 to consumers.

20 Where it is not feasible to assess fees upstream,
21 fees would be assessed on entities that consume fuels in
22 California. This approach would reduce the administrative
23 burden of the regulation to both the fee payers and the
24 State.

25 The proposed regulation was developed over the

1 last six months through a series of workshops, public
2 review of draft regulatory language, meetings with
3 affected stakeholders, and consultation with the other
4 State agencies.

5 I should also note that ARB will need to reassess
6 this fee as the State's climate change program matures,
7 especially as the Cap and Trade program develops.

8 If California establishes an auction under the
9 Cap and Trade program, a portion of that revenue might
10 substitute for some or all of this fee.

11 --o0o--

12 MS. BLAKESLEE: Because staff took an upstream
13 approach, this regulation will directly affect only about
14 250 entities. This slide shows the main categories
15 subject to the fee.

16 They include large natural gas distributors and
17 some large users of natural gas, refineries and other
18 producers or importers of gasoline and diesel fuel, cement
19 manufacturers, importers of electricity, and other
20 facilities that combust coal.

21 Staff evaluated assessing the fee at the point of
22 emission. But that would have meant that the fee would
23 have to be collected from over 23 million passenger
24 vehicles, well over 10 million natural gas utility
25 customers, and in excess of 14 million electrical utility

1 customers, which would make this fee administratively
2 infeasible.

3 For gasoline and diesel fuel, staff also
4 evaluated moving the point of electric -- the point of
5 regulation for gasoline and diesel fuel to the terminal
6 rack instead of the refiner. Refineries are subject to
7 the fee due to their refinery emissions. So assessing the
8 fee for gasoline and diesel on the refiners minimizes the
9 number of fee payers, simplifying administration of the
10 regulation.

11 --o0o--

12 MS. BLAKESLEE: Now that I've discussed who will
13 be affected by the fee, I will discuss how ARB proposes to
14 set the fee.

15 The fee is based on the cost to implement AB 32,
16 or revenue required, and the total annual greenhouse gas
17 emissions reported to ARB.

18 --o0o--

19 MS. BLAKESLEE: The approved AB 32 costs are
20 based on the revenue needed for ARB and other State
21 agencies beginning in the 2009-10 fiscal year. The costs
22 include personnel, contracts, and equipment.

23 Staff were very restrictive in establishing the
24 eligibility criteria for AB 32 costs. The fee is limited
25 to those expenses included in an approved State budget.

1 Requiring State budget approval prior to funding
2 eligibility should ensure an open and self-limiting
3 process.

4 State agency adaptation projects and programs
5 would not be eligible to receive revenue. State agency
6 compliance costs, such as preparation of environmental
7 impact reports, would not be covered.

8 The costs would also include repayment of the
9 loans used to support ARB and CalEPA implementation of AB
10 32 over the last two years.

11 --o0o--

12 MS. BLAKESLEE: This slide shows the loans ARB
13 and CalEPA have received. For the 2009-2010 fiscal year,
14 the budget includes a loan of \$35 million for ARB and
15 CalEPA. If we are able to begin collection in spring
16 2010, we may not need the entire loan.

17 The 2009-10 program costs for ARB, CalEPA, the
18 Department of General Services, California Energy
19 Commission, the Integrated Waste Management Board, and the
20 Department of Food and Agriculture are currently estimated
21 at approximately \$36.2 million based on the budget
22 approved in February. As you know, that budget is
23 currently being revised.

24 The program costs will be determined each year
25 based on the approved budget.

1 I should note that staff furloughs and the
2 Governor's mandated reduction in State contracts will
3 reduce our costs, and this reduction will be reflected
4 when the required revenue is determined.

5 --o0o--

6 MS. BLAKESLEE: Fiscal year '09-'10 is the
7 anticipated start year for this fee. For this year, staff
8 estimates that the revenue required is \$49.7 million, with
9 36.2 million of that in program costs and 13.5 million for
10 loan repayment.

11 A brief note on the initial timing of this
12 regulation. The first year is a bit different than the
13 subsequent years, because the regulation will take effect
14 in the middle of the fiscal year. Entities would report
15 2008 data to ARB in January 2010. And in February ARB
16 would send a fee notice to affected entities. In spring,
17 entities would remit the fee to ARB.

18 In subsequent years, reporting will coincide with
19 a mandatory reporting requirement to report data in June.

20 --o0o--

21 MS. BLAKESLEE: The fee also relies on the total
22 greenhouse gas emissions. Each year entities would report
23 data to ARB using an expanded electronic Mandatory
24 Reporting Tool. The reported data would include the
25 quantities of fuels consumed or supplied, process

1 emissions, and imported electricity. Use of the tool will
2 provide quality assurance and ensure consistent data
3 formatting.

4 --o0o--

5 MS. BLAKESLEE: The calculation methodology laid
6 out in the regulation is fairly straightforward. There is
7 a two-step process to calculate the fee.

8 First, ARB calculates the dollars per metric ton
9 of greenhouse gas emitted annually. To do that, we will
10 divide the revenue required, as determined by the State
11 budget, by the total greenhouse gas emissions as reported
12 by the affected entities to calculate what we call a fee
13 rate. For fiscal year '09-'10 we've estimated the fee
14 rate to be 12 cents per metric ton of CO2.

15 The annual fee for an affected entity is
16 calculated by multiplying the fee rate by the total tons
17 of emissions based on each entity's reported information.

18 --o0o--

19 MS. BLAKESLEE: In this economic environment, ARB
20 is very sensitive to this regulation's potential economic
21 impacts on businesses and consumers. In developing the
22 fee regulation, ARB evaluated potential economic impacts
23 on small and large businesses and individual consumers.
24 ARB expects the costs to be small and the impacts on
25 individuals and businesses to be very slight. This slide

1 provides a breakdown of the incremental costs based on our
2 current estimate of the '09-'10 revenue requirement.

3 Assuming that the fee is passed through, the fee
4 would result in a very small increase in product price
5 seen by consumers:

6 Less than a tenth of a cent per gallon of gas;

7 Five thousandths of a cent per kilowatt-hour of
8 electricity; and

9 Seven hundredths of a cent per therm of natural
10 gas.

11 Where we can, we will monitor how this fee is
12 passed through to end users, such as monitoring
13 proceedings of the California Public Utilities Commission.

14 --o0o--

15 MS. BLAKESLEE: This slide presents some examples
16 of anticipated costs to businesses like family
17 restaurants, such as Olive Garden or Sizzler; office
18 space; and grocery stores such as Safeway and Von's; as
19 well as an average household.

20 The cost impacts from the proposed regulatory
21 action are not insignificant, but we believe these costs
22 are reasonable and necessary to implement AB 32.

23 --o0o--

24 MS. BLAKESLEE: As mentioned previously, staff
25 are also proposing an amendment to the Mandatory Reporting

1 Regulation to require the use of the electronic reporting
2 tool. The tool will be changed to accommodate the
3 entities subject to the fee and will allow the reporting
4 of additional information required to determine the fee.
5 For example, gasoline refineries would use the tool to
6 report gallons of gasoline produced, in addition to their
7 emissions. Public utility gas corporations would report
8 therms of gas delivered to all end users. This
9 information is currently not collected.

10 --o0o--

11 MS. BLAKESLEE: As we worked with stakeholders
12 since the proposal was released, staff is recommending a
13 few clarifications and modifications. We are continuing
14 to work with our stakeholders.

15 These include clarifications to the definitions,
16 and clarifications to the imported electricity section to
17 more specifically identify the imported electricity that
18 is subject to the fee, and additions to the severability
19 clause.

20 We are also proposing a change to the interstate
21 natural gas pipelines portion of the regulation. The
22 current version of the regulation assesses the fee on
23 interstate pipelines based on natural gas they deliver.
24 Because of the regulatory structure, interstate pipelines
25 are unable to pass through the fee. Staff propose to

1 assess the fee directly on customers that receive gas
2 directly from the interstate pipeline.

3 Staff believes these modifications improve the
4 proposed regulation.

5 --o0o--

6 MS. BLAKESLEE: This concludes my presentation.

7 Staff understands there are many complex issues
8 surrounding adoption of a fee regulation at this time.
9 However, to continue to support AB 32 implementation,
10 staff recommends that the Board approve the staff proposal
11 with the recommended regulatory changes.

12 Staff would be pleased to answer any questions
13 you may have.

14 And I thank you.

15 CHAIRPERSON NICHOLS: Thanks, Ms. Blakeslee.

16 Are there any questions before we proceed to hear
17 from the witnesses?

18 All right. Then let's just go to our list of
19 witnesses.

20 The first that I have here is Jill Whynot,
21 followed by Chris Marlia.

22 MS. WHYNOT: Thank you very much. My name is
23 Jill Whynot. I'm with the South Coast Air Quality
24 Management District. And I thank you very much for the
25 opportunity to provide some testimony today.

1 What I want to talk about is the aspect of the
2 regulation that you heard about that would restrict
3 greenhouse gas reporting only through the online ARB tool.

4 At South Coast we have developed a voluntary
5 optional component to our web-based emissions reporting
6 system that can take the data that's needed for ARB
7 reports and send it directly, without any ARB
8 intervention, to your agency.

9 It's actually a very important issue, not just to
10 the staff but also to our governing board, that we can use
11 such consolidated and streamlined approaches. And I hope
12 to be able to convince you in the next minute or two that
13 this represents good government, streamlining significant
14 cost savings and better customer service.

15 Simply stated, what we're asking today is not for
16 you to approve the tool. What we're asking for is some
17 language changes that would enable us to continue the
18 evaluation of this tool. And if it passes all of the
19 requirements and meets all the needs, and we can overcome
20 some of the concerns your staff has raised, then we may
21 ultimately be able to use this tool.

22 And why this makes sense is that we have hundreds
23 of facilities in the South Coast that will be doing
24 mandatory greenhouse gas reporting. The
25 combustion-related equipment, there's a very large overlap

1 in the amount of data that is needed. So we estimate that
2 there's 75 or 80 percent of the data that a facility would
3 enter for our annual emission reports for criteria and
4 toxic pollutants that could then easily be transferred
5 over and be used for the greenhouse gases.

6 It would save a facility tremendous time if they
7 did not have to then reenter this same data into the
8 online tool for ARB. And that translates into money. And
9 in this economic times, we really should be careful about
10 adding layers or additional costs where there may be ways
11 to get around that.

12 The analogy also is, in the proposed federal
13 greenhouse gas regulations they're actually requiring use
14 of -- or recommending use of just one online tool for EPA.
15 We've made similar comments to them. Our model -- or our
16 analogy is the federal income tax. We're all required to
17 file taxes. They have to go to the IRS. There is online
18 eFiling directly to IRS. But there's also a long list of
19 preapproved software. And that software gets the right
20 data, puts it in the right places. And there are
21 solutions to the technology and security issues that have
22 been raised.

23 So our request, which we believe would be
24 consistent with your Board policy and direction to staff
25 to utilize existing infrastructure and try and streamline,

1 is simply that you add some language to Section 95204(a)
2 in the fee reg and 95104(e) in the Greenhouse Gas
3 Rule - and I believe you have this in front of you -

4 CHAIRPERSON NICHOLS: We do have your language in
5 front of us.

6 MS. WHYNOT: -- that would just be an equivalent
7 tool.

8 And we thank you very much for your
9 consideration.

10 CHAIRPERSON NICHOLS: Thank you.
11 Chris.

12 MR. MARLIA: Madam Chair, Board members. Good
13 evening, I guess it is now, or maybe late afternoon. I
14 want to thank you for the opportunity to testify on this
15 item. It's an important item to the South Coast, as Jill
16 has mentioned.

17 But I don't want to reiterate what Jill has said.
18 She brought up forward pretty clearly.

19 What I want to state is that this -- the proposed
20 language is basically precluding the use of any
21 alternative tool, and that we have spent significant
22 resources developing a consolidated tool for reporting
23 criteria emissions and greenhouse gas emissions that we
24 think satisfies the requirements of AB 32.

25 The Mandatory Reporting Rule as developed allowed

1 for the possibility of using an ARB-approved
2 district-developed tool. But the current proposed
3 language basically precludes it. And that's our problem,
4 is that we are seeking the opportunity to continue
5 developing this tool to ARB's satisfaction.

6 We think the technology for doing this is good.
7 We think it is legal, as Jill has mentioned the analogy
8 with the federal income tax. There is off-the-shelf
9 technology to handle all the legal issues. These issues
10 that have been brought up to us, for instance, the data
11 being unaltered, and the data security issues associated
12 with people begin to intercept and change the data after
13 it's been submitted. We think these issues have been
14 addressed for over a decade.

15 The technologies have been specified in
16 California's digital signature regulations that were
17 adopted in 1998. And they also included -- the
18 technologies are also talked about in EPA's cross-media
19 reporting regulation that was adopted in 2005.

20 So we don't see the issues associated with -- any
21 of the data concerns associated with doing this. The one
22 in particular is called public encryption or
23 infrastructure, which relies on public key cryptography.
24 And it's been around for 10 or 15 years and is very
25 mature, and can be used for data transfer between our

1 agencies very securely. And we don't see why it can't be
2 used.

3 So, in essence, we are proposing the language
4 that Jill has recommended, to leave open the option of
5 pursuing these. We're not asking for ARB to adopt our
6 program as is. We're asking for just the opportunity to
7 continue developing this with the hopes of in the end
8 having a tool that ARB can rely upon.

9 CHAIRPERSON NICHOLS: Do you have a position on
10 what should happen if a company operates in more than one
11 air district in California as to how they should report?
12 Have you --

13 MR. MARLIA: Well, I believe the -- I believe the
14 mandatory reporting rule requires the reporting by
15 facility. A parent company can report for that facility.
16 But it's on a facility-by-facility basis, I believe.

17 CHAIRPERSON NICHOLS: Say, if a parent company
18 homes businesses in both South Coast and elsewhere - I
19 believe South Coast is the only district that has this
20 issue, at least they're the only one we've heard from -
21 the parent company would have to report in two formats
22 then, one through you and one for everything else?

23 MR. MARLIA: Not the way we see it. Our software
24 is totally voluntary. A facility can choose to use it or
25 choose to use ARB's reporting tool.

1 CHAIRPERSON NICHOLS: I see. Okay.

2 MR. MARLIA: So if our tool doesn't meet the
3 requirements of what they need to do, ARB's tool is still
4 there to report.

5 CHAIRPERSON NICHOLS: Okay. Thank you.

6 Kristin Grenfell and then Cathy Woollums.

7 MS. GRENFELL: Good evening. Kristin Grenfell,
8 Legal Director of Western Energy and Climate Projects with
9 NRDC. And I'm speaking to you tonight in support of the
10 AB 32 Cost of Implementation Fee Regulation.

11 When California passed AB 32, we took a
12 leadership role on confronting global warming. And one of
13 the reasons that we did that was to position our economy
14 to become a leader in a carbon-constrained world.

15 Right now CARB and other agencies are in the
16 middle of implementing a world-class greenhouse gas
17 emissions reduction program. And the agencies need a sure
18 source of funding to make sure that the staff can continue
19 implementing those programs.

20 AB 32 recognized the need to have funding for
21 staff, and so it authorized a fee. And the California
22 Legislature in their 2008 budget required CARB to move
23 forward with this fee.

24 The proposed fee before you today is fair and
25 equitable, covering 85 percent of sources in California.

1 And it is necessary to ensure that we can continue
2 developing our greenhouse gas emissions reductions
3 programs, which will position California for success in a
4 carbon-constrained world by maintaining our role of
5 leadership in energy efficiency and technological
6 innovation.

7 At approximately \$1 per Californian per year,
8 this fee is a small price to pay for confronting global
9 warming and transforming our energy economy. We urge you
10 to approve it.

11 CHAIRPERSON NICHOLS: Thank you.

12 Cathy Woollums, followed by Erika frank.

13 MS. WOOLLUMS: Thank you, Madam Chair, Board
14 members. My name is Cathy Woollums. I am the Senior Vice
15 President and Chief Environmental Counsel of Mid-American
16 Energy Holdings Company. We have six operating utilities
17 or energy companies under our umbrella. And I'm here to
18 speak on behalf of the Kern River Gas Transmission Company
19 tonight.

20 When confronted with the issue of the potential
21 fee imposition on interstate natural gas pipelines, we
22 engaged in a very constructive dialogue with staff. I'm
23 pleased to report that, based on the proposed amendments,
24 our issues of concern have been satisfactorily resolved
25 vis-a-vis potential interstate commerce concerns and the

1 ability to pass on the fee. And our FERC jurisdiction,
2 currently there is no mechanism to be able to pass along
3 such a fee.

4 So in that regard, we would hope that you will be
5 favorably disposed toward the staff amendments. And we
6 support the rule.

7 Thank you.

8 CHAIRPERSON NICHOLS: Thank you very much.

9 Erika Frank for the Cal Chamber.

10 MS. FRANK: Good evening, Chairwoman Nichols and
11 the Board. Erika Frank. I'm General Counsel at Cal
12 Chamber. And I am speaking this evening on behalf of 11
13 trade associations, which include the California Business
14 Property Association, California Chamber of Commerce,
15 California Independent Oil Marketers Association,
16 California League of Food Processors, California
17 Manufacturers and Technology Association, California Small
18 Business Alliance, California Taxpayers Association, the
19 Howard Jarvis Taxpayers Association, the National
20 Federation of Independent Businesses of California, the
21 California Black Chamber of Commerce, and the Western
22 States Petroleum Association.

23 All of these associations are committed to
24 ensuring that regulations such as that's proposed before
25 us today are adopted in a fair, open, and transparent

1 process.

2 To that end, yesterday the associations submitted
3 a joint letter to the Board requesting that it defer
4 action and to hold the comment period open until at least
5 the next scheduled hearing of July 23rd.

6 Our request is based in part on a number of
7 items, one of which is: Since February, through your
8 Public Records Request, the associations have sought to
9 obtain documentation substantiating the proposed AB 32 fee
10 regulation, with little avail, leaving the associations
11 with no choice but to seek assistance from the court in
12 May.

13 In addition, details to staff expenditures were
14 not posted until June 1. And last Friday, 5,500 pages of
15 documents were released. And they were released pursuant
16 to the Public Records Request that we made back in
17 February. And the information in these documents and
18 records is important in the formulation of comments on the
19 proposed regulation. And while we've done our best to try
20 and go through all the documents, our review is hardly
21 complete.

22 Moreover, pending court action related to the
23 public records request may indeed make additional
24 information available that will be important to the
25 formulation of our comments.

1 Again, transparency on the manner in which
2 regulations are proposed and adopted is what this is all
3 about. And it is for this reason that these associations
4 sought to obtain, and will continue to pursue,
5 documentation to enable them to accurately comment on the
6 proposed rule.

7 Unfortunately, we have not had a fair amount of
8 time to review, analyze, and fully and effectively comment
9 on the proposed fee.

10 And just to address the additional 15-day notice
11 of comment period that's been proposed, due to the very
12 limited discretion that's typically available to the
13 Executive Officer in that setting, this would not be an
14 appropriate way of ensuring that the associations have a
15 full and fair opportunity to comment and inform the Board
16 of its decision making.

17 Thank you.

18 CHAIRPERSON NICHOLS: Thank you.

19 Susie Berlin.

20 Ms. Berlin, representing Northern California
21 Power Agency.

22 Okay. Norman Pedersen.

23 Oh, I'm sorry. There she is. I didn't see you.

24 MS. BERLIN: Sorry.

25 CHAIRPERSON NICHOLS: Oh, that's okay.

1 CHIEF COUNSEL PETER: Madam Chairman, while she's
2 coming down, I just want to correct a factual error in
3 the -- I would like to make a factual point.

4 The documents that were produced in response to
5 the Public Record Act request last Friday was in response
6 to Public Record Act requests made in May. The earlier
7 productions were made. There's been thousands of pages
8 produced. So --

9 CHAIRPERSON NICHOLS: In other words that was not
10 the only set of documents that's been produced?

11 CHIEF COUNSEL PETER: It's not the whole set.
12 And also it was not -- the information produced last
13 Friday was not in response to the February 13th Public
14 Record Act request.

15 CHAIRPERSON NICHOLS: That one's already been
16 responded to.

17 CHIEF COUNSEL PETER: There's been three Public
18 Record Act requests. The last two were in May. And the
19 documents produced on Friday were related to that. I just
20 didn't want to leave a misimpression that months had gone
21 by.

22 CHAIRPERSON NICHOLS: Thank you. That's helpful.
23 I appreciate that.

24 Ms. Berlin.

25 MS. BERLIN: Thank you very much for this

1 opportunity to speak. I'm speaking on behalf of the
2 Northern California Power Agency and also MSR Public
3 Power.

4 NCPA is a joint powers agency comprised of
5 publicly owned utilities. NCPA has been an active
6 participant throughout CARB's rule-making or proceeding to
7 form the Cap and Trade program as well as the
8 administrative fee. And we appreciate staff's willingness
9 to work with the stakeholders to address certain issues.

10 However, with that said, there's still a few
11 issues that we think are -- need to be addressed further.
12 One of them includes the lack of a cap on the total amount
13 of the fee and the treatment of imported electricity
14 that's not actually consumed in California.

15 The electricity sector, which accounts for about
16 25 percent of emissions, is going to be called upon to
17 make about 40 percent of the reductions. And the
18 additional burden associated with the imposition of the
19 administrative fee is not a trivial amount.

20 There are no cost-containment measures in the
21 proposed regulation or the statute. And accordingly there
22 is no limit on the total costs associated with
23 implementation of AB 32 or subject to collection through
24 the fee. Because the fee amount is uncapped and the
25 proposed regulation has no termination provisions, the

1 total obligation to affected entities can and likely will
2 continue to increase from year to year.

3 NCPA's concerned that the fee structure is being
4 justified based on the current revenue requirement and
5 that it is deemed to be a de minimis impact on
6 individuals, as NRDC said, "One dollar per individual
7 doesn't seem like much." However, because the fee is
8 based on uncapped amounts and because the proposed
9 regulation does not impose the fee on each individual but
10 on entities that are responsible for paying the entire
11 amount, using a snapshot of the disaggregated impacts
12 cannot be used to justify the structure.

13 The economic review must look at the potential
14 cumulative impacts of the fee in the long term and on the
15 actual entities responsible for paying the fee,
16 notwithstanding the hope that those costs can be passed
17 through.

18 NCPA is also concerned with the proposed
19 regulation's imposition of the fee on electricity that is
20 imported but never consumed in California. Failure to
21 recognize and exclude imposition of the fee on what are
22 basically financial transactions adversely impacts the
23 electricity sector and jeopardizes the efficient operation
24 of the entire western electricity grid. Retail providers
25 must be able to procure and schedule electricity using the

1 most effective and efficient transmission routes, and not
2 be constrained by concerns that excess fees may be imposed
3 on these transactions.

4 The MSR Public Power Agency is comprised of the
5 cities of Modesto, Santa Clara, and Redding, and have
6 ownership interest in renewable and coal-fire generation
7 out of state. MSR's concerned that there's been
8 insufficient review of the impacts on the fee in imported
9 electricity, which limits the cost effectiveness of
10 entity's ability to use out-of-state resources, risks
11 efficiencies in terms of scheduling electricity, and
12 increase compliance costs.

13 CHAIRPERSON NICHOLS: I think that's it.

14 MS. BERLIN: Thank you.

15 CHAIRPERSON NICHOLS: Thank you very much.

16 Appreciate that point.

17 Okay. Hi, Norm.

18 MR. PEDERSEN: Hello, Chairman Nichols. Good
19 evening. I am Norman Pedersen for the Southern California
20 Public Power Authority.

21 SCAPPA submitted written comments previously. A
22 member of SCAPPA, the Los Angeles Department of Water and
23 Power, submitted written comments to you today.

24 SCAPPA supports AB 32 and fully supports the
25 Board's implementation efforts. To that end, SCAPPA

1 supports the implementation of an administrative fee that
2 is well founded in law and policy so as to provide a
3 reliable flow of funds to the Board.

4 We are concerned, however, about the legality of
5 the extension of the fee to imported electricity. We
6 suggest that you reconsider the extension to imported
7 electricity. If you elect to approve the extension of the
8 fee, we urge you to consider seeking an Attorney General's
9 opinion about the extension and that in FSOR the Board
10 fully explain the legal support for the extension of the
11 fee to imported electricity.

12 If the extension of the fee to imported
13 electricity is retained, we urge two modifications to the
14 ISOR. First we urge that the regulation be clarified to
15 assure that the fee will not be applied to electricity
16 that is wheeled through California without being consumed
17 in California, regardless of the way in which the wheeling
18 service is performed.

19 Secondly, when power is imported as the first leg
20 of an economic exchange arrangement, we urge that the fee
21 apply only to one leg of the exchange, not both. In an
22 economic exchange with an import and an export, only one
23 kilowatt-hour is consumed in California, not two. Thus
24 the fee should be charged once, not twice.

25 And just the last point. SCAPPA joins with

1 others in urging the Board to consider capping or in some
2 way containing the revenue requirement that would be
3 recovered through the fee.

4 Thank you very much for your time.

5 CHAIRPERSON NICHOLS: Thank you for your
6 testimony.

7 Andy Brown from Pacificorp, followed by
8 Michaelleen Mason.

9 MR. BROWN: Good evening. My name's Andy Brown
10 from Ellison, Schneider & Harris. I'm here this evening
11 for Pacificorp.

12 Pacificorp, through its division, Pacific Power,
13 serves about 46,000 customers in the far northern end of
14 California. Pacificorp is a multi-jurisdictional utility.
15 It operates in about six states.

16 We raised to staff some concerns about the
17 definition of "imported power." As Ms. Blakeslee pointed
18 out, there have been clarifications. Based on a review of
19 that language this morning, it appears our concern has
20 been addressed. We're going to have some of our technical
21 people look at it some more to make sure there aren't any
22 issues and possibly make some comments during the 15-day
23 period.

24 But other than that, we do appreciate the staff's
25 attention to our specific multi-jurisdictional concerns.

1 Thank you.

2 CHAIRPERSON NICHOLS: Thank you.

3 Ms. Mason.

4 MS. MASON: Good evening. My name is Michaelleen
5 Mason and I am the Director of Regulatory Affairs for
6 Western States Petroleum Association.

7 WSPA has already submitted a detailed comment
8 letter that delineates our major concerns with the
9 proposed regulation as a whole, such as it not being broad
10 based, not economy-wide, not equitable, not transparent to
11 the ultimate greenhouse gas emitter, to name a few. So I
12 will not go into all of them here.

13 However, I do want to draw your attention to one
14 of the flaws in the proposed regulation. Section 39600
15 and Section 39601 of the Health and Safety Code authorizes
16 ARB to adopt a fee regulation to be paid by sources of
17 greenhouse gas emissions. In order to do this, the fee
18 regulation must be levied as directly as possible on those
19 responsible for the greenhouse gas emissions.

20 Fuels in and of themselves are not sources of
21 greenhouse gas emissions. The source of greenhouse gas
22 emissions related to the use of these fuels is the
23 facility or equipment in which the fuel is combusted.

24 Combustion clearly does not occur at the
25 producer-importer level as used by CARB in the proposed

1 rule -- regulation. So fuel producers and importers
2 cannot be considered sources of greenhouse gas emissions.

3 If CARB reasonably determines that it would be
4 administratively difficult to levy a fee directly on
5 emitters who combust transportation fuels, such as at the
6 pump, CARB must consider other collection methods.

7 WSPA proposes that CARB adopt a fee structure
8 that parallels current federal and State collection points
9 for motor fuel excise taxes. This proposed structure
10 would reduce compliance costs and avoid the need for
11 expansive and successive new regulations to address the
12 novel point of collection at the refinery gate.

13 WSPA has been working with staff on this option
14 and respectfully requests the Board consider this. We
15 would like to suggest the Board consider having WSPA
16 continue to work with the CARB staff and Board of
17 Equalization to find the most acceptable solution for all
18 involved.

19 I have a modification to Section 95204 for the
20 Attachment B to the regulation for your perusal should you
21 decide to have the Board consider this and to have the
22 Executive Officer in his 15-day package address that.

23 CHAIRPERSON NICHOLS: Well, thank you. If you
24 haven't already, please submit it to the clerk and we'll
25 get it distributed.

1 MS. MASON: Thank you.

2 CHAIRPERSON NICHOLS: Ari Frink, followed by
3 Norman Plotkin.

4 MR. FRINK: Good evening, Madam Chair and members
5 of the Board. My name is Ari Frink and I'm here on behalf
6 of the Planning and Conversation League.

7 With the State budget in crisis, AB 32 needs all
8 the funding and support it can get to keep up momentum
9 through these tough economic times. The administrative
10 fee is an equitable option to fund AB 32 implementation
11 and would pass on a small cost to California residents in
12 return for climate change solutions. I urge you to
13 support the fee.

14 Thank you.

15 CHAIRPERSON NICHOLS: Thank you.

16 Norman Plotkin, followed by Dorothy Rothrock.

17 MR. PLOTKIN: Thank you, Madam Chair, Honorable
18 Board Members. I'll try and follow that example of
19 brevity. Representing the California Independent
20 Petroleum Association.

21 CHAIRPERSON NICHOLS: It was very effective.

22 (Laughter.)

23 MR. PLOTKIN: Then I'll be very short.

24 The California Independent Petroleum Association
25 understands that the fee, like the Scoping Plan, must be

1 done pursuant to AB 32. With that said, we would like to
2 associate ourselves with the comments made by Ms. Frank -
3 not to be confused with the previous witness, Mr. Frink -
4 and the Chamber and the associated associations about the
5 flow of information.

6 We've submitted comments for your review. In the
7 comments we try and explain the concern about the data
8 release. There's the common carbon cost equation. And it
9 has a numerator and a denominator. The denominator is the
10 emission factors times the quantity of the natural gas
11 plus the quantity, et cetera, which is below the
12 numerator, which is the TRR, the total revenue
13 requirement. We got lots of data on the denominator, not
14 so much data on the numerator. So that's where we're
15 looking for a little help from you.

16 The regulation has a few problems in our view.
17 We've articulated them in our comments, many of which are
18 probably going to be decided in another jurisdiction.

19 However, the real problems for us with respect to
20 fee -- let me just point out that we did interact with
21 your staff to a great extent and found them to be very
22 open and cordial in trying to understand how this fee
23 would apply to us.

24 The problem for us is that we can't pass the cost
25 to this fee on. When we're burning associated gas on-site

1 in production facilities, it's to generate distributed
2 generation electricity to run our processes.

3 The unintended consequence that we fear here is
4 that, to escape paying the fee, we may flare the gas and
5 then just put increased demands on conventional
6 electricity.

7 With that said, the other thing that's out there
8 looming very large for us is the fact that -- we were
9 given some comfort that this would only apply to those who
10 are mandatory reporters and emit at 25,000 tons, and would
11 then therefore spare many of our smaller members. But
12 then we're participating in other proceedings wherein
13 we're talking about conforming to the Western Climate
14 Initiative and reducing 25,000 tons to 10,000 tons. And
15 so there goes our comfort level.

16 So we just want to put that on your radar screen,
17 to consider holding that at the 25,000 ton mark so that if
18 there is movement to conform with WCI, it doesn't sweep up
19 a whole lot more of our members and therefore require the
20 flaring of more of this gas.

21 At any rate, we'd like to be able to continue to
22 use it in our production.

23 And thank you for this opportunity.

24 CHAIRPERSON NICHOLS: Thank you.

25 Ms. Rothrock, followed by Bruce McLaughlin.

1 MS. ROTHROCK: Thank you, Madam Chair and members
2 of the Board. My name's Dorothy Rothrock. I'm with the
3 California Manufacturers and Technology Association.

4 The California Manufacturers care about the fee
5 regulation because every additional cost burden adds to
6 our already very high cost of doing business in the State.

7 The Milken Institute's just released a new report
8 about manufacturing in the State. I urge you all to take
9 a look at that. They describe how important it is and how
10 manufacturing employment has declined since the year 2000.

11 They say, quote, "California's been progressively
12 losing more of its manufacturing employment, particularly
13 high value-added manufacturing, to other states, such as
14 Oregon, Texas, Minnesota, and Washington." Milken cites
15 high taxes and regulatory burdens for an unfavorable
16 manufacturing climate.

17 So we need to make sure that we're not paying
18 more than it's justified under the law.

19 And given importance of the fee reg, we're
20 disappointed that we've not been able to understand and
21 verify the underlying data for the fee calculation. We've
22 earnestly attempted to obtain the information we need,
23 both informally and through the public records request.

24 Based on what we have so far, there are still
25 discrepancies to be resolved. These go to how much should

1 be raised by the fee, who should be paying the fee, and
2 how much should be paid by each payer. And there are more
3 documents being withheld that we're not sure are
4 justifiably confidential. There's a matter of dispute I
5 believe with whether or not the original request in
6 February has been accurately replied to. And there are
7 11,981 pages of records from the -- that were requested
8 that have been withheld by CARB. And we're not sure at
9 this point whether that's justifiable that those have been
10 withheld.

11 So the letter goes into much more detail on these
12 points. But the bottom line is we request a 45-day
13 extension of the comment period so that we can get the
14 materials we need and do some good comments on the rule.

15 So thank you very much.

16 CHAIRPERSON NICHOLS: Okay. Bruce McLaughlin,
17 followed by Bonnie Holmes-Gen.

18 MR. McLAUGHLIN: Bruce McLaughlin for the
19 California Municipal Utilities Association. We represent
20 the public alone electric utilities in the State of
21 California. Our members include both SCAPPA and NCPA,
22 L.A., Redding, Roseville, et cetera, SMUD.

23 And we filed comments, so I'll just direct you to
24 those. We filed them this morning.

25 And primarily we support of course SCAPPA and

1 NCPA's comments. But I want to bring up the issue of
2 energy exchanges. This is a strong policy in California
3 to promote energy exchanges. And the Health and Safety
4 Code 38562 would promote these also because AB 32 is
5 supposed to minimize costs and maximize total benefits to
6 California, also benefit the economy, public health and
7 the environment and achieve overall societal benefits.

8 Energy exchanges do this by utilizing hydro
9 resources up in the northwest. When they have low load
10 and we have peak loads, we transmit them down here. And
11 vice versa. When we have high energy capability and low
12 load - that's in the winter - and they need our load, we
13 ship it back to them. And so these are energy exchanges.
14 And because of this, we don't have to build certain
15 powerplants. We can defer or offset construction of
16 powerplants. So that obviously improves the public health
17 and also lowers costs.

18 So there's a strong, strong policy argument to
19 encourage energy exchanges. Right now we believe that the
20 mandatory reporting regs are not discrete enough to
21 identify the proper energy exchange allocations. And
22 entities like Mr. Pedersen mentioned, they're getting
23 double charged for some transactions.

24 We're also working with staff up until the last
25 minute here to get a good definition of wheeling in the

1 15-day language. It's not quite out yet, but I think
2 we're getting something good. When we have a definition
3 of wheeling, that might help some of the transactions not
4 have a double charge. But we would like you to direct
5 staff to continue to work with us during this ensuing
6 period before the new language comes out to possibly
7 figure out ways to identify proper energy exchanges and
8 allocate the single charge, or the zero charge if they're
9 zero emissions.

10 CHAIRPERSON NICHOLS: Thank you.

11 MR. McLAUGHLIN: Thank you.

12 CHAIRPERSON NICHOLS: Bonnie Holmes-Gen, followed
13 by Bill Magavern.

14 MS. HOLMES-GEN: Good evening, Chairman Nichols
15 and Board members. Bonnie Holmes-Gen with the American
16 Lung Association of California.

17 And we are pleased to be here in strong support
18 of your Board moving forward tonight to adopt this fee
19 regulation. And we do believe this action is long
20 overdue. We believe that it's not only fiscally
21 responsible, but this is necessary, as has been stated by
22 my colleague from NRDC, to support the Board's
23 groundbreaking work on AB 32 and, frankly, to address
24 significant public health challenges that we're facing in
25 the State.

1 We believe that this regulation is fair and
2 equitable. It's broad based. And we think the staff has
3 done a great job in crafting the regulation. And we
4 completely agree with the importance of placing the cost
5 of AB 32 implementation on these major sources of
6 greenhouse gas emissions. That is certainly the way to
7 go.

8 And the key message we want to send is that we
9 feel this fee is really tiny compared to the monumental
10 public health impacts of climate change from poor air
11 quality, heat waves, forest fires, and all the other
12 impacts. And the cost that the public health sector will
13 be bearing are huge, in the billions of dollars, to face
14 these impacts, to build out the public health
15 infrastructure that's needed to respond to address the
16 illnesses, hospitalizations, premature deaths and all of
17 those impacts that are going to occur from climate change.

18 So we urge you to move forward. We're not
19 surprised to hear the protests from industry. I'm sure
20 you're not surprised also. And we urge you to adopt the
21 fee today.

22 CHAIRPERSON NICHOLS: Thank you.

23 Mr. Magavern. You are our last witness.

24 MR. MAGAVERN: Thank you. Bill Magavern with
25 Sierra Club California, in strong support of this rule

1 because we do support the principle that the polluters
2 should pay for the costs of reducing pollution. And in
3 this case the Legislature actually already made that
4 decision and told you to enact a fee on the polluters.
5 And this is a good proposal to do that. And it's not
6 surprising that your major opposition is coming from those
7 who would have to pay the fee, because they are
8 responsible for most of the emissions.

9 Some of the major points in favor of this fee:

10 It covers 85 percent of the greenhouse gas
11 emissions in the State - that's really very impressive -
12 and does it very efficiently by assessing the fee
13 upstream.

14 It pays back the loans, which is only fair,
15 because those were loans and some of them came from
16 programs that also have important environmental goals like
17 recycling.

18 And also very important, I think, that it
19 includes imported electricity. AB 32 specifically
20 addresses accounting for electricity imports. And of
21 course since most of our coal-fired electricity, virtually
22 all of it, is imported - and that's the most
23 carbon-intensive form of electricity production - it's
24 very important that we include that.

25 So with that, I'll wrap up. And I hope to still

1 have time to go toast Tim Carmichael.

2 CHAIRPERSON NICHOLS: You're actually filling the
3 Tim Carmichael position here as the last speaker on the
4 item. So I'm glad to know that Tim appointed a successor
5 at least for that job.

6 Okay. So we are now concluding the public
7 testimony on this item. And we've heard I think a number
8 of interesting comments as well as concerns.

9 I want to make a couple of comments and then make
10 a suggestion about how to proceed here.

11 I am concerned by a couple of the comments that I
12 heard that there are some loose ends here that need to be
13 addressed. And I'm particularly interested, because of
14 its relevance to the Cap and Trade program, that we have a
15 proper accounting system for imported electricity and for
16 electricity exchanges. I think this is one of those areas
17 where we're blazing a trail in this regulation, and it is
18 important that our accounting system do it right.

19 I'm not surprised by the WSPA position about
20 wanting to see purchasers of their product pay directly or
21 have to be taxed directly or fee directly, however you
22 want to call it, have to pay directly rather than having
23 to collect and transmit the money themselves, because
24 that's been their position consistently across the board
25 for many, many years now. It does remind me a little bit

1 of the old, you know, guns don't kill people, people kill
2 people argument. But actually that's true. I mean it's a
3 true fact. It's just a question of sort of what is the
4 most efficient and cost-effective way to address the harm
5 that's done directly. In this case we're not even trying
6 to address harm. We're not trying to send the public a
7 message that they should use less gasoline through this
8 regulation. I think the Legislature is very clear that
9 we're only trying to collect enough money to actually pay
10 our direct costs of running this program. This is not
11 designed to raise funds to reduce carbon, and I think
12 that's quite clear.

13 So we have the electricity issues to deal with.
14 And then we have this -- you know, it's cordial here. But
15 when people go the court, it's not cordial. And the
16 Public Records Act litigation, although it's stirred up a
17 lot of dust, really I think is a distraction, because the
18 fact is that there's no secrecy about what it costs to run
19 government programs. Our budgets are extensively made
20 public and can be seen by anybody who wishes to look at,
21 you know, how we spend our money.

22 On the other hand, we haven't really heard a
23 constructive alternative suggestion coming from the
24 California Chamber or the CMTA, if we have to assess a
25 fee, if we are required to charge for this program, how do

1 they think we should charge for the program, or is there
2 some way they think we could do it, you know, that would
3 cost their members less money and still accomplish a good
4 result.

5 If there's going to be more time spent working on
6 this, I think it should be spent in constructive dialogue,
7 which would include some positive role for those who are
8 simply using their time and energy to attack ARB's
9 record-keeping procedures.

10 So having said all of that, I'm still of the mind
11 that this is a very important regulation that we do want
12 to get right, especially in light of the economic
13 conditions that we're living with at the moment. And I
14 would be in favor of closing the hearing at least at this
15 point, unless there's any new information that's generated
16 in the interval that would lead to a substantial change in
17 the proposal, asking the staff to address the issues that
18 have been raised by the witnesses here today and give us
19 some additional response in writing, and put this item
20 over until our next scheduled Board meeting, which is in
21 Supervisor Roberts' territory in San Diego.

22 So that would be my recommendation for how to
23 proceed, is to close the record but to not take action
24 tonight.

25 BOARD MEMBER BERG: Then would we need to move to

1 table? Would that be the procedure?

2 CHAIRPERSON NICHOLS: I'm not sure technically if
3 that's required.

4 The lawyers want to tell us whether we have to do
5 that or just hold the matter over?

6 ASSISTANT CHIEF COUNSEL JENNE: Yes, you would
7 just hold the matter over until next month. It would be
8 just a -- I forget the name exactly that Roberts Rules of
9 Order uses. But I think the concept is clear, you're just
10 not deciding today, you're going to wait till next month
11 and decide then.

12 CHAIRPERSON NICHOLS: Okay. Till our next Board
13 meeting, which has a date and place certain. It's in San
14 Diego on July the 23rd.

15 BOARD MEMBER ROBERTS: Could be appropriate to
16 come to San Diego and have a major fee addition.

17 (Laughter.)

18 BOARD MEMBER ROBERTS: I don't want our paper to
19 miss it, you know.

20 (Laughter.)

21 CHAIRPERSON NICHOLS: I'm sure they wouldn't miss
22 it anyway. They have a very sharp reporter who spends a
23 lot of time at our meetings.

24 But at this point, that's my proposal. And
25 without objection, I think we can do it. But if Board

1 members have questions or issues that they want to raise
2 tonight that they'd like to see the staff invest, this
3 would be a good time to do it in the next few minutes
4 before we adjourn.

5 Yes

6 BOARD MEMBER TELLES: The South Coast Air
7 Pollution Control District suggested that you use their
8 protocol or their way of recording greenhouse gases and it
9 would reduce redundancy in the way of doing this. And it
10 makes a whole lot of sense. And I'm sure other air
11 pollution control districts are working on the same type
12 of thing.

13 Now, one thing they didn't ask is that -- are
14 they asking also for funding for some of that effort? I
15 know we had a resolution when this -- they aren't.

16 All right. That's all.

17 (Laughter.)

18 CHAIRPERSON NICHOLS: They're not asking for
19 funding.

20 BOARD MEMBER TELLES: Well, what I was referring
21 to, that we had a resolution that I think was approved to
22 involve the air pollution control districts in this
23 process and also to have some funding, if my recollection
24 is right. And in reading the proposal, it sounded like
25 there would be no funding to the air pollution control

1 districts for doing some of the groundwork, if I'm reading
2 it right.

3 CHAIRPERSON NICHOLS: Yeah, the data collection
4 issue has been treated in a different way I think in some
5 respects from some of the other regulatory requirements.
6 As you will recall, this morning we passed a regulation
7 dealing with landfills that explicitly gave a role to the
8 districts in implementing that regulation. And to the
9 extent that it's appropriate, you know, and subvention
10 funds can be used for that purpose or there are other
11 funds available, I think it is appropriate that there be
12 funding available to the districts to participate in doing
13 that.

14 I think there's an important distinction in terms
15 of the comparability and the integrity of the emissions
16 data about carbon that is different here with respect to
17 what ARB is doing, as is evidenced by the fact that, you
18 know, we haven't even adopted the fee regulation and we're
19 already being sued and there are demands being made for
20 our data.

21 We have to be very, very careful about every
22 aspect from the beginning to the endpoint of how data are
23 generated that are going to be part of this fee
24 regulation.

25 Having said that, you know, I think we should

1 always be open to new and better ways of doing things,
2 especially if it's simpler for the reporters.

3 What interests me is that we haven't heard from
4 any other districts other than South Coast on this
5 particular issue. And we haven't heard from any of the
6 companies that they want to be able to report to the
7 districts as opposed to ARB. And I think frankly the
8 reason for that is that most industries in this state are
9 hoping that we're going to develop a robust cap and trade
10 system and that that will be a statewide program, not
11 something that's done at the local level.

12 So, I think staff has been open to trying to find
13 a way to work with South Coast District on this issue,
14 because it clearly is something that South Coast cares
15 very deeply about because, you know, they have mentioned
16 it on a number of occasions. And I would encourage them
17 to continue to try to find a way to do that.

18 But there are both legal and practical reasons
19 why it really is essential that data that we're going to
20 use for AB 32 purposes has to come in a form and -- you
21 know, in a clean form without being touched by any other
22 hands, so to speak, and also in a format that is identical
23 for all of the reporters. I think if those objectives are
24 met, my understanding is that the staff doesn't have any
25 objections to different software, you know, being

1 employed.

2 I'm turning to Lynn Terry because this is her
3 area.

4 DEPUTY EXECUTIVE OFFICER TERRY: Sure. I guess
5 just from a factual standpoint, the reporting is actually
6 done for this year. Ninety percent are registered.
7 Eighty percent have fully completed the reporting, which
8 was due on June 1st. And so what we're really talking
9 about is in the future would there be another system
10 through which reporting could be done a year from now.

11 And as Chairman Nichols just mentioned, the cap
12 and trade development process will be one opportunity to
13 look at this reporting again. And we fully expect that
14 our reporting regulation will be modified in that process.

15 So we will be continuing to look at this
16 reporting issue.

17 But from an efficiency standpoint, since the
18 reporters have already completed it this year, all of the
19 data has been entered into our ARB server. So next year
20 it's very efficient for them to simply go in and update
21 those fields that have changed, for example, their fuel
22 consumption information.

23 So, we think that it's a very efficient system as
24 it's designed today and being implemented.

25 And we are -- we've already talked with the

1 districts about sharing the data, that we could
2 essentially send the data to them once we receive it
3 almost simultaneously. So there would be no need to rekey
4 the data at the district level because we would
5 immediately share it with them.

6 CHAIRPERSON NICHOLS: So I hope that addresses
7 the --

8 BOARD MEMBER TELLES: It does. And this came up
9 in our district. And one of the issues that some of us
10 made was that there would be some standardized way of
11 doing this. And that not every district developed their
12 own way of reporting and all that, and it sounds like
13 they're working on that.

14 CHAIRPERSON NICHOLS: That's what they're trying
15 to do.

16 Okay. Thank you very much.

17 Unless there's any public comment in the generic
18 public comment category here this evening - seeing none -
19 we will stand adjourned until tomorrow morning.

20 Thanks everybody.

21 (Thereupon the California Air Resources

22 Board meeting recessed at 6:00 p.m.)

23

24

25

1 CERTIFICATE OF REPORTER

2 I, JAMES F. PETERS, a Certified Shorthand
3 Reporter of the State of California, and Registered
4 Professional Reporter, do hereby certify:

5 That I am a disinterested person herein; that the
6 foregoing California Air Resources Board meeting was
7 reported in shorthand by me, James F. Peters, a Certified
8 Shorthand Reporter of the State of California,

9 That the said proceedings was taken before me, in
10 shorthand writing, and was thereafter transcribed, under
11 my direction, by computer-assisted transcription;

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

15 IN WITNESS WHEREOF, I have hereunto set my hand
16 this 3rd day of July, 2009.

17

18

19

20

21

22

23 JAMES F. PETERS, CSR, RPR

24 Certified Shorthand Reporter

25 License No. 10063