

MEETING
STATE OF CALIFORNIA
AIR RESOURCES BOARD

CALEPA HEADQUARTERS
BYRON SHER AUDITORIUM
SECOND FLOOR
1001 I STREET
SACRAMENTO, CALIFORNIA

FRIDAY, SEPTEMBER 25, 2015

8:36 A.M.

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

A P P E A R A N C E S

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Mr. Jack Kitowski, Assistant Division Chief, ISD

A P P E A R A N C E S C O N T I N U E D

STAFF:

Mr. Allen Lyons, Staff Air Pollution Specialist, On-Board Diagnostics Program Development Section, Emission Compliance, Automotive Regulations, and Science Division(ECARS)

Mr. Mike McCarthy, Vehicle Program Specialist, ECARS

Mr. Lex Mitchell, Emerging Technology Section, Industrial Strategies Division(ISD)

Mr. Anil Prabhu, Manager, Fuels Evaluation Section, ISD

Ms. Leela Rao, Manager, On-Board Diagnostics Program Development Section, ECARS

Mr. Mike Regenfuss, Chief, On-Board Diagnostics Branch, ECARS

Ms. Elizabeth Scheehle, Chief, Oil & Gas and GHG Mitigation Branch, ISD

Mr. Floyd Vergara, Division Chief, ISD

Mr. Samuel Wade, Branch Chief, Transportation Fuels

Mr. Alex Wang, Senior Attorney, Legal Office

ALSO PRESENT:

Mr. Will Barrett, American Lung Association

Mr. Steven Douglas, Alliance of Automobile Manufacturers

Mr. Henry Hogo, South Coast Air Quality Management District

Mr. Bill Magavern, Coalition for Clean Air

Ms. Julia Rege, Global Automakers

Mr. John Shears, Center for Energy Efficiency and Renewable Technologies, Union of Concerned Scientists, Sierra Club California

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1 P R O C E E D I N G S

2 CHAIR NICHOLS: Good morning, ladies and
3 gentlemen. Welcome. This is the September 25th, 2015
4 public meeting of the Air Resources Board. And before we
5 take the roll and start the meeting, we will begin with
6 the Pledge of Allegiance to the flag.

7 (Thereupon the Pledge of Allegiance was
8 recited in unison.)

9 CHAIR NICHOLS: I have to say that whenever I say
10 the Pledge of Allegiance to the flag, it always reminds me
11 of elementary school.

12 But this morning I am recently back from a trip
13 to Europe and spent time in Hungary and Czechoslovakia, or
14 the Czech Republic, and Slovakia, and Poland, and I have
15 never been prouder to be an American than I was as a
16 result of having watched how the refugees in that part of
17 the world were being treated. So anyway, just a small
18 personal note here.

19 Madam Clerk, would you please call the roll.

20 BOARD CLERK JENSEN: Dr. Balmes?

21 Mr. De La Torre?

22 Mr. Eisenhut?

23 BOARD MEMBER EISENHUT: Here.

24 BOARD CLERK JENSEN: Supervisor Gioia?

25 BOARD MEMBER GIOIA: Here.

1 BOARD CLERK JENSEN: Ms. Mitchell?

2 BOARD MEMBER MITCHELL: Here.

3 BOARD CLERK JENSEN: Mrs. Riordan?

4 BOARD MEMBER RIORDAN: Here.

5 BOARD CLERK JENSEN: Supervisor Roberts?

6 Supervisor Serna?

7 BOARD MEMBER SERNA: Here.

8 BOARD CLERK JENSEN: Dr. Sherriffs?

9 BOARD MEMBER SHERRIFFS: Here.

10 BOARD CLERK JENSEN: Professor Sperling?

11 BOARD MEMBER SPERLING: Here.

12 BOARD CLERK JENSEN: Vice Chair Berg?

13 Chair Nichols?

14 CHAIR NICHOLS: Here.

15 BOARD CLERK JENSEN: Madam Chair, we have a
16 quorum.

17 CHAIR NICHOLS: Great. Well, thanks, everybody.
18 And thanks for those of you who were with us yesterday who
19 have come back today.

20 A couple of announcements. Again, anybody who
21 wishes to testify on the items are available to testify on
22 should please fill out a request form. There's a card out
23 in the lobby or at the clerk's desk here prior to the
24 start of the meeting. A reminder that we do impose a
25 three minute time limit on speakers, and we'd appreciate

1 if people use their time effectively by not just reading
2 from a statement that they've already submitted for the
3 record.

4 For safety reasons, we point out that there are
5 exits, both in the back of the room and on the other side
6 of the podium, which we will use in the event of a fire
7 alarm, in which case we're required to evacuate the room
8 immediately and to go downstairs and leave the building
9 until an all-clear signal is given.

10 And I think that that is all that I need to do in
11 the way of preliminary remarks. We will be taking up the
12 consideration and vote on the two items that we heard
13 yesterday at about 9:45, it looks like. But we have a
14 couple of other important matters to deal with now,
15 starting with the consent calendar, which is -- relates to
16 the appointment of new members to the Environmental
17 Justice Advisory Committee.

18 And unless, there's anyone who wants to take that
19 item off of the consent calendar, I think we can go ahead
20 and just move it for adoption.

21 BOARD MEMBER MITCHELL: I'll move it for
22 adoption.

23 BOARD MEMBER SERNA: Second.

24 CHAIR NICHOLS: And a second.

25 All in favor, please say aye.

1 (Unanimous aye vote.)

2 (Mr. De La Torre not present for vote.)

3 CHAIR NICHOLS: Any opposed?

4 Any abstentions?

5 BOARD MEMBER SHERRIFFS: Second

6 CHAIR NICHOLS: Okay. That's great.

7 The next item, which is a public hearing item, is
8 to consider the technical status of and proposed revisions
9 to on-board diagnostics systems requirements and the
10 associated enforcement provisions for passenger cars
11 light-duty trucks and medium-duty vehicles.

12 And for this item we are going to be taking
13 testimony. Under the cleaner and cleaner standards that
14 the Board has put into place, the Vehicle I, II, and III
15 programs, California light- and medium-duty vehicles are
16 required to meet very strict emissions standards. Our
17 on-board diagnostics program is important because it
18 ensures that vehicles and engines meet these standards in
19 use and remain clean for their entire life. When
20 emissions problems are detected, drivers are alerted by a
21 warning light and repair technicians can access diagnostic
22 information to identify the nature of the problem and
23 verify that the problem has been correctly fixed.

24 The Board regularly receives updates on the
25 progress of the OBD regulations, including the one that we

1 will here today.

2 Mr. Corey, would you go ahead and introduce this
3 item please.

4 EXECUTIVE OFFICER COREY: Yes. Thank you, Chair
5 Nichols.

6 As directed by the Board, staff has been
7 evaluating manufacturers' progress in designing and
8 implementing light- and medium-duty OBD II systems. Since
9 the OBD II regulations was last amended in 2012, staff has
10 identified several changes to improve the effectiveness of
11 the regulations. The proposed amendments include changes
12 related to Low Emission Vehicle III applications, and to
13 monitoring requirements for gasoline and diesel vehicles.

14 Modifications to the OBD II enforcement
15 provisions are also proposed to align it with these other
16 proposed revisions.

17 I'll now ask Allen Lyons of ECARS Division to
18 begin the staff presentation.

19 Allen.

20 (Thereupon an overhead presentation was
21 presented as follows.)

22 AIR POLLUTION SPECIALIST LYONS: Thank you, Mr.
23 Corey.

24 Good morning, Chair Nichols and members of the
25 Board. Today, I'll present a proposal to amend ARB's

1 on-board diagnostic regulations for light- and medium-duty
2 vehicles.

3 --o0o--

4 AIR POLLUTION SPECIALIST LYONS: I will start
5 today's presentation by providing some history and
6 background on California's on-board diagnostic program,
7 known by the acronym OBD, before giving you an overview of
8 the proposed changes to the existing regulations.

9 --o0o--

10 AIR POLLUTION SPECIALIST LYONS: OBD systems are
11 designed to monitor the performance of vehicle emission
12 controls systems from malfunctions that can develop with
13 time and use. Their purpose is to reduce in-use emissions
14 from vehicles by quickly alerting the vehicle owner when a
15 malfunction occurs, and by providing information that
16 helps technicians fix the problem right.

17 The OBD system is comprised of software --
18 comprised, excuse me, of software in the vehicle's
19 on-board computer, and it uses sensor that, in most cases,
20 are already on the vehicle to measure engine parameters,
21 such as temperature, pressure, and air flow. The sensor
22 data is used, directly or indirectly, to evaluate the
23 performance of emission control systems and other emission
24 related parts.

25 As such, the OBD system generally does not

1 measure emissions directly. Rather, the system evaluates
2 the function of each emission control system individually.
3 During the vehicle engineering process, vehicle emissions
4 can generally be correlated to sensor or component
5 deterioration, through emission testing of vehicles with
6 deteriorated components installed.

7 When the OBD system has determined that the
8 component or system being monitored is malfunctioning, a
9 warning light, commonly referred to as the check engine
10 light, is illuminated on the vehicle instrument panel.
11 Additionally, information about the malfunction and the
12 driving conditions at the time the fault was detected are
13 stored and can be downloaded from the vehicle using a
14 standardized hand-held scan tool. The fault information
15 are important for vehicle inspections and repairs.

16 --o0o--

17 AIR POLLUTION SPECIALIST LYONS: Apart from
18 reducing in-use emissions, the OBD system provides other
19 benefits to vehicle owners. First, OBD systems identify
20 emission-related failures for the life of the vehicle,
21 including during the warranty period.

22 Therefore, vehicle owners are made aware of
23 emission control system problems that occur early in a
24 vehicle's life allowing the owner to have the problems
25 repaired while they are free of charge. Further, because

1 the OBD system identifies the failed component, repairs
2 can be conducted quickly and efficiently reducing
3 unnecessary repairs that can result from guesswork. This
4 lowers vehicle repair costs outside of the warrantee
5 period.

6 Second, comprehensive on-board emissions system
7 monitoring has increased the incentive for manufacturers
8 to build more durable vehicles in order to avoid customer
9 dissatisfaction resulting from the frequent detection of
10 faults, and also to reduce warranty costs.

11 Third, early detection of faults by OBD systems
12 can prevent secondary malfunctions from occurring. For
13 example, the early detection and repair of an engine
14 misfire problem will protect the vehicle's catalyst system
15 from damage due to overheating.

16 --o0o--

17 AIR POLLUTION SPECIALIST LYONS: OBD II has been
18 in place since model year 1996 for light- and medium-duty
19 vehicles. Nationally, over 150 million cars on the road
20 today are equipped with OBD II systems, which equates to
21 over 80 percent of the in-use fleet.

22 Thirty-one states are currently using OBD II for
23 their inspection programs, including the Smog Check
24 program in California. The OBD program has been quite
25 effective and is now the primary mechanism used in the

1 when setting stringent standards, the staff has continued
2 to closely follow manufacturers' progress towards meeting
3 the requirements and to propose adjustments as necessary.

4 Further, as more stringent emission standards and
5 new vehicle technologies continue to evolve, the OBD II
6 requirements need to be revisited to ensure that they will
7 continue to provide for system designs that are effective
8 in detecting emission related problems. Today's
9 amendments reflect the outcome of these efforts. The
10 changes presented today are directed at the light- and
11 medium-duty vehicle classifications.

12 --o0o--

13 AIR POLLUTION SPECIALIST LYONS: To begin, the
14 OBD II regulation requires malfunctions to be detected
15 before they can cause vehicle emissions to exceed
16 threshold levels that are based on the standards the
17 vehicle is certified to. With California's LEV III
18 program adopted in 2012, both the structure and stringency
19 of vehicle emission standards have changed.

20 Previous standard categories, like LEV II, have
21 separate standards for NMOG and NOx emissions. However,
22 the LEV III tailpipe standards combined NMOG and NOx
23 emission into a single standard.

24 Secondly, LEV III creates new lower emission
25 vehicle categories, specifically, the ULEV70, ULEV20 and

1 SULEV -- sorry ULEV50 and SULEV 20 standards.

2 Third, LEV III also adopted lower PM standards.
3 The standards dropped from 10 milligrams per mile to 3
4 milligrams per mile, and ultimately dropped to 1 milligram
5 per mile for light-duty vehicles. The PM standards for
6 medium-duty vehicles dropped from 120 or 60 milligrams per
7 mile to 10 or 8 milligrams per mile. And working with the
8 vehicle manufacturers, the staff has concluded that the
9 structure and stringency of the OBD II emission threshold
10 requirements also need to be adjusted to ensure continued
11 effectiveness and technical feasibility at these extremely
12 low emission standards.

13 --o0o--

14 AIR POLLUTION SPECIALIST LYONS: There are some
15 areas for which staff is proposing enhancements to the
16 regulatory requirements, including those for crankcase
17 ventilation system and evaporative system leak monitors.
18 For crankcase system monitoring, there are a couple of
19 issues with the current requirements for detection of host
20 disconnections within the system.

21 First, the current requirements target monitoring
22 of the connections, but not the overall system integrity.

23 Second, manufacturers are permitted to request
24 exemption from the hose disconnection detection
25 requirement, if they use robust hose connections. Staff

1 believes that potentially significant system failure
2 modes, such as broken hoses, are being missed by OBD
3 system in use currently. Further, experience indicates
4 that some robust connections may actually hinder crankcase
5 ventilation system servicing, because the connections are
6 too difficult for technicians to reasonably remove.

7 The proposed revisions are designed to address
8 these issues by removing the robust connection design
9 compliance option, and instead requiring OBD systems to
10 detect hose failures, such as disconnections and breaks,
11 and all -- on all 2023 and subsequent model year gasoline
12 vehicles, and all 2025 and subsequent model year diesel
13 vehicles.

14 The long lead time allows for changes to the base
15 engine where needed during the normal timing for engine
16 redesigns for the most cost effective implementation.
17 Another amendment staff is proposing will provide for
18 better validation of the evaporative system leak monitor,
19 specifically the monitor designed to detect 0.020 inch
20 leaks in the evaporative system. Before they can get OBD
21 system certification manufacturers are required to test
22 the major monitors and submit the test results to ARB
23 verifying that these monitors are able to detect faults
24 before the specified thresholds are exceeded.

25 The evaporative system leak monitor is current --

1 is not currently part of this testing, because it is not
2 tied to a specific emission threshold. Instead, the
3 monitor is required to detect a specific leak size, in
4 this case, a leak equivalent to a 0.020-inch diameter
5 hole.

6 Recently, U.S. EPA adopted their Tier 3
7 requirements. And while their OBD requirements are
8 closely aligning with ARB's requirements, they added small
9 evaporative system leak detection to the list of monitors
10 for which test results are required for certification. To
11 maintain alignment with EPA's regulations, we are now
12 proposing to require the same testing as part of the
13 certification to the manufacturer's OBD systems.

14 --o0o--

15 AIR POLLUTION SPECIALIST LYONS: As manufacturers
16 continue to roll out technologies to meet the
17 progressively more stringent criteria and greenhouse gas
18 emission standards for advanced clean cars, vehicle design
19 and emission controls are becoming increasingly complex
20 with the emission control systems more heavily integrated
21 with the powertrain.

22 As such, a more objective way of determining what
23 components and systems should be subject to monitoring
24 under the OBD II regulation would help to clarify and
25 streamline the process for introducing OBD compliant

1 advanced vehicle designs.

2 To this end, staff is proposing several
3 amendments to the OBD regulation that would provide more
4 objective criteria for determining when a component or
5 system is exempt from the OBD requirement based on their
6 being little or no emission benefits with their inclusion.

7 --o0o--

8 AIR POLLUTION SPECIALIST LYONS: Today's proposal
9 also includes changes to the standardized data provided by
10 OBD systems. Consistent with the goals of the OBD
11 program, the main purpose for standardized data is to
12 provide technicians and inspectors with ready access to
13 information necessary to diagnose and repair emission
14 related malfunctions.

15 However, access to other data is also crucial for
16 other air quality efforts like Smog Check inspections, new
17 vehicle certification, and compliance testing. Over the
18 years, as these other programs have identified the need
19 for access to particular vehicle data, ARB has taken on
20 regulatory amendments to include the needed data within
21 the OBD regulation. While data to support these other ARB
22 needs may not be directly related to OBD, housing these
23 requirements in the OBD regulation was a request by the
24 vehicle manufacturers themselves many years ago to ensure
25 consistency in how the data would be accessed and to

1 the recent National Academy of Sciences report on fuel
2 economy technologies, which was commissioned by the
3 National Highway Traffic Safety Administration, to inform
4 the mid-term review of the national fuel economy and GHG
5 standards, called special attention to the need to study
6 and better understand real-world fuel economy relative to
7 certification testing results in order to accurately
8 quantify actual benefits and determine the appropriate
9 stringency of future standards.

10 Today's proposal is a key step to provide access
11 to minimal, but critical, data to verify real world GHG
12 benefits and inform future proposals and decision making.
13 Given that, I would like to take the next few slides to
14 highlight some of the proposed data.

15 --o0o--

16 AIR POLLUTION SPECIALIST LYONS: First, I'll
17 discuss the data that would apply only to plug-in hybrid
18 electric vehicles. The intent is to have data that would
19 accurately quantify how these vehicles are performing in
20 the real world with respect to greenhouse gas emissions,
21 due to the combination of energy consumption from gasoline
22 usage and electricity from wall charging.

23 Specifically, the data would separately identify
24 the total gasoline and electricity usage, as well as the
25 miles traveled using each of these energy sources. Such

1 data will help ARB verify that current and future
2 regulations properly account for the real-world emission
3 benefits of these vehicles.

4 The data could also be critical in accurately
5 projecting real-world benefits for future vehicles as ARB
6 continues various scenarios to reach our greenhouse gas
7 emission reduction targets.

8 --o0o--

9 AIR POLLUTION SPECIALIST LYONS: Broadening to
10 other vehicle technologies, some of the proposed data are
11 related to vehicles equipped with off-cycle technologies.
12 As part of the national GHG program, manufacturers can
13 earn credits towards meeting the standards by equipping
14 vehicles with technologies that significantly reduce GHG
15 emissions in the real world, but may have minimal benefit
16 on the certification test itself. These are known as
17 off-cycle technologies, and examples include active grill
18 shutters, as shown in the bottom right corner of the
19 slide, that effectively alter the air flow through the
20 front grill to reduce aerodynamic drag, or so-called
21 haptic feedback accelerator pedals, as shown in the bottom
22 life, that vibrate on harder accelerations to encourage
23 more fuel-efficient driving.

24 Further examples, include echo modes that are
25 selectable by the driver by using a button, like that

1 shown in the upper left of the slide. Off-cycle credits
2 provide important flexibility for vehicle manufacturers to
3 take advantage of innovative technologies that result in
4 real-world benefits. It will likely play an increasing
5 role as GHG standards become more stringent in the future.
6 Thus, it is critical that the technologies actually do
7 create real-world benefits, even though in some cases, it
8 will be difficult to estimate the magnitude of the
9 benefits.

10 Accordingly, the proposal would include data to
11 help quantify the real-world usage of the technology. For
12 Simpler technologies, the data would simply identify the
13 total time of usage. For other technologies, such as
14 those that are reliant on the driver responding to achieve
15 the benefit, the data would identify the number of
16 successful activations due to actual driver response.

17 It's important to note that under the current
18 regulations, these data could not be used by regulatory
19 agencies to retroactively alter credit levels awarded at
20 the time of certification for particular technologies.
21 However, these data would be very informative both to the
22 agencies and to vehicle manufacturers to ensure future
23 credits are appropriately awarded.

24 Additionally, manufacturers may find a role for
25 this data to aid in demonstrating benefits for novel GHG

1 reduction technologies for which they are seeking new
2 credits.

3 --o0o--

4 AIR POLLUTION SPECIALIST LYONS: Lastly, some of
5 the new parameters would provide valuable information
6 about real world GHG emission levels for all new vehicles
7 by looking at cumulative fuel consumption.

8 The left of the slide shows a list of the
9 proposed parameters and what example data might look like.
10 The right side of the slide shows examples of actual
11 dashboard displays on current vehicles, because many of
12 today's vehicles already generate and report information
13 that is the same or similar to that included in staff's
14 proposal. What these vehicles don't do today, however, is
15 to provide that data in a standardized format through the
16 OBD II data link.

17 I would like to make a couple of points regarding
18 the proposed data on the left-hand side of the slide. As
19 you can see, the proposal only identifies cumulative
20 totals, such as just over 738 gallons of fuel consumed.
21 Structuring the data in this way provides two benefits.
22 First, it includes a sufficient amount of aggregated data
23 to be useful in a single download. Second, the data
24 cannot be disaggregated or broken out to isolate any
25 individual driving event that has occurred in the past,

1 such as the number of idle events on the last trip or how
2 long they lasted.

3 Using these data, ARB will be able to better
4 quantify CO₂ emissions in the real world. While these
5 data could not be used to directly evaluate compliance
6 with the GHG standards, they can alert the agency to
7 vehicle models that appear to be underperforming with
8 respect to the standards they were certified to, and could
9 be used to trigger follow-up testing to confirm their
10 performance.

11 Beyond simply gallons of fuel consumed and miles
12 traveled to get average miles per gallon, the proposed
13 data provide key context that allows some normalization of
14 the data. For instance, idle time, city driving time, and
15 highway driving time accumulations allow more valid
16 comparisons between the vehicle that spends a significant
17 amount of time stuck in traffic versus one that cruises at
18 highway speeds most of the time.

19 Likewise, positive kinetic energy and torque data
20 allow correlation between trucks that are used for varying
21 amounts of work without having to know if the differences
22 were due to towing, cargo carrying, operation over
23 mountain passes, or another factor.

24 Though the combined use of these data parameters,
25 ARB will be able to better understand how the GHG

1 regulations are translating to benefits in the real world.

2 --o0o--

3 AIR POLLUTION SPECIALIST LYONS: Staff has
4 discussed these proposed parameters with industry
5 throughout the regulatory development process. One of the
6 initial concerns raised by industry was that the proposed
7 data would provide information about individual driver's
8 habits and thus raise driver privacy concerns.

9 In response, staff worked with several industry
10 representatives, including Global Automakers' designated
11 data privacy expert, to modify the original workshop
12 proposal. Today's proposal reflects key changes including
13 a paring down to the minimum data needed, and, as you saw
14 from the previous slide, storage of only aggregated totals
15 to eliminate any ability to parse out individual trip or
16 event data.

17 Further, the data focuses on identifying vehicle
18 and engine characteristics to quantify the GHG emissions,
19 not any characteristics related to driver behavior. And
20 to be clear, the proposal does not include any location
21 data about where a car has been, nor any data that could
22 be used to infer past or current location, nor does the
23 data contain any personally identifiable information about
24 the driver or the registered owner of the vehicle.

25 --o0o--

1 AIR POLLUTION SPECIALIST LYONS: A second concern
2 that has been raised by industry is specific to how the
3 proposed data would be obtained from vehicles, and whether
4 the data can be taken without the permission of vehicle
5 owners.

6 First, a physical connection to the car is needed
7 to access this or any other data required by the OBD II
8 regulation. Specifically, there is a connector inside the
9 car that a tool has to be plugged into in order to
10 download any data. The data must be -- the key must be in
11 the ignition and turned to the on position. As such,
12 access to the data would almost assuredly involve the
13 owner's permission.

14 Nonetheless, staff has stated publicly, including
15 in the staff report, that we would only collect these data
16 from voluntary participants. Such a commitment is
17 consistent with past and current practice by ARB when
18 soliciting the use of vehicles from private citizens for
19 various ARB programs, including compliance or inventory
20 testing.

21 ARB's standard process includes soliciting
22 voluntary participation by mail, informing interested
23 owners of the plan data collection or testing and
24 compensating owners for their participation.

25 --o0o--

1 AIR POLLUTION SPECIALIST LYONS: A third concern
2 raised by industry is that these proposed data could be
3 stolen or otherwise misused. To put such current concerns
4 into perspective, I'd like to make a couple points.

5 As noted earlier in the proposal, OBD has always
6 provided for standard -- standardized data access. And
7 the data requirements in the regulation have been updated
8 many times. In all cases, data access is through the
9 in-vehicle OBD connector, and thus, no new access point is
10 being created. Further, for many vehicles, much of the
11 proposed data are already available in the vehicle, going
12 back to the dashboard fuel economy displays as an example.

13 Lastly, while I noted that we were -- that we
14 have already taken steps to ensure that the data itself
15 would not include any personally identifiable information
16 or driver-specific habits, we have committed to an
17 additional level of protection for any data we would
18 collect from voluntary participants.

19 For any collected data, the fuel economy-related
20 data will not be stored with any information identifying
21 the specific vehicle that it came from. By preventing the
22 data from being linked back to an individual vehicle or
23 owner, staff's proposal adds another level of protection
24 in the event that data maintained by ARB were
25 inappropriately accessed.

1 --o0o--

2 AIR POLLUTION SPECIALIST LYONS: Now, I'll
3 briefly cover costs. In general, the amendments proposed
4 today would only have a minor impact on vehicle costs.
5 Specifically, the total increase in cost to vehicle
6 manufacturers is estimated to be \$5.11 per vehicle, while
7 the total increase in cost to the consumer would be \$5.43
8 per vehicle. For consumers, this is less than 0.02
9 percent of the average retail cost of the new vehicle.

10 Along with the general consumer benefits of OBD
11 systems that were discussed at the beginning of this
12 presentation, the proposed amendments would serve to
13 preserve the emission benefits of the LEV III program, for
14 which an effective OBD II and Smog Check program was
15 assumed in the benefit analysis.

16 --o0o--

17 AIR POLLUTION SPECIALIST LYONS: In concluding
18 today's presentation, the proposed amendments to the
19 existing OBD II regulations are necessary to ensure
20 continued success of California's OBD program and to
21 maximize the emission benefits associated with the LEV III
22 program. Staff proposal reflects a balance of changes
23 intended to streamline OBD certification, while
24 strengthening and clarifying the requirements in some
25 areas.

1 Staff recommends the adoption of the proposed
2 amendments with 15-day changes. The 15-day changes
3 include a number of technical clarifications to the
4 regulation, and do not affect the stringency of the
5 proposal. Summary of the most significant proposed 15-day
6 changes drafted by the staff is currently available for
7 review by the Board and interested parties.

8 This concludes the staff's presentation, and I
9 thank you for your attention.

10 CHAIR NICHOLS: Great. Thank you very much.
11 Before we turn to public testimony, do Board members have
12 any initial questions?

13 Yes.

14 BOARD MEMBER GIOIA: Just a couple questions.
15 Just to be clear, the diagnostics on all vehicles will
16 both be accessible through this port that you described,
17 plug-in port, or to the driver directly on board, right?
18 All will be -- so all will have the feature where the
19 driver can view it or will each manufacturer be different
20 in terms of how that's viewable the driver?

21 VEHICLE PROGRAM SPECIALIST McCARTHY: So we are
22 standardizing the data that you will get through the
23 connector, but we are still leaving it totally up to the
24 manufacturer as to whatever he chooses -- he or she
25 chooses to include or not include on any sort of display.

1 Most --

2 BOARD MEMBER GIOIA: That will be up to the
3 manufacturer?

4 VEHICLE PROGRAM SPECIALIST McCARTHY: Right. As
5 you -- we gave a couple examples there of a couple
6 different brands.

7 BOARD MEMBER GIOIA: Right.

8 VEHICLE PROGRAM SPECIALIST McCARTHY: You see
9 they displayed slightly different stuff.

10 BOARD MEMBER GIOIA: Right.

11 VEHICLE PROGRAM SPECIALIST McCARTHY: Their
12 interior people and marketing people decide what to put
13 there. We don't put that --

14 BOARD MEMBER GIOIA: I wondered, because
15 oftentimes the viewing this type of information is useful
16 to the driver in changing driving patterns and behaviors
17 oftentimes. So it could be helpful in that regard, but
18 there's no requirement that it has to be viewed by the
19 driver?

20 VEHICLE PROGRAM SPECIALIST McCARTHY: Correct.
21 Yeah, we've not -- we and EPA have talked, but not pursued
22 anything. There is a much higher percentage of cars that
23 have that now. So I think even with -- absent any
24 requirement to do it, they are recognizing there's
25 consumer value.

1 BOARD MEMBER GIOIA: Right. Right.

2 So there's been a lot of discussion statewide
3 about replacing the gasoline tax for transportation
4 purposes with a metric that's based on vehicle miles
5 traveled. If that occurs, would this new system be --
6 make it easier -- obviously, there's going -- a lot of --
7 a lot of technology needs to occur to sort of get to that
8 point. Just can you comment about how having this now
9 with 2019 models going forward, right, it's 2019, whether
10 this system could be utilized in some ways in achieving
11 that goal?

12 DEPUTY EXECUTIVE OFFICER AYALA: Maybe I can
13 answer that.

14 BOARD MEMBER GIOIA: It's not intended to, I get
15 it, but I'm just trying to understand given that there's a
16 move toward measuring vehicle miles traveled to compute a
17 transportation tax.

18 DEPUTY EXECUTIVE OFFICER AYALA: Right. So a
19 couple of points. In principle, could we use this with
20 modifications? I think the answer is yes. What we are
21 proposing is not intended to do that.

22 BOARD MEMBER GIOIA: Correct.

23 DEPUTY EXECUTIVE OFFICER AYALA: Because I think
24 the structure of collection of total miles traveled would
25 be slightly different. But in principle, you could use

1 the system.

2 BOARD MEMBER GIOIA: Right.

3 CHAIR NICHOLS: As a matter of the technology,
4 yes, but you can't do it without further regulatory
5 action, I think.

6 BOARD MEMBER GIOIA: No, no. No, I understand.
7 I'm just trying -- sort of looking at what's the policy
8 and the legislative action that gets there, and then
9 what's the technology that gets you there.

10 CHAIR NICHOLS: Yes, this could be that.

11 BOARD MEMBER GIOIA: And I'm just saying does
12 this technology -- this technology obviously could --
13 helps get you there.

14 DEPUTY EXECUTIVE OFFICER AYALA: And just --

15 BOARD MEMBER GIOIA: It's not intended.

16 DEPUTY EXECUTIVE OFFICER AYALA: Right. And
17 another reminder, sometimes analog is better than digital.
18 Right now, you can track your odometer. That's what you
19 have to do for your insurance company.

20 BOARD MEMBER GIOIA: Right.

21 DEPUTY EXECUTIVE OFFICER AYALA: And that's just
22 a simple check of when you go in and get service, they
23 write down the odometer --

24 BOARD MEMBER GIOIA: Right, right.

25 DEPUTY EXECUTIVE OFFICER AYALA: -- and that's

1 basically what they do. So there may be other means --

2 BOARD MEMBER GIOIA: Right.

3 DEPUTY EXECUTIVE OFFICER AYALA: -- of getting to
4 the miles driven.

5 BOARD MEMBER GIOIA: Right, right. I know a lot
6 of it is also how the data is transmitted from the vehicle
7 to wherever it needs to be transmitted if you're going to
8 computer it, right?

9 CHAIR NICHOLS: Dr. Sperling.

10 BOARD MEMBER SPERLING: You know, actually this
11 question by Supervisor Gioia is even more relevant than I
12 think a lot of people realize, because there was a law
13 passed last year specifically to create a pilot program
14 for the State of California to do exactly that. And so it
15 does seem like there should be some thought or effort to
16 align with some of the thinking. And I think it's the
17 California Transportation Commission that's running the
18 pilot.

19 BOARD MEMBER GIOIA: Right.

20 BOARD MEMBER SPERLING: And, I mean, actually the
21 Governor, I think, is hoping, expecting that this is going
22 to go statewide in three or four years. So I'm not quite
23 sure exactly where I'm going, but I think maybe a little
24 bit more thought should be given to seeing if and when
25 this OBD change could be aligned with what they're

1 thinking there. I mean, it's easier to make changes now
2 than later.

3 DEPUTY EXECUTIVE OFFICER AYALA: I guess the only
4 other point about that is, yes, the OBD platform is
5 available for that, but it's not the only platform. We
6 mentioned that the OEMs are already using different data
7 streams to display on the dashboard. I can envision a
8 new -- a different approach that actually doesn't even go
9 to the OBD. So we agree, we need to look into that.

10 BOARD MEMBER RIORDAN: Mrs. Mitchell, you have
11 a --

12 BOARD MEMBER MITCHELL: Thank you.

13 One of the biggest concerns we've seen in
14 opposition to this is the concern about privacy. And from
15 the presentation, I gather that this data will be
16 available only when the owner of the vehicle voluntarily
17 participates in such a program. Am I correct in that
18 assumption?

19 DEPUTY EXECUTIVE OFFICER AYALA: Yes.

20 BOARD MEMBER MITCHELL: And how do you think that
21 will -- can you give me sort of a scenario on how that
22 will happen? I mean, we -- changes will come into being,
23 and then ARB will conduct studies with people that
24 volunteer to participate?

25 DEPUTY EXECUTIVE OFFICER AYALA: We anticipate

1 taking exactly the same approach that we do now. As you
2 know, we have a very active in-use compliance program, and
3 we regularly bring in vehicles from private owners to
4 test. We don't anticipate this changing that.

5 We are going to be asking specifically for
6 permission and we will have written permission for us to
7 be able to do this.

8 Do you guys want to add anything?

9 VEHICLE PROGRAM SPECIALIST McCARTHY: Right.
10 Right. That's -- as Alberto has indicated, the -- when we
11 recruit cars, perhaps there's a new model or new engine
12 and we want to go target that one for enforcement or
13 compliance testing, we will identify owners of those
14 vehicles, solicit their participation by mail for those
15 that are interested. And then we'll go through another
16 process through us or a contractor to inform them of what
17 we'll be doing with their vehicle, whether it would be
18 just plugging in and collecting data, whether we'd
19 actually bring their car to our lab and test it.

20 And so that same mechanism exists, so that people
21 who choose not to participate can ignore our solicitation
22 or can send it back, no thank you. It's as simple as
23 that, and we target -- you know, there's 300 or 400
24 different models certified every year. We might target as
25 few as four or five, or as many as 20 or 30 a year,

1 depending on what's come out that year and what our
2 resources are in that -- in our budget.

3 BOARD MEMBER MITCHELL: Okay. Thank you.

4 DEPUTY EXECUTIVE OFFICER AYALA: There's another
5 point I think that it would be important for the Board to
6 consider, and that is as we move forward, I do expect
7 people to get more familiar and more comfortable with this
8 approach, because as the staff presentation mentioned, our
9 Smog Check program is already transitioned to be an
10 OBD-based program, like many other states in the nation.

11 So when people come in and bring their car to the
12 station, it will no longer be a tailpipe test. It will
13 essentially be an OBD test. So people are going to grow
14 accustomed to the fact that now the way to track cars is
15 going to be through plugging in through the OBD, so
16 eventually I think people are going to be more comfortable
17 with the approach.

18 BOARD MEMBER RIORDAN: Thank you.

19 Dr. Sperling.

20 BOARD MEMBER SPERLING: You know, I'm convinced
21 that the OB -- you know, the privacy protections are
22 really very strong and sound. But just for a little more
23 transparency on that, so like with -- if we have smog
24 inspections using OBD, are we thinking we're going to get
25 downloads at all of the smog inspections, you know, with

1 permission, of course?

2 DEPUTY EXECUTIVE OFFICER AYALA: No, because
3 again, what we are proposing strictly --

4 BOARD MEMBER SPERLING: Why not?

5 (Laughter.)

6 DEPUTY EXECUTIVE OFFICER AYALA: -- to support
7 our -- it would be a lot of work. There's a lot of
8 stations around the State, and I'm not -- I don't think
9 that we're anticipating -- again, this is just an add on
10 to the current program that we run at our lab in El Monte.
11 We're not anticipating going to Smog Check stations and
12 downloading this information. This is going to be a
13 control program.

14 Like you said, we agree that we need to protect
15 privacy, and we've done exactly that working with
16 industry. So, at this point, and this is again just an
17 add on to the current program we have.

18 BOARD MEMBER SPERLING: Well, in this modern
19 world, it seems like it's awful easy for data to be
20 transmitted. And so it is an aggregate form after it's
21 downloaded. You know, there's no GPS identifiers or
22 anything like that, why not have station -- why not have
23 arrangements with stations where they do just transform
24 it -- transfer it digitally. It would save ARB lots of
25 money, and it will just be much better quality data and

1 much more useful.

2 VEHICLE PROGRAM SPECIALIST McCARTHY: So for
3 the -- for our primary purposes to see how new
4 technologies are doing, we want to know early in their
5 life, you know, in the first one or two, three years
6 they're out there, right? If a manufacturer introduces a
7 new technology that scores really well on fuel economy
8 tests and the greenhouse gas standards, those might be the
9 ones we want to go target early in their life and see if
10 they're really delivering.

11 As you know, with Smog Check, it's a six-year
12 delay before we see the cars first in the program. So if
13 we're talking 2019 model to start kind of putting this
14 data in and then six years after that, it puts it at lot
15 farther out there before we see the vehicles. And
16 frankly, as somebody trying to regulate new vehicles and
17 adopt new standards, I want to know sooner than six or
18 seven years after the cars are out on the road. I want to
19 know when the first two -- one or two years they're out on
20 the road. So is it possible we could collect something
21 through Smog Check?

22 We would have to change the tooling and Smog
23 Check now. We would have to set something up for
24 consumers to be able to opt in or out of this at the time
25 of Smog Check. It's all doable, but it's at least 10 or

1 12 years out in the future as well. And I don't know what
2 the shape of Smog Check will even look like. What it
3 looked like 10 or 12 years ago is not what it looks like
4 today.

5 So I agree it's a possibility, and we could
6 figure out a way to do it with consumer consent, but
7 it's -- in the near term what we want to do with this data
8 is collect it on newer vehicles early in their life, which
9 is -- as Alberto said, would be targeting specific I
10 vehicle models in their first one or two years of life.

11 BOARD MEMBER RIORDAN: Supervisor Gioia.

12 BOARD MEMBER GIOIA: Just to get back to one of
13 the points I mentioned earlier, has there been -- and I
14 know looking to our -- the P, professors, on this Board --
15 you missed our five, six P's, Judy, yesterday. We talked
16 about all the P's on the Board. We'll explain that to you
17 later.

18 (Laughter.)

19 BOARD MEMBER GIOIA: So has there been -- have
20 there been studies to show how driver -- feedback to
21 drivers about these types of -- this type of information,
22 and how it can positively affect driver behavior? Have
23 there been studies on this? And so I'll let you answer
24 that first.

25 DEPUTY EXECUTIVE OFFICER AYALA: The short answer

1 is absolutely. I mean, the concept is known as
2 eco-driving, right?

3 BOARD MEMBER GIOIA: Right.

4 DEPUTY EXECUTIVE OFFICER AYALA: And it's been
5 applied in many places, not only in the light-duty but the
6 heavy-duty sector as well. And that's exactly the concept
7 is providing feedback to the user, so the user can then
8 respond.

9 BOARD MEMBER GIOIA: So given that, I'm -- and
10 this -- it takes time to get to this point, but how we may
11 want to think about using that to encourage or require
12 more of this type of diagnostic system to be visible to
13 the driver on vehicles, which I realize some models have
14 this. But with this new information, I know this is a
15 step forward, but in the sense of considering whether this
16 is eventually required in some way or encouraged or
17 incentivized so that more vehicles provide this.

18 DEPUTY EXECUTIVE OFFICER AYALA: I think again
19 the answer to that is going to be OEM specific as we
20 mentioned.

21 BOARD MEMBER GIOIA: Do we have the authority --

22 DEPUTY EXECUTIVE OFFICER AYALA: Many of them are
23 actually doing that and the purpose is again --

24 BOARD MEMBER GIOIA: No, I understand that. Just
25 let me ask a legal question. Do we have the authority to

1 require that the diagnostics be visible in some meaningful
2 way to the driver?

3 CHIEF COUNSEL PETER: As I always say in these
4 situations, it's a complicated question. We need to look
5 at it. I think that there --

6 BOARD MEMBER GIOIA: Safe answer.

7 (Laughter.)

8 CHIEF COUNSEL PETER: I think I'll just leave it
9 at that, because I -- it's a really complicated issue. We
10 are -- we only require things as we need them. And so in
11 terms of this particular, you know, question --

12 BOARD MEMBER GIOIA: Right.

13 CHIEF COUNSEL PETER: -- as Mr. McCarthy pointed
14 out, we're further down the road in terms of requiring it.
15 I think that --

16 BOARD MEMBER GIOIA: The question is also how we
17 can, on maybe a separate track, incentivize manufacturers
18 to have this be visible to drivers.

19 CHIEF COUNSEL PETER: It would not be a legal
20 question, because it's voluntary.

21 BOARD MEMBER GIOIA: I understand. So I was
22 asking -- there's two questions.

23 CHIEF COUNSEL PETER: Right.

24 BOARD MEMBER GIOIA: A regulatory question of
25 whether we can require it, and a separate question of what

1 steps we think we can take to incentivize it.

2 CHIEF COUNSEL PETER: Correct. And we can look
3 at the required elements of it and we will do so.
4 Obviously, there's another federal agency involved, you
5 know, in terms of the requirement that vehicles sold in
6 California or nationwide.

7 BOARD MEMBER GIOIA: Right, right.

8 CHIEF COUNSEL PETER: We'll look at that and get
9 back to you on the requirement. The incentivization,
10 there are -- the manufacturers are listed on -- as -- on
11 the comment list right here, both the Global Automakers
12 and also the Auto Alliance. So you might want to ask them
13 directly if they would be responsive --

14 BOARD MEMBER GIOIA: Okay. No, we'll ask them.
15 That's great.

16 CHIEF COUNSEL PETER: -- to incentives or --
17 they'd probably have a few on the regulatory --

18 BOARD MEMBER GIOIA: Yeah, it will be interesting
19 to hear what they say.

20 BOARD MEMBER RIORDAN: I think that would be wise
21 for us to move on to those who are commenting today. A
22 number of people are obviously forward thinking, but I
23 think we should deal with what is before us at the moment.
24 And if the commenters want to take a moment to respond to
25 these ideas within your three minutes, I think you can do

1 that.

2 Madam Chairman, I'm glad you're back, because
3 we're just ready to hear our first commenter, Dr. Henry
4 Hogo, if he would come forward.

5 CHAIR NICHOLS: Perfect. Perfect timing.

6 MR. HOGO: Good morning again, Chair Nichols and
7 members of the Board. Henry Hogo with the South Coast Air
8 Quality Management District. The South Coast Air Quality
9 Management District staff strongly supports the OBD II
10 technology as a very good compliance tool, enforcement
11 tool. But in addition to that, we believe that in the
12 discussions that you had this morning, it is a good tool
13 in the future to look at real world emissions. And as we
14 continue to look at the emissions inventory that we use
15 for attainment demonstration, we're finding every year
16 that the emissions are not what we think they are in the
17 real world. So having more of this information will help.

18 I think the first step with 2019 provisions
19 actually is a good step forward. And so we fully support
20 staff's proposal as proposed today and urge your adoption.

21 CHAIR NICHOLS: Thanks. Thank you very much.

22 MR. HOGO: Thank you.

23 CHAIR NICHOLS: Steven Douglas.

24 MR. DOUGLAS: Good morning, Madam Chair.

25 CHAIR NICHOLS: Do you have a new title here,

1 Auto Alliance Driving Innovation? Is that --

2 MR. DOUGLAS: That's from a business card. It's
3 the Alliance of Automobile Manufacturers.

4 (Laughter.)

5 CHAIRPERSON CHAIR: I thought maybe you changed
6 the name again.

7 MR. DOUGLAS: I guess I'll be driving innovation
8 today.

9 (Laughter.)

10 MR. DOUGLAS: Good morning. I'm Steve Douglas
11 with the Alliance of Automobile Manufacturers.

12 BOARD MEMBER GIOIA: I know one way you can
13 innovate.

14 (Laughter.)

15 MR. DOUGLAS: I have your ideas. And I
16 appreciate it. It's a pleasure to be here, and I
17 appreciate the opportunity. We support on-board
18 diagnostics. In fact, auto makers, vehicle manufacturers
19 started installing computers on vehicles to monitor the
20 systems in the 1980s before we had OBD regulations. And
21 these systems have become incredibly complex over the
22 years.

23 Today, they monitor, as staff has said, every
24 component, every system that could cause emissions to
25 increase over virtually every driving cycle. We've been

1 big supporters of using OBD to replace the conventional
2 Smog Check program. And today, in virtually every state
3 that has a Smog Check program, that uses, at least in some
4 part, the OBD system, and primarily in most states.

5 With that said, I should say up front that we do
6 not support the vehicle operations tracking requirements,
7 and we recommend removing those. However, if the Board
8 does approve those regulations, we have provided in our
9 written comments recommended changes that we think address
10 some of our concerns, and -- and in terms of defining what
11 the data -- putting the data in context as well as how ARB
12 will use the data.

13 Moving on beyond the three pages associated with
14 vehicle operations tracking, we've spent the last 18
15 months working with ARB staff on the other 215 pages of
16 this regulation. And throughout this, the staff, they've
17 been available, they've been transparent, and they've been
18 professional. We've had hundreds of phone calls, emails,
19 conference calls, in-person meeting, web meetings, and --
20 with the ARB staff.

21 And throughout it, they've tried to understand
22 our systems, our recommendations, our concerns, and
23 alternatives. And we sincerely appreciate it. We
24 understand they'll make the decision they will make, but
25 in every case they tried to truly understand what the

1 issue was, what the alternatives were before they moved
2 forward. So again, we appreciate that.

3 And with the recommendations in our letter, we
4 support the changes to the traditional OBD requirements.
5 As I've said, these are incredibly complicated regulations
6 and systems, and they have to be very precise, the
7 regulatory language, so we would want to continue working
8 with ARB staff to finalize the regulatory language and to
9 ensure that it meets the intent and our combined
10 understanding.

11 With that, I'd be to happy answer any questions.
12 Thank you.

13 CHAIR NICHOLS: Yes, Dan.

14 BOARD MEMBER SPERLING: What is the concern -- so
15 you say you're opposed to the vehicle -- tracking vehicle
16 operation. The vehicle operations are not specific to the
17 individual nor to the location. So what is your concern
18 about that?

19 MR. DOUGLAS: Well, they are specific to the
20 vehicle. So there's two elements of vehicle tracking,
21 there's the overall -- the aggregated data that's been
22 described. And so that's over the life of the vehicle.
23 And then there's also the other part of that, which is a
24 short term, so it's over the last 50 hours of the vehicle
25 operation.

1 So that's on the vehicle. It's stored with --
2 and, of course, the OBD system also has the VIN and that's
3 passed, because the VIN is necessary so you can get the
4 vehicle make and model. So the data is, as it's recorded,
5 recorded with the VIN. And when you downloaded that
6 information, it would be downloaded with the vehicle
7 identification number. So you would have the VIN and you
8 would have the long-term aggregated requirements, your
9 data, and then you would have the short-term, over the
10 last say month of vehicle driving.

11 And there's no -- and you could collect it at
12 repair shops. Repair shops could collect it. So with
13 that -- if they collected your data at a repair shop with
14 your VIN, is that okay? Could that repair shop sell that
15 data to someone else if they collected it on every
16 vehicle? I don't think the regulations address that
17 issue.

18 BOARD MEMBER SPERLING: So you're not concerned
19 about it from the perspective of the automaker, but from
20 the perspective of the privacy of the consumer?

21 MR. DOUGLAS: Right. I mean, we do have
22 requirements that automakers provide - we provided that in
23 our letter - the privacy principles. The industry got
24 together in, I believe it was September of last year, and
25 adopted a set of privacy principles on disclosure

1 requirements what we collect how we provide that to the
2 customer.

3 BOARD MEMBER SPERLING: Well, I think we'll hear
4 from the staff.

5 The other thing is this question that Supervisor
6 Gioia started probing on, and that is there's all this
7 data. So speaking as a professor, not as a politician,
8 you know, there's so much data here, and, you know, we're
9 ARB. We're kind of siloed. We think about what we think
10 about.

11 But there's a lot of different applications. I
12 mean, it is -- it does go in terms of feedback on
13 eco-driving, in terms of VMT fees. There's -- you know,
14 you can just think -- I mean, insurance companies are
15 using it now. Are we thinking too narrowly here? Are the
16 car companies thinking so narrowly also?

17 MR. DOUGLAS: You know, it's hard to say. This
18 is -- just like you said, it's a vast quantity of data
19 that will be collected -- it will be recorded on every
20 vehicle, and in all likelihood on every vehicle around the
21 country. And it's -- and it's valuable, and it's the
22 state that it is.

23 And it's kind of hard to guess how this data
24 might be used, you know, in the future, how it may be
25 combined with other data to be used for good or evil.

1 CHAIR NICHOLS: This is an interesting
2 speculative discussion, but I think I'm going to shut it
3 down. And one of the reasons why I'm going to shut it
4 down is because, let's face it, at the moment, the real
5 likelihood of what the data that's collected is going to
6 be used for is to better understand the gap between what
7 the regulations require and what the cars are doing in the
8 real world.

9 And we're in the midst of a situation at the
10 moment, which is getting a lot of public attention. I
11 don't want to talk about it, because it is an enforcement
12 action that is pending, but I think it's important to
13 realize that the principal benefit, from my perspective,
14 is that we will know more. We will have the ability to
15 know more about what our regulations are actually
16 accomplishing. We can say with confidence that we've
17 accomplished a lot, because of testing we've already done,
18 but this gives us a more precise tool.

19 There are issues about future uses of the data
20 and what could happen to it, but I think it's a little
21 premature at this point to speculate about it.

22 And I don't mean to -- I mean, I'm just saying I
23 think we could -- we could have an interesting
24 conversation about this and I hope we will, but I think
25 right now we've got focus on the issue at hand.

1 BOARD MEMBER SPERLING: Point taken. Let me just
2 suggest that at some point in the future -- because this
3 is for heavy duty -- applies, in a general sense, for
4 heavy duty, that there be a discussion with other agencies
5 and other groups about this whole issue of data, and how
6 it can be used for the public interest.

7 CHAIR NICHOLS: That's a real issue. Thank you,
8 Mr. Douglas.

9 MR. DOUGLAS: Thank you.

10 CHAIR NICHOLS: Julia Rege.

11 MS. REGE: Good morning. Julia Rege with Global
12 Automakers. Thanks for the opportunity to provide
13 comments this morning. We're going to address our
14 comments really in two parts. And the first are those
15 traditional OBD changes, which Steve spoke quite a bit
16 about. That's really the bulk of this proposal.

17 And we -- as Steve had noted, we've been working
18 with ARB and the Auto Alliance for over a year and a half
19 now to provide technical input into this part of the
20 regulations. We have provided some recommended changes
21 for this part of the -- for this part of the regulation.
22 And assuming those go forward with the 15-day notice, we
23 support this part of the proposal.

24 The second piece are the proposed vehicle
25 operations tracking, or standardized data elements. And

1 when we first heard about these, it raised a lot of
2 concerns for our Association about consumer privacy, how
3 the consumer would be protected, as well as how it would
4 align with the industry privacy principles that were
5 mentioned earlier.

6 The vehicle operations tracking data does contain
7 some elements of consumer behavior data, and that can
8 easily be coupled with personally identifiable information
9 like the VIN, which can also be downloaded through the
10 OBD.

11 We have been working ARB through a series of
12 conversations, as well as on some recommended language
13 that would address a lot of our concerns about privacy.
14 But since the proposal came out, we do have a few
15 additional concerns. Our primary concern is the proposal,
16 as it was proposed, does not adequately address consumer
17 privacy or personal privacy and data security, as well as
18 cyber security.

19 As I noted, we've been working on some language
20 with ARB that we think that will be helpful. And the way
21 these were originally addressed in this proposal was
22 through explanatory text of the ISOR rather than in the
23 regulatory text. And we think it needs to be in the
24 regulatory text in order to provide some legally binding
25 requirements, as well as regulatory precedence for how

1 other parties might consider collecting this data.

2 So we are committed to continuing to work with
3 ARB to address that. But that leads to the second concern
4 that came up with this proposal, and that's that we're
5 concerned there's still no effective way to prevent the
6 unauthorized data collection by third parties.

7 Many third-parties have shown interest in this
8 date, and standardizing it through the OBD system does
9 make it easily accessible to anyone that wants to purchase
10 an inexpensive tool to download the data.

11 So we know that the language we're providing will
12 provide a regulatory precedence for how these third
13 parties might consider downloading the data. The problem
14 is it doesn't provide a regulatory assurance. The only
15 assurance we have is that ARB will, in fact, work hard to
16 put in place good measures to protect consumer privacy and
17 implement best practices for collection and storage. And
18 we're pleased with that piece that ARB is going to help
19 protect the data to the extent possible. It's just we're
20 still concerned about these third parties and think that
21 needs to be considered further.

22 We remain committed to working with ARB going
23 forward. Thank you.

24 CHAIR NICHOLS: Thank you.

25 Will Barrett.

1 MR. BARRETT: Good morning. I'm Will Barrett
2 with the American Lung Association in California.

3 On behalf of our organization, I'm speaking in
4 strong support of the staff proposal. We consider this to
5 be good medicine for California. We have a long track
6 record of advocacy and support of the strongest possible
7 vehicle emission standards to protect our fellow
8 Californians and all Americans against traffic pollution
9 that leads to illness and early death. Our volunteer
10 physicians, lung surgeons, pediatricians have all come
11 before you to testify about the importance of our strong
12 policies as good medicine for their patients as well.

13 The health benefits of ARB's cutting edge
14 regulations has been verified over and over by research,
15 including just this week the strong policies set forward
16 have cut cancer risk in our State by 70 percent over the
17 last two decades. We strongly support continued focus on
18 really cutting the health risks of our traffic pollutants.

19 Today's proposal helps us really to ensure that
20 the good-medicine policies, like LEV III, are really
21 delivering as promised. We view the data -- the staff
22 data streaming proposal as an important step to ensure
23 that the emission and consumer benefits are actually
24 delivered and public health is actually being improved and
25 protected.

1 The proposal represents a common sense and a
2 voluntary approach to detecting any lost benefits when new
3 technologies or models are introduced.

4 We urge the Board and staff also to continue to
5 review and tighten the OBD criteria failure thresholds,
6 as the -- as quickly as feasible. We recognize that there
7 are challenges in the testing procedures and verification,
8 but we feel like especially the particle pollution
9 standard should be tightened or is being tightened over
10 time and the threshold should track more closely with
11 those as soon as possible.

12 We do -- we take strong issue with the on-line ad
13 campaigns that were run against the data streaming
14 proposal by the Auto Alliance. The media campaigns by the
15 oil industry we viewed those as alarmist attempts to
16 really undermine ARB's ability to continue to protect
17 health, and really felt like we need these proposals to
18 ensure that the medicine that we're giving California's
19 air is working and is really pulling through for us.

20 With every measure that ARB has adopted on the
21 way to reducing pollution and health -- and our health
22 risks from our vehicles and fuels, there's been strong
23 industry push-back. We're urge you to continue to focus
24 on the health benefits, the good medicine that you're
25 providing to Californians, and helping those who can least

1 afford dirty air and climate impacts.

2 So we do urge you to adopt the proposals today.
3 We urge you to move quickly to identify, investigate, and
4 mitigate any threats to the effectiveness of these
5 life-saving policies, like LEV III.

6 In closing, we really, you know, believe that the
7 proposal today reinforces ARB's certification and testing
8 expertise and the need to catch potential emission and
9 fuel economy problems early.

10 Like everyone, we're shocked by the VW cheating
11 scandal. We think that this proposal is a good step in
12 moving us forward to a more robust, real world, in-use
13 testing system to protect public health.

14 Thank you very much.

15 CHAIR NICHOLS: Thank you.

16 Mr. Magavern.

17 MR. MAGAVERN: Good morning, Madam Chair and
18 Board members. Bill Magavern with the Coalition for Clean
19 Air in support of the proposal. On-board diagnostics have
20 played an important role in reducing emissions from
21 vehicles in use. And I was particularly struck by the
22 number of times that the staff presentation used the
23 phrase, "real world", and the Chair also echoed that.

24 And I think that we're all, of course, painfully
25 aware that Volkswagen intentionally created a huge gap

1 between emissions when tested and real-world performance.
2 But I think that even aside from that really flagrant
3 abuse, we have a problem, as Dr. Hogo said, of seeing this
4 gap between emissions under a testing situation and what
5 we're actually seeing on the road.

6 So I think that ARB is absolutely on the right
7 track here in using these diagnostics to try to reduce
8 emissions in a real-world situation.

9 So again, we urge your approval.

10 CHAIR NICHOLS: Thank you.

11 Mr. Shears.

12 MR. SHEARS: Good morning again, Chair Nichols
13 and members of the Board. John Shears with the Center for
14 Energy Efficiency and Renewable Technologies. I'm also
15 representing Union of Concerned Scientists and Sierra Club
16 California. Along with Coalition and American Lung, we
17 submitted a joint letter on the rule-making.

18 We're here to support the adoption of this
19 regulation, noting also there are still some fine points
20 to be resolved, which are the subject of the 15-day
21 changes. And again, just stressing as I was stressing
22 yesterday, caution on PM issues. You know, and to put a
23 finer point on our comments and addressing the tightening
24 of the failure thresholds, and, of course, we'd also like
25 the in-use monitoring thresholds to eventually get tighter

1 as technology evolves, avoiding the, what John Storey, at
2 Oak Ridge National Lab, refers to as the PM paradox, where
3 we're reducing our diesel particulates. But with more and
4 more GDI, gasoline direct injection, equipped vehicles
5 being introduced into the market, we may, in fact, be
6 increasing our PM inventory on that side of the ledger
7 with some different and maybe more problematic issues
8 there, if we don't use appropriate control technologies,
9 particulate filters being one of the simplest and most
10 robust.

11 I'd also like to speak in favor of your adopting
12 this regulation, because I think overall this is a great
13 way to help not only CARB more effectively do its work,
14 but also help the industry regain public trust. I think
15 right now the current situation we're dealing with has
16 really put the -- you know, the image of the whole
17 industry in question and the public's mind. And these
18 kinds of regulations, industry working together with the
19 regulator, I think can really show that together
20 collaboratively everyone is working to assure -- ensure
21 and assure the public that these vehicles are really
22 performing as advertised, and that California is
23 continuing directionally to, you know, as Will put it,
24 keep providing Californians with good medicine.

25 So thank you.

1 CHAIR NICHOLS: Okay. That concludes list of
2 witnesses that we had that is signed up. Seeing no one
3 else coming forward, I think we can close the record at
4 this point and move to Board discussion and a vote.

5 Before we do that, I guess I'd like to give the
6 staff an opportunity to respond to any of the critical
7 points that you think were made during the hearing.

8 VEHICLE PROGRAM SPECIALIST MCCARTHY: Yeah.
9 Regarding the -- Julia brought up the concern about the
10 VIN. So, yes, the VIN is in the vehicle, both physically
11 and electronically, right? You can still read it on the
12 windshield tag. You can read it electronically. So it is
13 there. And it's turned out, in Smog Check, we do use that
14 VIN. It's been very powerful in identifying inspector
15 fraud. It turns out if you plug into somebody else's car,
16 it's really easy to identify that now.

17 But we did two things, right, first we structured
18 this data in the first place so that it would be aggregate
19 data that we don't believe contains sensitive information
20 about the driver, right? It's total -- it's cumulative
21 totals that just don't provide much insight into anything
22 you've done on any individual trip.

23 And the second thing we've said is even beyond
24 that, we've agreed and committed that when we collect this
25 data, any records that we maintain, we will not capture or

1 include the VIN in there. So if we collect this data and
2 have records and somehow those records get out or get
3 unauthorized access to them, they cannot be linked back to
4 the specific vehicle they came from.

5 CHAIR NICHOLS: So this is sort of the equivalent
6 of the American Cancer Society taking out the individual
7 names of people that they track in their epidemiology
8 studies? It's a similar kind of an issue. It's personal
9 information that's not needed, and therefore you can just
10 delete it.

11 VEHICLE PROGRAM SPECIALIST McCARTHY: Or what we
12 often call belts and suspenders in the engineering world.

13 CHAIR NICHOLS: Right, right. Great.
14 Yes, Ms. Mitchell.

15 BOARD MEMBER MITCHELL: On that same point, one
16 of the concerns that Julia Rege expressed was the
17 unauthorized access to the OBD data. So, I mean, you can
18 take your car to a car repair shop, and I assume they can
19 access it. How do we respond to that?

20 VEHICLE PROGRAM SPECIALIST McCARTHY: Well, so a
21 couple things. One, when you give permission to people --
22 you know, people to access their car, right, you do have
23 to somewhat vigilant in what they do. Right now, they
24 could look at your dashboard display without any special
25 tools and see what fuel economy has been on the majority

1 of cars, right? They don't need to download this data.

2 If you give them access, if they want to, they
3 could go look at your navigation system and see where you
4 probably have been, right? If you -- once you give people
5 access to your car, that can happen. But there's still --
6 that doesn't absolve them of that -- those wrong doings.

7 We can't -- we don't have the authority to
8 regulate the authority of those people. And when we --
9 early on, we met with Julia and their privacy expert and
10 we talked about the idea of third parties and what happens
11 if they do bad things? And they agreed, that is incumbent
12 on the third party to not do bad things. It's incumbent
13 on them to disclose to consumers what they are going to
14 do.

15 If a consumer wants to buy a device and plug it
16 in their car, it's incumbent on that third-party
17 manufacturer to explain what data they're going to take
18 from that consumer. You know, but again, the consumer
19 still has to give access to somebody to their car to allow
20 them to plug in. So I understand it's not the best
21 answer, because we can't -- you know, if people want to do
22 bad things and you give them access to your car and let
23 them plug in -- but I don't -- we don't -- there's --
24 this data doesn't create a new loophole for them to get
25 anything -- any new data.

1 DEPUTY EXECUTIVE OFFICER AYALA: And just one
2 more point, if I may add for Ms. Mitchell, and remind the
3 Board that, as we mentioned, next year it will be 20 years
4 of OBD in our cars. So I think we can all agree that we
5 haven't really seen any catastrophe in terms of
6 unrestrained access to information for anybody.

7 BOARD MEMBER MITCHELL: Thank you.

8 CHAIR NICHOLS: Other Board member questions,
9 comments? You should be excited about the ability to look
10 at electric miles on the hybrids.

11 (Laughter.)

12 BOARD MEMBER SPERLING: I was -- I actually was
13 going to comment on exactly that.

14 (Laughter.)

15 BOARD MEMBER SPERLING: Go ahead.

16 BOARD MEMBER SHERRIFFS: Yeah, I'm going to go
17 first, because he'd going to have so much wisdom to
18 impart. That's the last note you should here, not me.

19 You know, I'm a physician. Privacy is very
20 important. That's an issue I face with every patient
21 every day, every time I write a prescription, every time I
22 order a lab test, every time I push a button on the
23 computer.

24 You know, I've got an all-electric car, and every
25 time I start it a little screen comes up and wants to know

1 if I'll share the data. And I will confess my answer has
2 been no. Now, I want the manufacturers to have the
3 information to do better, but, you know, there's not
4 enough of an explanation there about what happens. So it
5 is a real issue for people.

6 You know, I think if I was approached separately
7 and this is what's going to happen with the data, and -- I
8 would probably say yes. But, boy, that blanket -- but
9 again, I'm given the choice. I'm given the choice. The
10 manufacturer is giving me the choice, and that's very
11 important.

12 Boy, unauthorized access. We know -- I mean, I
13 don't think it's an urban legend, teenagers hacking into
14 computer systems and controlling brakes on cars. You
15 know, the manufacturer unfortunately has a huge
16 responsibility to protect those computer systems in their
17 cars. And likewise, we have a huge responsibility to do
18 well with the information that we're collecting. And I
19 just would want to be sure that we do move forward with
20 other agencies to do a better job of protecting that,
21 thinking about the privacy issues, and the second that --
22 would want staff to come back to us with some kind of
23 report, best information, looking at the issue of, okay,
24 how does that display change driver behavior? Is that so
25 much -- so beneficial that we really want to think about

1 both incentive and regulatory ways of moving that forward?

2 So thank you.

3 CHAIR NICHOLS: Yes.

4 BOARD MEMBER SPERLING: I'll reiterate or respond
5 to what Dr. Ayala said that, you know, this OBD has been
6 great. It's -- you know, it's reduced fraud. It's
7 helped -- you know, it's a great invention. And, you
8 know -- and, you know, I made the earlier comment that we
9 ought to be thinking about how we use this well for the
10 public interest, but -- and the vehicle miles, you know, I
11 want to commend the staff, and I think that was Mike
12 McCarthy, in particular, for kind of thinking through how
13 can we use this in a useful way.

14 And with respect to that, I did have the
15 question -- the general question and it might be a legal
16 question is that there was a lot of comments in the
17 presentation about we can't use this for enforcement. We
18 can't use it, you know, in -- what can -- I mean,
19 obviously, we can use it as information. But like the
20 miles part of it, for instance, we get -- here, we're
21 going to get the electric miles from the PHEVs, how can we
22 use that, other than just as it's good information for a
23 research project, which is not bad.

24 (Laughter.)

25 CHAIR NICHOLS: We're all for research.

1 DEPUTY EXECUTIVE OFFICER AYALA: It certainly has
2 value for many of the very current policies that you
3 personally have directed us to look into. As Chair
4 Nichols said, specifically the electric miles driven by
5 plug-in technology.

6 But the way I think about what we're doing is
7 really a -- and what we were trying to communicate to you
8 in the staff presentation is this is a screening tool,
9 right? This is going to allow us to collect a lot of very
10 useful information from cars that are out in the real
11 world.

12 To the extent that we find something of interest,
13 right, so then we are going to bring in -- bring back the
14 car and run it through the battery of tests that we are
15 currently doing today as we speak. So this is just
16 another tool that it will provide very useful and new
17 information that without this change to the OBD
18 requirements, we will not be able to gather.

19 Can we get it in another way? Absolutely, but
20 it's not going to be as effective or as efficient as we --
21 as we are proposing.

22 BOARD MEMBER SPERLING: Last question. To what
23 extent is this aligned with EPA? We -- I know, ARB has
24 always been the leader in OBD technology. Is this going
25 to be perfectly aligned with them? Are they following us

1 on this?

2 DEPUTY EXECUTIVE OFFICER AYALA: We're hoping
3 that they will follow us, because again one of the -- to
4 me, one of the most valuable elements of what we're
5 proposing is the whole concept of the off-cycle credits,
6 the fact that we can work with the OEMs for them to
7 innovate, to bring us new technology that we cannot
8 capture the benefit of, when we put it in the lab.

9 This will allow us to actually promote that type
10 of development that goes back to what Supervisor Gioia
11 said, there is real benefit. So we're hope that we can
12 work with our partners at the federal government, so that
13 we can have a national fleet that is tracked in this way,
14 so that we can all know how effective our collective
15 polices are.

16 CHAIR NICHOLS: Any other Board members want to
17 make a comment or ask a question at this time?

18 If not, I think we should move towards a decision
19 on this item. I think what we've heard is an
20 interesting -- an interesting discussion about the many
21 uses and possibilities of data, but I think the
22 overwhelming point here is that we as an agency that does
23 regulate and enforce our regulations have an overwhelming
24 responsibility to be open about what we're doing and to
25 evaluate our programs all the time.

1 And this has proven to be one of the most
2 successful tools ever created for measuring the
3 effectiveness of a government action. And so for that
4 reason alone, I would be inclined to move forward, but I
5 think we've heard also many other reasons why this is
6 going to be a valuable program.

7 So I'm hoping that we can move forward. And I
8 would welcome a resolution.

9 BOARD MEMBER SPERLING: So Moved.

10 CHAIR NICHOLS: Moved by Dr. Sperling.

11 BOARD MEMBER DE LA TORE: Second.

12 CHAIR NICHOLS: Seconded by Mr. De La Torre.

13 All in favor, please say aye?

14 (Unanimous aye vote.)

15 CHAIR NICHOLS: Opposed?

16 Abstentions?

17 Okay. Thank you very much everyone. That was a
18 good discussion. And we're going to take a 10-minute
19 break. We'll blame it on the court reporter, but we could
20 probably all use a 10-minute break while we regroup, and
21 we'll be back at 10 past 10:00.

22 Thanks

23 (Off record: 9:57 AM)

24 (Thereupon a recess was taken.)

25 (On record: 10:08 AM)

1 CHAIR NICHOLS: If we can get the sound system
2 back, and get the Board back, and get the staff in place.

3 I'm just going to go over the procedural aspects
4 of what we're doing here as we're getting everybody back
5 into their seats again. Our next item is the proposed
6 regulation of the commercialization of Alternative Diesel
7 Fuels, which we initially heard in February, and which was
8 presented yesterday as a final proposal. The Board
9 received public comments on this item yesterday. I am
10 today reopening the record for the sole purpose of
11 receiving the staff's responses to those comments.

12 Staff will present to the Board a summary and
13 responses to comments received at the Board meeting
14 yesterday. These will include, under this item, comments
15 related to the proposed Alternative Diesel Fuels
16 regulation, as well as comments on the joint Environmental
17 Analysis prepared for this regulation and readoption of
18 the Low Carbon Fuel Standard. So there's a single joint
19 Environmental Analysis, which is in both of the records.
20 And that item will follow immediately after this one.

21 After the staff presentation, the Board will
22 consider two separate resolutions. The first resolution
23 provides for approval of responses to environmental
24 comments and certification of the joint Environmental
25 Analysis. The second resolution provides for adoption of

1 the Alternative Diesel Fuel Regulation.

2 And again, I would remind people that this is
3 only -- the regulation that we will be acting on is just
4 the Alternative Diesel Fuel Regulation. That will be
5 followed then as a separate item by the Low Carbon Fuel
6 Standard discussion and decision. And so we will reserve
7 comments on the LCFS until we get to that second item.

8 Okay. Mr. Corey, would you please take over
9 here.

10 EXECUTIVE OFFICER COREY: All right. Thanks,
11 Chair. As you noted, we received oral and written
12 comments in yesterday's meeting on Alternative Diesel Fuel
13 and the Low Carbon Fuel Standard items. And since then,
14 as you noted, staff has prepared and develop responses to
15 those comments. And at this point, staff is going to
16 summarize for your consideration the comments received
17 yesterday on the Alternative Diesel Fuel proposal and
18 provide responses, as well as comments on the joint
19 Environmental Analysis prepared for this regulation and
20 the Low Carbon Fuel Standard regulation.

21 And please recall that the comments staff will
22 summarize and respond to shortly will cover only those
23 comments on the joint Environmental Analysis and comments
24 received yesterday.

25 The written comments and staff responses to

1 comments leading up to the February hearing through the
2 15-day comment periods were provided to the Board before
3 yesterday's proceeding and publicly.

4 I'll now ask Elizabeth Scheehle of the Industrial
5 Strategies Division to begin the staff presentation.

6 Elizabeth.

7 OIL & GAS AND GHG MITIGATION BRANCH CHIEF

8 SCHEEHLE: Thank you, Mr. Corey. Good morning, Chair
9 Nichols and members of the Board.

10 After yesterday's hearing, staff reviewed,
11 summarized, and responded to both oral and written
12 testimony for the Environmental Analysis, or EA.

13 The Alternative Diesel Fuel Regulation and the
14 Low Carbon Fuel Standard. The written responses were
15 shared with the Board before today's proceeding, and were
16 made available just outside the Board room. I will be
17 talking about the comments received at yesterday's meeting
18 on the EA and ADF. After the Board votes on the
19 resolution for those two items, Sam Wade will discuss and
20 provide responses to comments received at yesterday's
21 meeting on the LCFS.

22 We received one voluminous comment package
23 submitted on behalf of Growth Energy that related to all
24 three items, the Environmental Analysis, ADF and LCFS.

25 The comment Package consisted of a CD with over

1 800 documents and a comment letter. The vast majority of
2 that material consisted of previously provided comment
3 letters and materials, scientific articles, or ARB
4 presentations and documents, which we responded to in the
5 materials we provided to you before yesterday's hearing,
6 and posted publicly.

7 For the Environmental Analysis, comments are
8 related to a variety of issues which were largely
9 duplicative of previously submitted comments, and have
10 been responded to on the record. Comments related to the
11 rule-making files and NOx emissions analysis include the
12 allegation of an undisclosed agreement with the biodiesel
13 industry, claims of a lack of evidence in the rule-making
14 file, and claims that the record lacks the technical basis
15 to support why the NOx control level changed between July
16 2014 and February 2015.

17 Also called into question was the adequacy of the
18 analysis of new technology diesel engines. In addition,
19 several comments were related to the coverage of the EA,
20 including the use of a 2014 baseline, the scope and
21 adequacy of the EA, the broader impacts of the regulation,
22 double counting emission reductions, the adequacy of
23 responses to environmental comments, and the alternatives
24 analysis.

25 The proposed ADF regulation is not a

1 behind-the-scenes agreement with biodiesel industry, but,
2 in fact, was developed using an open public process
3 involving numerous meetings and workshops with various
4 stakeholders, including petroleum refiners, biofuel
5 producers, government agencies including the air
6 districts, engine manufacturers and community and public
7 health non-governmental organizations.

8 Workshop material, test data and reports, and
9 other ADF related materials are publicly available on our
10 website.

11 The proposed ADF regulation is based on sound,
12 robust, and peer-reviewed scientific and technical
13 information. Our conclusions are supported by both an
14 internal and an independent statistical analysis of
15 biodiesel's NOx impacts.

16 The proposal before you today is the result of
17 additional staff analysis, and establishes in-use
18 specifications that will ensure that NOx emissions from
19 biodiesel do not increase from current levels and will
20 decrease emissions over time. It does not reflect revised
21 conclusions on biodiesel's NOx impacts, but includes the
22 impact of offsetting factors.

23 On the issue of new technology diesel engines, or
24 NTDEs, the commenter asserts that staff should consider
25 emission studies related to retrofit engines, since these

1 engines fit the definition of an NTDE. Staff believes our
2 analysis are robust and consistent with actual use of
3 NTDEs.

4 The comments on the baseline suggest that the use
5 of 2014 baseline constitutes piecemealing, in other words,
6 inappropriately splitting the project into smaller pieces.
7 And it also includes -- suggests the use of the baseline
8 is not applied consistently and would not account for NOx
9 increases due to biodiesel use since 2009.

10 ARB is not piecemealing, but is properly
11 considering the readoption of LCFS as a project along with
12 the proposed ADF, consistent with CEQA requirements, and
13 the writ in the POET case.

14 The current conditions baseline is recognized in
15 CEQA as the appropriate approach. There is also a
16 consistent baseline for the CEQA analysis. The comment
17 confuses the use of the word baseline in designing the
18 LCFS with the CEQA baseline. On the NOx attribution
19 issue, as noted in the EA, it is unclear and unknowable
20 what portion of the NOx increase from biodiesel since 2009
21 is attributed solely to the LCFS versus other regulations
22 or incentive programs.

23 In addition, the ADF regulation will lead to
24 progressive reductions in NOx emissions over time. As I
25 just described, the use of the 2014 baseline is most

1 appropriate to this rule-making. Staff believes the EA
2 has appropriate scope and includes a robust analysis,
3 including the consideration of broader impacts of the
4 regulation, if they are considered likely or foreseeable
5 responses. The EA also clarified project benefits with
6 and without complementary programs

7 On our response to environmental comments, staff
8 believes our responses are robust, specific, and compliant
9 with CEQA.

10 Finally, the alternatives comment asserts that
11 ARB should give additional explanation for the rejection
12 of the Growth Energy alternative to the ADF regulation.
13 Staff believes that ARB has explained the technical and
14 economic reasons for the rejection of the alternative.
15 There was also a comment on the completeness of the
16 rule-making file, which will be addressed in a few minutes
17 by our legal staff.

18 This covers the main comments on the EA submitted
19 during yesterday's Board hearing, and more detail is
20 provided in the written responses that you are provided.

21 For the Alternative Diesel Fuel Regulation, in
22 addition to the written comments submitted on behalf of
23 Growth Energy, we also heard oral testimony from eight
24 commenters. As you heard, the vast majority of those
25 comments were supportive. Of the remaining comments, a

1 number of those on the ADF regulation were EA related
2 comments.

3 In total, staff identified three topics that
4 required more detailed responses. One topic is related to
5 the importance of continuing to evaluate diesel deposit
6 additives. As Chair Nichols mentioned yesterday, we will
7 continue to work with stakeholders on diesel deposit
8 control additives.

9 The other two topics are related to the
10 completeness of the rule-making file and compliance with
11 the Health and Safety Code, CEQA, and the APA.

12 Steve Adams, Assistant Chief Counsel from our
13 Legal Office will respond to these last two items.

14 Steve.

15 ASSISTANT CHIEF COUNSEL ADAMS: Thank you, Ms.
16 Scheehle.

17 The written responses to comments contained
18 responses to the more specific comments regarding the
19 sufficiency of ARB's rule-making file for the ADF
20 proposal, as well as other issues involving the
21 environmental analysis, but I wanted to respond orally to
22 two -- one or two general comments from the lectern
23 yesterday.

24 A comment that the rule-making file for the ADF
25 regulation is incomplete, that the Environmental Analysis

1 does not comply with CEQA, and that the ADF rule-making
2 process does not comply with the Administrative Procedure
3 Act.

4 ARB's legal staff and to some extent the Attorney
5 General's office has worked closely with staff on these
6 matters. We are satisfied that the ADF rule-making file
7 is complete, that the Environmental Analysis is both
8 thorough and compliant with CEQA and with ARB's certified
9 regulatory program for CEQA, and that the ADF rule -- and
10 that the ADF rule-making process and documentation
11 complies with the Administrative Procedure Act.

12 I might add that the Environmental Analysis is
13 one of the most thorough and complex environmental
14 documents ever prepared by ARB, and the accompanying
15 responses to environmental comments were easily the most
16 voluminous and time-consuming set of environmental
17 responses ever undertaken by ARB.

18 And in a housekeeping matter to conclude, I'd
19 also like to point out that staff noticed some minor
20 discrepancies between the titles of the supplemental
21 response documents that you were -- that were prepared
22 yesterday and provided to you, and the titles for these
23 documents in the draft resolutions, or the Environmental
24 Analysis and the ADF.

25 Staff will correct the resolutions to the actual

1 titles of those documents when the resolution is
2 finalized.

3 Thank you. Ms. Scheehle will conclude with
4 staff's presentation.

5 OIL & GAS AND GHG MITIGATION BRANCH CHIEF
6 SCHEEHLE: Thank you. That concludes our summary. Staff
7 recommend that the Board adopt the EA resolution, which is
8 Resolution number 15-51, and then the ADF resolution,
9 Resolution 15-41.

10 Thank you.

11 CHAIR NICHOLS: Thank you, Ms. Scheehle. So we
12 will now close the record formally here, and move on to
13 any questions that Board members have. I believe Ms.
14 Mitchell has a statement.

15 BOARD MEMBER MITCHELL: Yes. I want to mention
16 that unfortunately I was unable to be here yesterday, but
17 I had the opportunity to review the transcript of the
18 proceedings, and I have thoroughly reviewed those and am
19 prepared for today's vote. So thank you.

20 CHAIR NICHOLS: Thank you. Happy to have you
21 participate.

22 If there are no other questions on this
23 particular item, I think we can move to a vote then.

24 So the Board has before it Resolution number
25 15-51 providing for the approval of responses to comments

1 on the joint Environmental Assessment, as you just heard,
2 for the Alternative Diesel Fuels Regulation and readoption
3 of the Low Carbon Fuel Standard. The resolution also
4 provides for certification of the Environmental
5 Assessment.

6 Do I have a motion.

7 BOARD MEMBER SPERLING: Just a clarification. So
8 we're voting on both the LCFS and --

9 CHAIR NICHOLS: No, we are not. The LCFS is
10 going to come up next. So this is just on the Alternative
11 Diesel Fuel. And there are two separate resolutions,
12 first on the Environmental Assessment and then on the
13 actual regulation itself. This is the process that we
14 have determined is the clearest way to respond to our
15 overall requirements for consideration of the
16 environmental impacts of our actions.

17 BOARD MEMBER SPERLING: So I'll move adoption of
18 both resolutions.

19 BOARD MEMBER DE LA TORRE: Second.

20 CHAIR NICHOLS: Second?

21 Second here. Anyone cares to second?

22 BOARD MEMBER MITCHELL: I'll second.

23 CHAIR NICHOLS: All right. Ms. Mitchell seconds.
24 So I think we don't need a roll call. We can do this by
25 our usual voice vote.

1 All in favor, please say aye?

2 (Unanimous aye vote.)

3 CHAIR NICHOLS: Any, opposed?

4 No.

5 Okay. So we have had the vote on the first
6 resolution. And we now need to do the same thing for the
7 second also relating to this Alternative Diesel Fuel, but
8 this is the actual regulation itself. So again, we need a
9 motion.

10 BOARD MEMBER SERNA: I'll move.

11 CHAIR NICHOLS: Thank you.

12 BOARD MEMBER RIORDAN: Second.

13 CHAIR NICHOLS: And we have a second.

14 All in favor please say aye?

15 (Unanimous aye vote.)

16 CHAIR NICHOLS: Any opposed?

17 None.

18 No abstentions.

19 Okay. Thank you. I think we have made it
20 through the process in good form.

21 And we now need to move to our last item, which
22 is the Board's consideration of the proposed readoption of
23 the Low Carbon Fuel Standard.

24 During yesterday's Board hearing, staff presented
25 to the Board updates to the proposed regulation reflecting

1 the proposed 15-day changes and other modifications that
2 had been suggested by this Board. The Board also received
3 public comment on the item. And again, we're going to
4 reopen the record now for the purpose of receiving the
5 staff's responses to those comments.

6 As part of our last item, the Board also approved
7 responses to environmental comments and approved the
8 Environmental Analysis for the proposed Low Carbon Fuel
9 Standard, and the Alternative Diesel Fuel Regulation.

10 So at this point, the staff is going to present
11 to the Board a summary of other comments on the Low Carbon
12 Fuel Standard received at yesterday's hearing, as well as
13 responses to those comments before the Board actually
14 considers and acts on the proposal.

15 Mr. Corey, would you please introduce this item?

16 EXECUTIVE OFFICER COREY: Yes, Chairwoman. Very
17 excellent summary. I'm going to go right to -- I'm going
18 to ask Sam Wade of the Industrial Strategies Division to
19 begin the staff presentation.

20 TRANSPORTATION AND FUELS BRANCH CHIEF WADE:

21 Okay. Thank you Mr. Corey, and Chair Nichols.
22 Good morning, members of the board.

23 Similar to the ADF item, after yesterday's
24 hearing, staff evaluated, summarized, and responded to
25 both oral and written testimony on the LCFS. The written

1 responses were shared with the Board and are available
2 just outside the Board room. We received 26 oral comments
3 and 4 written comments -- comment letters yesterday on
4 LCFS, including one large written submittal from Growth
5 Energy mentioned in the ADF item.

6 The majority of these comments offered general
7 support for the program, and we will not cover those in
8 our summary today.

9 The Western State Petroleum Association stated
10 concerns about various aspects of the program, including
11 the transparency of the program's performance. With
12 respect to transparency, staff has committed to return to
13 the Board for a program progress report in 2017 and a full
14 program review in 2018.

15 We're also intrigued by WSPA's concept of a
16 performance dashboard, especially one that offers greater
17 transparency about each individual refiner's contribution
18 toward achieving the program's targets. This is something
19 we'll be discussing further with WSPA and other
20 stakeholders.

21 Alon questioned the eligibility of their
22 Bakersfield facility for the low complexity, low energy
23 use provision. Staff will continue to meet with Alon and
24 discuss their opportunities to produce low carbon fuels at
25 their facility. But we note that our current

1 understanding is that the proposed configuration of that
2 facility is closer to the other more complex refineries in
3 the State than it is to a low -- the low complexity, low
4 energy use refineries.

5 Two commenters requested we consider crediting
6 the use of low carbon fuels in aircraft. Staff will
7 carefully review the potential to add this type of
8 crediting and bring this issue back to the Board as part
9 of the program review scheduled for 2018.

10 With respect to Growth Energy's submittal, the
11 package was largely duplicative of their prior
12 submissions. One portion of their comments questioned the
13 methodology used to construct staff's illustrative
14 scenario and focused on the amount of natural gas fuel and
15 electricity included in this scenario.

16 The basis of staff's scenario including the
17 methods used to substantiate the possible penetration of
18 the fuels in question is explained in detail in the
19 Initial Statement of Reasons and the written responses to
20 comments.

21 Further, staff's scenario is only -- is one -- is
22 only one of many possible outcomes that would achieve the
23 program's targets. The advantage of a flexible program,
24 such as LCFS, is that it offers many possible paths to
25 compliance, rather than establishing volumetric

1 requirements for individual types of fuels.

2 The Growth Energy package also questioned the
3 crediting of electricity used in any fixed guideway system
4 or electric fork-lifts that predate the rule. Staff's
5 proposal and written responses clearly outline the
6 treatment of such systems. Our proposed crediting offers
7 less credit to existing systems than to newly constructed
8 system. And we note that low carbon electricity used in
9 existing systems continues to reduce greenhouse gases
10 relative to the petroleum fueled alternatives. And these
11 systems have ongoing operating costs that can be partially
12 offset by LCFS credits.

13 Growth Energy also raises concerns about equity
14 of crediting for ethanol relative to other fuels, such as
15 electricity. To address this issue, they request that
16 ethanol be removed from the baseline used to set the
17 targets on the gasoline side of the program. Staff
18 strongly disagrees with this assertion of inequity. All
19 fuels are compared to the same program targets and ethanol
20 is not at a disadvantage relative to other fuels due to
21 the choice of where the target curve starts.

22 In fact, the proposed rule continues the fuel
23 neutral carbon intensity based treatment that has been a
24 hallmark of the LCFS program to date. Further, we note
25 that ethanol has produced more than have of the credits in

1 the program so far, and we expect continued contribution
2 toward future targets from this fuel in the future.

3 Growth Energy also claims that staff's methods
4 for crediting electricity will produce fictitious LCFS
5 credits due to the lack of direct metering requirements
6 for electric vehicles. Installing a separate dedicated
7 meter for residential EV charging was initially viewed as
8 feasible, and was required in the prior rule post-2014.
9 However, because meters remain costly for EV customers,
10 and the majority of -- the majority of EV owners have
11 elected not to install dedicated meters at their
12 residents.

13 Therefore, staff plans to continue the practice
14 of crediting for EV use based on calculations that do not
15 require separate metering -- metering. Staff notes that
16 similar to the proposed treatment of EVs, direct metering
17 at the retail fuel pump is not required for ethanol
18 blends. ARB staff believes this method -- the method of
19 crediting for residential EV charging continues to be as
20 robust as the crediting for all other fuels.

21 Finally, and similar to the ADF item, Growth
22 Energy also questioned the completeness of the rule-making
23 file and compliance with various legal requirements. Will
24 Brieger from our Legal Office will respond to these
25 issues.

1 Will.

2 SENIOR ATTORNEY BRIEGER: Thank you. Good
3 morning. First, I'd like to add the same housekeeping
4 issue. We're going to correct the resolution to get the
5 exact title of the document. I want to dress one point
6 that the record is incomplete, the rule-making record.

7 I want you to know this that record is complete.
8 The Administrative Procedures Act prescribes a host of
9 documents, a notice, an Initial Statement of Reasons,
10 there's a process for adding material to the record,
11 there's a Final Statement of Reasons and so forth. All
12 those documents have been prepared. They're on the
13 internet actually.

14 The Initial Statement of Reasons is the document
15 where we explain the rationale for our proposal, and we
16 identify the studies and the basis for the proposal.

17 I brought my copy. It's 295 pages. I didn't
18 bother to bring the 9 fulsome appendices, although those
19 too are in the record, as are the 700 plus references to
20 scholarly reports and articles.

21 I don't want you to think for a minute, however,
22 that staff has confused quantity with quality. I'd like
23 to share a comment from one of our peer reviewers, who --
24 a Professor at Carnegie Mellon University, who was charged
25 with looking at the scientific basis for the LCFS. And he

1 said quote, "This is one of the most impressive academic
2 efforts I have seen in my career".

3 Mr. Wade will now conclude the matter.

4 TRANSPORTATION AND FUELS BRANCH CHIEF WADE:

5 Thanks, Will. That does conclude our summary.
6 Staff recommends that the Board adopt the LCFS resolution,
7 which is Resolution 15-36.

8 Thank you.

9 CHAIR NICHOLS: Thank you, Mr. Wade. And I will
10 now close the record at this point, firmly nail it shut.

11 (Laughter.)

12 CHAIR NICHOLS: And we will move on to action by
13 the Board. As we heard once again yesterday, and as we've
14 seen now over a period of years, the Low Carbon Fuel
15 Standard is working. We have seen compliance, and, in
16 fact, overcompliance with the early stages of this rule.
17 There are credits in the bank. We've seen that the Low
18 Carbon Fuel Standard is spawning cleaner and safer fuels
19 in California, and, in fact, that the idea is spreading
20 beyond California.

21 And I also would remind all of us that the Low
22 Carbon Fuel Standard is a key pillar of our longer term
23 program to address the problem of greenhouse gases in
24 California, along with our emissions control standards for
25 vehicles, which in and of themselves have already had the

1 effect of reducing use of petroleum in California, as well
2 as our work under SB 375, which is working with local
3 communities, regional transportation agencies to reduce
4 the growth in VMT that has -- break the link with between
5 California and vehicle miles traveled that had been a part
6 of our lives for so many years in the past.

7 So the fact is we are on a path to reduce our
8 dependence on petroleum, and this program is a key piece
9 of that action.

10 The transportation sector is, and will remain,
11 the largest source of air pollution and greenhouse gases
12 in the State of California. But we've made some serious
13 strides, and we need to continue to build on those
14 actions.

15 As the staff report has indicated, we have
16 seriously considered the input and comments and
17 suggestions of a very wide range of stakeholders. And the
18 proposal that we are now looking at today includes a
19 number of features to strengthen the Low Carbon Fuel
20 Standard even further, and to protect the consumers of the
21 State of California against any untoward impacts of this
22 rule.

23 So I think we can say that the LCFS will continue
24 to be a part of the program. But with the action that's
25 before us today, we have the opportunity to make it even

1 better and stronger and to send a signal that California
2 is committed to building a low carbon future that will
3 include a very significant role for clean fuels.

4 So with that, I will invite Board members to make
5 any statements that they wish to make at this point, but
6 I'd like to have a resolution and a second first, so we
7 can actually act on this item.

8 BOARD MEMBER SPERLING: I so move.

9 BOARD MEMBER GIOIA: Second.

10 CHAIR NICHOLS: Great. Any comments from the
11 Board before we vote?

12 Mr. Serna, we'll start at your end there.

13 BOARD MEMBER SERNA: Thank you, Chair Nichols.

14 I just want to state what I suspect my colleagues
15 will also say, and that is extend substantial appreciation
16 to the staff for not just the last day quickly responding
17 to comments, but throughout this whole process. I think,
18 as was clearly indicated in the theme of the presentation
19 by staff, there was a very laser-like focus on being
20 extremely thorough, and that gives, at least this member
21 of the Board, a great deal of confidence that we have gone
22 over and above to make sure that we listen to various
23 constituencies on an extremely important arrow in our
24 quiver to reduce carbon emissions in the State of
25 California.

1 CHAIR NICHOLS: Thank you.

2 Mr. Gioia.

3 BOARD MEMBER GIOIA: I know everyone said it all,
4 but I'll just sort of summarize. I think there's a
5 quadruple win here, reducing greenhouse gas emissions,
6 improving air quality, improving public health, and
7 improving the resiliency of our economy. So a great
8 quadruple win.

9 CHAIR NICHOLS: Thank you. Moving in this
10 direction, any other comments? Any -- yes, Dr. Sperling,
11 maker of the motion.

12 BOARD MEMBER SPERLING: So I do want to reaffirm
13 the role that staff has done, you know, not only -- well,
14 not only, but over the last few years just continually
15 improving and refining and working with stakeholders and
16 really coming up with an LCFS that originally was
17 conceptually very appealing and has turned it into
18 something that really works well and has continued to
19 improve it, and I think the new amendments are important
20 enhancements to it.

21 And then, of course, there was last night with a
22 lot of pizza and I suspect a lot of caffeine to, you know,
23 respond to the concerns. So that -- and I do want to, you
24 know, just as a, you know, reminder to all of us, the
25 LCFS -- you know, to echo what Chair Nichols was saying,

1 this is a really important policy regulation we put in
2 place. And the fact that we've been doing it well is
3 impressive. You only have to look to Washington and the
4 nightmare they've had with the Renewable Fuel Standard,
5 and the problems in how they designed it, in how they're
6 implementing it, and the politics of it, you know, how
7 much more straightforward and effective, you know, the
8 LCFS has been in moving towards low carbon fuels.

9 And so I just -- and I do want to comment that
10 the enhancements are important ones, the cost containment,
11 you know, sometimes the, you know, so-called credit
12 clearance one, price cap, the streamlining of it. And
13 that's been important also because it's going to enable us
14 to integrate better with other states, because the whole
15 point of the LCFS is not just for California to do a good
16 job. It's for everyone.

17 And Oregon is joining, you know, specifically
18 with this in the future, and British Columbia is doing
19 their version, but we're hoping to see -- over time, we'll
20 see, I know, more and more joining up. And so it really
21 is -- these are important improvements and may -- to make
22 it more easy to integrate and coordinate with others.

23 And so I just think great job. Thanks to staff
24 and thanks to everyone that's participated in this.

25 CHAIR NICHOLS: Great. Any other additional

1 comments?

2 If not, I'm going to call for the vote.

3 We have again two separate votes here or just one
4 because we approved the --

5 CHIEF COUNSEL PETER: One.

6 CHAIR NICHOLS: Okay. Great. That makes life
7 much simpler. Then this is the vote on the amendments to
8 the low carbon fuel standard -- or the adoption of the Low
9 Carbon Fuel Standard.

10 All in favor, please say aye?

11 (Unanimous aye vote.)

12 CHAIR NICHOLS: All opposed?

13 Hearing none.

14 Any abstentions?

15 None.

16 This is it. We did it. Thank you very much.

17 Thanks, everybody. Congratulations.

18 (Applause.)

19 CHAIR NICHOLS: Care to disclose what kind of
20 pizza it was or --

21 (Laughter.)

22 CHAIR NICHOLS: That could be one for the record
23 books.

24 Okay. We have one more thing to do and that is
25 to hear from the public, if there are any public comments

1 on items that were not noticed for today. And I know that
2 Mr. Magavern signed up for public comment.

3 So welcome again

4 MR. MAGAVERN: Thank you. And I think first --

5 CHAIR NICHOLS: Microphone.

6 MR. MAGAVERN: There. Thanks.

7 I think this is the first time I've ever used the
8 public comment section of the agenda. But because of the
9 magnitude of the assault by the Volkswagen Corporation on
10 the health and air of hundreds of millions of people
11 around the world, I thought that I should say something.
12 I know that you can't talk about it right now, so I can.

13 (Laughter.)

14 MR. MAGAVERN: So just a few thoughts on that.
15 And, of course, this assault continues, because on the
16 road, nothing has yet been fixed. And we have buyers who
17 were defrauded, and most importantly our air has been
18 polluted in California, across the country, and across the
19 world by the world's biggest automaker.

20 And I would point out that among the victims also
21 are the other auto manufacturers, because for one thing
22 when one company isn't playing by the rules, that puts at
23 a competitive disadvantage the companies that are playing
24 by the rules. And also, some of them could suffer the
25 fallout in the public eye from what's been done by

1 Volkswagen.

2 But I want to especially thank the investigators
3 at the International Council on Clean Transportation, West
4 Virginia University, and the Air Resources Board for their
5 extremely diligent work in uncovering this massive fraud
6 that was a great service to the public that they did.

7 In terms of what should be done now, and I'm
8 addressing some areas that are not necessarily within the
9 province of the ARB, but just wanted to lay out some of
10 the things that I think should be done. First of all,
11 Volkswagen actually should have to buy back all of the
12 dirty cars that it sold. The buyers should not have to
13 bear the burden. It's the company that has that
14 responsibility.

15 Secondly, they should be prosecuted to the full
16 extent of the law, and that should include criminal
17 prosecutions where available. It's -- you see that auto
18 companies have actually used these defeat devices in the
19 past. And the fact that it's happened yet again, probably
20 indicates that the penalties were not stiff enough before.

21 I'll remind you that about 10 years ago when
22 CalEPA did a review of environmental enforcement, one of
23 the main findings of that review was that there need to be
24 more criminal prosecutions for the most egregious
25 violations of our environmental laws. And this certainly

1 falls into that category.

2 And then finally, going back to the conversation
3 we had earlier about the on-board diagnostics, I think
4 it's important that ARB continue the excellent progress
5 that you've been making in terms of more testing, and
6 testing in the real world situation, as compared to just
7 the laboratory.

8 So thank you for listening.

9 CHAIR NICHOLS: Thank you very much for your
10 participation. Thanks to all of you.

11 This meeting is now adjourned.

12 (Thereupon the Air Resources Board meeting
13 adjourned at 10:43 AM)

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C E R T I F I C A T E O F R E P O R T E R

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

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

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

IN WITNESS WHEREOF, I have hereunto set my hand this 30th day of September, 2015.



JAMES F. PETERS, CSR
Certified Shorthand Reporter
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