

MEETING

CALIFORNIA AIR RESOURCES BOARD

- 94-9-1)
Public Hearing to Consider New Specifications)
for Diesel Engine Certification Fuel, Proposed)
Amendments to the Oxygen Specification for)
Natural Gas Certification Fuel, and Proposed)
Amendments to the Commercial Motor Vehicle)
Liquefied Petroleum Gas Fuel Regulations)
)
 - 94-9-4)
Public Meeting to Consider an Update)
on California's State Implementation Plans)
)
 - 94-9-2)
Public Hearing to Consider Adoption of the)
Alternative Control Plan (ACP) for Consumer)
Products)
)
 - 94-9-3)
Public Meeting to Consider the Annual Report)
to the Governor and the Legislature on the)
Air Resources Board's Atmospheric Acidity)
Protection Program)
)
-

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Location: HYATT AT LOS ANGELES AIRPORT
International Ballroom
6225 West Century Blvd.
Los Angeles, CA

Date and Time: Thursday, September 22, 1994
9:30 a.m. to 5:00 p.m.

Reported by: JOANNE P. CUNNINGHAM, CSR 2734

Job No. 25783JC

A P P E A R A N C E S

Members Present:

MS. JACQUELINE E. SCHAFER, Chairwoman
SUPERVISOR BRIAN P. BILBRAY
SUPERVISOR DOUG VAGIM
MAYOR M. PATRICIA HILLIGOSS
MR. JOHN S. LAGARIAS
SUPERVISOR HARRIETT WIEDER
MR. JACK C. PARNELL
SUPERVISOR BARBARA RIORDAN
MR. JOSEPH C. CALHOUN
MS. LYNNE T. EDGERTON

Staff present:

JAMES D. BOYD, Executive Officer
TOM CACKETTE, Chief Deputy Executive Officer
MIKE SCHEIBLE, Deputy Executive Officer
MICHAEL KENNY, Chief Counsel
PETER VENTURINI, Chief, Stationary
Source Division
DEAN SIMEROTH, Chief, Criteria Pollutants
Branch, SSD
JOSE GOMEZ, SSD
TOM JENNINGS, Senior Staff Counsel,
Office of Legal Affairs
DON AMES, Assistant Chief, SSD
GENEVIEVE SHIROMA, Chief, Toxic Air Contaminant
Identification Branch, SSD
PEGGY TARICCO, Manager, Solvents Control
Section, SSD
FLOYD VERGARA, Staff, SSD
REZA MAHDAVI, Economic Studies Section,
Research Division
BOB JENNE, Senior Staff Counsel, Office of
Legal Affairs
DR. JACK HOLMES, Chief, Research Division
BOB BARHAM, Assistant Chief, RD
MANJIT AHUJA, Manager, Emissions Control
Technology Section, RD
DR. STEPHEN BROWN, Staff, RD
KURT KARPEROS, Staff
LYNN TERRY, Magr., No. CA Liaison Section
PATRICIA HUTCHENS, Board Secretary
BILL VALDEZ
WENDY PENDLETON

I N D E X

	Page
1	
2	
3	7
4	8
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

1	Motion to Approve Resolution No. 94-53	65
2	Second	65
3	Roll Call Vote	65
4		
5	Agenda Item 94-9-4.	
6	Public Meeting to Consider an Update	
7	on California's State Implementation Plans	
8	Opening Statement by Chairwoman Schafer	66
9	Staff Presentation:	
10	James Boyd, Executive Officer	71
11	Staff Report, Mike Scheible	73
12	Deputy Executive Officer	
13	Questions/Comments	91
14	Public Comments:	
15	Veronica Kun, NRDC	120
16	Questions/Comments	131
17	Dennis Zane,	140
18	Coalition for Clean Air	
19	Questions/Comments	149
20	Lunch Recess	
21		
22		
23		
24		
25		

1 years to provide additional time to address concerns
2 over the availability of the low propene LPG fuel and
3 avoid any disruption in the introduction and growth
4 of low emission LPG vehicles.

5 At this point I'd like to ask Mr. Boyd to
6 introduce the item and begin the staff's presentation.

7 Mr. Boyd.

8 MR. BOYD: Thank you, Chairwoman Schafer.
9 Good morning, board members, and good morning to the
10 audience. As the chairwoman has indicated, we have
11 three proposals for you to consider relative to this
12 item this morning, and she gave you a fairly thorough
13 rundown.

14 Again, the first -- regarding that first
15 proposal, the Engine Manufacturers Association, or EMA,
16 as I will refer to them, has requested that we reexamine
17 the specifications for diesel engine certification
18 fuel. They were concerned that the specifications were
19 too broad, as the chairwoman indicated.

20 A "for instance" would be that two different
21 manufacturers could use two very different fuels to
22 certify their engines, while at the same time the Air
23 Resources Board can test these engines for compliance
24 with what they thought was yet a third fuel, and all
25 three fuels, though, would be allowed under the current

1 specifications for certification fuels.

2 So to address this concern, we held a number
3 of meetings with the association to gather information
4 on the issue and on the cert fuel specs and to look to
5 see how perhaps they could be modified to fairly and
6 reasonably represent commercial fuels in use.

7 In May of this year, we held a workshop
8 with all the interested parties to discuss the
9 specifications, and we are proposing today modifications
10 to reflect the inputs that were received at the workshop
11 and at subsequent meetings with the affected folks.

12 Concerning the second proposal, relative to
13 compressed natural gas, the suppliers indicated that
14 they could not safely blend fuels to the oxygen
15 requirements of our existing regulation, and because
16 of this situation, they said adequate supplies of
17 compressed natural gas fuel may not and frankly have not
18 been available for auto manufacturers to certify the
19 engines.

20 So as was done with diesel fuel, we again
21 investigated the concerns, held numerous conversations
22 with the manufacturers and the fuel suppliers to
23 evaluate the situation. And as a result of all these
24 discussions, we are indeed proposing modifications to
25 the oxygen specification for compressed natural gas cert

1 MR. GOMEZ: Today we are proposing three
2 amendments to regulations for you to consider. I will
3 first discuss the proposed specification for diesel
4 engine certification fuel; second, the proposed
5 amendment to the oxygen content requirement in natural
6 gas certification; finally, I will conclude with the
7 proposed amendments to the liquefied petroleum gas
8 regulations.

9 (Slide presented.)

10 The ARB establishes certification fuels
11 to ensure that these fuels used to verify compliance
12 with the new motor vehicle exhaust standards are
13 representative of commercial fuels. The ARB has a long
14 history of controlling motor vehicle emissions to
15 improve California's air quality.

16 Over the years, the board has implemented
17 programs which require motor vehicles to meet
18 increasingly stringent standards. In conjunction
19 with these programs, the board has also adopted
20 specifications for commercial gasoline and diesel fuels
21 to reduce emissions further. More recently, the board
22 adopted specifications for alternative fuels to ensure
23 that these fuels have consistent properties.

24 (Slide presented.)

25 As the commercial fuels have changed, the

1 board has adopted specifications for engine
2 certification fuels to reflect these changes. Here are
3 the adoption dates for some of these fuels.

4 (Slide presented.)

5 I will now discuss the specific proposal for
6 the specifications for diesel engine certification
7 fuel.

8 (Slide presented.)

9 In 1988 the board adopted regulations for
10 commercial diesel fuel which require the use of low
11 aromatic -- required low aromatic content -- excuse me.
12 To reflect the changes in the commercial fuel, the board
13 adopted regulations in 1991, 1992, and again in 1993,
14 allowing the use of the 10 percent aromatic fuels to
15 certify certain diesel vehicles and engines.

16 (Slide presented.)

17 Currently manufacturers have two options for
18 certifying diesel vehicles. They can use fuels --

19 (Slide presented.)

20 -- excuse me.

21 (Slide presented.)

22 Currently manufacturers have two options
23 for certifying diesel vehicles. They can use fuels
24 meeting the federal specifications or California
25 specifications. Specifically, manufacturers can use

1 California's 10 percent aromatic hydrocarbon diesel fuel
2 to certify 1995 and subsequent model year medium-duty
3 and light-duty vehicles. They can also use this fuel
4 to certify 1996 and 1997 urban bus engines. And
5 additionally, 1995 and subsequent utility and lawn and
6 garden equipment.

7 These vehicles account for only about
8 6 percent of the diesel NOx emission inventory. The
9 heavy-duty engines which account for the remaining
10 inventory currently don't have access to the 10 percent
11 aromatic certification fuel.

12 (Slide presented.)

13 We are proposing new specifications
14 because the current fuel specifications do not
15 adequately define several key properties. Also, the
16 present specifications do not ensure that the emission
17 performance of the certification fuel would be
18 representative of a 10 percent aromatic in-use fuels.
19 The specifications don't include a minimum limit on the
20 aromatic hydrocarbon content or the sulfur content, and
21 they do not include a maximum limit on cetane number.
22 Consequently, fuels with wide varying properties can be
23 used to certify diesel engines and vehicles and
24 potentially undermine the benefits of the more stringent
25 exhaust standards set by the board.

1 Engine manufacturers recognize this problem,
2 but with ordinarily defined certification fuel, engine
3 manufacturers would be assured that their test results
4 represent vehicle technology and not variations in the
5 fuels used to certify the engines.

6 (Slide presented.)

7 The proposed certification specifications are
8 based on 10 percent aromatic hydrocarbon fuels. We are
9 proposing the following specifications: For aromatic
10 content, we're proposed a range of 8 to 12 volume
11 percent. Natural cetane number, 47 to 55. Sulfur
12 content of .01 to .05 weight percent. And nitrogen
13 content of 100 to 500 parts per million.

14 (Slide presented.)

15 We are not proposing changes to distillation
16 properties, the API gravity, the polyaromatic content,
17 the viscosity, and the flash point of the fuel.

18 We are proposing that the proposed
19 specifications be used not only for certification of new
20 engines and vehicles but also for in-use compliance
21 testing. Currently in-use testing is conducted using
22 any available -- commercially available diesel fuel.

23 (Slide presented.)

24 In establishing the range for the natural
25 cetane number, we incorporated the test method

1 reproducibility. Manufacturers will likely request
2 their fuels with a cetane number such that they would --
3 they could not exceed the range when the reproducibility
4 is taken into consideration.

5 (Slide presented.)

6 In summary, we believe that the proposed
7 specifications for diesel engine certification fuel
8 reasonably represent the emission performance of
9 presently available 10 percent aromatic fuels. The cost
10 of producing the fuel should be similar to the cost of
11 current 10 percent aromatic certification fuels.

12 In developing the specifications, we worked
13 with all the interested parties. Some diesel fuel
14 producers have suggested that the cetane specification
15 should be lower to reflect the alternative formulations
16 and the 20 percent aromatic diesel fuel that will be
17 produced by small refiners. We considered this in our
18 evaluation, and believe that this would be inconsistent
19 with a 10 percent certification fuel adopted by the
20 board.

21 (Slide presented.)

22 I will now discuss the proposed amendments
23 to the oxygen specification for compressed natural gas
24 certification fuel.

25 The board established the specifications for

1 certification fuels to ensure that -- to provide
2 consistent test fuels. In March 1992 --

3 (Slide presented.)

4 -- the board adopted specifications for
5 commercial certification compressed natural gas as part
6 of the alternative fuel regulations. The compressed
7 natural gas certification fuel includes a specification
8 for an 0.5 oxygen content -- excuse me -- 0.5 mole
9 percent oxygen content. This was included because CNG
10 fuels can potentially have small amounts of oxygen in
11 the range of 0 to 1 percent.

12 (Slide presented.)

13 Industry representatives raised safety
14 concerns with blending the required oxygen level. They
15 indicated that there is a potential risk of explosion
16 during the blending process.

17 (Slide presented.)

18 We proposed to modify the current oxygen
19 requirement of 0.5 plus or minus 0.1 mole percent to a
20 maximum oxygen requirement of 0.5 mole percent. This
21 will effectively eliminate the concern raised
22 about explosion during blending by allowing the fuel
23 producers to limit the oxygen content if they need to.

24 (Slide presented.)

25 The proposed change will address the safety

1 concern, and recent testing indicates that the presence
2 of oxygen at this level has no significant impact on
3 emissions. Keeping the oxygen specification will
4 further ensure that a certification fuel remains
5 consistent with commercial fuels. Also, we will be
6 consistent with the United States Environmental
7 Protection Agency's regulation and thus continue to
8 allow one fuel to be used for both California and
9 federal emission testings.

10 (Slide presented.)

11 I will now discuss the proposed amendments to
12 the liquefied petroleum gas regulations.

13 (Supervisor Wieder entered the hearing room.)

14 In 1992 the board adopted the specifications
15 for commercial motor vehicle liquefied petroleum gas --

16 (Slide presented.)

17 -- as part of the alternative fuels
18 regulations. Among other properties, these
19 specifications limit the propene content to 5 volume
20 percent starting January 1, 1995.

21 The board decided to limit the propene
22 because of its high reactivity; however, at the time the
23 board granted an interim 10 volume percent propene limit
24 through December 31st, 1994. The two-year delay was
25 designed to address the uncertainty regarding the

1 availability of low propene LPG fuel.

2 (Slide presented.)

3 When the board adopted the LPG regulations,
4 the board directed staff to monitor the availability of
5 low propene LPG fuel. More recently, the Western
6 Propane Gas Association requested ARB to reevaluate the
7 5 volume percent propene limit and to work with them to
8 address their concerns.

9 Based on our evaluation, we have found that
10 up to 50 percent of the LPG fuel produced at refineries
11 could not meet the 5 volume percent propene limit. We
12 also found that some LPG marketers may be forced out of
13 the motor vehicle LPG market or be required to install
14 segregated storage and distribution facilities for motor
15 vehicle fuel. This would be needed because commercial
16 grade LPG for nonvehicle use does not specify a propene
17 content. Currently LPG fuel issues in motor vehicles is
18 about 8 to 10 percent of the total LPG fuel market.

19 Additionally, we believe that the Phase 2
20 reformulated gasoline regulations are expected to change
21 the quality of the LPG in the near future. Propene may
22 become a valuable component for the production
23 of reformulated gasoline, and therefore the amount of
24 propene may be reduced -- the amount of propene in LPG
25 could be reduced significantly.

1 (Slide presented.)

2 We propose to continue the current 10 volume
3 percent propene content standard for two additional
4 years, until January 1, 1997. The staff would continue
5 to monitor the situation.

6 (Slide presented.)

7 Although difficult to quantify, we believe
8 that continuing the current 10 percent propene standard
9 for an additional two years will not have a significant
10 impact on emissions.

11 First, the majority of the LPG vehicles will
12 use compliant fuel because they are located in the
13 Los Angeles area where most of the LPG already meets
14 the 5 volume percent propene standard. The alternative
15 to using LPG is to switch to conventional fuel; however,
16 conventional fuel vehicles would have higher reactivity
17 adjusted emissions than LPG fuels using 10 volume
18 propene LPG fuel.

19 Extending the current standard will encourage
20 the use of LPG fuel in dual-fueled vehicles, ensuring
21 adequate supplies. It will also ensure that dedicated
22 LPG vehicles have adequate compliant fuel, and it will
23 continue to encourage conversion of conventional fueled
24 vehicles to LPG.

25 (Slide presented.)

1 In summary, delaying the implementation until
2 January --

3 (Slide presented.)

4 In summary, delaying the implementation until
5 January 1, 1997, will provide the necessary time for
6 industry to ensure adequate supplies of low propene
7 motor vehicle LPG fuel are available. Changing the
8 implementation date will also allow time to evaluate
9 how Phase 2 refinery modifications will affect the
10 quality of the LPG.

11 (Slide presented.)

12 In conclusion, we recommend that the board
13 adopt the proposed specifications for diesel engine
14 certification fuel, the proposed amendments to the
15 oxygen specification for natural gas certification fuel,
16 and the proposed amendments to the commercial motor
17 vehicle liquefied petroleum gas regulations.

18 This concludes my presentations. Staff will
19 answer questions at this time.

20 CHAIRWOMAN SCHAFER: Do any members of the
21 board have questions for the staff at this time?

22 Supervisor Bilbray.

23 SUPERVISOR BILBRAY: Yes. The natural gas
24 that you were identifying, the 50 percent of the
25 existing supply, could not meet the oxygen content;

1 right?

2 MR. GOMEZ: I believe that was in
3 reference to the liquefied petroleum gas.

4 SUPERVISOR BILBRAY: What is the
5 comparison, then, with the existing supply of natural
6 gas?

7 MR. SIMEROTH: Mr. -- Supervisor Bilbray,
8 the natural gas, as is commercially available, has
9 almost no oxygen in it. The provision for oxygen
10 content was originally put in, in response to comments
11 regarding the production of natural gas at landfills
12 where you do get oxygen entered into the -- into the
13 natural gas. It's turning out that very little of that
14 landfill production gas is getting into commercial
15 natural gas. It's being used on-site. So it's a little
16 bit of an obsolete concept, but EPA has recognized that,
17 and they put a cap on their certification fuel for
18 oxygen content as well.

19 SUPERVISOR BILBRAY: Being an owner of
20 many of those methane recovery systems, I relate to
21 that.

22 So the big issue is that you're proposing
23 actually the -- to modify the standards to reflect what
24 is really out in the real world and what's in the pipes
25 right now?

1 MR. SIMEROTH: That would be the effect,
2 and it would also make us consistent with EPA. And the
3 testing by the mobile sources division has shown that
4 level of oxygen content really does not affect
5 emissions.

6 SUPERVISOR BILBRAY: My real concern here
7 is that we want to make sure that, especially with the
8 natural gas, that we do not have to have an exclusive,
9 isolated source that has not already integrated into the
10 natural gas system that is in almost every major city in
11 the state. So this would modify the regs to reflect the
12 reality of what is in the ground now and what is being
13 provided to the communities now.

14 MR. SIMEROTH: Yes. And also this is a
15 certification fuel that's blended up to the
16 specifications. It's not something taken off the
17 pipelines. The commercial specification allows for 0 to
18 slightly over 1 percent oxygen content to take care of
19 what you were saying.

20 SUPERVISOR BILBRAY: And what is your
21 strategy about the difference? This is basically for
22 the testing so we set the standard, and then you -- then
23 at least you know the ballpark of where you're
24 functioning when you get into the real world and we
25 start drawing off the commercial pipes.

1 MR. SIMEROTH: That's correct.

2 SUPERVISOR BILBRAY: Okay. Thank you.

3 CHAIRWOMAN SCHAFER: Yes, Mr. Calhoun.

4 MR. CALHOUN: I think Mr. Gomez mentioned
5 something to the effect that the specification for the
6 cert fuel would also be -- not the specification, but
7 the new specifications proposed would also be used -- at
8 least the fuel would be used for certification as well
9 as in-use; is that correct?

10 MR. GOMEZ: That is correct. That is what
11 we're proposing.

12 MR. CALHOUN: Okay. How close does the
13 new fuel, at least the specifications, come to
14 commercially available fuel -- or that would be
15 available at that particular time?

16 MR. SIMEROTH: Mr. Calhoun, this would
17 only apply to the diesel certification fuel and it's
18 in-use testing. One major supplier in the commercial
19 area produces a 10 percent fuel that has basically all
20 these characteristics.

21 And how does it compare to the commercial?
22 We have about 30 percent of the state's diesel complies
23 with the 10 percent standard without doing the
24 alternative formulation-type route. The average
25 properties of that 30 percent are about 10 percent

1 aromatics. Basically, they are around the -- average
2 around the 10 percent, so they set real close to the
3 10 percent number. That's in the range of the
4 aromatics. Sulfur is in the range of the sulfur to be
5 proposed. The nitrogen content similarly. Cetane
6 numbers range from the 10 percent fuels that are
7 commercially produced, from 47 to -- I think it's 57.
8 So again, we're within the range of commercially
9 available 10 percent fuels.

10 MR. CALHOUN: Well, I may want to ask you
11 another question after we hear some of the testimony.
12 We may come back to that.

13 CHAIRWOMAN SCHAFER: Any more -- are there
14 any other questions for -- from board members to the
15 staff at this point?

16 If not, then I would like to turn to the
17 public testimony that will be offered with respect to
18 this board item. And I would first like to recognize
19 Melissa Chapman of WSPA.

20 Are you here, Miss Chapman?

21 MS. CHAPMAN: I have an overhead slide.
22 Does that need to be set up at all?

23 Good morning, Chairwoman Schafer and board
24 members. My name is Melissa Chapman, and I'm a fuels
25 planning engineer with 76 Products Company, a member

1. company of Unocal Corporation. Today, however, I'm
2. representing the Western States Petroleum Association,
3. also known as WSPA. WSPA is a trade association whose
4. member companies engage in the exploration, production,
5. and refining of petroleum products and petroleum in
6. California and the western United States.

7. WSPA appreciates the opportunity to comment
8. on the California Air Resources Board's specifications
9. for certification engine testing. We agree with staff
10. that the current certification fuel specifications set
11. forth in the low aromatic diesel fuel regulation are too
12. widely defined to accurately represent commercially
13. available diesel fuel. We believe, however, that
14. staff's proposed certification fuel is also not
15. representative of commercial fuel and will produce lower
16. emissions than average commercial fuel. Consequently,
17. the use of this fuel will permit certification of
18. vehicles and engines that will fail to achieve desired
19. emission reduction goals under real-life operating
20. conditions.

21. The emissions performance of certification
22. fuel directly influences the ability of new vehicles and
23. engines to meet CARB's stringent emission standards. A
24. certification fuel that results in lower emissions than
25. the average commercial fuel will fail to achieve desired

1 emission reductions. Such failures will eventually lead
2 to shortfalls in attainment of air quality goals and
3 increased pressure for additional emission controls.
4 The emissions characteristics of certification fuel must
5 therefore reflect the fuel commercially available in the
6 state of California.

7 We believe that the specifications for
8 certification fuel should match those of commercial fuel
9 as closely as possible. Commercial fuel for motor
10 vehicle use in California is distributed among three
11 categories. These are: 10 percent aromatic diesel
12 fuel, alternative formulations, and small refiner
13 fuels.

14 A certification fuel based on these
15 parameters would best reflect commercial diesel fuel and
16 would result in certification test results which are
17 representative of emissions produced by the in-use
18 fleet. Since CARB is the only authority with access to
19 these fuel parameters, we urge CARB staff to determine
20 the actual parameters of these in-use fuels and propose
21 a certification fuel based on the determined
22 parameters. A certification fuel based on these
23 parameters would best represent commercial fuel and
24 result in certification of engines and vehicles that
25 will achieve desired emission reduction goals.

1 We do understand, however, that this is a
2 complicated task and may not be realistic given CARB's
3 desired timetable. If a fuel-parameter based proposal
4 is not feasible, we suggest using an emissions
5 reduction -- or an emissions-based method to match the
6 emissions expected from commercial fuel. This method
7 would determine the specifications of a certification
8 fuel which is estimated to produce emissions equivalent
9 to a volume weighted average of 10 percent aromatic
10 fuel, alternative formulations, and small refined diesel
11 fuel.

12 Based on our estimates, this method would
13 result in a certification fuel with a 10 percent
14 aromatics content and a cetane of 49.

15 Go ahead and show the slide.

16 I have a slide that shows how we came up with
17 these specifications. I don't have my glasses on, so --
18 I think I know the numbers anyway.

19 You can see from this slide that the
20 10 percent aromatic diesel fuel --

21 (Slide presented.)

22 -- is represented by a cetane of 52. This
23 number was based on staff's analysis of actual
24 10 percent aromatic production.

25 The emissions produced from alternative

1 formulation diesel fuels have been shown to be
2 equivalent to those produced by a reference fuel during
3 the alternative certification testing process. All
4 alternative formulations can, therefore, be represented
5 by the referenced fuel specifications of 10 percent
6 aromatics and a cetane of 48.

7 Small refiners will soon be producing a
8 20 percent aromatic fuel or an alternative formula,
9 which has been shown to produce emissions equivalent to
10 those produced by a 20 percent aromatic reference fuel
11 during the same alternative formulation certification
12 testing process.

13 It is therefore appropriate to represent
14 or equate all small refiner diesel fuel with this
15 20 percent aromatics reference fuel. Using available
16 equations that relate changes in aromatic content and
17 cetane number to changes in emissions, the emissions of
18 the small refiner diesel fuel have been estimated to be
19 equivalent to those of a 10 percent aromatic fuel with a
20 cetane of 45.

21 As you can see, relating all three categories
22 of fuel to a corresponding emission-based 10 percent
23 aromatic fuel enables the calculation of a pooled cetane
24 for a 10 percent aromatic fuel, which is the
25 volume-weighted average of all three categories of

1 commercial fuel.

2 As you can see, this methodology results in
3 certification fuel with a 10 percent aromatics and a
4 cetane of 49, fully two cetane numbers below the 51
5 cetane midpoint of the currently proposed
6 specifications.

7 Finally, we believe that CARB should ensure
8 that certification fuel represent, to the greatest
9 extent practicable, the emission characteristics of
10 the average commercial fuel sold in the state of
11 California. If there is to be an error, it should be
12 made on the conservative side, thereby minimizing any
13 loss in estimated emission reductions.

14 This philosophy is consistent with that
15 used in specifying CARB Phase 2 reformulated gasoline
16 certification fuel, which will be used to certify
17 low-emission vehicles.

18 In conclusion, staff's proposed certification
19 fuel is not representative of the pool of commercial
20 fuel but is actually cleaner burning. Our first
21 preference is that CARB staff base the specifications on
22 the properties of commercial diesel fuel. If CARB
23 insists on using a 10 percent aromatic fuel as the basis
24 for its specifications, then we recommend using the
25 emissions equivalency approach outlined in this

1 presentation, which takes into account all three
2 categories of diesel fuel to be produced in the state.

3 This approach indicates that the cetane
4 number of a midpoint 10 percent aromatic certification
5 fuel should be 49 rather than 51.

6 Using the methodology we have outlined will
7 lead to certification fuel specifications that are more
8 representative of commercial fuel and will result in
9 vehicle certification that will be more representative
10 of the in-use fleet. This process will better serve the
11 air quality needs of California.

12 I'd be happy to take any questions you might
13 have.

14 CHAIRWOMAN SCHAFER: I'd like to ask the
15 staff a question.

16 Did you have the benefit of this alternative
17 approach as you formulated the staff recommendation, or
18 is this -- is this something you considered previously?

19 MR. SIMEROTH: Chairwoman Schafer, this
20 concept came up, I believe, from WSPA about the time
21 that we released the 45-day package. Since that time,
22 we've worked with the member companies of WSPA to
23 evaluate their approach. We have done the calculations
24 that they've outlined. We have some differences between
25 our calculations and WSPA. Most of the differences

1 result from the Air Resources Board staff having access
2 to all the certification data that the individual WSPA
3 members don't. We find that with the alternative
4 formulations, instead of the 48 cetane number
5 equivalent, it would be 50.

6 Then it comes down as -- to the point, what
7 was the basis for the certification fuel that the board
8 originally adopted, and the board originally adopted a
9 10 percent base certification fuel. So if you do not
10 include the small-refiner diesel, which is not to the
11 10 percent formula, you basically come out with a 51 --
12 approximately 51 cetane number average between the
13 10 percent, and the alternative formulations, slightly
14 over that. It will be rounded up -- well, in fact, as
15 our midpoint of 51.

16 So we're really not inconsistent when you
17 adjust for the small refiners, and you adjust the
18 alternative formulations for the actual properties of
19 the fuels used in certifying.

20 CHAIRWOMAN SCHAFFER: Thank you very much.

21 Are there other questions for board
22 members -- from board members for this witness?

23 MR. CALHOUN: Yes, I have one question.

24 CHAIRWOMAN SCHAFFER: Yes, Mr. Calhoun.

25 MR. CALHOUN: One of the points you make

1 in your testimony is that the emissions from the in-use
2 vehicles would be somewhat different from the emissions
3 in the certification vehicles. Can you quantify the
4 difference? Do you have a feel for what the difference
5 would be?

6 MS. CHAPMAN: I believe -- I don't have
7 the number off the top of my head, but I think it is
8 reflected in our written comments.

9 Am I correct?

10 AUDIENCE SPEAKER: Yes.

11 MS. CHAPMAN: We've also submitted written
12 comments, and there's a quantification in there.

13 Yes, it's on the bottom of page 3. It says,
14 "This two-number difference represents about 10 percent
15 of the NOx benefit of the low aromatic diesel rule and
16 about 15 percent of the particulate benefit."

17 MR. CALHOUN: One other question. How
18 many member companies are there in WSPA?

19 MS. CHAPMAN: I would say probably --

20 AUDIENCE SPEAKER: Thirty.

21 MS. CHAPMAN: Approximately 30.

22 MR. CALHOUN: Do you represent WSPA here
23 today?

24 MS. CHAPMAN: Yes.

25 MR. CALHOUN: Do they all feel the same

1 way about what you're proposing here, or is this one or
2 two companies have stronger feelings about this?

3 MS. CHAPMAN: No, we have to -- we reach a
4 consensus before we can present a proposal with WSPA
5 backing.

6 MR. CALHOUN: Thank you.

7 CHAIRWOMAN SCHAFER: Miss Edgerton.

8 MS. EDGERTON: Thank you. Thank you for
9 your presentation.

10 I'd like to ask you a similar question to
11 what Mr. Calhoun asked staff. What opinion do you have
12 with respect to how much of the California fuel would
13 qualify or would be similar to the certification
14 standard? How much of the commercially available fuel
15 is substantially similar in your view?

16 MS. CHAPMAN: Well, I would say that the
17 10 percent aromatic fuel that's out on the market today,
18 although that could change in the months to come as
19 people make -- probably will go to alternative
20 formulation -- but I would say that it would probably be
21 similar to the 10 percent aromatic fuel, which right now
22 comprises about 30 percent of the market.

23 MS. EDGERTON: And what do you project
24 over the next -- did you make projections over the next
25 several years as to what percentage would then be moving

1 into similar --

2 MS. CHAPMAN: No, we really can't do that,
3 because we would basically be asking companies to tell
4 us what they'll be producing, and we're not allowed to
5 do that.

6 MS. EDGERTON: Excuse me. You're not
7 what?

8 MS. CHAPMAN: We're not allowed to talk
9 about supply or actual fuels that the companies would be
10 producing.

11 MS. EDGERTON: So if I understand you
12 right, your testimony today is wholly restricted to
13 your opinion with respect to the present commercially
14 available fuel and makes no comment whatsoever about
15 the future projections because of -- this is very
16 important -- because your fuels are going to change as
17 they come increasingly into compliance with our
18 regulations. So -- is that correct? Is that your
19 testimony, it is only limited to today?

20 MS. CHAPMAN: This table here shows what
21 we think is representative of the fuel that's on the
22 market today. Our impression is that most companies
23 will probably be moving to an alternative formula,
24 and -- which if the certification fuel is based on just
25 a 10 percent aromatic fuel, it won't be very accurate,

1 so we think that this is a more accurate view, because
2 it includes not only the 10 percent aromatic fuel but
3 the alternative formulations and the small refiners with
4 the best guess of what's being produced today.

5 If I had to project, I would say that the
6 10 percent -- the volume of 10 percent aromatic fuel
7 will probably decrease and alternative formulations will
8 increase.

9 CHAIRWOMAN SCHAFER: Would the staff like
10 to comment on that? I am going back to -- and I have a
11 second question. I'm going back to Mr. Calhoun's
12 question. Our calculation is that -- based on the
13 information we have, and that perhaps WSPA, as an
14 institution doesn't have, is that the midpoint is in
15 fact five one, and not four nine, and therefore, we
16 would not incur this reduction of the NOx benefit.

17 Is that correct?

18 MS. CHAPMAN: Umm --

19 CHAIRWOMAN SCHAFER: I'm asking the staff
20 to comment on that.

21 MR. SIMEROTH: Our analysis indicates that
22 the midpoint would be approximately 51. And then you're
23 talking about the difference -- well, the midpoint of
24 the range that we propose is 51. And we'd be virtually
25 the same.

1 And again, it's -- if you look at the
2 alternative formulations, the balance point of the
3 alternative formulations for cetane number is not 48;
4 it's 50 to 51. And that's the difference between our
5 analysis and WSPA's analysis. And our -- we're the ones
6 who have the access to all the information. It's
7 unfortunate that most of it is confidential, so we can't
8 share it with WSPA.

9 MR. SCHEIBLE: I also think it's -- it
10 would be useful to review how you get that alternative
11 formulation. What we're proposing is that when you
12 certify an engine-use base fuel at around 10 percent,
13 that's representative of 10 percent fuels that are in
14 the market. An alternative formulation is a fuel that
15 has been tested against that same base, and in that test
16 it must perform with equivalent emission reductions or
17 better for several different parameters.

18 So although there may be many different
19 alternative formulations out there, each and every one
20 of them has been tested back against the 10 percent. So
21 in our view, going with the 10 percent standard for the
22 engines is the same as going with the 10 percent
23 standard for the fuel. You either have fuel that meets
24 10 percent or an alternative formulation that has been
25 tested against the 10 percent standard and shown to be

1 equivalent or better.

2 MR. BOYD: Madam Chair, thus I'm puzzled
3 if not troubled by the witness's testimony that only
4 the 30 percent fraction of the fuel out there would meet
5 the criteria we're following since the 10 percent -- the
6 aromatic fuel is the benchmark -- the emissions
7 performance of the fuel is the benchmark against which
8 alternative fuels are certified.

9 I would think one would say that roughly
10 90 percent of the fuel, you know, meets the emissions
11 characteristics we're looking at and only the exception
12 for small refiners might give you an outlying
13 situation.

14 I'm puzzled in that there's some feeling
15 on the part of the industry that the alternative
16 formulation doesn't meet the performance criteria that
17 we've established.

18 MS. CHAPMAN: May I speak to that?

19 CHAIRWOMAN SCHAFER: Yes, Miss Chapman,
20 you may comment.

21 MS. CHAPMAN: I'm not saying that
22 alternative formulations aren't meeting the standards of
23 the referenced fuels, but the referenced fuel, as you
24 can see, is -- or, as you know, is at 10 percent, 48;
25 and I think the question was, is -- is the commercial

1 fuel representative of the certification, and the
2 certification is a 10 percent, 51. And so I think
3 that's what we're saying.

4 MR. SIMEROTH: Madam Chairwoman, if I
5 could --

6 CHAIRWOMAN SCHAFER: Yes.

7 MR. SIMEROTH: -- the annual certification
8 fuels that are used for a reference fuel is not the 10,
9 48. You can't produce a fuel that precisely. That's
10 the minimum standards that the fuel has to meet. What
11 they're actually producing to test against is a 9, 49,
12 and then when we certify the fuel, we establish the
13 specifications that we have to produce against as mins
14 and maxes against. We have to do better than the fuel
15 properties that we use certify, so they're doing better
16 than a 9 percent aromatic, 49 cetane. So it's more
17 equivalent to a 50 cetane that they're actually
18 producing fuels to.

19 CHAIRWOMAN SCHAFER: Thank you,
20 Mr. Simeroth.

21 Yes, Mr. Lagarias.

22 MR. LAGARIAS: I'd like to ask the staff.
23 In your presentation you mentioned a natural cetane
24 number. Is this any significance or vis-a-vis just
25 cetane number?

1 MR. SIMEROTH: Mr. Lagarias, the reason
2 why we specified natural as a certification fuel was to
3 avoid having variations due to the additives they've
4 used to raise the cetane. In the certification testing,
5 additives were used to increase cetane in candidate
6 fuels, and we don't detect any differences in the
7 performance.

8 MR. LAGARIAS: But don't most of the
9 alternate formulations involve additives to raise the
10 cetane number?

11 MR. SIMEROTH: It depends on the
12 properties of the crude (incomprehensible word) that
13 they're producing the 10 percent from. The refinery in
14 Northern California, in the Bay area, is producing 10
15 percent, has no need for cetane additives to --

16 MR. LAGARIAS: But it's true that
17 alternative formulations can be presented that involve
18 an additive to it?

19 MR. SIMEROTH: Yes, Mr. Lagarias. Most of
20 the alternative formulations clearly allow the use of
21 additives.

22 Another reason why we said natural cetane is
23 that the certification fuel will be manufactured and
24 provided basically by Phillips Petroleum and Cal
25 Chemical. In their production of the certification

1 fuel, they have no need for additives to meet the cetane
2 requirements.

3 MR. LAGARIAS: All right. But in any case
4 the certification fuel has to be such that it would, as
5 Mr. Scheible said, produce the same reduction in
6 emissions that our 10 percent aromatic fuel would?

7 MR. SIMEROTH: Yes, that's correct.

8 MR. LAGARIAS: Thank you.

9 CHAIRWOMAN SCHAFER: Are there any other
10 questions from board members for this witness?

11 MS. CHAPMAN: Could I respond to --

12 CHAIRWOMAN SCHAFER: Yes, Miss Chapman,
13 you may.

14 MS. CHAPMAN: Excuse me?

15 CHAIRWOMAN SCHAFER: Yes, Miss Chapman,
16 you may.

17 MS. CHAPMAN: The statement about the
18 actual reference fuel that is used in comparison to the
19 reference fuel specifications, I guess that leads back
20 to our original proposal which says that we feel that
21 the fuels should be based -- or the certification fuels
22 should be based on the specifications of the actual
23 in-use fuel, and we think if you're using the actual
24 reference fuel, it's just half of the equation.

25 We feel that the best -- the best proposal

1 here is to look at the fuels that are out on the market,
2 the 10 percent fuel, the alternative formulation, and
3 then the small refiners, and propose a specification for
4 certification fuel based on those parameters.

5 CHAIRWOMAN SCHAFER: Yes, I think I
6 understand your position, although that could be a
7 constantly changing approach to pursue.

8 MR. LAGARIAS: May I ask --

9 CHAIRWOMAN SCHAFER: Mr. Lagarias.

10 MR. LAGARIAS: You referenced a
11 reformulated gasoline certification. Isn't -- my
12 understanding is that the certification fuel for
13 reformulated gasoline is not what you'd call
14 commercially available. Is this correct?

15 MS. CHAPMAN: I think actually --

16 MR. LAGARIAS: Is that indolene?

17 MS. CHAPMAN: No. You can certify
18 vehicles on California Phase 2 gasoline. And our
19 feeling is that that was done on the conservative side.
20 The certification fuel specifications are less stringent
21 than the California Phase 2 reformulated gasoline --
22 where that's not consistent with what we're seeing
23 here.

24 MR. LAGARIAS: All right.

25 CHAIRWOMAN SCHAFER: Any more -- does the

1 staff want to comment at all?

2 MR. VENTURINI: No.

3 CHAIRWOMAN SCHAFFER: All right. Thank you
4 very much for your presentation, Miss Chapman.

5 The next witness this morning is Mr. Warren
6 Slodowske with Navistar. Are you here?

7 MR. SLODOWSKE: Excuse me. I am here, but
8 could Glenn Keller go first, please?

9 CHAIRWOMAN SCHAFFER: Sure. Whatever you'd
10 like. Thank you.

11 Mr. Keller with the Engine Manufacturers
12 Association. Good morning.

13 MR. KELLER: Good morning. My name is
14 Glenn Keller, and I serve as the Executive Director
15 of the Engine Manufacturers Association. I'm here today
16 on behalf of the members of EMA who manufacture the
17 engines which utilize the fuels covered by today's
18 proposed certification fuels specifications.

19 In particular, we will address the board
20 today on the proposed new specifications for diesel
21 engine certification fuel.

22 When the ARB first adopted its
23 low sulfur/low aromatics diesel fuel regulations
24 specifying the quality of diesel fuel required for use
25 in all motor vehicles effective October 1, 1993, we

1 failed to establish a diesel certification fuel
2 specification.

3 EMA and its members were the first to express
4 our concerns with regard to the regulations allowance
5 for certification fuels whose properties were too
6 broadly defined. Since that time we have worked with
7 the ARB staff to address these concerns by developing
8 appropriate diesel certification fuel specifications
9 that are representative of the California low sulfur
10 and low aromatics diesel fuel formulations found in
11 commerce.

12 The proposed specifications included a
13 natural cetane number of 47 to 55 and an aromatic
14 hydrocarbon content of 8 to 12 percent. The amendments
15 would also provide that the specifications applicable to
16 the diesel fuel used for in-use compliance testing are
17 to be the same as the specifications applicable to the
18 diesel fuel used in certification testing.

19 EMA and its members support staff's
20 efforts to set the diesel engine certification fuel
21 specification in accordance with industry's
22 recommendations, and we agree with the proposal set
23 before the board for approval. In that spirit, we would
24 like to inform the board of why approving this set of
25 diesel certification fuel specifications is so important

1 to our industry.

2 Fuel specifications intended for use as
3 certification test fuel has its properties defined among
4 a constrained set of parameters to assure consistent
5 results when used in engine emissions testing for
6 certification application approval. By that token, we
7 cannot have a moving target. These fuels have to be set
8 at a certain range and stay that way to give assurances
9 to the manufacturers during their development and the
10 certification process.

11 Certification-grade fuel is also used during
12 emission testing for the various regulatory enforcement
13 programs which CARB may utilize to assure compliance
14 with its regulations. Therefore, emission certification
15 fuel specifications must be defined within a closed
16 range to assure consistency and repeatability, so that
17 the testing is a valid measure of the engine's emissions
18 performance and not influenced by variables which could
19 be introduced with the test fuel. It's important to
20 note that there's a great deal of data which shows that
21 a diesel engine's emissions can respond to relatively
22 small incremental changes in certain properties of the
23 test fuel.

24 Moreover, CARB has initiated three major
25 rulemakings over the past several years for which the

1 standards and the feasibility have been predicated on
2 the use of low sulfur/low aromatics diesel fuel for
3 certification. The standards promulgated in the 1995
4 Medium-Duty Vehicle Rule, the 1995 Utility Lawn & Garden
5 Equipment Rule, and the 1996 through '97 Urban Bus Rule
6 are all linked to the diesel certification fuel
7 specification being deliberated today.

8 These aforementioned regulatory standards
9 were all established with certain expectations as to how
10 diesel certification fuel would be defined. The CARB
11 staff has developed a certification fuel specification
12 that EMA's members who produce products which are
13 governed by these rulemakings can utilize to comply with
14 the regulatory obligation. Given the fact that some of
15 these regulations will become effective in just over 90
16 days, it is too late in the certification process for
17 CARB to make any additional changes to the diesel
18 certification fuel specifications.

19 Of further importance to engine manufacturers
20 and CARB staff is that the specifications be set so that
21 there is an assured supply of diesel fuel available for
22 a reasonable price for manufacturers and staff to
23 perform emissions development exercises and compliance
24 testing. It is our standing that there are only two
25 suppliers of diesel certification fuel that can

1 consistently supply fuel with the same properties.

2 One major supplier stated at a CARB fuels
3 workshop that the lowest cetane value they can obtain by
4 conventional means with existing resources for a 10
5 percent aromatic fuel is 52.

6 Further, the reproducibility of cetane
7 measurement is over plus or minus 3 cetane numbers. In
8 accordance with ASTM methods D 613. Therefore, the
9 cetane range for specifying certification fuel must be
10 set wide enough to address both the problems of cetane
11 measurement reproducibility and fuel blending
12 variability. As such, the maximum cetane number limit
13 cannot be set lower than 55.

14 While EMA and its members requested that a
15 maximum cetane number be set at 60, we worked closely
16 with the staff to understand their concerns regarding
17 the establishment of a more appropriate cetane range.
18 We believe that CARB staff has acted responsibly in
19 setting the critical properties of certification fuel
20 based upon their analysis of commercially available
21 10 percent aromatic motor vehicle diesel fuel properties
22 surveyed throughout the state of California.

23 In conclusion, EMA and its members support
24 CARB staff's findings and agree with the range of
25 certification fuel properties being proposed for

1 adoption today. Engine manufacturers affected by
2 the 1995 regulations which utilize this fuel have had
3 no choice but to develop their product lines with the
4 expectation that these certification fuel specifications
5 will be adopted by the board. If there is any revision
6 to these specifications at this late date, it would have
7 a major impact on engine manufacturers' ability to
8 certify for 1995 and would potentially disrupt the
9 marketplace.

10 If you have any questions, I will be pleased
11 to answer them at this time.

12 CHAIRWOMAN SCHAFFER: Thank you very much.
13 Mr. Keller.

14 Do any board members have questions for
15 Mr. Keller at this point?

16 MR. CALHOUN: Yes.

17 CHAIRWOMAN SCHAFFER: Mr. Calhoun.

18 MR. CALHOUN: Mr. Keller, if the board
19 were to adopt the recommendations of WSPA, how would
20 that impact your members?

21 MR. KELLER: Mr. Calhoun, the properties
22 of the certification reference fuel that are used for
23 certifying these products will change, and in some
24 respects it would be -- it would tend to knock down
25 these properties and probably we feel unrepresentative

1 of what the commercial fuels are really -- and the
2 diesel engines are going to use, but to -- a short
3 answer to it, it could have an effect on the abilities
4 of these products to certify and be ready for January 1,
5 1995. The engines all react somewhat differently to
6 various changes in fuel properties, and it is hard to
7 tell which models would be affected.

8 MR. CALHOUN: Thank you.

9 CHAIRWOMAN SCHAFER: Any other questions
10 from board members for Mr. Keller at this time?

11 If not, thank you very much for your
12 testimony, and we may have you back in discussion.

13 Is there any comment that the staff wanted to
14 make in connection with Mr. Keller's comments?

15 Okay. Thank you very much.

16 MR. KELLER: Thank you.

17 CHAIRWOMAN SCHAFER: Warren Slodowske with
18 Navistar. Nice to see you again, Mr. Slodowske.

19 MR. SLODOWSKE: Good morning. I stepped
20 forward this morning without any prepared comments.
21 Like other engine manufacturers, I am deeply concerned
22 about the health and well-being of the CARB proposal,
23 and what I would really like to present myself forward
24 to is if there are some additional questions or concerns
25 on the part of the board before voting, because I'd like

1 to have that opportunity to defend what has been done.

2 I think I would like to just maybe embellish
3 a little bit of what Glenn said with Mr. Calhoun's
4 question, because I think it is a question of
5 significance, of importance, and deserves an answer.

6 We just recently received a shipment of a
7 Californialike certification fuel from Hall (phonetic)
8 Hydrocarbons. That batch has a cetane of about 52,
9 which the batch previously we had been doing development
10 work. If we're to listen what WSPA would have us do,
11 that would lower that max number to 53.

12 When you look at ASTM test reproducibility of
13 measuring cetane, and you have a plus or minus three
14 numbers, that if the Air Resources Board wanted to
15 confirm the legitimacy of our certification fuel, there
16 would be a reasonable chance that they would find it
17 unacceptable just because of the reproducibility of the
18 ways cetane -- the way cetane is measured, and that
19 certainly would create a hardship to Navistar, and I
20 feel I'm not just speaking for Navistar, but other
21 member companies.

22 One thing I would like, as you're pondering
23 what additional questions you might have for me on this
24 issue that is very critical, not only to Navistar, but
25 to engine manufacturers, is to make some comment of how

1 the process works at this time.

2 I was very pleased to be a part of this
3 process, because there were ample -- there was ample
4 opportunity for engine manufacturers to present their
5 perspectives to the Air Resources Board staff, and in
6 turn, we had ample opportunity to understand where they
7 were coming from. And if I may just put this overhead
8 up -- because one of the things -- I think the room is
9 small enough, and I'll try to speak up.

10 (Overhead presented.)

11 One of the things that Glenn had mentioned is
12 that our original proposal was a maximum of 60 cetane,
13 and just to share with the board that we just hadn't
14 been out in the sun too much, but there was some
15 legitimacy for that request, is here is a graph plotting
16 aromatic content and cetane number against one another,
17 because those two properties are related.

18 However, you don't get a perfect straight
19 line because all paraffins aren't created equal and all
20 aromatics aren't created equal, so there are certain
21 anomalies. This was published in a paper written by
22 Chris Weaver, and for those of you who have followed
23 CARB board hearings and workshops for a number of years,
24 you're very familiar with Chris. He works with rating.

25 But there's not a lot of data in the

1 10 percent aromatic area, because that is a new frontier
2 that California has crossed. But we do have some, and
3 if you were to draw a best straight line through here,
4 and a 10 percent aromatic at 60, that does not seem like
5 an unreasonable expectation. And so in some of the
6 negotiations for these various rules, like the
7 medium-duty vehicle rule, this entered our mind as to
8 what a reasonable standard should be, as well as I think
9 the mobile source division, as to what a reasonable
10 standard should be.

11 So we present this information, and -- to
12 show the working back and forth from CARB staff. They
13 indicated we have a slightly different situation here in
14 California.

15 The base stocks that you have in Southern
16 California tend to be maybe a little more anomalous,
17 lower cetane for lower aromatic, where Northern
18 California fits a little closer to this type of plot.

19 So in CARB's opinion it was -- CARB staff
20 opinion -- 60 was too high and a lower number was more
21 reasonable. And I agree. There was reasonableness in
22 this request. It wasn't our wish. We were hoping for
23 more. But we understand where the specification has
24 come from.

25 And so in closing of what I'd like to say, is

1 I feel, engine manufacturers feel, that the proposal is
2 fair and just, and we strongly encourage you to approve
3 this certification specification as proposed from the
4 board.

5 Now, if there's some additional questions,
6 and we've had a lot of debate here, I'd like to try to
7 handle them.

8 CHAIRWOMAN SCHAFER: Thanks very much.

9 Are there questions from members of the board
10 for Mr. Slodowske? Or comments, yes.

11 Mr. Lagarias.

12 MR. LAGARIAS: Thank you for your
13 support. I agree. The outlier should be given less
14 weight, and we appreciate your response and your
15 willingness to work with the staff in this regard.

16 MR. SLODOWSKE: Well, thank you, and I
17 hope I can serve a model for future regulations and
18 items. I think that some time ago things got to be
19 rather combative and controversial, and that things seem
20 to work better, I think, if we can work together. So I
21 appreciate your comments, and thank you for your time.

22 CHAIRWOMAN SCHAFER: Thank you very much,
23 Mr. Slodowske. I have a feeling we'll have plenty of
24 opportunity to lean on you again.

25 The next witness is Mr. Paul Wuebben of the

1 South Coast Air Quality Management District. Good
2 morning.

3 MR. WUEBBEN: Good morning,
4 Madam Chairman and members of the board. My name is
5 Paul Wuebben, and I'm the clean fuels officer with the
6 South Coast Air Quality Management District. I'm here
7 to address two important issues this morning, one
8 related to the diesel fuel specification and the other
9 with respect to LPG fuel specification. If you'd like,
10 I can take questions after my diesel comments. They're
11 relatively short.

12 But we first would like to compliment the
13 staff for dealing with a very important component of
14 your emission control program, namely, a careful
15 specification of these fuels, and we fully agree with
16 their objectives to fully align those in-use -- those
17 test specifications with the in-use characteristics.

18 I think that what we've heard this morning
19 certainly confirms our understanding of diesel fuel
20 specification, which is namely that the average midpoint
21 for a 10 percent certified fuel is roughly one to two
22 cetane levels -- points higher than an alternatively
23 formulated fuel. And I think there is a comment, a
24 recognition also that all else being equal, a fuel that
25 has higher cetane, it is a little easier to certify

1 those fuels. And I think we all share the common goal
2 of having as much comparability and alignment between
3 the cert fuel and the actual in-use fuel.

4 I think for that reason, we would certainly
5 take some of the information that was suggested by
6 Mr. Glenn Keller, namely that a maximum 55 cetane fuel
7 would be feasible. Understand the current
8 recommendation is to set a maximum of 57. It might be a
9 little -- from our standpoint, it would probably be most
10 prudent to make sure that the maximum cetane level not
11 exceed 55 in the interest of one trying to align your
12 in-use average midpoint fuel point with what is actually
13 occurring in the field. I think that would tend to
14 ensure that the assumptions that you make about
15 equivalency are actually reflected in your
16 certification.

17 And we certainly agree with Mr. Boyd that
18 there is a strong equivalency. But of course those
19 equivalency tests, as you know, are limited to two
20 engine families, and for that reason, certainly the
21 engine manufacturers have a lot of need for certainty on
22 the specifications. I think that it is clear that they
23 need a definite certification -- or I should say
24 specification, and they also need some attention to the
25 timeline, because clearly you can't change those --

1 those specifications, and they would affect the '95
2 model year. Perhaps if you went to a maximum 55, you
3 could do so effective for the 1996 engine year.

4 So that pretty much completes my comments on
5 your diesel fuel specification. If you'd like to have
6 me -- if you have any questions, I could stop now or
7 proceed to the LPG issue.

8 CHAIRWOMAN SCHAFER: I'd like to ask. In
9 contrast to the position that WSPA took, you're not
10 recommending a reduction in the average; you're
11 recommending a lower cap? Is that -- am I understanding
12 that?

13 MR. WUEBBEN: Well, it will probably
14 achieve a similar result. We haven't had time to
15 evaluate the methodology.

16 CHAIRWOMAN SCHAFER: I was about to ask,
17 what then -- how then that compared with the WSPA
18 proposal and whether the staff had considered this
19 variation.

20 MR. SIMEROTH: Chairwoman Schafer, the
21 staff proposal is for a cap of 55 and with a minimum
22 of 47.

23 MR. WUEBBEN: Oh.

24 MR. SIMEROTH: I think it's consistent
25 with what Paul is proposing.

1 MR. WUEBBEN: Excuse me. I thought that
2 there was an original --

3 CHAIRWOMAN SCHAFER: Okay. I am just
4 trying to figure out which proposal you were aligning
5 yourself with or whether yours was something different.

6 MR. SIMEROTH: The original workshop
7 proposal was a wider range; then the 45-day notice went
8 out with the more narrow range.

9 CHAIRWOMAN SCHAFER: Okay.

10 MR. WUEBBEN: We were concerned about the
11 higher --

12 CHAIRWOMAN SCHAFER: This is the
13 consequence, then, of that process. Okay. And the
14 other point.

15 MR. WUEBBEN: Yes. On the LPG
16 specification, our concern is, I think, similar to the
17 staff, that a clear signal be sent to the LPG producers
18 and marketers that the lower propene specification be
19 achieved within a two-year time frame; that we
20 appreciate that there is a good reason at this point to
21 amend and provide a little bit more time to go from
22 10 percent to 5 percent propene, but there is a very
23 significant reactivity impact of propene relative to
24 propane. And that certainly there is going to be
25 additional complying propane that will result from the

1 introduction of Phase 2 gasoline. But that I think it
2 is very important for your board to send a very clear
3 signal that this is a special one-time extension and
4 that there were special circumstances, but not to
5 indicate to the industry that they can expect further
6 relaxations of that time frame. Because as we -- we are
7 encouraging additional LPG and gaseous fuel vehicle
8 introduction, working on many joint projects with Orange
9 County Transit Authority and other users. And we
10 recognize that there is going to be an increase in
11 propane use as an alternative-vehicle fuel. So for that
12 reason it's important to establish a clear guidance so
13 that that extension is a one-time type of matter.

14 CHAIRWOMAN SCHAFFER: Yes, Mr. Calhoun.

15 MR. CALHOUN: My understanding is
16 that the reason for the extension is to ensure the
17 availability of the fuel. I agree with you that propane
18 is certainly reactive, and hopefully in a couple of
19 years maybe more propane -- or propene would be
20 available at that particular time. I'm not so sure that
21 we ought to go on record, the staff, that this is a
22 one-time -- one-time change.

23 I share your concern, but what we are really
24 dealing with here is an availability issue. I think the
25 industry recognizes the fact that the board has already

1 adopted these regulations, that we expect them to comply
2 with them.

3 CHAIRWOMAN SCHAFER: Thank you very much.

4 Any other questions for Mr. Wuebben and from
5 members of the board?

6 Would the staff like to comment in any
7 respect to this part of the testimony?

8 All right. Thank you very much.

9 Are there any other witnesses who would like
10 to speak about any of the three parts of the staff
11 recommendation with respect to these certification
12 fuels?

13 Mr. Boyd, does the -- have we received any
14 written comments that need to be summarized at this
15 point in time?

16 MR. BOYD: Yes, Madam Chair.

17 CHAIRWOMAN SCHAFER: Please, go ahead.

18 MR. SIMEROTH: Madam Chairwoman, we've
19 received a letter from the American Automobile
20 Manufacturers Association. They support the proposed
21 certification of the diesel fuel proposal. They support
22 the natural gas certification fuel proposal to change
23 oxygen content; however, they did recommend a maximum
24 oxygen content of 0.3 mole percent. But for the
25 liquefied petroleum gas proposal to allow two additional

1 years, they support that, but they ask that the Air
2 Resources Board staff make available for review and
3 comment a proposal from the Western Propane Gas
4 Association to conduct a testing program to evaluate the
5 emissions of propane and other ozone precursors from
6 LPG. Staff is prepared to do that and share that
7 information.

8 Chevron U.S.A. submitted a letter.
9 Basically, their letter was the same comments as made by
10 the Western States Petroleum Association. They ask that
11 the ARB staff give consideration to reviewing diesel
12 fuel properties in the future and take that into
13 consideration at future adoptions of the diesel
14 certification fuels.

15 Staff will be monitoring the properties of
16 diesel fuel as we go through and use that information.

17 Mesa Environmental sent a letter supporting
18 the CNG proposal and also the propene proposal for LPG.

19 That is the three letters that we received
20 that people did not testify today on.

21 CHAIRWOMAN SCHAFFER: Very good.

22 Are there any additional comments that the
23 staff might have on testimony or anything else the board
24 needs to be aware of prior to considering the item?

25 MR. BOYD: No further comments,

1 Madam Chair. We recommend your adoption of the staff's
2 proposal.

3 CHAIRWOMAN SCHAFER: Very well. Since all
4 testimony and written submissions and staff comments for
5 this item have been entered into the record, the board
6 is -- if this is true -- not granting a -- this is not a
7 15-day; is that right? There's no reason to make
8 this --

9 MR. JENNINGS: The staff proposal is not
10 a 15-day item.

11 CHAIRWOMAN SCHAFER: Very good. The board
12 has not granted an extension of the comment period, and
13 I'm officially closing the record on this particular
14 agency item for 94-9-1. Written and oral comments
15 received after the comment period has been closed will
16 not be accepted as part of the official record on this
17 agenda item.

18 At this point just a reminder to
19 board members of our policy concerning ex parte
20 communications. While we may communicate off the record
21 with outside persons regarding board rulemaking, we must
22 disclose the names of our contacts and the nature of the
23 contents on the record.

24 Are there any?

25 Hearing none, we will take a moment now to

1 read the resolution that's been prepared.

2 The board has before it Resolution No. 94-53
3 which contains the staff recommendations that we've
4 heard this morning. Do I have a motion and second?

5 Supervisor Vagim.

6 SUPERVISOR VAGIM: I'll move adoption of
7 Resolution No. 94-53.

8 CHAIRWOMAN SCHAFFER: I do have a second.

9 MS. EDGERTON: Second.

10 CHAIRWOMAN SCHAFFER: Miss Edgerton,
11 seconding.

12 Is there any board discussion on this item
13 this morning?

14 Very well. I'd like to ask the secretary to
15 call the roll on Resolution No. 94-53.

16 MS. HUTCHENS: Bilbray. Calhoun.

17 MR. CALHOUN: Aye.

18 MS. HUTCHENS: Edgerton.

19 MS. EDGERTON: Aye.

20 MS. HUTCHENS: Hilligoss.

21 MAYOR HILLIGOSS: Aye.

22 MS. HUTCHENS: Lagarias.

23 MR. LAGARIAS: Aye.

24 MS. HUTCHENS: Parnell. Riordan.

25 SUPERVISOR RIORDAN: Aye.