

MEETING

CALIFORNIA AIR RESOURCES BOARD

HEARING ROOM

2020 L STREET

SACRAMENTO, CALIFORNIA

THURSDAY, JANUARY 13, 1994

9:40 A. M.

Nadine J. Parks
Shorthand Reporter

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1 Governor's budget as it relates to the Air Resources Board.
2 And we expect that to be -- we're reprinting those right
3 now, and we expect to be able to distribute those to you in
4 the immediate future.

5 With that, Madam Chair, that concludes my rather
6 brief remarks highlighting the budget. The good news is
7 that it's a level budget in these economic times, and it
8 does reflect the Governor's commitment to trying to meet the
9 goals and objectives of the California air pollution control
10 program.

11 CHAIRWOMAN SCHAFFER: Thank you very much, Mr.
12 Boyd. Were there any questions from any of the Board
13 members on the budget?

14 I just want to reemphasize that, given the mandate
15 that the Governor has given us through his challenges in the
16 "State of the State" message and the means by which he is
17 equipping us to undertake those mandates, I think that I'm
18 justified in saying that we are on a course that is steady
19 as she goes, and we have a lot of work in front of us.

20 And, again, thank you very much for your attention
21 to these preliminary matters.

22 Now, we will begin the first regulatory item on
23 the agenda, as I said earlier, 94-1-1, the public hearing to
24 consider the adoption of emission control regulations for
25 off-highway recreational vehicles and engines.

1 If anyone has come in since we began the session,
2 I'd like to remind those of you in the audience who are here
3 and would like to present testimony to the Board on any of
4 today's agenda items, to please sign up with the Board
5 Secretary. And if you have a written statement, we'd would
6 appreciate having 20 copies provided to the Board Secretary.

7 The 1998 California Clean Air Act directs the Air
8 Resources Board to regulate emissions from off-road vehicles
9 and other mobile sources.

10 To comply with these requirements, before us for
11 consideration today are proposed control measures to limit
12 emissions from off-highway recreational vehicle engines.
13 The proposal specifically covers off-road motorcycles, all-
14 terrain vehicles, golf carts, go-karts, and other off-
15 highway vehicles.

16 Now, these sources may sound like they would be
17 insignificant contributors to the ambient air quality
18 problem. But because they are totally uncontrolled, while
19 on-road vehicles are well-controlled, they have become
20 significant.

21 The proposed standards will reduce, by the year
22 2010, statewide hydrocarbon plus oxides of nitrogen
23 emissions from off-road recreational vehicles by about 39
24 tons per day. This represents an 80 percent reduction from
25 their current emission levels. To put this in perspective,

1 the emission reductions from off-road recreational vehicles
2 is equivalent to roughly 20 percent of the reductions that
3 we'll realize from the entire LEV program.

4 With that, I'd like to ask Mr. Boyd to please
5 present this item to the Board, with the help of the staff,
6 of course. Mr. Boyd.

7 MR. BOYD: Thank you, Chairwoman Schafer and
8 members of the Board. Good morning, and welcome to our
9 first regulatory review of this new calendar year.

10 As indicated, the proposal before you is the third
11 off-road regulatory item which you will have considered down
12 through the past couple of years. In December, 1990, your
13 board set standards for utility engines. In January, 1992,
14 your Board set standards for heavy-duty farm and
15 construction equipment.

16 Today's item covers off-highway vehicles and off-
17 road motorcycles.

18 The development of the proposal that's before you
19 now has proceeded over a period of, frankly, several years,
20 and the staff has made considerable and innumerable efforts
21 to involve the impacted parties, the regulated community, as
22 well as to the extent possible the users of this type of
23 equipment.

24 Numerous public workshops and individual
25 manufacturer meetings have been held over this period of

1 time, and four different and distinct mailouts of draft
2 proposals to the affected public have been made over this
3 period of time.

4 The proposal we have before you today reflects a
5 tremendous amount of input from the industry and the public.
6 And although it's quite apparent from the material -- the
7 written material we've received and the testimony you will
8 hear that there are some significant disagreements, there is
9 no doubt that a considerable period of time and effort has
10 been invested, as is usually our practice, in trying to
11 resolve this issue.

12 The Board may recall that some of these issues
13 actually were brought before it in some of these previous
14 items that I've mentioned. And we delayed consideration of
15 them because of concerns of the industry at that time. So,
16 in some cases, there's been a number of years invested, and
17 I think some of that detail will come out later.

18 With that, I would like to turn the presentation
19 over to the staff and specifically to Mr. Charles Emmett of
20 our Mobile Source Division, who will give you the detailed
21 overview, and present to you the details of the staff's
22 recommendations.

23 Mr. Emmett, if you would, please.

24 MR. EMMETT: Thank you, Mr. Boyd.

25 Chairwoman Schafer and members of the Board, good

1 morning. Today, I will present the staff's proposal for the
2 control of emissions from off-highway recreational vehicles.

3 I will begin by providing a brief background of
4 this proposal, including a description of the vehicles
5 covered and their associated emissions inventory, followed
6 by the regulatory proposal, issues of controversy, and
7 expected emission reductions.

8 Due to the severity of the State's air pollution
9 problem, the California Legislature enacted the California
10 Clean Air Act in 1988. This Act established the guidelines
11 to achieve the State ambient air quality standards at the
12 earliest practical date.

13 Due to the increasing significance of the off-
14 highway mobile source emissions inventory, the California
15 Clean Air Act specifically mandated the Air Resources Board
16 to adopt emission control regulations for construction and
17 farm equipment, utility engines, off-highway motorcycles,
18 locomotives, marine vessels, and other off-highway vehicles.

19 To date, the Air Resources Board has adopted
20 emission control regulations for utility equipment under 25
21 horsepower and heavy-duty diesel engines 175 horsepower and
22 greater.

23 The proposal that will be presented before you
24 today represents another step toward achieving emission
25 reductions from unregulated off -- off-road mobile sources.

1 In May, 1992, the staff presented a control plan
2 to the Board for other off-highway vehicles. Upon
3 consideration, the Board concluded that the vehicles and
4 equipment in this off-highway category contribute
5 significantly to California's emission inventory, and that
6 controlling the emissions from these vehicles is feasible
7 and necessary in order to help accomplish the goals set by
8 the Legislature.

9 Because of the large diversity of equipment within
10 the off-highway vehicle category, the Board directed the
11 staff to divide the category into three separate
12 subcategories -- preempted farm and construction equipment,
13 off-highway utility equipment, and off-highway recreational
14 vehicles. The latter category is the focus of this
15 proposal.

16 The Board also directed the staff to develop
17 emission standards for these vehicles based on the most
18 technologically advanced, but currently available, engines
19 of similar design, function, and use.

20 Included in the off-highway recreational vehicle
21 category are off-road motorcycles, all-terrain vehicles,
22 golf carts, go-karts, and specialty vehicles.

23 Specialty vehicles include but are not limited to
24 applications such as carrying passengers, hauling light
25 loads, groundskeeping and maintenance. These vehicles are

1 used in such places as resorts, hotels, and airports.

2 Shown here is the 1987 statewide population of
3 off-highway recreational vehicles. Of primary concern are
4 the competition off-road motorcycles and all-terrain
5 vehicles, which account for more than half of the total
6 inventory.

7 This concern is based not only on their large
8 population, but more importantly on their disproportionately
9 large contribution to the hydrocarbon emission inventory.

10 Off-highway recreational vehicles are estimated to
11 contribute a total of 49 tons per day of combined
12 hydrocarbons plus oxides of nitrogen. Competition vehicles
13 are the largest contributor of emissions, primarily
14 hydrocarbons. This is due to -- to the almost exclusive use
15 of two-stroke engines in these vehicles, which may be up to
16 20 times dirtier than similar four-stroke engines.

17 Staff's regulatory proposal for 1997 and later
18 off-road motorcycles and all-terrain vehicles was developed
19 through a cooperative effort with industry and patterned
20 after regulations previously adopted by the Board for other
21 on- and off-highway vehicles.

22 Staff is proposing emission standards, test
23 procedures, certification requirements, recall provisions,
24 labeling requirements, replacement engine standards, and new
25 Department of Motor Vehicle registration requirements.

1 (Thereupon, Supervisor Wieder entered the
2 hearing room and took her place with the Board.)

3 MR. EMMETT: Staff is proposing an off-road
4 corporate average hydrocarbon standard of 1.2 grams per
5 kilometer, a carbon monoxide standard of 15 grams per
6 kilometer, and a requirement of no crankcase emissions from
7 vehicles produced for sale in California after December
8 31st, 1996.

9 Staff is proposing the use of the current on-road
10 motorcycle test cycle and procedures for certifying both
11 off-road motorcycles and all-terrain vehicles.

12 Manufacturers, such as Yamaha and Honda, have
13 performed limited testing using the chassis dynamometer for
14 all-terrain vehicles. However, it is staff's understanding
15 that some manufacturers do not presently possess the
16 necessary equipment or capability of performing these tests.

17 Thus, staff is proposing that manufacturers be
18 given the option to use the steady-state utility engine test
19 cycle to certify their vehicles. This option would be
20 allowed only if the manufacturer can provide data indicating
21 that the utility engine test cycle and applicable standards
22 is at least as stringent as the motorcycle test cycle and
23 standard. Staff has offered to work with industry in the
24 coming months to develop an equivalent demonstration method.

25 Manufacturers will be required to certify their

1 vehicles for sale in California. Certification requirements
2 will be similar to certification requirements currently in
3 effect for other on -- on-road vehicles, with the exception
4 that the submissions of durability data will not be
5 required. Instead, manufacturers will be subject to an in-
6 use compliance testing and be required to recall their
7 vehicles if they do not meet the applicable standards for
8 their useful life.

9 As part of the certification process, all
10 California certified vehicles will be required to be
11 equipped with an emission control label, which will include
12 tune-up, fuel, and lubrication specifications to ensure
13 proper maintenance and operation by the consumer.

14 To ensure the continued use of emission-controlled
15 engines in these vehicles, staff is proposing that all
16 replacement engines conform to emission standards. There
17 are no restrictions on replacement parts for uncontrolled
18 engines.

19 Currently, off-highway vehicles must be registered
20 with the Department of Motor Vehicles to be legal for use in
21 California. The Department of Motor Vehicles currently
22 allows both competition and noncompetition off-highway
23 motorcycles and all-terrain vehicles to be registered as
24 long as they are equipped with appropriate safety equipment.

25 This procedure allows the unrestricted use of

1 vehicles that were designed and marketed for exclusive use
2 in competition events to be used anywhere within California.

3 In cooperation with the Department of Motor
4 Vehicles, staff is proposing that only California certified
5 noncompetition vehicles be able to obtain an off-highway
6 vehicle permit or green sticker. This green sticker will
7 allow owners to legally ride their vehicles off of the
8 highway in California.

9 Competition vehicles would be restricted to their
10 intended use in closed-course competition and racing events
11 only.

12 Although staff has successfully reached agreement
13 with industry on the majority of this proposal as it relates
14 to off-road motorcycles and all-terrain vehicles, there are
15 a few issues of controversy that remain.

16 One such issue involves staff's inventory
17 assessment, which is addressed in the staff report. Should
18 industry raise this issue here today, staff is prepared to
19 discuss the issue in further detail.

20 Other issues include the denial of a 90cc
21 exemption and the definition of competition vehicles.

22 Manufacturers have requested that all off-road
23 motorcycles and all-terrain vehicles less than 90cc be
24 exempt from staff's regulatory proposal. They have stated
25 that there's a strong need to provide small, light-weight,

1 two-stroke off-road motorcycles and all-terrain vehicles
2 with adequate performance capabilities for use by younger
3 riders and small adults who would otherwise feel
4 uncomfortable on the larger vehicles.

5 According to the Consumer Product Safety
6 Commission agreement with the manufacturers, all-terrain
7 vehicles that are sold to children under the age of 16 are
8 limited to engine displacements (sic) 90 cubic centimeters
9 or less.

10 Manufacturers argue this agreement prevents them
11 from substituting four-stroke engines for their two-stroke
12 engines because four-stroke engines would be less powerful,
13 heavier, and more expensive, thereby discouraging the entry-
14 level off-road motorcycle and all-terrain vehicle
15 enthusiasts from continuing in the sport.

16 Staff believes the 90cc exemption is unnecessary
17 and will undermine the very premise of the proposed
18 regulations, which is to restrict the dirtier engines to
19 competition use only.

20 The staff believes the added size, weight, and
21 performance difference of a similarly sized four-stroke
22 engine would not change the appeal of the product. It
23 should be noted that a leading off-road motorcycle and all-
24 terrain vehicle manufacturer currently produces an all-
25 terrain vehicle equipped with a 90cc four-stroke engine.

1 By allowing a 90cc exemption, staff estimates that
2 a five tons per day hydrocarbon plus oxides of nitrogen
3 benefit, or about 15 percent of the total emission reduction
4 from this category, would be lost.

5 Manufacturers have recently requested that the
6 exemption only apply to vehicles with engines less than 50cc
7 as long as a similar on-road exemption remains in place, and
8 that the implementation of the emissions standards for
9 engines 50 to 90cc be delayed three years.

10 Three tons per day hydrocarbon plus oxides of
11 nitrogen benefit, which is about 10 percent of the benefit
12 from this category, would be lost in this case.

13 Under staff's definition of competition vehicles,
14 the proposed regulations would not be applicable to those
15 recreational vehicles that are operated exclusively off of
16 the highways on closed courses in organized racing and
17 competition events.

18 Manufacturers oppose this definition primarily
19 because of the words, "that are operated exclusively."

20 Manufacturers take the position that they should
21 not be held responsible as to how these vehicles are
22 ultimately used by the purchaser. They prefer to have the
23 definition use the words, "that are designed exclusively
24 for."

25 Staff strongly opposes this alternate, because a

1 strict interpretation of such a definition would remove the
2 Air Resources Board's authority to regulate any and all
3 vehicles a manufacturer chooses to design as a competition
4 vehicle.

5 In theory, for a -- a manufacturer could claim
6 that it has designed its entire product line for competition
7 purposes and consequently be exempt from the Air Resources
8 Board's regulatory control based simply on the
9 manufacturer's assertions (sic).

10 This is exactly the situation today, where most
11 off-road motorcycles are marketed as competition, but are
12 used primarily recreational vehicles. For these reasons,
13 staff is compelled to retain the definition of competition
14 vehicles as it has proposed.

15 Staff has estimated the adoption of this proposal
16 will eliminate over 30 tons per day of combined hydrocarbons
17 plus oxides of nitrogen emissions by the year 2010. These
18 emission reductions come almost exclusively from replacing
19 the existing two-stroke engines with cleaner four-stroke
20 designs.

21 Staff has estimated the cost of this proposal to
22 be between \$25 and \$250 per vehicle. This large
23 differential is because some four-stroke vehicles nearly
24 meet the proposed standards at this time and will require
25 only minor engine modification to comply with the proposed

1 standards.

2 However, other vehicles will likely be -- have
3 difficulty utilizing four-stroke engines in place of their
4 present two-stroke engines at a cost of up to \$250 per
5 vehicle.

6 By dividing this cost by the estimated vehicle
7 lifetime emission reductions associated with this proposal,
8 staff estimates a cost-effectiveness of between 3 and 35
9 cents per pound of hydrocarbons reduced. This cost is well
10 below many previously approved emission control regulations,
11 which run, on average, from two to five dollars per pound of
12 emissions reduced.

13 Staff is also proposing emission control
14 regulations for new golf carts operating in federal ozone
15 nonattainment areas. These regulations consist of new
16 exhaust emission standards, along with certification and
17 replacement engine restrictions.

18 The staff proposes that beginning January 1st,
19 1997, golf carts produced for use in federal ozone
20 nonattainment areas of California meet a zero emission
21 exhaust standard for all criteria pollutants.

22 The technology to meet a zero emission requirement
23 is currently available, as evidenced by California's
24 existing golf cart fleet, which is composed of approximately
25 60 percent electric vehicles.

1 Staff believes that the golf cart manufacturers
2 will need little or no leadtime, since compliance requires
3 no new technology and complying electric golf carts are
4 already being produced.

5 The 1997 implementation date was developed to
6 provide golf courses and other users adequate time to
7 prepare the phase-in of electric vehicles into their
8 facilities.

9 To certify golf carts for sale in California,
10 manufacturers would only need to submit a certification
11 application containing descriptions of the vehicles and
12 their projected sales.

13 To ensure that owners of gasoline golf carts do
14 not continue to purchase new nonzero-emission engines, which
15 would undermine the zero-emission requirement, staff is
16 proposing that -- that all new replacement engines conform
17 to the zero-emission standard.

18 This proposal does not restrict the purchase of
19 any replacement parts for the remaining gasoline golf carts.
20 Thus, a golf course may choose to maintain, repair, and
21 operate gasoline golf carts well beyond the 1997
22 implementation date until their engines are no longer
23 repairable or rebuildable and need to be replaced.

24 The golf cart manufacturers' main concern is one
25 of equitable treatment. Specifically, they contend that

1 since their engines are similar to those used in utility
2 equipment and specialty vehicles, that they should be
3 allowed to comply with the same standards.

4 However, the staff's proposal is based on the
5 technology feasible (sic) and cost-effective controls for
6 each source. The technology for electric golf carts was
7 clearly proven. The same could not be said for utility
8 equipment and specialty vehicles. Specifically, because the
9 heavier load requirements and unique usage patterns
10 associated with utility equipment and specialty vehicles, a
11 zero-emission or electric vehicle requirement would not
12 currently be technologically feasible or cost-effective for
13 those vehicles.

14 Manufacturers were also concerned that the staff
15 overestimated the impact of golf cart emissions.
16 Manufacturers believe that only 14,000 gasoline golf carts
17 operate in the State; whereas, staff's estimate, based on an
18 Air Resources Board contracted study, is 40,000.

19 Additionally, the Golf Cart Manufacturer's
20 Association's study believes the staff's estimate of the
21 per-engine emissions is too high.

22 The staff's estimate included exhaust,
23 evaporative, running losses, and spillage on a typical in-
24 use golf cart engine, while the manufacturers' estimate
25 includes only exhaust emissions from a new golf cart engine.

1 Finally, the manufacturers believe the cost of
2 constructing the charging facility at golf courses would
3 range from \$300,000 to \$1 million, compared to staff's
4 \$100,000 estimate.

5 The staff was able to substantiate its cart barn
6 cost estimate by contacting a local golf course in Southern
7 California, Whispering Lakes, which currently (sic) had a
8 golf cart barn constructed.

9 The staff's estimate was based on a barn capable
10 of accommodating 60 golf carts. Whispering Lakes' barn is
11 capable of storing 120 golf carts. With the necessary
12 wiring and charging equipment included, the total cost of
13 the cart barn was \$150,000, which is in line with staff's
14 \$100,000 estimate.

15 The proposed regulations for golf carts are
16 expected to achieve a benefit to the State's air quality
17 through the elimination of exhaust, evaporative, and
18 spillage emissions associated with these vehicles.

19 Staff estimates a reduction of approximately 9
20 tons per day of combined hydrocarbons and oxides of nitrogen
21 from the baseline inventory by the year 2010. This is based
22 on the assumption that all golf courses will have been
23 converted to an all-electric fleet by that year.

24 Staff has estimated the cost of compliance to
25 those golf courses which do not currently have electric

1 vehicles or an existing cart barn to be \$167 per vehicle.
2 For those golf courses which currently have an existing cart
3 barn or a partial electric fleet, this cost would be
4 substantially lower. Using this cost figure, the cost-
5 effectiveness of this proposal would be 34 cents per pound
6 of combined hydrocarbons and oxides of nitrogen reduced.

7 Staff is proposing emission control regulations
8 for noncompetition go-karts and specialty vehicles which are
9 the same as those previously adopted for utility engines
10 less than 25 horsepower. The proposed regulations include
11 new emission standards, test procedures, certification,
12 labeling, and required -- and a replacement engine
13 requirement. Competition go-karts would be exempt from this
14 emission standard.

15 Staff is proposing that all new specialty vehicles
16 equipped with engines under 25 horsepower, produced on or
17 after January 1, 1995, comply with the utility engine
18 emission standards and implementation schedules previously
19 adopted by the Board.

20 This schedule calls for a two-tier approach with
21 ground level standards being introduced in 1995, and a more
22 stringent second-tier standard becoming effective in 1999.

23 Because engines used in specialty vehicles are
24 very similar, if not identical, to those used in utility
25 equipment, it is anticipated that manufacturers will employ

1 similar emission control technology for compliance.

2 Although it is recognized that these vehicles have
3 been given a relatively short leadtime, this time coincides
4 with the implementation schedule of the utility engine
5 regulations.

6 The staff believes that the additional time is not
7 necessary since, in most cases, the same manufacturer --
8 manufacturer produces both specialty vehicles and utility
9 equipment engines which have previously been regulated and
10 therefore can utilize the same emission control strategies.

11 Beginning in 1997, go-kart and specialty vehicle
12 emission -- go-kart and specialty vehicle engines greater
13 than or equal to 25 horsepower will be required to meet the
14 Tier Two utility engine emission standard.

15 These vehicles are typically equipped with 500 to
16 200 -- 2,000 cubic centimeter multicylinder engines.
17 Because of their size and complexity, these engines can be
18 used -- can use the more advanced emission control
19 technology similar to those (sic) used in on-road
20 applications such as catalytic converters and fuel
21 injection.

22 For specialty vehicles and go-karts, staff is
23 proposing the previously adopted utility equipment emission
24 test cycle. This test cycle consists of a 6-mode steady-
25 state test, which combines various speed and load

1 combinations that may be encountered during normal operation
2 of these vehicles.

3 This test cycle has been widely accepted by
4 industry and is considered the most appropriate cycle to
5 use. Specialty vehicles and go-karts will also be required
6 to be equipped with an emission control label and must be
7 certified for sale in California.

8 Finally, staff is proposing that all replacement
9 engines conform to the applicable current year emission
10 standards. There are no restrictions on replacement parts
11 for uncontrolled engines.

12 With the implementation of this regulation, staff
13 expects over a 30 percent reduction in hydrocarbons plus
14 oxides if nitrogen emissions by the year 2010.

15 Because the majority of these vehicles utilize
16 engines which are identical to those engines used in the
17 previously regulated utility engine category, most of the --
18 of the design and engineering has already been successfully
19 completed. In fact, a few manufacturers who supply engines
20 for these vehicles have already met the requirements and
21 have presently certified their engines for sale.

22 Staff expects that these vehicles will need to
23 utilize basic emission reduction techniques, such as
24 improved carburetion and ignition systems, along with new
25 combustion chamber designs and cooling system improvements,

1 to meet the proposed standards.

2 Consistent with the previous cost estimates for
3 utility equipment, the cost of these improvements is
4 estimated to be \$66 to \$100 per engine. Staff estimates
5 that the cost-effectiveness of this proposal is between 18
6 and 27 cents per pound of combined hydrocarbons and oxides
7 of nitrogen reduced.

8 Staff has estimated the potential reduction to the
9 off-highway recreational vehicle emission inventory with the
10 implementation of the proposed emission control regulation.
11 Current estimates indicate an 81 percent reduction in the
12 combined hydrocarbons and oxides of nitrogen emissions from
13 the present levels by the year 2010.

14 This amounts to a reduction of roughly 40 tons per
15 day of combined hydrocarbons and oxides of nitrogen.

16 In addition, the cost of complying with this
17 proposed regulation compares well with the cost of similar
18 previously regulated on- and off-highway vehicles.

19 In order to satisfy Section 43013 of the Health
20 and Safety Code, staff evaluated the impact of this proposal
21 on the State economy. Overall, the impact of the proposed
22 regulations on the California economy with respect to
23 output, employment, income, and inflation appears to be
24 minor.

25 With regard to the individual segments of the

1 economy, some segments will be affected negatively, while
2 others will be affected positively.

3 In conclusion, staff believes that the off-highway
4 recreational vehicles are a significant source of emissions
5 in California. Controlling emissions from these vehicles is
6 technologically feasible, cost-effective, and necessary for
7 California to meet its clean air goals.

8 I would now like to turn the presentation over to
9 Jackie Lourenco, and she will enter some additional comments
10 into the record.

11 CHAIRWOMAN SCHAFFER: Thank you, Mr. Emmett. Go
12 ahead, Ms. Lourenco.

13 MS. LOURENCO: Thank you. What I'd like to do
14 right now is let you know that there have been some
15 continuation of discussions between the staff and the
16 industry since the notice was originally sent out. As a
17 result of those -- those discussions, the staff would like
18 to introduce additional changes to its original proposal.

19 The Board has been given copies of those changes,
20 and there certainly were this morning copies of the changes
21 on the back table outside.

22 So, I'd like to summarize very briefly the
23 proposed changes.

24 First off, we are proposing to redefine golf cart,
25 off-road motorcycle, and ATV to make them more consistent

1 with the California Vehicle Code and the American National
2 Standards definitions.

3 The other thing is just a clarification to the
4 all-terrain vehicle equivalent hydrocarbon standard, and
5 adding language to say that it applies to -- excuse me --
6 that it may be applied as a corporate average standard.
7 Again, this makes it similar to the primary standard.

8 Another change is to revise the requirement for
9 the special character in the vehicle identification number
10 for complying vehicles. Originally, we had proposed
11 inserting an "N" in the 12th character of the VIN. And what
12 we're changing now is, basically, we're proposing that a
13 special character be used for the noncomplying competition
14 vehicles. What this does is it provides industry a savings,
15 because fewer vehicles have to have the special VIN. And
16 this change, coupled with the requirement for the California
17 emissions control label, will still provide us the same kind
18 of assurances of our original proposal -- that only
19 complying vehicles will be registered through DMV.

20 Finally, there are numerous nonsubstantive
21 changes. Those are to the recall provisions and in the test
22 procedures, and those are simply to clarify originally
23 proposed language.

24 Those are all the changes I have. And now we'll
25 certainly open it up to any questions that you have.

1 CHAIRWOMAN SCHAFER: Do any of the Board members
2 have questions of the staff on the presentation?

3 DR. WORTMAN: Yes.

4 CHAIRWOMAN SCHAFER: Let me start with Mr.
5 Lagarias.

6 MR. LAGARIAS: No, not me.

7 CHAIRWOMAN SCHAFER: Oh, I'm sorry. Beg your
8 pardon. Dr. Wortman.

9 DR. WORTMAN: Several. What is the CO burden for
10 the State?

11 I have a table somewhere, but I forgot.

12 MR. CACKETTE: I don't have a specific number, but
13 it's on the order of 10,000 tons per year -- or per day.
14 Per day.

15 DR. WORTMAN: Okay. How about HC?

16 MR. CACKETTE: It's on the order of 3,000 or so,
17 and the same for Nox, another 3,000 or maybe 4,000, in that
18 range, for the statewide basis. 40 percent of that,
19 typically, is the South Coast Air Basin.

20 DR. WORTMAN: This is just to put the numbers in
21 perspective, that 42 tons of CO out of 10,000 is a small
22 number. Not to in any way take away from what we're about
23 to do, but it is a small number.

24 However, I have a more fundamental problem here,
25 in that the calculations, which can be performed easily

1 using the numbers we have here, are not consistent. If I
2 take the burden for CO from off-road vehicles, which is
3 about 85,000 pounds per day and 365 days, I get 30 million
4 pounds of CO per year.

5 And if I take the number of vehicles, about
6 200,000 -- 200 hours, say 10 horsepower per vehicle, I get
7 three times 10 to the 9 pounds per year. And this works out
8 that CO is roughly one percent of the exhaust.

9 I do not have an ARB regulation nine significant
10 figure calculator, so this is all rounded off.

11 (Laughter.)

12 DR. WORTMAN: If we look at the new regulations
13 that we are proposing, 100 grams per horsepower hour and,
14 again, reasonable air/fuel ratios, I get 1.4 percent CO.
15 Are we going in the right direction or is there something
16 wrong with the numbers here?

17 These are elementary arithmetical operations
18 without the benefit of the calculator even. Mr. Cross and I
19 can discuss it later. But it appears that the numbers are
20 inconsistent.

21 Another thing is 40 times 40 days a year? I watch
22 these people go out when they go with their off-road
23 vehicles. It's mainly on big weekends, not so much small
24 weekends. But the one thing that I really would question is
25 60 miles a day. Has anyone tried an ATV for 60 miles?

1 (Laughter.)

2 DR. WORTMAN: We must have Rambos out there.

3 (Laughter.)

4 DR. WORTMAN: But the other number given by the
5 industry I think is also nonsense.

6 CHAIRWOMAN SCHAFER: Okay. Thank you, Dr.
7 Wortman. Dr. Boston, I understand you had a question.

8 DR. BOSTON: Yeah, I have a simple question after
9 that. Could someone explain to me what a 90cc vehicle looks
10 like? Is that like a Moped, or is that like a small
11 motorcycle?

12 MR. CROSS: It's a small motorcycle.

13 DR. BOSTON: Small motorcycle.

14 MR. CROSS: Yeah, or a small ATV. In other words,
15 the -- okay. It sounds like we have a picture up there
16 which can be passed over to you.

17 But the smaller adult or large kid version of an
18 ATV or an off-road motorcycle would typically be 90cc.

19 DR. BOSTON: How many horsepower is that usually?

20 MR. CROSS: I'm guessing it's -- for a two-stroke,
21 it's probably 12 to 14, depending on how highly tuned the
22 engine is. For a four-stroke, it probably drops down to
23 about 8 or 9.

24 DR. BOSTON: Well under the 25 horsepower.

25 MR. CROSS: Oh, yeah.

1 DR. BOSTON: Okay. Thank you.

2 CHAIRWOMAN SCHAFFER: Unfortunately, the one I have
3 in my hand (speaking of brochure) is one of the "Big Boys,"
4 as one of them is called here. I'll have to look for one of
5 the smaller ones in a second.

6 MR. CARTER: Ms. Schaffer, I have a picture here if
7 you'd like to see it.

8 CHAIRWOMAN SCHAFFER: Why don't you bring it up and
9 share it with the members. I think that probably is useful.
10 It's an important issue, and I think they ought to have a
11 good picture of what we're talking about.

12 I'd like to welcome Supervisor Wieder, who made an
13 heroic effort to be here this morning, and spent several
14 hours in the air trying to get into Sacramento. I admire
15 your determination and courage.

16 SUPERVISOR WIEDER: And the pilot's.

17 CHAIRWOMAN SCHAFFER: Did you have a comment on the
18 presentation, please?

19 SUPERVISOR WIEDER: I have. Thank you, Madam
20 Chairman. Yes, I have a question.

21 Did I understand you to say that 10,000 carts,
22 gasoline carts -- there are 10,000 gasoline driven carts --
23 golf carts in the State now? Is that what you said?

24 MR. EMMETT: There's 40,000 currently in the
25 State.

1 SUPERVISOR WIEDER: Gasoline?

2 MR. EMMETT: Gasoline.

3 SUPERVISOR WIEDER: What was the 10,000 figure?

4 MR. EMMETT: I don't think there was.

5 SUPERVISOR WIEDER: Yes, there was. I wrote it
6 down.

7 SUPERVISOR RIORDAN: Was that industry's?

8 MR. EMMETT: Industry's was 14,000.

9 SUPERVISOR RIORDAN: 14, okay.

10 SUPERVISOR WIEDER: Then the next question is,
11 what is the difference in price in the purchase of a
12 gasoline driven golf cart versus an electric?

13 MR. EMMETT: Our research indicates that it's --
14 for an electric vehicle, it can be more, as well as for some
15 vehicles -- I believe Columbia Power Cars sells their
16 electric vehicle \$300 cheaper than the gasoline-powered one.

17 SUPERVISOR WIEDER: That's one manufacturer.

18 MR. EMMETT: Right.

19 SUPERVISOR WIEDER: So, in other words, it is
20 possible to be able to spend less and improving the air as
21 well at the same time.

22 MR. EMMETT: For that one manufacturer. Others,
23 we don't have the information.

24 SUPERVISOR WIEDER: It's possible, then. Because
25 what I'm coming to is that -- how cost-effective is it to,

1 you know -- weighing the cost of cleaning up the air as
2 against having it cost more to do so? But if what you say
3 is so, then there's -- it's possible to be able to do both,
4 clean up the air and save money.

5 MR. EMMETT: Sure.

6 SUPERVISOR WIEDER: Okay.

7 CHAIRWOMAN SCHAFFER: Thank you, Supervisor Wieder.

8 Any other questions of the staff on the
9 presentation?

10 I just had one myself. I noted in your
11 presentation, Mr. Emmett, that you took note of a leading
12 off-road motorcycle/ATV manufacturer is already producing an
13 ATV equipped with a 90cc four-stroke engine. Are you free
14 to mention who that is, and do you have any idea of what
15 kind of market they have in California? Or in the United
16 States, for that matter.

17 MR. EMMETT: I believe that manufacturer was
18 Honda, and their market share is fairly high within the off-
19 highway recreational vehicle category.

20 CHAIRWOMAN SCHAFFER: Okay.

21 DR. WORTMAN: One more --

22 CHAIRWOMAN SCHAFFER: Dr. Wortman.

23 DR. WORTMAN: -- question. The tests which you're
24 proposing to perform are road tests essentially? The tests
25 are used for road-going motorcycles. Do you think that's

1 realistic for off-road vehicles struggling to go up and down
2 hills?

3 MR. CROSS: We struggled with that a lot. And I
4 think the decision which was made was that the cost of
5 developing a specialized, quote, "off-road cycle," which
6 represented the broad range of conditions which off-road
7 vehicles experience, wasn't justified given the impact of
8 the regulation.

9 In other words, we felt that the benefits of
10 bringing them in under a controlled program, where they
11 would at least be doing reasonable emissions calibrations,
12 would produce a far greater benefit than the additional
13 increment of going from the procedure, on-road procedure, to
14 going into a special off-road procedure would produce.

15 So, we didn't feel it was cost-effective to
16 develop a special test cycle.

17 DR. WORTMAN: I think that's giving them a break,
18 a considerable break. I have a vehicle which is fairly old,
19 20-years old, and I can smell what happens when it's
20 struggling and when it's just running on the highway.

21 MR. CROSS: We would concur, I think, more so if
22 it was -- if the industry was likely to stay with a two-
23 stroke engine. But the emission reduction associated with
24 the likely transition from the two-strokes to the four-
25 strokes is so great that, when you look at the difference

1 between a four-stroke certified on the on-road cycle versus
2 certified on a specialized off-road cycle, it's not so much.

3 DR. WORTMAN: Okay. Later, I would like to return
4 to the CO problems here. I haven't had any briefings on
5 this.

6 MR. CROSS: Happy to. We can discuss it. When
7 those numbers come up, I think it's easier if you and I just
8 look at them together.

9 DR. WORTMAN: Quietly.

10 MR. CROSS: Yeah.

11 DR. WORTMAN: In the back room.

12 MR. LAGARIAS: Madam Chair?

13 CHAIRWOMAN SCHAFFER: Mr. Lagarias.

14 MR. LAGARIAS: You make a point that the utility
15 engine regulation is already on the books for utility
16 engines and that these regulations proposed are comparable
17 to those already established for utility engines.

18 Is this correct?

19 MR. CROSS: For the specialty vehicles, yes,
20 that's correct. They're identical. For the under 25
21 horsepower.

22 MR. LAGARIAS: Wouldn't it be simpler just to
23 specify that this regulation that exists for utility engines
24 would also apply to these applications as well?

25 MR. CROSS: That's essentially what we're

1 proposing.

2 MR. LAGARIAS: But it would seem to me it would be
3 simpler than just trying to make a special case for these
4 applications.

5 MR. CROSS: Yeah. That's what the regs do. In
6 other words, the regs refer to the utility engine
7 regulations and say, use -- that's what we're applying.
8 And, in fact, in many cases, they'll probably be the same
9 engines.

10 But when the original utility engine regulations
11 were considered by you, these vehicles weren't included.

12 MR. LAGARIAS: I recognize that. All I'm
13 suggesting is that why don't we just say these vehicles have
14 to meet the utility engine standards, period?

15 MR. CROSS: That's essentially what we're
16 proposing.

17 MR. LAGARIAS: It seems like a round-about way of
18 doing it.

19 Thank you.

20 CHAIRWOMAN SCHAFFER: If there are -- oh, excuse
21 me. Mayor Hilligoss.

22 MAYOR HILLIGOSS: I had one question. Do the
23 manufacturers of golf carts, do they manufacture both the
24 gas and the electric, or will some of the manufacturers go
25 out of business here in California?

1 CHAIRWOMAN SCHAFFER: Did the staff examine that
2 question?

3 MR. CARTER: No. Essentially, every golf cart
4 manufacturer that we're aware of manufactures both electric
5 and gasoline.

6 MAYOR HILLIGOSS: Thank you.

7 CHAIRWOMAN SCHAFFER: Yes, Supervisor Wieder.

8 SUPERVISOR WIEDER: That begs the next question,
9 then, that you just brought up, which is where I was coming
10 from. With what I was told before, it would seem to me that
11 we would be encouraging golf cart manufacturers to be able
12 to produce at less cost and help clean up the air. So, why
13 is there controversy?

14 MR. CARTER: Well, I think the cost varies between
15 manufacturers.

16 SUPERVISOR WIEDER: I know. But in the
17 competitive world of the marketplace, it would seem to me
18 that the other manufacturers would see the writing on the
19 wall.

20 MR. CARTER: I'm sorry. Would you repeat that?

21 CHAIRWOMAN SCHAFFER: I think that was a comment
22 rather than a question.

23 SUPERVISOR WIEDER: Yeah, an observation. Thank
24 you.

25 CHAIRWOMAN SCHAFFER: An observation, yes.

1 Were there any more questions or observations from
2 the Board?

3 DR. WORTMAN: One more.

4 CHAIRWOMAN SCHAFFER: One more. Dr. Wortman.

5 DR. WORTMAN: What is the typical cost of a golf
6 cart? I don't play golf.

7 SUPERVISOR WIEDER: I think it's about 700.

8 MR. CARTER: About thirty-three, thirty-four
9 hundred dollars.

10 DR. WORTMAN: And what range is it? What's low,
11 what's high?

12 MR. EMMETT: Probably three to four thousand
13 dollars is a typical golf cart.

14 SUPERVISOR WIEDER: Well, what's the low and
15 what's the high?

16 MR. EMMETT: Three thousand dollars would be low,
17 four thousand high.

18 MR. LAGARIAS: What's the rental cost of a golf
19 cart, 15 to \$25 a round?

20 SUPERVISOR WIEDER: Ten, fifteen.

21 (Laughter.)

22 MR. LAGARIAS: That's all right. The point I'm
23 making is that if there's -- these costs can be absorbed
24 very quickly in rental charges.

25 MR. CARTER: It would depend on the actual course

1 where you could rent a cart for a lot less money.

2 (Thereupon, the reporter requested Mr. Carter
3 to speak into the microphone.)

4 MR. CARTER: I'm sorry. It depends on the course.
5 At a public course you could rent carts for 10 to \$15.
6 perhaps.

7 But -- thank you. (Thanking Mr. Valdez for
8 turning on the microphone.)

9 But at private courses, it would be far more money
10 to rent a cart.

11 MR. LAGARIAS: Well, I'm sure \$10 will not go far
12 at Pebble Beach.

13 MR. CARTER: That's correct.

14 (Laughter.)

15 CHAIRWOMAN SCHAFFER: All right. At this point, I
16 would like to invite the first witness to come to the
17 podium. We have several witnesses today. The first who is
18 signed up for this is Mr. Charles Fain, the National Golf
19 Car Manufacturers Association.

20 Mr. Fain, please come forward. We welcome you and
21 having your testimony here this morning.

22 MR. FAIN: Thank you, and good morning, Madam
23 Chairwoman, CARB Board, and the staff.

24 First off, I'd like to tell you a little bit about
25 myself. I'm Vice-President of Engineering for Club Car,

1 Incorporated, located in Augusta, Georgia. I'm also
2 Chairman of the National Golf Car Manufacturers Association
3 Engineering Committee.

4 I have a degree in mechanical engineering
5 technology from South Georgia Tech, and spent 15 years in
6 the lawn and garden industry prior to going to Club Car in
7 1990.

8 I'm honored to have the opportunity to speak to
9 you this morning, especially, Madam Chairwoman, this being
10 your first public hearing, and also to speak to the rest of
11 the Board members and the staff on behalf of the National
12 Golf Car Manufacturers Association.

13 The National Golf Car Manufacturers Association is
14 a national trade association comprised of original equipment
15 manufacturers of golf cars manufactured and sold in the
16 United States.

17 Association members account for in excess of 95
18 percent of all golf cars manufactured and distributed within
19 the State of California. We, as an association, have been
20 working with CARB staff for several years to develop a fair
21 and uniform emissions standard to achieve the Clean Air Act
22 that the federal mandates require.

23 Prior to the time the National Golf Car
24 Manufacturers Association became the representative of the
25 golf car manufacturers in regards to this issue, there were

1 independent discussions between CARB and the manufacturers.
2 Those discussions and comments did not reflect the position
3 of the National Golf Car Manufacturers Association or its
4 present members.

5 NGCMA recognizes that CARB staff perceives that
6 the NGCMA has been inconsistent with its direction. We are
7 confident this perception is due to those earlier
8 discussions with one or possibly more individual
9 manufacturers.

10 The National Golf Car Manufacturers Association
11 has remained consistent throughout these negotiations,
12 beginning with its petition in 1991.

13 We have consistently pursued achieving a gasoline-
14 powered golf car regulation that is similar to the current
15 lawn and garden regulation in Tier One and Tier Two.

16 In November, 1991, NGCMA petitioned CARB to
17 regulate golf cars by the same standard used for lawn and
18 garden regulation. The premise behind this request was
19 simple. Similar engines should be similarly regulated.

20 Lawn and garden equipment utilizes the same basic
21 engines as golf cars, except that golf cars emit fewer
22 pollutants over a comparable time period, because they do
23 not idle.

24 Subsequently, CARB staff represented to NGCMA that
25 they would recommend to this Board that golf cars be

1 entitled to meet the first tier emission standards similar
2 to the lawn and garden requirements.

3 Based on that representation, the golf car
4 industry spent in excess of \$3 million to research and
5 develop gasoline-powered golf cars that would meet the
6 reduced emission standards.

7 However, abruptly, CARB staff recanted this
8 representation in August, 1992, originally proposing that by
9 January 1, 1995, all golf cars operating in federal ozone
10 nonattainment areas must be electrically powered. Only
11 after NGCMA filed its position statement dated August 3,
12 1993, strenuously objecting to this proposal did CARB staff
13 relent somewhat and revise the cut-off date to January 1,
14 1997.

15 No additional time period has been allowed for
16 replacement engines as in the lawn and garden regulation.
17 Thus, the CARB proposal gives California golf courses and
18 fleet operators of gasoline-powered golf cars less than 36
19 months to plan for and raise significant capital for
20 conversion to battery-powered golf car fleets and
21 construction of storage facilities. This is in contrast to
22 the eight years given landscapers and homeowners for
23 lawnmowers at a substantially less significant capital
24 outlay.

25 Intensifying the problem, the underlying pollution

1 (sic) and emissions data allegedly supporting this proposal
2 completely disregards extensive industry data and
3 contradicts some EPA findings.

4 Furthermore, NGCMA was led to believe from the
5 April 1, 1992 workshop that off-highway recreational
6 vehicles would meet a new standard similar to the lawn and
7 garden regulation for engines under 25 horsepower produced
8 on or after January 1, 1996.

9 The term, "specialty vehicle," as the light
10 utility vehicle is now named, did not appear or have a
11 definition until Mailout No. 93-08, dated March 11, 1993.
12 In the current proposed regulation, the effectivity (sic)
13 date to regulate emissions for specialty vehicles is January
14 1, 1995.

15 This will allow industry less than one year to
16 prepare operating procedures, establish our quality check
17 points, and have vehicles submitted for CARB to certify.

18 The 12-month time frame does not allow industry
19 sufficient time to make these operational procedure changes,
20 nor does it comply with California law requiring a minimum
21 two-year period between the time a regulation is approved
22 and when it becomes effective.

23 Also, in the current regulation, Article 3 of that
24 mailout on off-highway recreational vehicles and engines
25 states:

1 "This article shall be applicable to new
2 specialty vehicle engines under 25 horsepower
3 produced on or after January 1, 1995, and all
4 other off-highway recreational vehicles and
5 engines used in such vehicles produced on or
6 after January 1, 1997, for sale, lease, use, and
7 introduction into commerce in California."

8 Why? We don't understand why similar engines are not
9 regulated in a similar manner.

10 Also, Mailout 93-54, page 3, Section C, sets forth
11 estimated emissions inventories showing the total California
12 golf car population to be 40,000 units. A previous EPA
13 study estimates the gasoline-powered golf car national
14 population at 122,670 units.

15 If California has 40,000 gasoline golf cars, this
16 represents an incredible 33 percent of the total U.S.
17 gasoline golf car population; whereas, California's golf
18 course population is only 6 percent of U.S. golf cars.

19 Industry estimates a total combined golf car fleet
20 in California of gas and electric cars of 40,000. The total
21 combined golf car fleet in California of 40,000 units is
22 broken down into 14,000 gasoline golf cars and 26,000
23 electric golf cars.

24 This is known due to a confidential industry
25 survey conducted by the Association of seven discrete

1 manufacturers completed in the winter of 91-92. Therefore,
2 we submit that the gasoline golf car population in
3 California is approximately one-third of the 40,000 units
4 being estimated by CARB staff. That being true, the
5 estimated 1992 statewide baseline emissions contribution of
6 hydrocarbons, carbon monoxide, and oxides of nitrogen for
7 golf cars spelled out in Mailout 93-54, at the most, can
8 only be one-third of the numbers reported.

9 The National Golf Car Manufacturers Association,
10 in an attempt to work closely with CARB staff in developing
11 a fair and uniform emissions standard for gasoline-powered
12 golf cars, conducted an emissions survey of its engines.
13 I'd like to share that information with you to contrast it
14 with the tons per day estimated in Mailout 93-54.

15 Hydrocarbons: CARB estimate, 8.9 tons per day;
16 industry estimate, .15 tons per day, or 300 pounds per day.

17 Carbon monoxide: CARB estimate, 38.5 tons per
18 day; industry estimate, 6.17 tons per day.

19 Oxides of nitrogen: CARB estimate, .2 tons per
20 day or 400 pounds; industry estimate, 120 pounds per day.

21 These numbers are based on every car, all 14,000
22 gasoline golf cars in the State of California, running more
23 than one round per day. That's also in the attainment and
24 the nonattainment areas.

25 We believe our numbers to be correct based on the

1 technology changes to gasoline-powered golf cars in recent
2 years to improve the emissions output level of our products.

3 CARB staff may not have had the latest design of
4 engines in their evaluation and may have possibly included a
5 higher population of two-cycle engines. These two-cycle
6 engines have now become virtually extinct in the golf car
7 market.

8 This industry information should clearly show the
9 CARB Board that the golf car manufacturers in the United
10 States have taken a proactive stance at substantially
11 reducing the emissions of gasoline-powered golf cars. This
12 was done based on the understanding that we would have the
13 opportunity to meet a Tier One and Tier Two emissions
14 regulation similar to the lawn and garden regulation.

15 I'd now like to turn your attention to the primary
16 concern of the National Golf Car Manufacturers Association
17 as it relates to this proposed regulation.

18 The most harrowing effect of the regulation is the
19 immediate adverse economic impact on California golf course
20 operators. Based on a 1993 National Club Association club
21 operation survey, golf car revenues contribute 4 percent of
22 all revenues of the average private golf club in the Western
23 United States.

24 Based upon the average private golf and country
25 club revenues of \$5,031,000, this 4 percent of revenues

1 attributable to golf cars is an average of \$201,240.

2 Conversely, golf car operations represent 2
3 percent of the average program and support expense of
4 \$4,721,000, yielding an average annual expense of \$94,420.

5 The assumed average operating margin thereby
6 attributable to the typical golf club is \$106,820. This
7 average 2 percent margin will come under extreme pressure
8 when converting to an electric fleet.

9 In a National Golf Foundation published report on
10 golf car economics, the stated differential and operating
11 cost between electric-powered and gasoline-powered golf cars
12 is 88 percents per round.

13 If a typical private club in California has a
14 fleet of 64 golf cars operating at an estimated average of
15 417 average rounds per year, this will increase operating
16 cost by \$23,508, reducing the average profit to \$106,000 --
17 of \$106,820 to \$83,312. This represents a decrease in
18 margin of 22 percent.

19 If we use the same calculation for all 14,000
20 gasoline-powered golf cars in the State of California, this
21 would represent an increase in operational expense to
22 California golf courses of \$5,142,368. If the California
23 golf car population is 40,000 units, as estimated by CARB,
24 the additional operating expense annually for California
25 golf courses is \$14,692,480. This is a significant never-

1 ending financial impact on the California golf industry.

2 This monetary contribution is in jeopardy and
3 capital expenditures become significant when one considers
4 that electric golf cars should not be stored beside gasoline
5 golf cars because of fire hazard considerations.

6 Thus, to build a new or modify an existing golf
7 car facility to accommodate recharging electric golf cars
8 and buy or allocate property on which to place the storage,
9 which, by the way, may be at a premium next to a golf
10 course, will cost the average golf course operator between
11 300,000 and \$1 million, or between \$63.6 million and \$341
12 million in aggregate capital expenditures for the golf
13 course industry in California.

14 How ironic indeed if environmentally friendly golf
15 courses are run out of business because of an ill-conceived
16 regulation only to be replaced by less environmentally
17 friendly commercial activities.

18 The National Golf Car Manufacturers Association
19 has submitted many written documents to CARB in the last few
20 years relative to this subject, and this oral presentation
21 is not intended to supersede any of those positions or
22 comments.

23 It was not my intention today to cover every
24 detail of our communications with CARB, but to restate our
25 overall position, as an industry, and the basic reason for

1 that position.

2 It's up to you to decide what is the right thing
3 to do for the State of California and the California golf
4 industry.

5 Thanks for your time and attention, and I'll be
6 happy to answer any questions the Board or staff may have.

7 CHAIRWOMAN SCHAFER: Thank you very much for your
8 testimony, Mr. Fain. I had a couple of questions.

9 When the staff made its presentation, they
10 referred to a figure of about 60 percent -- and I've
11 forgotten whether it was statewide or nationwide -- of the
12 golf cart population is electric. Is that about right?

13 MR. CARTER: It's statewide, 60 percent.

14 CHAIRWOMAN SCHAFER: Statewide, 60 percent.

15 MR. FAIN: Statewide. I think our figures show
16 that that's pretty close. We estimate it's about 65
17 electric, and about 35 percent gasoline.

18 CHAIRWOMAN SCHAFER: Part of your presentation is
19 based on a concern of the additional cost associated with
20 operating an all-electric golf-cart fleet. The fact that 60
21 percent are now electric suggests to me that there are some
22 economic reasons why a golf course may want to run an
23 electric fleet, even though you cited some higher expense
24 associated with that.

25 Could you comment on why they may see some

1 advantage in operating an all-electric fleet independent of
2 this regulation?

3 MR. FAIN: Well, I think it's not because of the
4 cost involved, but because for many years, gasoline-powered
5 golf cars were either two-cycle or very inefficient and
6 really did produce some fairly high emissions levels, so the
7 cars smelled.

8 So, electric cars were perceived to be the higher
9 quality vehicles. So, many of your clubs bought electric
10 cars for that reason, not because of the cost involved in
11 operating, but because of the perception of the quality of
12 the product.

13 It's only been in the last, I guess, four, or
14 five, six years that the industry, as a whole, has started
15 to change its position with gasoline products, make them
16 more efficient, cleaner operating, eliminating two-cycle
17 engines to have a cleaner vehicle.

18 CHAIRWOMAN SCHAFFER: So, some of that \$3 million
19 investment that you were talking about having been made is
20 probably finding its way into benefits in gasoline-powered
21 carts that are sold elsewhere in the country?

22 MR. FAIN: That's correct, yes.

23 CHAIRWOMAN SCHAFFER: Can you give me some idea
24 what the relative electric versus gas population is outside
25 of California? Is it higher or lower?

1 MR. FAIN: I think it's probably slightly higher,
2 probably somewhere in the 55, 45 range maybe.

3 CHAIRWOMAN SCHAFFER: 55, 45 percent electric?

4 MR. FAIN: 55 percent electric, 45 percent gas.

5 CHAIRWOMAN SCHAFFER: Okay.

6 MR. FAIN: And, ironically, the growing -- fast-
7 growing segment of the market today is in the gasoline
8 product, not in the electric, because of the improvements
9 that have been made in recent years.

10 Also, if I might mention --

11 CHAIRWOMAN SCHAFFER: Sure.

12 MR. FAIN: -- the staff mentioned the technology
13 is available. While we all do build electric golf cars,
14 there is applications where electric golf cars are not
15 suitable for that application because of very hilly terrain.

16 We have a test that is a nation -- an industry
17 test, where we discharge the batteries in the car at a given
18 rate to determine the amount of driving time the car has.
19 A 75 amp discharge rate will bring the batteries down to
20 31.5 volts, which is basically about 80 percent of the
21 battery capacity.

22 At that point, the car gets very slow in some
23 applications. It won't even climb the hills.

24 If you put an electric golf car on a --
25 approximately a 20 percent grade, it's going to draw

1 somewhere in the neighborhood of 150 to maybe 160 amps on
2 that grade. So, you can see that, if we have batteries that
3 run an hour and a half now, and you run it on a hilly
4 terrain, you're probably not going to make two rounds, where
5 you have gas cars that you can make unlimited numbers of
6 rounds. You probably won't get two rounds out of the car,
7 an electric car.

8 So, there's going to be some locations that have
9 gas cars today that are probably going to have to buy more
10 cars than they have, simply because they won't be able to
11 achieve the number of rounds required.

12 CHAIRWOMAN SCHAFER: Are there any other questions
13 from Board members for Mr. Fain?

14 SUPERVISOR RIORDAN: Madam Chair.

15 CHAIRWOMAN SCHAFER: Yes, Supervisor Riordan.

16 SUPERVISOR RIORDAN: If I might, just for me to
17 get a feel of the organization that you represent. How many
18 of that organization produce solely the gasoline-powered
19 golf cart versus how many would be electric golf carts?

20 MR. FAIN: There's not any members -- we represent
21 all but one of the golf car manufacturers in the United
22 States. There's not a manufacturer that produces only
23 gasoline cars. There is one manufacturer, I believe, that
24 today only produces electric, but they are -- they've
25 already announced they're coming out with a gasoline car as

1 well.

2 SUPERVISOR RIORDAN: So, essentially, you
3 represent both, and not any one produces just one --

4 MR. FAIN: That's correct.

5 SUPERVISOR RIORDAN: -- in gasoline. Any that
6 just produce electric?

7 MR. FAIN: No.

8 SUPERVISOR RIORDAN: No. So, it's a balance.

9 MR. FAIN: Only the one that they're designing and
10 announcing that they're going to produce a gasoline vehicle.
11 So, all of our association members, either today or very
12 soon, will produce both gas and electric.

13 SUPERVISOR RIORDAN: Thank you.

14 DR. WORTMAN: Madam Chair?

15 CHAIRWOMAN SCHAFFER: Yes, Dr. Wortman.

16 DR. WORTMAN: Did I hear you say that golf carts
17 do not idle?

18 MR. FAIN: They do not idle. They only run about
19 30 minutes in an average of four to four-and-a-half hour
20 round of golf.

21 DR. WORTMAN: But they idle while people are
22 playing?

23 MR. FAIN: No. The engine starts everytime you
24 depress the accelerator pedal.

25 DR. WORTMAN: Well, that should add to emissions.

1 However, on your estimates of hydrocarbons, CARB
2 appears to be high by a factor of 60; on monoxide, factor of
3 6; and on oxides of nitrogen, a factor of 3.

4 Did Mr. Cross slip up on his nine significant
5 figure calculator or you have some other numbers for it?

6 MR. CROSS: We do disagree on a few of the
7 numbers.

8 DR. WORTMAN: By a factor of 60?

9 MR. CROSS: Maybe not the whole factor of 60. A
10 factor of 2 comes out of the industry's exclusion of evap
11 and running loss emissions completely. There is also a
12 difference, as he noted, in terms of the assumed population
13 of two strokes. The staff believes that about a quarter of
14 the gas cars out there are still two-stroke; whereas, the
15 industry claims that none of them are.

16 They also -- the industry used, in our view, a
17 clean -- essentially what would have been a certified engine
18 to establish their exhaust baseline; whereas, we used in-use
19 type engines which were deteriorated and represented
20 emissions increases that were associated with them.

21 I expect that if we -- that if we wrangled over
22 these, we would be able to close the gap, but I don't think
23 it would close entirely, because we do feel that all of
24 these issues are important.

25 DR. WORTMAN: Did you run tests on those engines?

1 MR. CROSS: Similar engines, yeah. Not the --

2 DR. WORTMAN: Not the dyno tests?

3 MR. CROSS: -- exact engines, no. No, not the
4 exact engines, no, but that type of engine, yes, with dyno
5 tests.

6 DR. WORTMAN: Did you run tests on your engines?

7 MR. FAIN: Yes, we did. The test information that
8 was supplied to our association to put together our numbers,
9 while not all members of the association had that
10 information, the ones that did, there's was ran on the dyno
11 to the, I believe, J-1088 standards that was required in the
12 lawn and garden regulation.

13 MR. CROSS: Yeah, they're essentially engines that
14 were being developed, as I understand it, to be certified as
15 utility engines.

16 MR. FAIN: That's incorrect. They are engines
17 that are actively being produced today in our golf cars that
18 already meet the lawn and garden regulation. And the
19 engines that we use in our utility units -- now being called
20 specialty vehicles -- do use the same engines. But that's
21 not the reason that it was done.

22 We changed the timing, the carburetion, the
23 intake, the exhaust on our engines for golf cars, because we
24 were led to believe we would be given the opportunity -- at
25 a minimum -- to meet the lawn and garden regulation in Tier

1 One.

2 DR. WORTMAN: The factor of 6 is puzzling. A
3 factor of 60 is astonishing.

4 MR. CROSS: Yes, we disagree.

5 DR. WORTMAN: I notice.

6 MR. LAGARIAS: Madam Chair?

7 CHAIRWOMAN SCHAFER: Yes, Mr. Lagarias.

8 MR. LAGARIAS: Mr. Fain, as I understand your
9 position of the Golf Car Manufacturers Association, is that
10 you feel that you should be regulated by the lawn and garden
11 engine regulation for Tier One, and I assume Tier Two?

12 MR. FAIN: Well, let me -- let me speak a little
13 differently than that. We've gone on record with CARB staff
14 stating that we realize California has a unique pollution
15 problem.

16 What we're asking for -- because we have spent
17 significant money here to develop our cars to the point they
18 are, and the electric car is not usable in every application
19 that it's going to be put into --

20 MR. LAGARIAS: I hear that.

21 MR. FAIN: -- we would like to have additional
22 time, if it's going to be a Tier Two -- a total
23 electrification, which staff has said that that was their
24 direction -- we want to be able to do the best job we can.
25 And the way that it's being presented today, we don't feel

1 that we have the opportunity to do that.

2 We have completed a tremendous amount of work
3 within our industry to reduce emissions. We can do more to
4 reduce emissions. I think all of us by now are certainly
5 investigating, if we haven't already implemented, a propane
6 conversion as well as natural gas and other alternate fuel
7 sources.

8 But the electric golf car is not the total answer.
9 It's not the promised land that you're trying to get to,
10 because it's not ready to be put in every application. It
11 needs more technological advances to be able to make it
12 climb some of the hills that golf cars are put into today,
13 and safely descend those hills, where the cars that are
14 built today, you're not going to get two full rounds.

15 MR. LAGARIAS: Well, let me put it simpler. Are
16 you willing to meet the Tier One lawn and garden
17 regulations?

18 MR. FAIN: Yes, sir.

19 MR. LAGARIAS: All right. Have you made an
20 estimate of what -- I'm talking to the staff -- of what
21 meeting the Tier One regulations would mean in terms of
22 emission reductions?

23 MR. CROSS: In terms of increase if we --

24 MR. LAGARIAS: No, not in terms of increase -- of
25 decrease from where we are now.

1 MR. CROSS: The exhaust is cut in about half. The
2 other --

3 MR. LAGARIAS: The other is 60. Is that 30 times
4 or is that about 3 times, using Dr. Wortman's numbers?

5 MR. CROSS: The exhaust -- well, exhaust is half
6 of the emissions. So, it would be the -- it'd be a quarter
7 of the total emissions, in other words, because the evap and
8 refueling is unaffected. So, what's the total --

9 MR. LAGARIAS: Well, aren't changes coming about
10 in evap and refueling?

11 MR. CROSS: Nope, no requirements to the end, not
12 on utility and not on anything that we proposed here.

13 MR. LAGARIAS: Thank you.

14 MR. CROSS: So, it's one and a half --

15 MR. CACKETTE: (Interjecting) Mr. Lagarias, in
16 other words, just to be clear on that, the benefit would be
17 one-quarter of the -- if we went to zero-emission vehicles.

18 CHAIRWOMAN SCHAFFER: 10 tons versus 40.

19 MR. CACKETTE: Not to the --

20 CHAIRWOMAN SCHAFFER: Oh, I'm sorry. I'm sorry.

21 MR. CACKETTE: -- total, but --

22 CHAIRWOMAN SCHAFFER: That's the whole category.

23 MR. CACKETTE: -- for this category.

24 CHAIRWOMAN SCHAFFER: Excuse me, for this category.

25 MR. CACKETTE: Is it nine? Nine, so it would be

1 the reduction --

2 MR. LAGARIAS: Well, how would you address --

3 (Thereupon, both Mr. Lagarias and Mr. Cackette
4 spoke simultaneously, which made it impossible
5 for the reporter to capture either person's
6 comments accurately.)

7 MR. LAGARIAS: You say you're going to zero-
8 emission vehicles. How would you answer the comment that
9 electric vehicles aren't applicable in certain golf cart
10 conditions?

11 MR. CROSS: We surveyed --

12 MR. CACKETTE: We surveyed the courses. But go
13 ahead, Bob.

14 MR. CROSS: We surveyed courses all over the
15 State, when the industry raised this argument previously, to
16 ascertain whether or not that was an issue or not. And we
17 were unable to find a course which responded that gasoline
18 golf carts were essential for them to be able to deal with
19 their terrain.

20 MR. LAGARIAS: How about the comment that was
21 made, not that they were essential, but they weren't as
22 available throughout the day? Electric cars would not be
23 available because of the running down of the batteries?

24 MR. CACKETTE: Well, I think, also, in this time
25 frame, we're going to see significant advancements in

1 batteries as a result of the zero-emission vehicle
2 requirements, also. So, the performance of these carts in
3 1997 will be superior to what existing carts are today,
4 electric carts are today.

5 The batteries we see being developed, both
6 lead/acid and otherwise, have higher power densities as well
7 as higher energy densities, which means they can go farther
8 on a given battery and they've got more power spurts.

9 MR. CROSS: We called 19 courses, or 22 courses
10 total. And of those, 19 were electric. And of the total, 8
11 characterized themselves as being hilly. So, there are
12 already a significant number of courses which characterize
13 themselves as being hilly, which are already electric.

14 MR. LAGARIAS: I hear you.

15 CHAIRWOMAN SCHAFFER: I'd like to give Mr. Fain an
16 opportunity to comment on that one --

17 MR. FAIN: Yes, I'd like to.

18 CHAIRWOMAN SCHAFFER: -- on the electric, since I
19 see you anticipating your comment.

20 MR. FAIN: Well, there's been several comments
21 made here that brings thoughts to mind.

22 Number one, let's talk about the battery
23 technology for a moment. I think everybody's reading about
24 everything they can get their hands on these days of what
25 the automobile industry's doing with batteries.

1 We've dealt with batteries a lot longer than they
2 have in this type of environment. We don't see anything on
3 the horizon that's going to be economically feasible to put
4 in a golf car.

5 If we go with some of the new battery technologies
6 that are being developed today and put them in a golf car,
7 the batteries will cost more than the entire golf car does
8 today. So, I don't see that as anything on the horizon
9 that's going to be anything to help in any way.

10 I also submit, on a golf course, determining
11 whether they're hilly or not, a golf course will take
12 whatever you want to give them. They don't know whether
13 their course is hilly, or flat, or in what respect when it
14 comes to the car being able to perform on that golf course.
15 They don't have the understanding of what it takes to make
16 that car go around that course day in and day out, all day,
17 for their requirements.

18 CHAIRWOMAN SCHAFFER: Are there any other questions
19 from Board members on Mr. Fain's testimony?

20 SUPERVISOR WIEDER: Madam Chair?

21 CHAIRWOMAN SCHAFFER: Yes, Supervisor Wieder.

22 SUPERVISOR WIEDER: On your comment, has there not
23 been -- to the staff, has there not been any tests done,
24 other than calling 19 golf courses and saying, "Are you
25 hilly or not hilly?" to verify what the speaker has just

1 said?

2 I mean, from what he has said, what you have
3 learned was not based allegedly on any really substantive
4 knowledge.

5 MR. CROSS: Well, I think the point is that when
6 we were originally hit with this argument, we thought, oh,
7 jeez, there's really a significant issue out here. And we
8 did what we could to survey people in the industry, users of
9 this equipment, to try and ascertain whether or not there
10 was a problem or not. And we were unable to find the
11 problem that he alludes to.

12 SUPERVISOR WIEDER: I know, but you're exactly
13 saying -- or I think it's a problem. If there's no
14 experience or knowledge about what can be delivered or what
15 can be operated without doing a test run, you know, you're
16 making decisions based on limited knowledge.

17 MR. CROSS: But the golf courses that have all of
18 the electric carts, they're certainly all testing them
19 everyday. I guess that was -- we felt that that was the
20 acid test, was go to the user and say, "User, is this a
21 problem or not?"

22 And we were unable to find someone who said there
23 was a problem.

24 SUPERVISOR WIEDER: You know, just from a personal
25 observation, I'm sure I heard you say 10,000, because I

1 wrote it down, but I have played golf on and off for over 20
2 years, and I don't think I have ever been in a gas-driven
3 golf cart in Southern California.

4 So, my assumption was that that 10,000 figure, as
5 I understood it, was that there are only 10,000 gas-driven
6 golf carts out of 40,000. How significant is the issue? I
7 guess I heard it wrong.

8 MR. CROSS: There are several courses that are gas
9 in Southern California. I think that Southern California is
10 moving out of gas more quickly than the rest of the State
11 is.

12 But there are -- you know, there are courses there
13 that are, even as we speak, changing from gas to electric in
14 Southern California.

15 SUPERVISOR WIEDER: Well, 20 years ago, I didn't
16 find it so.

17 CHAIRWOMAN SCHAFFER: Anymore questions from a
18 member of the Board for Mr. Fain?

19 MR. LAGARIAS: Just one.

20 CHAIRWOMAN SCHAFFER: Mr. Lagarias.

21 MR. LAGARIAS: I'd like to ask the staff -- I'm
22 going to reverse the question.

23 Since the utility engines -- the lawn and garden
24 engines have to meet Tier One standards and the golf carts
25 now, you're saying, don't have -- have to go to zero

1 emissions, because they can do it, why shouldn't the lawn
2 and garden engines have to meet zero emissions?

3 MR. CROSS: Thank you. In fact, we did develop a
4 proposal to include specialty vehicles in the zero-emission
5 requirement for this category. And there are specialty
6 vehicles, like little vehicles running around factories and
7 things, that are electric.

8 And our view was, gosh, if we can do it with golf
9 carts, why not do it with these other vehicles? In fact,
10 there are some specialty vehicles on golf courses that are
11 electric.

12 The problem with the specialty vehicle category is
13 that the loads that they're required to carry and the
14 distances that some of them are required to drive on a daily
15 basis exceed what a golf cart is typically asked to drive.
16 So, we were unable to make the showing that the specialty
17 vehicle category could be a zero-emission category. And
18 that's why they're split out.

19 So, we went down the path you've described. We
20 were unable to make the technical showing that the range and
21 the power of the vehicles in a zero-emission configuration
22 was sufficient for the job they had to do. So, we proposed
23 tailpipe standards.

24 DR. BOSTON: Madam Chair?

25 CHAIRWOMAN SCHAFER: Yes, Dr. Boston.

1 DR. BOSTON: I'm not very sympathetic to this
2 issue. I try to get all my patients to park the golf cart
3 and walk anyhow.

4 (Laughter.)

5 DR. BOSTON: I would like to ask Mr. Fain if the
6 golf courses are really in a financial bind because of this
7 minor difference it would cost to rent an electric cart
8 versus a gasoline cart.

9 Don't you think they would just pass that slight
10 increase on to the customer, the golfer? They've always
11 done that in the past, I've noticed.

12 MR. FAIN: Well, I don't know. I think you're
13 talking about different levels of golf courses. You have
14 public courses, municipal courses, and private courses, and
15 they charge anywhere from \$25 for a round of golf to \$150
16 for a round of golf.

17 The ones that you really need to be most concerned
18 about are the ones that charge \$25 right now, and a very
19 small part of that -- or a smaller part of that is for the
20 golf car. And if they could charge \$5.00 more, they'd
21 certainly charge \$30 a round and make \$5.00 more a day if
22 their golfers were willing to pay that to play golf.

23 DR. BOSTON: I think you used the figure 88 cents
24 per round was the difference, which doesn't seem very
25 significant.

1 MR. FAIN: 88 cents per round --

2 DR. BOSTON: For the electric cart versus the
3 gasoline cart. I thought that was your figure.

4 MR. FAIN: 88 cents is per round.

5 DR. BOSTON: Right. So, they've got --

6 MR. FAIN: You're saying, will the golfer pay that
7 88 cents?

8 DR. BOSTON: Right.

9 MR. FAIN: My answer to you is, if they would pay
10 that 88 cents, the golf courses would be charging them for
11 it today, because they're going to do everything they can to
12 increase their revenues as much as possible.

13 DR. BOSTON: I assure you, they will. They will
14 add it on.

15 MR. FAIN: I agree with you. They probably will.
16 But how many golfers might they lose? I mean, those are
17 questions you don't have answers to.

18 MR. BOYD: Madam Chair?

19 CHAIRWOMAN SCHAFFER: I'm sorry. Mr. Boyd.

20 MR. BOYD: Well, I hate to make an anecdotal
21 observation, but there have been several of them today. I'm
22 sorry Harriett's gone. Oh, no, Harriett, you're there.

23 As a golfer for over 40 years --

24 SUPERVISOR WIEDER: You're older than I am.

25 MR. BOYD: -- and recognizing --

1 (Laughter.)

2 MR. BOYD: -- that -- oh, yes, definitely.

3 (Laughter.)

4 MR. BOYD: And recognizing that if there's
5 anyplace that the free market works, to me, it's in the golf
6 course business. I have a little trouble with it. I mean
7 you have to make reservations half the time so far in -- I
8 mean the supply and demand here is there aren't enough golf
9 courses to meet the demand on average. And we all pay what
10 we have to pay, and you have to wait in line usually to play
11 golf, et cetera, et cetera.

12 So, I have a hard time accepting, on average,
13 let's say the idea that this cost increment is going to run
14 anybody out of the golf course business. But that is just
15 an anecdotal observation and not a scientific one.

16 CHAIRWOMAN SCHAFER: Thank you very much, Mr.
17 Boyd. Mr. Fain, I really appreciate your testimony here
18 this morning. Since you were able to give the entire
19 statement, I think we've had an opportunity to spend a fair
20 amount of time. I also read these comments before your
21 presentation this morning. And I think it was lucid and
22 illuminated the concerns of your organization.

23 And I appreciate those comments very much.

24 MR. FAIN: Might I make one more comment before I
25 leave?

1 CHAIRWOMAN SCHAFFER: All right.

2 MR. FAIN: And that is relative to the cost issue
3 we're discussing, because the 88 cents is only a portion of
4 the cost. The cost to convert from gasoline storage
5 facilities to electric storage facilities also has got to be
6 part of that cost structure.

7 CHAIRWOMAN SCHAFFER: I understand. I had one
8 short question on that. When you made those cost estimates,
9 did you factor in land cost? You made the point that land
10 may not be available. Or is that just the structure cost?

11 MR. FAIN: On the high end, the million dollars,
12 it does include land cost of 300,000.

13 CHAIRWOMAN SCHAFFER: Okay. That's what I thought.
14 Okay. Thank you very much.

15 Just so the other witnesses who plan to give
16 testimony this morning are aware, we expect to be breaking
17 at 12:30 for an executive session to hear a legal matter.

18 We will also take the opportunity to have lunch at
19 that time. With the approval of the court reporter, I'd
20 like to try to proceed right through to 12:30 at this time,
21 and I'd like, therefore, to call up the next witness listed,
22 Kathleen Hunt Wolf.

23 (Thereupon, there was a pause in the
24 proceedings while the reporter replenished
25 her stenograph paper.)

1 CHAIRWOMAN SCHAFER: If you'd wait a minute,
2 please, Ms. Wolf, until the paper has been changed in the
3 reporter's documentation machine.

4 Ms. Wolf, welcome to the Air Resources Board, and
5 you may please proceed.

6 MS. WOLF: Thank you, Ms. Schafer and members of
7 the Board.

8 I am a person recovering from a cold. I'm an
9 independent consultant on certification matters to several
10 small motorcycle manufacturers. I am also one of your
11 citizens, and I'm extremely concerned, because all of the
12 underlying premises upon which the proposed regulations are
13 constructed are clearly erroneous. I am sure you are aware
14 of the growing resentment against government and the lack of
15 trust which many people feel.

16 When you put in place regulations which damage
17 small business and for which the rationale is misleading,
18 you risk increasing this disaffection.

19 All of us have been willing to cooperate with the
20 Board and with the staff when regulations are sensible and
21 can be shown to be necessary. This set of regulations will
22 be burdensome, and it absolutely will not achieve the
23 projected reductions in admissions of hydrocarbons and CO in
24 the nonattainment areas because these motorcycles are not
25 ridden in the nonattainment areas.

1 There are not as many off-road motorcycles being
2 used in California as the State staff hypothesizes. I have
3 four off-road motorcycles in my garage in Claremont,
4 California. We are committed motorcyclists. None of these
5 motorcycles has been ridden in a nonattainment area, and
6 none of them have ever been ridden anything like the number
7 of miles per year which appear in the staff figures.

8 For regulation of off-road motorcycle emissions,
9 it simply does not make sense to proceed as though the
10 motorcycles are used where they are registered. They are
11 not.

12 A very substantial amount of use of these
13 motorcycles is outside the State of California all together.
14 Again, the stated reduction in emissions in nonattainment
15 areas will not be achieved. Therefore, all of the cost
16 analyses are also wrong. Bad regulation, with its attendant
17 bureaucracy, is much more damaging to California citizens
18 and to its small businesses than no regulation at all.

19 If you are going to go ahead with these
20 regulations, you should be aware that the burden falls
21 unevenly upon the small and large manufacturers. And I
22 think, at the very least, you ought to give the small
23 manufacturers an additional three to five years to meet
24 these regulations or, alternatively, partial exemption from
25 these requirements.

1 said, we used a more conservative approach and assumed 40
2 instead of 46.

3 And it is true that the three hours per day and
4 the 20 miles per hour were our estimates, but we thought
5 those were rather conservative as well.

6 MR. CROSS: I think Mike's also making the point
7 that if you use the industry's data on miles per day and
8 days ridden, you're going to come up with about half of the
9 staff's estimate rather than the 317, which the industry is
10 also citing there. So, the numbers didn't add up that we
11 got from them.

12 MR. LAGARIAS: All right. But you're focusing on
13 the 37 rather than the 1200, which would be the product of
14 the average miles and the days ridden that the industry
15 proposed.

16 MR. CROSS: Right. Right.

17 CHAIRWOMAN SCHAFFER: Dr. Wortman.

18 DR. WORTMAN: I also have problems with the
19 staff's premise. First of all, the spelling on page 17. If
20 that's what you think premise is, then I think we have a
21 problem here.

22 MR. CROSS: We corrected it in a number of other
23 places. That one must have slipped by.

24 DR. WORTMAN: You didn't catch it on page 17, last
25 paragraph, second line.

1 MR. CROSS: Okay.

2 DR. WORTMAN: Anyway, I don't believe the 40 or
3 the 46 figure. Most people go riding on weekends. Almost
4 every weekend?

5 MR. CROSS: No, that'd be every other weekend, two
6 days. That's days, not weekends.

7 DR. WORTMAN: You believe that?

8 MR. CROSS: No, no, no.

9 DR. WORTMAN: I see them --

10 MR. CROSS: What I'm saying is that you said that
11 they go typically on big weekends. Well, if it's a two- or
12 a three-day weekend, then --

13 DR. WORTMAN: How many of those do we have a year?
14 Five? Four? This sounds high. Now, the industry obviously
15 padded it to get 46 days, because this shows high usage and,
16 therefore, there are many people involved.

17 I don't believe that. I don't believe the 40
18 either. People just don't go out that often. On normal
19 weekends, you don't see them towing vehicles out of town
20 that often. And 60 miles on that kind of terrain takes a
21 Rambo.

22 MS. WOLF: Exactly. It can't be done.

23 MR. LAGARIAS: And does that assume that all the
24 vehicles are running at 46 days for 30 miles?

25 MS. WOLF: I'm two people. I have four.

1 MR. LAGARIAS: Yes.

2 MS. WOLF: They can't be.

3 MR. CROSS: But then there are numbers of people
4 that I've -- at least when I've gone on outings, where
5 people bring their friends and the vehicle runs all day.
6 So, it goes both ways.

7 In other words, there are less vehicles than there
8 are people, and the vehicle is ridden by multiple people for
9 fun.

10 MS. WOLF: May I say one last thing, and then I'll
11 stop?

12 CHAIRWOMAN SCHAFFER: Yes, certainly. Please, Ms.
13 Wolf, thank you.

14 MS. WOLF: Yes, I do not have figures. As I said
15 at the beginning, most of what I come to say I come to say
16 as a citizen. And I think that you ought to be very careful
17 about what the citizen, who does not believe these numbers,
18 as I do not, will think about your regulations.

19 Because when I describe it to people not in any
20 way connected with the motorcycle industry, but who are
21 motorcyclists, they say -- this is very impolite -- "It's a
22 lie." Watch out for that. It's important.

23 And that's all I have to say.

24 CHAIRWOMAN SCHAFFER: Thank you very much, Ms.
25 Wolf.

1 MR. CROSS: Are these -- are the motorcycle
2 manufacturers that you listed -- Husqvarna and some of those
3 are primarily two-stroke, right?

4 MS. WOLF: No, they are not.

5 MR. CROSS: Well, Ducatti isn't. But the off-
6 highway ones --

7 MS. WOLF: Those are on the street. For
8 Husqvarna, the numbers are more four-stroke than two-stroke.

9 MR. CROSS: Okay. So that's changed over the
10 years.

11 MS. WOLF: Although they are very small.

12 MR. CROSS: Let me -- the direct question is,
13 several of those manufacturers rung in my mind as
14 manufacturers which produce a lot of competition
15 motorcycles, real competition motorcycles, which are used in
16 competition events. Now, is that true, or am I --

17 MS. WOLF: It is not so true as it was, I believe.
18 Husqvarna, which was bought by Cagiva -- when Cagiva was
19 operating, they were more competition than Husqvarna has
20 been recently, which has changed a great deal.

21 MR. CROSS: So, Husqvarna, for example, has gone--
22 has evolved from its original line of purely competition
23 motorcycles or purely two-stroke --

24 MS. WOLF: Yes.

25 MR. CROSS: -- competition-type motorcycles to now

1 have a line of four-stroke motorcycles as well.

2 MS. WOLF: Yes, yes.

3 MR. CROSS: Would those motorcycles have trouble
4 complying with the proposed standards, the four-stroke
5 Husqvarnas?

6 MS. WOLF: Being so small, what I am being told --
7 and this is only the beginning -- is that they cannot yet
8 tell, but that they are working on it. So, today, I don't
9 know.

10 CHAIRWOMAN SCHAFER: Dr. Wortman?

11 DR. WORTMAN: On these mileages that we were
12 given, I certainly don't believe the 60. It just can't
13 happen. Do you believe seven miles per day? Because 46
14 days and 310 or so miles is about seven miles a day. Does
15 that sound right to go out somewhere, an enormous distance,
16 for seven miles?

17 MS. WOLF: I think 46 days is completely wrong.

18 DR. WORTMAN: Oh, I know it's wrong.

19 MS. WOLF: And so, therefore, that skews the seven
20 miles a day. No, I don't think seven miles a day is
21 correct. But I can tell you that in the last six years, I
22 have ridden in Baja, in Arizona, in Colorado, never in
23 California. So, that's four. And that's only me. For a
24 lot of people I know, it is the same.

25 DR. WORTMAN: Do you believe the 310 miles?

1 MS. WOLF: Perhaps.

2 DR. WORTMAN: You do? That's worse than my
3 Pantera.

4 MS. WOLF: Oh, you mean 310 miles --

5 DR. WORTMAN: A year. Even my Pantera can
6 struggle up to 500.

7 MS. WOLF: Well, I only rode once last year. So,
8 I'm probably 20 miles in one year. How does it work out
9 across the board? I don't know.

10 MR. LAGARIAS: Ms. Wolf, while we're arguing
11 statistics, and data, and analysis, I think you should be
12 aware we are sensitive to the economics, to the impact on
13 people. We're trying to meet our air quality standards, but
14 we are not ignoring the issues that you are raising.

15 MS. WOLF: I understand that you are trying to
16 improve air quality standards. God knows I appreciate that,
17 and I understand that.

18 What I am saying is, I do not believe that these
19 regulations will achieve the reductions. That's the problem
20 I have.

21 MR. LAGARIAS: Thank you.

22 CHAIRWOMAN SCHAFER: Thank you very much, Ms.
23 Wolf. The next witness who's requested an opportunity to
24 testify is J. C. Delaney with the Motorcycle Industry
25 Council. Mr. Delaney, you may please come forward.

1 Good afternoon. Welcome to the Air Resources
2 Board.

3 MR. DELANEY: Thank you. My name is J. C.
4 Delaney. I'm the Director of Technical Programs for the
5 Motorcycle Industry Council. MIC is a nonprofit national
6 trade association representing approximately 125 members who
7 are manufacturers and distributors of motorcycles, ATVs,
8 motorcycle and ATV parts and accessories, and members of
9 allied trades.

10 Firstly, I want to assure the Board and staff that
11 our member motorcycle and ATV manufacturers continue in
12 their willingness to work with the Board in the development
13 of mutually acceptable regulations.

14 Several workshops between CARB staff and the
15 industry have already been held, and we do look forward to
16 continuing the dialogue. MIC does, however, still have
17 several areas of disagreement with the proposed regulations.

18 The first of these is the alternative
19 certification testing of all-terrain vehicles. Staff has
20 already mentioned their willingness to work with us further
21 on this.

22 The proposed regulations allow certification of
23 ATVs using the ULG test procedures to, quote, "equivalent
24 standards." Due to different engine loading characteristics
25 between the two test procedures, preliminary testing by

1 manufacturers has shown no true correlation between them.

2 Some manufacturers have also indicated that there
3 are some repeatability problems when using the federal test
4 procedure.

5 For these reasons, rather than attempting to show
6 equivalency, MIC advocates that development of specific
7 standards for ATVs, using the steady state, J-1088, test
8 procedures. Again, MIC member companies are more than
9 willing to work with CARB staff in the mutual development of
10 acceptable standards.

11 Staff also indicated during their presentation
12 this morning that industry was asking for a complete
13 exemption for vehicles with engine displacements under 90cc.
14 This is not completely the case.

15 We do strongly feel that those off-road
16 motorcycles and all-terrain vehicles with engines less than
17 50cc should be exempt from regulation. The small
18 displacement machines under 50cc are currently exempt from
19 on-highway emissions rules in California and the federal
20 level. We feel that this should also be the case for off-
21 road.

22 Because of the very small size and light weight of
23 these machines -- and there was a picture circulated that
24 everyone can see they are quite small in size and quite
25 light weight -- fitting them with larger emission-controlled

1 engines is not practical.

2 Additionally, many, if not most, of the 50cc off-
3 road motorcycles cannot attain even the modest speeds
4 required by the Class One federal test procedure. These
5 machines are, for the most part, intended for use by
6 children who are learning to ride, and are typically
7 operated at slow speeds on level ground.

8 It is important that these small entry-level
9 motorcycles and ATVs that are used by children and small
10 adults continue to be light weight, easily handled, and
11 economically priced.

12 Pertaining to the 50 through 90cc machines, we are
13 not asking for an exemption. We are asking that an
14 extension of the compliance date be granted for those off-
15 road motorcycles and all-terrain vehicles with engines less
16 than or equal to 90cc until December 31st, 1999. This will
17 allow manufacturers to develop small, light weight emission-
18 controlled motorcycles with adequate performance
19 capabilities for use by youngsters learning to ride and
20 small adults, who'd be otherwise uncomfortable with bigger
21 machines.

22 We've been working with CARB staff in earlier
23 workshops. And until March of this -- of 1993, industry had
24 relied on the staff's indication that these small
25 motorcycles and ATVs would be exempt from emission

1 requirements; that is, the under 90.

2 Consequently, virtually no development of
3 alternative power sources for them has been done yet. Many
4 of these smaller machines use the engines as a chassis
5 structural member, and to redesign and redevelop them will
6 entail a complete reengineering of the engine, frame, or
7 both to incorporate a new emission-controlled engines.

8 These machines are important to us, in that they
9 are typically the machines that introduce new users to the
10 sport, thus perpetuating the market for the larger machines.
11 Extending the compliance date for machines with engines less
12 than or equal to 90cc will allow the manufacturers the
13 necessary leadtime to develop the new emission-controlled
14 engines.

15 Emphasizing the importance of the machine, it
16 should be noted that under the requirements of the consent
17 decree signed by the ATV manufacturers and distributors and
18 the U.S. Consumer Product Safety Commission, or CPSC, ATV
19 manufacturer/distributors are precluded from marketing ATVs
20 with engines larger than 90cc for use by children under
21 16-years old. Children under 12 years of age may only ride
22 ATVs with engines under 70cc. Since many, if not most,
23 entry level riders fall into these age groups, again, this
24 segment of the market is very important, as is providing
25 them with machines of adequate performance to allow the

1 learning of skills required to transition into the larger
2 machines.

3 Another point of contention between MIC and the
4 proposed regulations are a couple of the definitions.

5 Staff has defined competition vehicles as those
6 used exclusively for competition. While MIC's member
7 companies manufacture motorcycles for exclusive competition
8 use, they've got no control over the actual usage by the
9 ultimate purchaser. We continue to object to any definition
10 based on a vehicle's use. Competition vehicles should be
11 defined as those manufactured and marketed exclusively for
12 closed-course competition use.

13 Also, the definitions for both ATV and off-road
14 motorcycle include a sentence to the effect that an ATV or
15 off-road motorcycle that is not used exclusively for
16 competition is not defined as a competition vehicle. We
17 feel this is unnecessary, since a competition vehicle
18 definition is already included in the proposed regulations.
19 There's really no need to define what is not a competition
20 vehicle.

21 We understand that -- and staff has confirmed this
22 morning that they intend to use the American National
23 Standards Institute, or ANSI, definition of ATVs. But we do
24 object to their addition of load weight limits to that
25 definition.

1 The pure ANSI definition does not mention load
2 limits. We feel that such limits may prove design
3 restrictive as the larger ATVs are already very near the
4 load carrying capacity in the definition presented by staff
5 this morning.

6 We understand that staff's intention in adding the
7 load limits was to preclude redefinition of specialty
8 vehicles as ATVs. The very design specific aspects of the
9 ANSI definition -- astride seating, four wheels only, and
10 handlebar steering -- make this very unlikely. Certainly no
11 currently marketed specialty vehicle fulfills all three of
12 those criteria.

13 On the subject of vehicle identification numbers -
14 - and Ms. Lourenco expounded on that a bit this morning.
15 It's been agreed by industry and staff that, with the
16 Department of Motor Vehicle's cooperation, a system should
17 be initiated to preclude registration for recreational use -
18 -which is commonly called a green sticker registration -- of
19 motorcycles intended for closed-course competition use.

20 Preventing closed-course machine registration for
21 recreational use will effectively remove a significant
22 number of currently manufactured two-stroke off-highway
23 motorcycles from eligibility for registration. This has the
24 effect of removing the most significant emission
25 contributors from eligibility for registration for

1 recreational use.

2 And as we work with the staff, in view of the
3 smaller numbers of actual models and type of -- excuse me --
4 actual models of competition motorcycles and ATVs and their
5 somewhat lower sales volume in the recreational category --
6 a volume that, by the way, is anticipated to decline
7 significantly once regulations are effective, also -- it's
8 more cost-effective for industry to code the vehicle
9 identification numbers of competition machines rather than
10 recreational off-road motorcycles and ATVs as was proposed
11 in the original mailout.

12 And my understanding is that it's been modified
13 somewhat to incorporate that. So, what I'm basically saying
14 is that, at this point, industry agrees with CARB staff on
15 the vehicle identification number methodology.

16 The end result of VIN coding the competition
17 machines will be the same. It will achieve CARB staff's of
18 precluding registration of competition motorcycles and ATVs
19 for recreational use within California.

20 One additional benefit that CARB didn't mention --
21 or excuse me -- the staff did not mention is that it would
22 be of benefit to DMV during the incorporation of the system
23 is that some owners have their dual purpose motorcycles,
24 those that are capable of being operated both on- and off-
25 highway. As their machines get older, they tend to register

1 them for off-road use only, the reason being that the on-
2 road registration costs are significantly higher than the
3 off-road green sticker registration costs. And by coding
4 only the competition vehicles, it precludes some confusion
5 at the DMV registration desk when they try to get a green
6 sticker for their dual purpose bike.

7 Another area of disagreement pertains to
8 certification testing. The proposed regulations require
9 that all vehicles undergo a minimum of two tests for
10 certification. We do question the need for this, because
11 other equipment classifications, including existing on-road
12 vehicles, require only one test for certification purposes.

13
14 The additional testing costs and time requirements
15 are an unnecessary burden to the manufacturers and will
16 serve no useful purpose.

17 We also continue to object to any reporting of
18 competition vehicle sales. The VIN code procedures or
19 provisions of the proposed regulations, with which we've
20 already said we agree, provide a means for precluding the
21 registration of competition vehicles for registration -- or
22 for recreational use, making their registration for
23 recreational use illegal and should also negate any need for
24 reporting sales of the competition vehicles.

25 In summary or in closing, I want to assure the

1 Board, as well as the staff, that our member motorcycle and
2 ATV manufacturers and distributor members continue in their
3 willingness to work with the staff and the Board for the
4 development of mutually acceptable regulations. That
5 concludes my statement.

6 CHAIRWOMAN SCHAFFER: Thank you very much, Mr.
7 Delaney. Do any of the Board members have a question for
8 the witness?

9 Yes, Mr. Lagarias.

10 MR. LAGARIAS: I'd like ask the staff, regarding
11 certification testing, the basis for wanting two
12 certification tests.

13 MR. CROSS: In most kinds of like on-road vehicle
14 certification, for example, they do a durability test on the
15 vehicle, which gives you multiple data points, and then
16 there's a single test on the data vehicle (sic). So, you
17 have -- but you have multiple pieces of data which tell you
18 what the emissions characteristics of the vehicle are.

19 On the utility engine standards, there's a single
20 test, but there's also a quality auditing requirement. So,
21 we have the certification test, and then we have tests from
22 production engines which supplement it, which give us some
23 confidence that the data are good.

24 In the motorcycle situation, there's nothing other
25 than the certification test required. So, essentially, what

1 we're doing is asking them to repeat the certification test
2 just to make sure it's a good test, so to give us some
3 certainty that it's not a -- that there wasn't some problem
4 with the test or that it's not a spurious data point, if you
5 will.

6 MR. LAGARIAS: Well, wouldn't they repeat it
7 anyway if it were -- if it failed, let's say?

8 MR. CROSS: Oh, yeah. If they failed, they would
9 repeat it, but the point is that they could submit data from
10 a passing test without backing it up with a replicate. And
11 I guess our feeling is that the amount of data that we're
12 asking for in the first place is minimal. We're not asking
13 them for quality audit. We're not asking them for a
14 durability test. We're not asking for other kinds of data
15 which we would normally use to determine that the cert data
16 are good. So, we feel like two tests isn't too much to ask.

17 MR. LAGARIAS: All right. And what about the
18 reporting of competition vehicle sales? Does the VIN
19 requirements meet that?

20 MR. TERRIS: What we're trying to do there is
21 we're not requiring vehicles that are clearly competition
22 vehicles be reported. There's an issue out there that
23 vehicles that are designed as competition vehicles are being
24 actually used for recreational purposes, which would fall
25 outside of our definition of competition.

1 And so, therefore, what we're trying to do is get
2 information to make a determination as to what is really a
3 competition vehicle, what is being used exclusively for
4 competition purposes out there.

5 MR. LAGARIAS: Well, your definition of a
6 competition vehicle, does that meet the requirement?

7 MR. TERRIS: I'm not sure if I understand your
8 question.

9 MR. LAGARIAS: Well, earlier under "definitions,"
10 CARB is recommending that the --

11 MR. CROSS: Oh, this is the used by versus the
12 manufactured by?

13 MS. LOURENCO: That's correct.

14 MR. TERRIS: What we're trying to do there is to
15 clarify what the legislative mandate was. The Legislature
16 basically said that we cannot regulate racing vehicles. It
17 does not provide a definition of what is really a racing
18 competition vehicle.

19 So, what we've attempted to do is to fashion a
20 definition that is consistent with the Federal Clean Air
21 Act, which basically has, "used solely for competition
22 purposes," and also square it with the Vehicle Code, which
23 basically makes an exemption from registration requirements
24 for vehicles used exclusively for competition purposes.

25 MR. LAGARIAS: Well, if that is adopted, what is

1 the need of reporting competition vehicle sales?

2 MR. TERRIS: Because what we've done is, we're not
3 attempting to regulate these designed for competition.
4 We're trying to work with industry in the next couple of
5 years to determine what exactly is a competition vehicle out
6 there that is being used exclusively for it. So, we need
7 this data to make these determinations.

8 MR. CARTER: If I may, we're assuming that the DMV
9 registration process will work and will solve the problem
10 that we're talking about here.

11 What this reporting will do is that it will give
12 us assurance in the next two years and coming years that
13 that is indeed working. We'll be able to hopefully track
14 the number of competition vehicles that are marketed and
15 sold as competition vehicles. And then, if the DMV process
16 works as planned, those numbers should start dropping.

17 And that's essentially the reason why we're asking
18 for this reporting.

19 MR. LAGARIAS: Thank you.

20 CHAIRWOMAN SCHAFFER: Are there any other questions
21 from Board members?

22 Dr. Wortman?

23 DR. WORTMAN: I'm not sure that I agree with that.
24 There may be reasons for manufacturers not reporting the
25 number of competition machines that they have sold.

1 International automobile racing figures are never given.
2 You have to guess how well the manufacturer is doing in
3 pushing these vehicles.

4 MR. CROSS: The purpose of the staff proposal is
5 to essentially move the competition vehicles from the
6 current situation, which is many of them are used as
7 recreational vehicles, to competition vehicles being
8 exclusively used for racing events. And if we track the
9 numbers of at least California sales of competition
10 vehicles, what you should see is a decline in the sales.

11 DR. WORTMAN: But then you're asking for
12 information that some companies may not wish to give you,
13 because that gives their competitors an edge.

14 MR. CROSS: But, see, they're only -- okay. I see
15 what you're saying.

16 MR. TERRIS: The information would be trade secret
17 confidential, which they could request that not be released
18 to other parties other than ARB.

19 MR. LAGARIAS: Won't that really sort itself out,
20 those people that are making the most effective competition
21 vehicle will get the higher sales and those that --

22 MR. CROSS: Our concern is -- we're not trying to
23 mess with the marketplace of true competition vehicles used
24 in competition. Essentially, we're just trying to verify
25 that the vehicles that are being used by the average -- by

1 the motorcyclists for recreation that are really competition
2 vehicles are phasing out as a function of this regulation.

3 So, that's the purpose.

4 MR. LAGARIAS: I don't see the necessity for
5 requiring. Asking for it may be appropriate. But requiring
6 it -- I go up to a stoplight and there's a Honda next to me,
7 and it zooms. It's a competition vehicle when it takes off.
8 And yet it isn't reported like that.

9 (Laughter.)

10 CHAIRWOMAN SCHAFFER: Are there any other --

11 MR. DELANEY: Madam Chair, if I can amplify on
12 that a little bit?

13 CHAIRWOMAN SCHAFFER: Yes, Mr. Delaney. Go ahead.

14 MR. DELANEY: Not necessarily Mr. Lagarias'
15 comment, but the comments of Mr. Cross.

16 (Laughter.)

17 MR. DELANEY: As it stands today, a number of
18 vehicles marketed and manufactured for competition purposes
19 are, in fact, registered for recreational use. What we've
20 done here and are working with CARB staff is agree to put a
21 method to preclude that from happening in the future once
22 regulations are in effect.

23 And, again, we don't see the need for reporting,
24 because regulations will be in effect to preclude the
25 further registration of those vehicles.

1 CHAIRWOMAN SCHAFFER: I had one question for the
2 staff. We have a communication from -- DMV I guess it is --
3 yes, that this registration, the VIN registration is not
4 going to pose a particular additional burden to them.

5 I assume that's true with both the alternative and
6 the original proposal?

7 MR. CROSS: That's correct. And we are going to
8 enter that correspondence into the record later on.

9 CHAIRWOMAN SCHAFFER: Okay. Thank very much.

10 All right. I think that if all of the Board's
11 questions have been responded to, I'd like to thank Mr.
12 Delaney for your presentation this afternoon, and give an
13 assessment of where I think we are.

14 We have three more witnesses who have signed up
15 for the opportunity to testify and answer questions this
16 afternoon.

17 I regret to say that we won't be able to take that
18 testimony up now until about 1:30. We expect to be back
19 here promptly at 1:30.

20 You are certainly welcome, if that is inconvenient
21 for your schedule, to leave with us, so that we can look at
22 it, any written testimony that you may want to offer if
23 there's a scheduling problem.

24 If there are no other comments from the staff on
25 how we're going to proceed and no questions for the staff on

1 the regulation at this time, we'll recess for lunch and we
2 will back here promptly at 1:30.

3 Thank you very much.

4 (Thereupon, the luncheon recess was taken.)

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AFTERNOON SESSION

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3 CHAIRWOMAN SCHAFFER: The afternoon session of the
4 California Air Resources Board hearing is in order. I'd
5 like to welcome Board member Lynne Edgerton, a new Board
6 member appointed by the Governor also on the 19th of
7 November.

8 This is Lynne's first Board meeting, as it is
9 mine, and we welcome you, Lynne, and appreciate your
10 endurance in terms of making the meeting, even though the
11 weather was all stacked against you.

12 In resuming this hearing, I'd like to invite the
13 next witness who has signed up to give testimony this
14 afternoon, Mr. Curtis Schmidler of the Yamaha Motor
15 Corporation. Is Mr. Schmidler here, please?

16 Good afternoon. I'm sorry to keep you waiting.
17 Welcome to the Air Resources Board.

18 MR. SCHMIDLER: Thank you.

19 Good afternoon. My name is Curtis Schmidler, and
20 I'm here today to represent Yamaha Motor Corporation, USA.

21 I need to reinforce a few items previously
22 presented by Mr. J. C. Delaney of the Motorcycle Industry
23 Council.

24 First, what we feel is an urgent need for a three-
25 year extension in the proposed under 90cc engines. Those

1 regulations are intended to eliminate two-stroke engine use
2 in off-highway motorcycles and all-terrain vehicles.

3 We are particularly concerned about this issue.
4 Of the two-stroke motorcycles that we market, three are less
5 than 90cc. We have no four-stroke motorcycle engines
6 available at the present time.

7 Yamaha needs sufficient leadtime to design,
8 develop, and build new four-stroke engines that will be
9 required to support our entry level off-highway motorcycles.

10 Item 2, the equal importance of an alternative SAE
11 J-1088 bench test procedure or bench test method for off-
12 highway/all-terrain vehicle engines. Our motor sports test
13 engineers tell us that they are unable to modify our
14 existing motorcycle chassis dynamometers in order to use
15 them with four-wheel all-terrain vehicles.

16 Item 3, Yamaha's willing -- in fact, we're
17 committed to work with the ARB staff to help develop an
18 equivalent J-1088 bench test procedure. This would be an
19 alternative for the proposed chassis dynamometer test. This
20 would provide an equivalent emission reduction for all-
21 terrain vehicles only to the proposed 1.2 grams of
22 hydrocarbon and 15 grams of CO per kilometer.

23 Fourth and last, we believe that the VIN coding of
24 competition motorcycles is the least complex and the most
25 cost-beneficial method to achieve ARB's stated goal.

1 Thank you for this opportunity to voice our Yamaha
2 concerns. If there are any questions, I'd be happy to try
3 to address them.

4 CHAIRWOMAN SCHAFFER: Thank you very much, Mr.
5 Schmidler. Any questions from the Board of this witness?
6 Any questions for the staff on the points that were raised?

7 Thank you. Oh, Andrew.

8 DR. WORTMAN: Just one question.

9 CHAIRWOMAN SCHAFFER: Excuse me, Dr. Wortman.

10 DR. WORTMAN: You object to the test procedure.
11 What would you propose?

12 MR. SCHMIDLER: To the -- what we're looking for
13 is to develop a J-1088 bench test procedure. The numbers
14 aren't in place now. I think we've agreed that this is
15 something that we will work on and we're certainly committed
16 to work with.

17 What was originally proposed was that we could
18 take one wheel off of an all-terrain vehicle and run them on
19 a motorcycle dynamometer, chassis dynamometer. In fact, at
20 least in our case, that's impossible. So, we need a bench
21 test methodology and an equivalent standard or standard
22 numbers that we can test to.

23 CHAIRWOMAN SCHAFFER: Bob, do you have some
24 comments on that?

25 MR. CROSS: Yeah. The existing staff proposal

1 before you has the flexibility in it to allow what they're
2 suggesting. In other words, we realize that most -- we felt
3 that most motorcycle manufacturers, in fact, would have
4 dynos which would accept vehicles with slave wheels or
5 vehicles minus a wheel on the existing two-wheel dyno.

6 But if there were ones that couldn't accommodate
7 it, we felt that if they did the testing, back-to-back
8 testing on the chassis procedure and the engine procedure
9 using a two-wheel motorcycle with roughly the right engine
10 in it to establish the appropriate levels, that we could go
11 ahead and work with the industry.

12 The problem was that we didn't have sufficient
13 data from industry coming to you with this proposal to put
14 standards forth. And so, what we're suggesting is we'll
15 work with the industry to develop, quote, "equivalent
16 standards," if they're willing to do the testing.

17 DR. WORTMAN: Are there equivalent standards? How
18 are you going to do it?

19 MR. CROSS: They basically would be doing back-to-
20 back -- they would be doing back-to-back tests of the same
21 engine, if you will, on the chassis dyno and on the engine
22 dyno on the two different procedures.

23 DR. WORTMAN: I thought they were objecting to a
24 chassis dyno.

25 MR. CROSS: But they can do it with a two-wheel

1 vehicle, like a motorcycle with a similar engine.

2 DR. WORTMAN: Similar.

3 MR. CROSS: Yeah, not the same, but similar.

4 CHAIRWOMAN SCHAFFER: And my question for Mr. Cross
5 is that you can do that within the ambit of the regulation
6 we're considering now?

7 MR. CROSS: The regulation we're considering
8 before you now has sufficient latitude to allow this.

9 CHAIRWOMAN SCHAFFER: Thank you.

10 Any other questions from the Board for the
11 witness?

12 MS. EDGERTON: I'd like to ask Mr. Schmidler a
13 question. Mr. Schmidler, thank you for coming this morning.

14 You say you have no four-stroke engines at all in
15 your sales?

16 MR. SCHMIDLER: In the under 90cc, and the off-
17 road under 90cc engines, the small entry-level motorcycles,
18 at the present time, we do not have any.

19 MS. EDGERTON: Do you have -- so, you do have
20 four-stroke engines in your regular-sized --

21 MR. SCHMIDLER: In larger products, yes.

22 MS. EDGERTON: Uh-huh. What's the difficulty in
23 making the change?

24 MR. SCHMIDLER: Well, the difficulty is that up
25 until March of 1993, like other manufacturers, we were under

1 the impression that under 90cc products would be exempted
2 from this regulatory process.

3 This impression was based on previous meetings
4 with ARB staff. There was a change in direction on or about
5 April of 1993. That is -- that's less than a year ago.
6 And, of course, it takes considerable time to design,
7 develop, and build completely new engines and new products.

8 So, it's a matter of timing. It's not a matter of
9 we're saying, please, just drop this and forget about it.
10 We're saying, give us enough leadtime to do it.

11 MS. EDGERTON: Well, have you -- can you tell me
12 what you think would be sufficient leadtime?

13 MR. SCHMIDLER: Yes. We think a three-year
14 extension to the proposed 1997 regulation is required in
15 order to do it, and to do it right, to do it economically,
16 and to keep the cost of the product down where it's still
17 affordable.

18 Anytime you go into a crash engine development
19 program one or two things happens. Either you make mistakes
20 or you push the cost out of sight. So, it takes time to
21 develop new engines. And until last March or April, we had
22 no reason to think that we even needed to do this.

23 MS. EDGERTON: Did you start at that time to work
24 on a 90cc engine?

25 MR. SCHMIDLER: Not really, because at that time

1 it was still maybe we were going to, maybe we were not. And
2 by about September, it became very clear, I think, to
3 everyone involved that ARB staff was very determined to go
4 ahead in this direction regardless of our screams of
5 protest, for the lack of a better word.

6 And, at that time, yes, we started a program. But
7 that's a fairly lengthy program.

8 MS. EDGERTON: So, you have a program underway.

9 MR. SCHMIDLER: Oh, certainly. This is not like
10 building a lawnmower, where you take an off-the-shelf engine
11 and put it in a frame.

12 Many times in motor sports vehicles the engine is
13 part of the frame itself. It's actually a support member.
14 So, the engines are custom-designed and built specifically
15 for a product. That's a lengthy and very, very costly
16 process.

17 MS. EDGERTON: Thank you.

18 MR. SCHMIDLER: Thank you.

19 DR. WORTMAN: Just one more. What is the next
20 largest size engine you have, four-stroke?

21 MR. SCHMIDLER: We have one all-terrain vehicle
22 with an 80cc four-stroke. In motorcycles, the smallest
23 four-stroke engine we have at the present time is 124cc.

24 DR. WORTMAN: So, you have a running 80cc engine.
25 You're not that far off, are you?

1 MR. SCHMIDLER: In an all-terrain vehicle. But
2 gear box, clutch, everything involved --

3 DR. WORTMAN: We're talking about engines. You
4 only talked about engines so far. It sounds very close to
5 me.

6 MR. SCHMIDLER: I wish it were.

7 DR. WORTMAN: You mean the 80cc versus 90?

8 MR. SCHMIDLER: I wish that we could simply take
9 that engine and put it in a motorcycle. It would make
10 everyone's job a lot easier.

11 MS. EDGERTON: Mr. Schmidler, I have one more
12 question. How many vehicles do you sell under 90cc in
13 California?

14 MR. SCHMIDLER: I don't have that --

15 MS. EDGERTON: Per year.

16 MR. SCHMIDLER: -- figure with me. I'm sorry, but
17 I work in the technical end of the business. I could
18 certainly get it, but I don't have it with me.

19 MS. EDGERTON: Well, I'd appreciate it, sir, if
20 you would provide it for the record.

21 MR. SCHMIDLER: I certainly will.

2 MS. EDGERTON: Thank you.

23 CHAIRWOMAN SCHAFFER: Yes, Mayor Hilligoss.

24 MAYOR HILLIGOSS: Yes. I wanted to ask -- I
25 thought I understood from the former -- Mr. Delaney, that it

1 was not possible to put a four-stroke engine in one of the
2 smaller units under 90cc.

3 MR. SCHMIDLER: I think that was a
4 misunderstanding.

5 MAYOR HILLIGOSS: Because it was too heavy?

6 MR. SCHMIDLER: If I'm not mistaken, one of our
7 Yamaha competitors does have a four-stroke model at the
8 present time.

9 MAYOR HILLIGOSS: So, it is possible.

10 MR. SCHMIDLER: But there is some loss of
11 performance and some additional weight. And then, the very
12 small models, very entry-level models that typically
13 motorcycle enthusiasts would buy for their children to start
14 learning on, you give up -- give up some performance, and
15 you gain weight. So, there are certainly some downsides,
16 too.

17 MS. EDGERTON: I see.

18 MR. SCHMIDLER: Typically, a two-stroke engine
19 will put out far, far more horsepower per cubic inch of
20 displacement, or per pound of weight than a comparable four-
21 stroke.

22 MAYOR HILLIGOSS: Okay. Thank you.

23 I wanted to ask the staff, what happened in March
24 and April that you changed plans?

25 MR. CROSS: Yeah. I think the staff needs to

1 acknowledge that we did change direction. And the reason
2 for that was because we started looking at the emission
3 inventory numbers associated with this portion of the off-
4 highway class.

5 Do we have an overhead or something on that, or do
6 we want to put it up now or hold it till later?

7 Yeah, the numbers -- basically, the numbers
8 associated with it were -- if you look, we can see that the
9 50cc exemption would move the benefit of the staff proposal
10 or the emission level resulting after the staff proposal
11 from 4 tons up to 7 tons per day. So, there would be a
12 three-ton loss in the proposed benefit.

13 And if it was a 90cc break exemption, it would be
14 the difference between 4 and 9 tons per day. And, as we
15 said earlier in the staff presentation, that's a five-ton
16 loss.

17 So, it was the concern about basically giving up a
18 significant amount of benefit in the proposal, which drove
19 the staff towards this change in direction. And the
20 discussion which went on between industry and the staff
21 during that time period was essentially between an exemption
22 or no exemption.

23 In other words, I don't think the issue of
24 leadtime to bring engines into compliance was really
25 discussed. In other words, they raised the arguments of

1 inadequate performance, and cost, and all that and,
2 basically, we're suggesting that the choice here was between
3 exemption or no exemption, not between exemption and, for
4 example, more leadtime.

5 But anyway, the increase in emissions explains why
6 we changed direction.

7 MAYOR HILLIGOSS: Thank you.

8 CHAIRWOMAN SCHAFFER: I guess I have a follow-on
9 question. I don't know whether you can calculate or even
10 estimate this on such short notice. But what are the
11 implications of an extension of three years, or two years,
12 or one year on the emission benefits? Is there a way that
13 we can tell that now?

14 MR. CROSS: Oh, I think over the long term it's
15 not that much, because, basically, you turn the -- you know,
16 it delays the turnover of the fleet, if you will, by one
17 year.

18 So, while I can't give you an exact number,
19 essentially what it means is that the fully turned-over
20 benefit would occur in however many years later than it
21 would otherwise occur. But then, over the long term, when
22 it stabilizes out, you get the full benefit.

23 CHAIRWOMAN SCHAFFER: Okay. Mr. Schmidler, I
24 understand your proposal is that the extension be given for
25 all vehicles under 90cc, including 50cc and below?

1 MR. SCHMIDLER: Yes, that's what we would like to
2 see.

3 CHAIRWOMAN SCHAFFER: Okay. Any other questions
4 from the Board members?

5 Okay. Thank you very much --

6 MR. SCHMIDLER: Thank you.

7 CHAIRWOMAN SCHAFFER: -- for your participation
8 this afternoon.

9 The next witness who has expressed an interest in
10 testifying is Mr. Brian Gill of Honda. Is he still here?

11 Mr. Gill, please come forward.

12 Good afternoon.

13 MR. GILL: Good afternoon, Chairwoman Schaffer,
14 Board. My name is Brian Gill. I'm the Certification
15 Manager of American Honda Motor Company here to present the
16 comments of Honda Motor Company, Limited on the proposed
17 regulation.

18 I'd like to say that we appreciate the opportunity
19 to comment on the proposal, and we support the comments
20 previously made by the Motorcycle Industry Council, and we
21 would like to thank the staff for their efforts during the
22 development of the proposal.

23 Our data show that approximately 21,500 off-road
24 motorcycles and ATVs were sold in California in the 1992
25 calendar year.

1 About half of these, we understand, were equipped
2 with four-stroke engines. Approximately 1300 motorcycles
3 with engines of less than 50cc were sold, and about 1,000
4 motorcycles and 920 ATVs with engines of larger than 50cc
5 and less than 90cc were sold.

6 The rest were larger displacement motorcycles and
7 ATVs and vehicles manufactured for use in competition.

8 From these numbers, we think it's clear that this
9 source is not a major contribution to air pollution. The
10 main effectiveness of the proposal would be the elimination
11 of two-stroke engine vehicles, as was the case with the on-
12 road regulation adopted some years ago.

13 I'd like to make the following specific comments
14 on the proposal:

15 With regard to optional standards for ATVs, Honda
16 needs the option to use the test procedure for utility and
17 lawn and garden equipment engines, which is proposed in the
18 regulation.

19 That test procedure is referred to as SAE J-1088,
20 which is used for certifying our ATV engines.

21 Our facility for testing according to the federal
22 test procedure, FTP, has been optimized for two-wheeled
23 motorcycles and cannot accommodate an ATV even if one rear
24 wheel is removed.

25 The reason for this, if I could explain, is that

1 with the motorcycle dynamometer, the air-cooling fan is
2 located directly in line with the engine of a two-wheel
3 motorcycle. And when you try to test an ATV on it, you have
4 to move the motorcycle over to one side so that the one
5 wheel will turn the dynamometer roller. This means that the
6 air flow is on the tire rather than on the engine. And for
7 those reasons it's not appropriate to use that equipment for
8 this kind of test.

9 Also, the removal of one wheel or the canting of
10 the motorcycle causes the wheel, which is driving the
11 dynamometer, to slip. So, for these reasons, at least in
12 our experience, it isn't possible to use them for a
13 reproducible test of an ATV. In the proposal, engines
14 tested under the SAE J-1088 procedure must comply with
15 exhaust emission standards equivalent to the standard for
16 vehicles tested under the FTP.

17 No explanation of how this equivalency will be
18 determined has been provided in the proposal, and our
19 understanding is rather vague. However, as we understand
20 it, the proposal seems to be impractical and might result in
21 different manufacturers certifying to different standards
22 for the same category of vehicle.

23 We very strongly believe that the ARB must adopt a
24 single specific numerical standard as has been done for all
25 other mobile sources controlled by the ARB for these engines

1 tested according to this procedure.

2 And we would like to propose the following
3 standards: For engines of less than 225cc displacement
4 would be 300 grams per bhp/hour for CO; and HC plus NOx of
5 12 grams per bhp/hour. And for engines of 225cc and
6 greater, a CO of 300 grams per brake horsepower hour and an
7 HC plus NOx of 10 grams per brake horsepower hour.

8 With regard to exemptions, we don't agree with the
9 ARB staff that exemptions are unnecessary or that they will
10 undermine the regulations. We believe that off-road
11 motorcycles should not be treated more severely than on-
12 road; therefore, we request that exemption should be granted
13 for motorcycles with engines of less than 50cc displacement
14 as it is allowed for on-road motorcycles.

15 Also, we ask the Board to allow an exemption for
16 vehicles with engines of less than 90cc displacement until
17 the year 2000. This will allow manufacturers time to
18 develop replacement products for this category.

19 In Honda's case, it takes three years from the
20 design concept to the showroom floor. And if we replace the
21 engine of a two-stroke powered motorcycle with a four-stroke
22 powered engine -- four-stroke engine that is -- this engine
23 is heavier. Its center of gravity is higher. And this
24 affects the performance and handling of the product.

25 So, it isn't easy to just put another engine in

1 the frame previously used for a two-stroke engine without
2 causing some adverse effect as a salable product.

3 These small displacement vehicles represent the
4 means by which manufacturers introduce new riders to the
5 sport. They accumulate less miles per year while being used
6 on fewer days per year than larger displacement enthusiast
7 machines; so, we think their contribution will not be great
8 and perhaps not as great as was shown in the charts.

9 With regard to the useful-life proposal, the
10 proposed five years or 10,000 kilometers useful life we
11 believe is too much for this type of product. It is similar
12 to the useful life requirement adopted for on-road
13 motorcycles, but it is not appropriate for vehicles used
14 off-road.

15 This is because the conditions of use for on-road
16 vehicles are relatively stable and those for off--road use
17 are highly diversified. The operation of a vehicle in
18 traffic results in a degree of similarity in vehicle speed,
19 acceleration, et cetera, while off-road use has no similar
20 limits.

21 Additionally, a certain level of operator
22 performance is implied for on-road driving, which is absent
23 in off-road use.

24 These differences in usage mean that it's
25 impossible for the manufacturer to guarantee the performance

1 of the product used off-road to the same degree as he can
2 for the product used on-road, even if they're manufactured
3 to the same specifications. Also, we believe that vehicle
4 usage will vary according to the enthusiasm of the owner and
5 will decrease year by year.

6 Therefore, we would like to propose that useful
7 life be defined as -- for machines 280cc or greater, a
8 period of two years or 4,000 kilometers, or a time of use of
9 200 hours, whichever occurs first; for 170cc to 279cc, two
10 years/2400 kilometers, or 200 hours; and for 91cc to 169 cc,
11 two years/1600 kilometers, or 200 hours.

12 With regard to emissions testing, the staff has
13 proposed a requirement for each vehicle or engine to be
14 tested twice for certification. This is not required for
15 any other class of vehicles or engines controlled by ARB and
16 is not necessary for this class.

17 There is no emissions benefit from the additional
18 testing burden. All it does is to increase costs and reduce
19 test facility availability.

20 The ARB staff does have the authority to request
21 an additional confirmatory test if they think it necessary.
22 But it seems to us that there is no need to require this on
23 every certification program.

24 I could say that we are certifying vehicles to
25 ARB's ULG regulation, and we are requested frequently to

1 perform an additional test on those engines for confirmatory
2 purposes, and only one test is required for those engines.

3 So, we would like to request that the Board change
4 this to require only one certification test.

5 With regard to the ATV definition, we think that
6 the payload limit is not appropriate for these vehicles. We
7 believe that this is design restrictive, and that the load
8 capacity does not matter as long as the standards are met.

9 There should be no limit of the load capacity of
10 these vehicles.

11 We think that the definition should follow the
12 ANSI's definition. And without reading it, the important
13 part of it is that it stresses four low-pressure tires --
14 not four or more -- and it does not include a load limit.
15 Otherwise, the words are similar to those proposed by the
16 staff.

17 With regard to the definition of competition in
18 racing vehicles, US EPA has defined competition and racing
19 vehicles. And their definition, which reads, ". . .any
20 off-road motorcycle or ATV designed and marked solely for
21 use in closed-course competition events," is a competition
22 or racing vehicle. We believe that this is appropriate for
23 this category of vehicles. And we'd like to mention that
24 this regulation, the proposal, is addressed to
25 manufacturers' requirements for certification, not for end-

1 use enforcement.

2 With regard to the off-road motorcycle definition,
3 the definition for an off-road motorcycle should be
4 consistent with the existing California Vehicle Code
5 definition, which reads as follows:

6 "Off-Road Motorcycle: Any vehicle as
7 described in the California Motor Vehicle Code,
8 Section 400, having an internal combustion engine
9 and which is not primarily designed for use on
10 freeways, highways, and surfaced streets."

11 Additionally, the staff's definition of an off-road
12 motorcycle and all-terrain vehicle includes the sentence:

13 "An off-road motorcycle or ATV that is
14 not used exclusively in competition or racing
15 events in a closed course is not a competition
16 racing vehicle for the purposes of these
17 regulations."

18 As other witnesses have testified, the use of this product
19 cannot be controlled by the manufacturer. And we believe
20 that the sentence should be deleted from the regulation for
21 the reasons mentioned before; that is, the regulation is for
22 the certification of products and not an end-use enforcement
23 regulation.

24 With regard to the VIN, I think -- perhaps I
25 should read this. I don't think we have a problem with it

1 anymore, but the definition of the VIN, as mentioned in the
2 proposal, incorporates several parts of the Code of Federal
3 Regulations. Part 567 of those regulations contains the
4 NHTSA certification requirements, which include specific
5 labeling requirements.

6 We believe that these may have been incorporated
7 by mistake, and that ARB needs only a specific means of
8 preventing the licensing of competition vehicles. We
9 suggest that a specific requirement be adopted to identify
10 the noncompliant (sic) competition off-road motorcycles and
11 ATVs as opposed to identifying the complying vehicles. This
12 will be more economical, since there are less models to
13 change and it will have the same effect.

14 With regard to the standards, the ARB staff is
15 proposing that we be allowed to establish a corporate
16 average, and we would like to propose that the standards
17 should be applied as a corporate average regardless of which
18 test procedure is used to determine compliance.

19 The ARB should allow a corporate average of the
20 vehicles tested on the FTP and on the vehicles tested using
21 the SAE J-1088 test procedure. And that, for the latter,
22 the HC plus Nox values should be averaged.

23 With regard to total test distance, this is
24 defined as the distance the vehicle should be driven to
25 stabilize emissions. We would like to request that the ARB

1 add the words, "... as determined by the manufacturer" in
2 order to clarify the responsibility for that determination.

3 With regard to reporting the sales of competition
4 vehicles, the staff report indicates that true competition
5 off-road motorcycles, ATVs, and go-karts are exempt from
6 these standards.

7 These vehicles are exempt and reporting should not
8 be required. This reporting would provide no emissions
9 benefit, but would cause manufacturers and the ARB staff,
10 and we suspect DMV, additional workload. And we request
11 that that proposal be deleted.

12 With regard to the cost-effectiveness of the
13 proposal, staff estimates that the cost of improvements to
14 meet the proposed standards for off-road motorcycles would
15 be approximately \$25 per engine. We find that this is
16 fairly close for small engines. However, we estimate an
17 increase of \$150 at retail for larger engines, which will
18 need air injection, which they do not have now.

19 The staff's estimate of annual miles driven does
20 not consider the differences in performance and terrain
21 which will limit average speed to well under 20 miles per
22 hour for small displacement vehicles.

23 Also, the number of days used per year and the
24 mileage accumulated will decrease year by year as it does
25 with other classes of vehicles. So, we find that it is not

1 really reasonable to simply multiply the numbers as is done
2 in the staff report.

3 These factors result in some decrease in the cost-
4 effectiveness of the proposal, and this would be offset to
5 some degree by the changes recommended above. And the ones
6 that I was specifically referring to there are standards to
7 be specified for the J-1088 test procedure, single-emissions
8 test for certification purposes, exemption for 50ccs and
9 less displacement motorcycles, extension of leadtime for the
10 90cc motorcycles, VIN identification for competition only
11 motorcycles, and deletion of the reporting requirement.

12 Thank you for your attention. I'd be pleased to
13 try and answer any questions.

14 CHAIRWOMAN SCHAFFER: Thank you, Mr. Gill. Are
15 there any questions from Board members for the witness?

16 Dr. Wortman.

17 DR. WORTMAN: Indeed, several. As far as the fan
18 not being aligned correctly with the ATV, you could use a
19 deflector. You could put a crate to deflect the flow. It
20 would have the same effect. So, that's not really a very
21 big objection.

22 MR. GILL: I don't know that, sir. I'm not a
23 testing expert. But that is one of the reasons set forth.
24 Also, that the loading of a single tire, where the vehicle
25 was intended to drive two, will cause some torque reaction

1 which will lift that tire and cause it to slip. Those two
2 things are cited by our test engineers. I don't have any
3 better information.

4 DR. WORTMAN: How much would you have to lift the
5 wheel? I think it's so little, that the angle you will
6 impose on the tire driving the dynamometer is negligible.
7 Tires do not respond to a few degree tilt.

8 Anyway, your proposal for 300 gram per horsepower
9 hour CO, Mr. Cross and I just went through an exercise where
10 we agreed that the staff proposal of around 100 is roughly
11 where we are at present. Why should we go to anything
12 higher?

13 We agree on those numbers, right? We agree.

14 MR. CROSS: Yes.

15 DR. WORTMAN: Fine. So, that I don't think is
16 reasonable.

17 On your small vehicles, you mentioned that a four-
18 stroke engine will have a higher CG than a two-stroke. What
19 is the weight of machines you're talking about? Roughly.

20 MR. GILL: 200 pounds.

21 DR. WORTMAN: And the rider is about 120.

22 MR. GILL: Maybe.

23 DR. WORTMAN: So, the CG is dominated by the CG of
24 the rider, not the engine. So, that's a negligible effect,
25 right?

1 MR. GILL: The standards I quoted are the
2 standards for the ULG engines, the utility lawn and garden
3 engines.

4 DR. WORTMAN: But the vehicle that you mentioned,
5 that the CG will go up if you go to a four-stroke engine,
6 agreed. You probably have to go to overhead valves and it
7 will go up.

8 But the CG is dominated by the CG of the rider.
9 So, this is a negligible effect.

10 Now, the most interesting --

11 MR. GILL: I don't have the expertise to argue
12 that, sir, but --

13 DR. WORTMAN: Trust me.

14 MR. GILL: -- you know, when they test them, they
15 do -- when the experts test them for magazines, they cite
16 such matters -- wheel sizes, and engine relations, and
17 centers of gravity.

18 DR. WORTMAN: Trust me. As part of engineering,
19 they teach you how to multiply masses and moment arms, and
20 it all comes out.

21 Now, on your vehicles, 91 to 169cc, you quote a
22 life of 1600 kilometers, page 3.

23 MR. GILL: Yes, sir.

24 DR. WORTMAN: How much is a vehicle like that?
25 Roughly.

1 MR. GILL: Sir, this is not intended to be the
2 life of the vehicle. This is the warranted life of its
3 emissions performance.

4 DR. WORTMAN: Okay. So, the engine will not
5 deteriorate for 1600 kilometers, or not significantly.

6 MR. GILL: We believe that we could warrant its
7 emissions to comply with the standard for that period, but
8 not longer than that.

9 DR. WORTMAN: What is the cost of such a vehicle?
10 Approximately.

11 MR. GILL: I would venture two or three thousand
12 dollars.

13 DR. WORTMAN: You mean \$2.00 per kilometer before
14 deterioration sets in?

15 MR. GILL: Well, of course, it's deteriorating.
16 They use it very hard.

17 DR. WORTMAN: That's another point. I'm coming to
18 that. It seems to me that people who are willing to pay
19 \$2.00 per kilometer for useful life of an engine or life in
20 terms of good performance do not care about cost.

21 MR. GILL: No, sir. That's not what --

22 DR. WORTMAN: This makes my Pantera look like a
23 very reasonable vehicle.

24 MR. GILL: It is a reasonable vehicle.

25 DR. WORTMAN: It is? I'll show you some bills and

1 we will discuss that. I don't think so.

2 MR. GILL: I'm not saying that the vehicles will
3 be unusable or will perform poorly. Only that we feel that
4 we cannot guarantee its emissions performance for the kinds
5 of periods that the staff is proposing, and that this seems
6 to be reasonable to us. Anyway, considering the usage of
7 these vehicles, which we have not considered up to now, as
8 related to compliance with exhaust emission standards, we
9 have no basis -- you have no basis. This is our best guess
10 as to how long we could guarantee exhaust emissions
11 performance.

12 DR. WORTMAN: You see, this reinforces my
13 argument, which I tried on Mr. Cross earlier, that the very
14 easy motorcycle test, road-going motorcycle test for these
15 vehicles is meaningless. They should be given a stiffer
16 test, because they're misused all the time, obviously. No?
17 No. Okay.

18 CHAIRWOMAN SCHAFFER: Thank you, Dr. Wortman. Are
19 there any other questions from Board members?

20 Yes, Mr. Lagarias.

21 MR. LAGARIAS: Mr. Gill, you say -- you're
22 differentiating between the useful life and the actual life
23 of a vehicle. How long would you say the actual life would
24 be?

25 MR. GILL: I believe that the registration data

1 shows that 50 percent of the vehicles are still registered
2 for use at five years.

3 MR. CROSS: That's correct. We have the table in
4 front of us.

5 MR. LAGARIAS: Then, that would mean, from your
6 data, that for two of those five years, the vehicles you
7 would produce would meet the emission standards we are
8 proposing, and that for three of those five years we have no
9 record, other than you'd indicate they won't be meeting the
10 emission standards.

11 That's the assessment one could make. Is the
12 deterioration that fast in the emission performance that you
13 can't meet the standards beyond two years?

14 MR. GILL: We don't know that for certain. We
15 just don't have the experience. We have experience with on-
16 road motorcycles, and they perform well. We're being
17 required now to guarantee, to warrant the performance of
18 these vehicles under penalty of recall.

19 MR. LAGARIAS: Are you aware that for motor
20 vehicles the warranty we require is 100,000 miles.

21 MR. GILL: I know that very well. Yes, sir. And
22 the building of those vehicles, as you know, has become
23 very, very technologically enhanced. And these are not as
24 technologically advanced as those.

25 MR. LAGARIAS: I'm aware of that. But if it has a

1 200-hour life at three hours a day -- a 200-hour useful
2 life at three hours a day, driving it for 300 -- three hours
3 a day, that means 33 days a year is what you would expect
4 the vehicle to be used?

5 MR. GILL: No, sir. Really, all I mean is that if
6 an emissions test were performed under either the FTP or the
7 SAE J-1088 procedure, that vehicle would have to comply with
8 the emission standard whether or not it had been maintained
9 or however hard it had been driven. That is the warranted
10 period.

11 So, that's what we're concerned about.

12 MR. LAGARIAS: I'm aware of that. But you're
13 indicating that it applies over two years or 4,000
14 kilometers, or 200 hours. Well, if it's for two years at
15 200 hours, that would be 100 hours a year. And I'm trying
16 to translate that into how many days a year the other data
17 we heard would come out from this figure. And it looks like
18 it's about 33 days a year that one would anticipate,
19 assuming one drove for 200 hours.

20 MR. GILL: I have a feeling that you're
21 misunderstanding, sir, that the vehicle won't fall apart in
22 that time.

23 MR. LAGARIAS: I'm quite aware. I understand that
24 we're not talking about the life of the vehicle, but the
25 useful life of the emission equipment.

1 MR. GILL: Yes, sir, and the potential lack of
2 maintenance, and also the conditions and the modes of use to
3 which these kind of vehicles are subjected is so different
4 than even Panteras. We can't reliably say today that it
5 will be able to perform for the kind of periods that are
6 proposed. That's all.

7 MR. LAGARIAS: Are you satisfied with the changes
8 that the staff has recommended for the VIN definition?

9 MR. GILL: Yes, sir.

10 MR. LAGARIAS: And you don't like the idea of
11 reporting sales of competition vehicles?

12 MR. GILL: No, sir.

13 MR. LAGARIAS: Would you be willing too volunteer
14 that information so that we can have an assessment of how
15 well the VIN performance data are tracking?

16 MR. GILL: Yes, I think we could do that. Yes.

17 MR. LAGARIAS: Thank you.

18 MR. GILL: Totally as an alternative to reporting.

19 MR. LAGARIAS: Thank you.

20 CHAIRWOMAN SCHAFFER: Mayor Hilligoss.

21 MAYOR HILLIGOSS: I was just wanting to ask the
22 staff to explain why it says here you're proposing a
23 requirement for each vehicle or engine to be tested twice
24 for certification. Why?

25 MR. CROSS: That was the same issue that was

1 discussed earlier. It was basically to give us some
2 reasonable confidence of the data. In other words,
3 replicate tests are very often used to make sure that the
4 first test was good, if you will.

5 MAYOR HILLIGOSS: That's the one for the
6 motorcycle that you were talking about.

7 MR. CROSS: Yeah.

8 MAYOR HILLIGOSS: Okay.

9 CHAIRWOMAN SCHAFFER: Yes. Ms. Edgerton.

10 MS. EDGERTON: Referring to your numbers about the
11 numbers of motorcycles and ATVs sold in California, can you
12 tell me how many of them were produced and sold by Honda?

13 MR. GILL: I'm sorry, I can't. I'm not sure what
14 our market share is in California.

15 MS. EDGERTON: So, it's difficult for us to
16 understand to what extent you might be affected.

17 MR. GILL: We will be very largely affected.

18 MS. EDGERTON: Only if you sell a large number of
19 motorcycles and ATVs in California, right?

20 MR. GILL: We do.

21 MS. EDGERTON: But you don't know --

22 MR. GILL: Perhaps 30 percent or more.

23 MS. EDGERTON: So, you think maybe it's 300
24 motorcycles and 300 ATVs with a markup of what?

25 MR. GILL: I'm sorry?

1 MS. EDGERTON: I'm just curious as to, you know,
2 if it's 300 motorcycles and 300 ATVs, if you have a third of
3 each of those markets, what do they sell for? \$3,000 each.

4 MR. GILL: Well, the price varies considerably
5 from the smaller ones to the largest ones, which are
6 probably 600cc, which may be like -- I don't know how much
7 those cost. Four, five thousand dollars, six thousand
8 dollars.

9 MS. EDGERTON: Well, I'm talking about the ones
10 between the 50cc and the 90cc, which are the ones you're
11 asking for an exemption.

12 MR. GILL: That's right. Yes, yeah.

13 MS. EDGERTON: So, I'm sorry. I'm sure I didn't--

14 MR. GILL: The numbers are not large in that area.
15 It's just that, if a manufacturer does not have an offering
16 in that area, then, whichever I buy first, as a new
17 customer, I might stay with that. But if I bought a Honda
18 first, then the possibility exists that I would stay with a
19 Honda.

20 If there are no Hondas available in the
21 classification that I want to buy, then I'll buy somebody
22 else's. And the likelihood is that brand -- anyway, you
23 would continue to buy the same manufacturer's product.

24 MS. EDGERTON: So, if I understand you, there's
25 really not very much money involved. You're not very

1 affected financially in that respect.

2 MR. GILL: Not by the specific --

3 (Thereupon, both Mr. Gill and Ms. Edgerton
4 spoke simultaneously, which was unable to be
5 captured by the reporter.)

6 MS. EDGERTON: Not by the specific -- thank you.

7 MR. GILL: Not by the small number of vehicles,
8 but by our exposure in that area of the market and by --
9 there's a word I can't think of --

10 MR. KENNY: Customer loyalty.

11 MR. GILL: Loyalty, customer loyalty, thank you.
12 Customer loyalty, that's established very early, I think.
13 Honda knows that very well.

14 MS. EDGERTON: I guess I had one other question.
15 In reading the material and reviewing this whole issue, it
16 was -- is my understanding correct that most of the market,
17 most of the riders that you sell to in this category are
18 young people, teenagers?

19 MR. GILL: The people who use the motorcycles are
20 mainly novice riders.

21 MS. EDGERTON: And when you say young people, what
22 age do you mean?

23 MR. GILL: Teenagers.

24 MS. EDGERTON: Thank you.

25 MR. GILL: I'm sorry. I don't know further.

1 MS. EDGERTON: Thank you.

2 CHAIRWOMAN SCHAFFER: Are there any other questions
3 for the witness from the Board members? Thank you very
4 much, Mr. Gill, for your presentation this afternoon.

5 MR. GILL: Thank you.

6 DR. WORTMAN: I have some advice for Mr. Kenny, to
7 put into the record the calculations that I showed to Mr.
8 Cross on carbon monoxide levels.

9 CHAIRWOMAN SCHAFFER: Very good. That will be
10 done. Thank you.

11 The last witness who has requested an opportunity
12 to appear this afternoon is Mr. Ken Bush of Suzuki. Is he
13 still here?

14 Good afternoon, Mr. Bush, and welcome to ARB.

15 MR. BUSH: Good afternoon, Chairwoman Schaffer and
16 members of the Board. My name is Ken Bush. I'm the
17 Regulations Manager for American Suzuki Motor Corporation.

18 First of all, I'd like to thank the ARB staff for
19 their willingness to work with manufacturers to develop the
20 proposed regulations for off-road motorcycles and ATVs.

21 Suzuki supports the MIC comments which were
22 presented earlier. And we'd like to focus our comments on
23 one issue that's of particular concern to us, and that is
24 the issue of an exemption for models less than 50cc and a
25 compliance exemption for 50 to 90cc models.

1 With regard to the less than 50cc models, I think
2 we're talking only about off-road motorcycles here. I'm not
3 aware of any manufacturer that produces a less than 50cc
4 ATV.

5 It's my understanding that Suzuki, Yamaha, and
6 Honda each have one model in this category. They're all
7 equipped with two-stroke engines.

8 In the case of Suzuki, our model in this category
9 is the JR-50. It's a small, two-stroke, off-road
10 motorcycle. It has a weight of about 80 pounds. It has a
11 maximum rider weight of 65 pounds. It's relatively
12 inexpensive, and it's designed specifically as a training
13 machine for children.

14 It has a single-speed transmission, automatic
15 clutch, and it's delivered from the dealer with a power
16 reduction plate in the exhaust system to limit maximum
17 speed.

18 I think there are some fundamental differences
19 between these less than 50cc models and larger off-road
20 motorcycles and ATVs. First of all, the number of sales is
21 very small. In the case of Suzuki, we sold only slightly
22 more than 100 JR-50s statewide last year.

23 Usage is also quite different for these models.
24 As I mentioned previously, with the power reduction plate
25 installed, maximum speed's limited to only 15 miles per

1 hour.

2 As the young rider gains some skill and
3 experience, the plate can be removed, and then the maximum
4 speed becomes approximately 30 miles per hour. This speed
5 is still less than some of the speeds that are achieved
6 during the test cycle that we would have to use for
7 emissions testing.

8 The point is that these models are typically
9 operated at much slower speeds than other off-road
10 motorcycles. Also, the number of hours of operation or
11 miles of operation are much less. We believe that allowing
12 an exemption for a small number of these small off-road
13 motorcycles would have virtually no effect on air quality in
14 California, particularly in the nonattainment areas.

15 Earlier, the staff showed a slide that attempted
16 to assess the impact of an exemption for under 50cc models.
17 I think that their estimate was grossly overstated. I don't
18 know what kind of assumptions they made, but if they made
19 the same assumptions they made for other off-road models, I
20 think -- as I said, the usage is different. And I think
21 2400 miles per year for these small vehicles is a little bit
22 out of line.

23 If you decide today to adopt emission requirements
24 for these less than 50cc motorcycles, it would mean that
25 manufacturers would have to do research and development for

1 new four-stroke engines that aren't currently being used in
2 that size. We'd have to do research and development for new
3 frames to put the engines in.

4 There's testing involved. We would have to
5 purchase new tooling, et cetera. Because of the high cost
6 of doing all this and the low number of sales of these small
7 machines. adoption of emission requirements would likely
8 force Suzuki to just simply drop the JR-50 from the
9 California market. We don't want to do that. We think it
10 would be unfortunate if ARB regulations significantly
11 affected the availability and affordability of these
12 training machines for kids.

13 With regard to the compliance extension for 50 to
14 90cc models, we have many of the same concerns that we have
15 for the 50cc model. Some of the others have talked about
16 some of their concerns.

17 In spite of our concerns, we're willing to begin
18 development of new four-stroke 50 to 90cc models. But we,
19 too, need additional leadtime, and we request that you grant
20 an additional three years.

21 That concludes my comments. If you have any
22 questions, I'd be happy to answer them.

23 CHAIRWOMAN SCHAFFER: Thank you very much, Mr.
24 Bush. Are there any questions from members of the Board to
25 the witness?

1 Thank you. I guess I'd like to just follow up on
2 the question that Mr. Lagarias asked Mr. Gill. If we did
3 not require the reporting requirement associated with
4 competition vehicles, would Suzuki be willing to provide
5 that to us for purposes of -- you know, voluntarily for
6 purposes of assessing our regulation?

7 MR. BUSH: We would.

8 CHAIRWOMAN SCHAFER: Thank you very much.

9 I think, with the advice of the Board Secretary,
10 that's the last witness on the regulation today. I'd like
11 to thank you, Mr. Bush, and others who have chosen to
12 participate.

13 I'd like to now turn to the staff and offer them
14 the opportunity to comment on the presentations that have
15 been made here this morning, to summarize any written
16 comments that we may have received that were not already
17 aired by individuals that were unable to testify at the
18 hearing, and also invite the staff to make further comments,
19 if they have them, on the presentations that were made here
20 this afternoon. Mr. Boyd?

21 MR. BOYD: I think Ms. Lourenco will enter into
22 the record additional written comments, and I'll defer to
23 her for that.

24 MS. LOURENCO: Okay. There were three written
25 comments presented to us today that weren't verbalized. The

1 first one is a memorandum dated January 11th, '94, from
2 Carole Bedwell, Chief of the Program and Policy
3 Administration from the Department of Motor Vehicles.

4 Basically, she outlines the procedures for off-
5 road vehicles to be registered in the State, and says that
6 changes in line with our proposal could be made, and the
7 impact on DMV would be minimal. And, also, that she
8 certainly offers her staff time to work with us to get the
9 programming and everything that needs to be done completed
10 before the implementation of our regulations.

11 The second letter is from the Manufacturers of
12 Emission Controls Association. And the association fully
13 supports the staff's proposal as well as the conclusions
14 that we have made regarding catalyst technology.

15 The last item is a letter from Fred Rice. He is a
16 resident of Catalina Island down in Southern California.
17 His letter -- he voiced concerns about the possibility of
18 converting the gasoline golf carts that he owns and uses to
19 get to and from town, having those converted over to
20 electric.

21 What I did, I had a phone conversation with him a
22 week or so ago and assured him that the rule applied only to
23 golf carts as produced of January 1, '94. And so, they
24 certainly wouldn't affect the one that he has, and that rule
25 is directed mainly at the golf carts that are used on golf

1 courses. So, again, he would not be affected. And he
2 seemed very pleased by my response.

3 So, those are the three that I have.

4 CHAIRWOMAN SCHAFFER: Okay. Thank you, Ms.
5 Lourenco.

6 Mr. Boyd, I'd like to invite the staff now to make
7 any further comments that would help clarify these issues or
8 resolve remaining questions that have been brought up.

9 MR. BOYD: Thank you. I'd just like to make one
10 or two comments. I would observe and I would say, granted,
11 there are some disagreements on the data. But, nonetheless,
12 I would like to point out the cost-effectiveness of this
13 strategy.

14 It's so positive and it's so dramatic that,
15 frankly, if we halved the values and we gave everyone the
16 benefit of the doubt in doing so, this is still one of the
17 most cost-effective strategies possible. I mean the cost
18 per ton of reducing these pollutants pales in significance
19 to the cost per ton that we've had to deal with in other
20 motor vehicle strategies, and certainly that the districts
21 have to deal with in dealing with stationary sources.

22 So, I'd just like you to keep that in mind as we
23 think about some of the arguments that have been made about
24 exempting or accepting some of these categories, or that
25 this is an insignificant amount of pollution. This is a

1 fairly significant amount of pollution in the context of the
2 small amounts that we historically have been forced at the
3 local and State level to pursue just to try to come to grips
4 with California's problem.

5 The other thing is just to remind you again of the
6 chart that did go up on the Board a while ago of the
7 emissions -- the consequences of the various cc categories,
8 and the fact that those are fairly significant.

9 I would venture to say that the number of off-road
10 vehicle sin these smaller categories is significantly more
11 than the number of on-road vehicles. These are fairly small
12 sizes, and I don't think you'd find much of that on-road.
13 But off-road, they're popular, reasonably popular sizes, and
14 I'm sure, thus, that's why there is a significant emissions
15 cost or figure attributed to them. And arguments about
16 equity and what have you, to me, paled a little bit when you
17 realize that this off-road application is so much more
18 significant than on-road.

19 With that, I would ask if the staff wanted to
20 comment on anything else, or whether that concludes our
21 presentation.

22 CHAIRWOMAN SCHAFFER: I think we have an additional
23 from Supervisor Wieder.

24 SUPERVISOR WIEDER: Yes. Mr. Boyd, are you saying
25 that the requests for exemption don't justify the means,

1 that the overall picture is so beneficial that exemptions
2 are not warranted?

3 MR. BOYD: I'm saying to please keep that in mind
4 as you debate the requests that have been made to you; that
5 the emissions consequences I feel are reasonably
6 significant, and I just would want to make that point.

7 We didn't frivolously recommend control of these
8 small engine sizes. We did it, as Mr. Cross said much
9 earlier in the day, in consideration of the fairly
10 significant amount of emissions that we feel are
11 attributable to these categories.

12 CHAIRWOMAN SCHAFER: Any other questions from
13 Board members? Ms. Edgerton.

14 (Thereupon, a short discussion was held off the
15 record.)

16 Ms. Edgerton: Thank you for providing that
17 information.

18 The other point that I'm mindful of is that the
19 California Clean Air Act specifically requires the Air
20 Resources Board to consider measures to remove and reduce
21 emissions from off-highway vehicles and motorcycles, because
22 of their recognition of the contribution to the overall air
23 pollution problem.

24 And I think it's important for all of us to bear
25 that in mind as we discuss the relative effect of any of

1 these sources of emissions.

2 Thank you.

3 CHAIRWOMAN SCHAFFER: I have just a question for
4 staff. I want to clarify this emission benefit issue here
5 with respect to the exemption and extension that have been
6 requested here this morning.

7 If I understand the chart that was put up before,
8 Mr. Cross, the exemption for 50cc engines and below is
9 associated with a 10 percent, roughly, loss of benefit?

10 MR. CROSS: Right. Three tons per day.

11 CHAIRWOMAN SCHAFFER: Three tons per day.

12 MR. CROSS: Right.

13 CHAIRWOMAN SCHAFFER: Okay. And --

14 MR. CROSS: And if you raise the cut to 90cc, it
15 jumps up to five tons per day.

16 CHAIRWOMAN SCHAFFER: But that's no longer the gist
17 of the request that we're hearing this morning. They are
18 merely asking for an extension --

19 MR. CROSS: Right. Right.

20 CHAIRWOMAN SCHAFFER: -- for that. And could you
21 characterize the emission benefit degradation, if you'll
22 pardon the word.

23 MR. CROSS: If there's an extension?

24 CHAIRWOMAN SCHAFFER: If you extend it.

25 MR. CROSS: Yeah, I probably didn't state it

1 clearly enough. Essentially, the extension for the couple
2 of years that they don't comply pushes off the date where
3 you attain the full benefit of the staff proposal.

4 So, what I'm saying is, if, for example, the full
5 fleet -- hypothetically, if the fleet fully turned over and
6 produced the full benefit in 2010 under the staff proposal,
7 and you exempted these 50 to 90cc vehicles for three years,
8 then you'd be giving up that benefit till 2013, if you will.

9 In other words, the difference between 50 and 90,
10 which is a couple tons per day.

11 CHAIRWOMAN SCHAFFER: For that period of time.

12 MR. CROSS: Right. Then you would get it.

13 MR. CACKETTE: Another way of looking at it is for
14 however many years that you extent the exemption, you will
15 be getting five tons per day more pollution, if it's at the
16 90cc level, for those, let's say, three years, which is what
17 the industry -- and since the vehicles in the smaller end
18 maybe have a five-year lifetime, that means that, then,
19 they'll be -- the next year, we'll have four tons more, and
20 the next year we'll have three tons more, and the next year
21 we'll have two tons more. And, eventually, five years
22 later, there'll be no effect. So, that's kind of, I think,
23 the simplest way of characterizing it.

24 CHAIRWOMAN SCHAFFER: And other implication I have
25 heard from at least one witness here -- and it may be true

1 of others -- is that if we don't exempt the 50cc, in effect,
2 the sales in California will dry up. And, ironically, I
3 guess in a way, you'd get more benefit. Because it looks as
4 though the difference between the 50 and the 50 to the 90 is
5 only two tons a day. I'm just having a hard time seeing how
6 we can have so much benefit with so few vehicles being sold.

7 MR. CACKETTE: Well, I think the reason for that
8 is to remember that the engine source that we're talking
9 about on the existing vehicles is a two-stroke, which puts
10 out about 20 times as much hydrocarbons per mile as a
11 comparable four-stroke. And the strategy is to switch from
12 two-stroke to four-stroke.

13 So, even though the numbers may be small, like Ms.
14 Edgerton said, it's a thousand sales of one manufacturer,
15 500 sales. They have a hugely disproportionate impact when
16 they have two-stroke engines in them. And they have very
17 relatively minor impact when they have four-strokes. So,
18 you get a big benefit even from the small number of
19 vehicles.

20 Or put the other way, you have a fairly large
21 environmental impact from a small number of vehicles if they
22 are permanently exempted.

23 I think the distinction here in terms of benefits
24 is extension versus permanent exemption. The one, two,
25 three-year type extensions have dramatically less impact,

1 because everything ultimately gets cleaned up, compared to
2 leaving the category like under 50 uncontrolled forever.

3 MR. LAGARIAS: But that's incremental. Everytime
4 a year goes by, let's say you replace 10 percent of the
5 population; the next year, another 10 percent. So, instead
6 of from the year 2010, you're not going to no control at
7 all, but you've got 85 percent of the control that you'd get
8 in the year 2013 as each five percent of the population
9 turns over.

10 MR. CACKETTE: But if a permanent exemption, the
11 50cc and below, for example, loses three tons, you lose
12 three tons forever.

13 MR. LAGARIAS: You don't --

14 MR. CACKETTE: That's 10 percent of the benefit.

15 MR. LAGARIAS: You don't lose it. You just
16 haven't got it.

17 MR. CACKETTE: Yeah, relative to the staff's
18 proposal, that's true. You end up with a regulation that's
19 90 percent as effective as what was proposed.

20 MR. LAGARIAS: Madam Chair, I'd like to ask Mr.
21 Cross, when we were having the hearings on utility engines,
22 we heard a lot of discussion on the development or
23 improvement on two-cycle engines. They were looking at
24 carburetors for the first time and design.

25 Wasn't there some evidence that the emissions from

1 two-cycle engines were going down?

2 MR. CROSS: Yes. There were two-cycle engine
3 standards established at the utility hearings. But they
4 were established at a somewhat higher level, if you'll
5 recall, for hand-held equipment.

6 MR. LAGARIAS: But the point was that the two-
7 cycle emission technology has been improving over the years
8 as far as emissions are going. It's never going to meet the
9 ultimate in performance.

10 MR. CROSS: They are controllable, yes. There are
11 things you can do to two-cycle engines to bring their
12 emissions down. And, hypothetically, I think you could
13 bring a two-cycle engine down to comply with the standards
14 that the staff has proposed. We just don't anticipate that
15 the manufacturers will do it.

16 MR. LAGARIAS: Well, the figure of 37 tons per
17 day, was that based on two-cycle engine technology of today?

18 MR. CROSS: Yes.

19 MR. LAGARIAS: Then it doesn't -- in the year
20 2010, assuming that we did not outlaw two-cycle engines --

21 MR. CROSS: We're not proposing to outlaw two-
22 cycle engines.

23 MR. LAGARIAS: I know that. Assuming that no
24 technology improvement -- that technology improvement would
25 occur for two-cycle engines as well --

1 MR. CROSS: We would get the same result, because
2 the two-cycle engines -- the same result in terms of
3 emissions benefit as the staff proposal, because the two-
4 cycle engines used in noncompetition applications would have
5 to meet the same standards as the four-cycle engines. So,
6 you'd get the same in-use emissions.

7 It's just the distance they have to go in terms of
8 technological development to bring an engine that's way up
9 here down to our standards is much further --

10 MR. LAGARIAS: Forget about the standards. Forget
11 about the standards. We're talking about reductions in
12 technology from two-cycle engines. Tom?

13 MR. CACKETTE: Well, I think that in these low-
14 cost motorcycles, that there's not any incentive or reason
15 for these engines to evolve from an environmental standpoint
16 towards a lower emission level.

17 In other words, what's happening in the utility
18 engines is, because of the standards, the utility lawn and
19 garden standards, manufacturers are spending money on
20 lawnmowers and weed whips, and they're putting better
21 carburetion and they're doing things to change the designs
22 that will reduce emissions.

23 But without the standard, that wouldn't happen.
24 And there's nothing happening evolutionary in the technology
25 that would automatically, in the absence of regulations,

1 cause the two-strokes -- small two-stroke engines to get a
2 whole bunch cleaner.

3 So, the estimate that we provide in 2010 we think
4 is true. Basically, the engine in the 2000s, in a 50 or
5 90cc engine is not going to be a whole bunch different
6 emissionwise than one today.

7 They're not going from carburetors to fuel
8 injection, for example, because those kind of evolutions
9 that we're seeing in cars aren't happening in these
10 motorcycles.

11 MR. LAGARIAS: But the evolution in two-cycle
12 engines certainly could anticipate improvement in emission
13 reductions regardless of whether or not there are standards
14 or not.

15 MR. CACKETTE: We don't project that that will
16 happen, and we don't see it.

17 MR. LAGARIAS: I know you don't project it, and
18 you don't foresee it. What I'm trying to say is that
19 without -- if you anticipated technology improvements in
20 two-cycle engines, the forecasts of what we would see in
21 2010 would be substantially lower than the 37 tons per day
22 you're proposing now.

23 MR. CACKETTE: If one projected that, yes. But
24 when we look at what's going on with two-cycle engines, the
25 kind of things that you see in two-cycle engines are things

1 like they've put a catalyst on it, or they've evolved to
2 Wurbel (phonetic) technology, stuff that's -- fuel
3 injection, for example, which is a real big step. And on
4 these low-cost small engines, it's unlikely that that will
5 evolve due to market forces.

6 MR. LAGARIAS: You have no faith in the technology
7 of the year 2000?

8 MR. CACKETTE: I don't think it's changed much in
9 the last 20 years.

10 MR. CROSS: The pressure on the two-cycle engine
11 is towards performance anyway. That's why they're used
12 primarily in competition applications. And the things that
13 one would do to, quote, "clean up" the two-cycle engine
14 generally are things that are going to sacrifice some
15 performance.

16 So, in an unregulated environment, what you're
17 going to see is the two-cycle engine continuing to evolve as
18 a lightweight, high-performance package, which may or may
19 not improve its emissions absent regulations.

20 And that's why the staff assumed no change.

21 MR. LAGARIAS: You're focusing on the high-
22 performance two-cycle engine and not the greater application
23 of the two-cycle engine.

24 MR. CROSS: But in the motorcycle category, that's
25 precisely where they're ending up.

1 MR. LAGARIAS: One last point. Tell me about this
2 under 50cc field. What's that in? How many cycles is that?

3 MR. CROSS: That's predominantly two cycle. And
4 that's a cost issue. Can I -- also, when we were talking
5 about the sales of the under 50cc versus under 90cc, I think
6 one witness led us to believe that -- I think it cited a
7 hundred unit sales statewide. And the number that we used
8 for our estimate was about 1200 units, which was provided by
9 the Industry Council.

10 And for the 90cc break, it was around 1900 units.
11 So, actually, in terms of units used in our estimate, which
12 we got from the industry, it was 1900 for 90cc break and
13 around 1200 for 50cc break.

14 MR. LAGARIAS: Thank you.

15 CHAIRWOMAN SCHAFFER: Okay. Supervisor Riordan.

16 SUPERVISOR RIORDAN: Yes. Madam Chairman, I have,
17 I guess, a lot of support for the staff recommendation. And
18 I'm not sure that the Board has finished its discussion.
19 But I have long had an interest in looking at this off-road
20 vehicle issue, because I suspect I represent and serve an
21 area that has many, many of them. And it has always been my
22 concern.

23 So, while I understand some of the efforts to make
24 some amendments and changes by those who testified, I also
25 believe that what is proposed is a very important piece of a

1 larger effort to establish clean air in California.

2 And I would, if there is no further discussion, be
3 happy to move --

4 MR. LAGARIAS: We haven't closed the meeting yet.

5 SUPERVISOR RIORDAN: Right. So --

6 CHAIRWOMAN SCHAFER: Are there any other questions
7 or discussion from any member of the Board? Yes, Mayor
8 Hilligoss.

9 MAYOR HILLIGOSS: I was just going to say that if
10 there would be any way for us to give them another two years
11 or so, because of the change just this year, just this fall.

12 They thought that they would be exempt under 90cc
13 until what, March or April?

14 And, then, finally in September -- so, I was
15 wondering if there is support for giving them -- maybe not
16 three years, but some extension.

17 CHAIRWOMAN SCHAFER: We'll have a motion on this,
18 and we can proceed based on the motion. But I want to make
19 sure we have all the discussion over with so that I can
20 close the record, and then we can proceed the motion.

21 MS. EDGERTON: I'd just like to make one comment,
22 and that is that our obligation is to try to achieve an
23 overall five percent per year reduction in carbon monoxide
24 and ozone precursor emissions. And so, if we postpone this,
25 then we will not have on an annual basis these contributions

1 in emissions reductions for the five percent per year that
2 the Legislature has asked us to achieve.

3 So, that seems to be one of the effects. And if I
4 understand the staff correctly, that seems to be a very
5 concrete effect of extending the exemption beyond the three
6 years they already -- that the staff has proposed for a
7 leadtime to six years.

8 CHAIRWOMAN SCHAFFER: Could I get staff comment on
9 that observation?

10 I want to make sure I understand --

11 MS. EDGERTON: Is that correct?

12 CHAIRWOMAN SCHAFFER: I want to make sure I
13 understand how this regulation fits in with that
14 requirement.

15 MR. BOYD: It's just another one of the stepping
16 stones along the path. And I think the point is well made.
17 There's no question that anything we lose -- and I'm not
18 arguing one side or the other. This is just a fact.
19 Anything we lose here, then, we will have to, you know, move
20 to Column B and take it out somewhere else. To the extent
21 that we forego emission reductions for any given strategy,
22 we have to add it to the menu of reductions that we have to
23 get -- that either we or local districts have to get
24 somewhere else.

25 So, it's just a statement of -- true statement of

1 fact.

2 CHAIRWOMAN SCHAFFER: I guess I'm asking for some
3 indication of significance.

4 MR. BOYD: Well, it's not, as indicated by a
5 postponement, it's not a make or break situation. It's a
6 delay over a series of years of the magnitude that Mr. Cross
7 indicated. But it's in the context of the fact that we've
8 already had to report to the Legislature -- I mean, this
9 Board has already had to report to the Legislature that we
10 didn't make it; that we did fall short of the five percent.

11 And we forecast falling short unless we make some
12 dramatic improvements along the line.

13 CHAIRWOMAN SCHAFFER: Okay. Thank you.

14 MR. BOYD: So, we are delinquent.

15 CHAIRWOMAN SCHAFFER: Thank you. If that concludes
16 the comments and questions for the staff, I --

17 MR. BOYD: Excuse me. I thought of one additional
18 comment. It builds on something that you've already asked a
19 couple of witnesses.

20 We approached the Industry Council, the Motorcycle
21 Industry Council, on this question of would they
22 voluntarily, as an association, provide the sales data
23 versus the regulatory mandate. And I know not all the
24 witnesses had a chance to respond to that, but the Industry
25 Council, if I'm correct -- I asked the staff to talk to

1 them, and they said that, yes, that they would do it
2 voluntarily.

3 So, I'd just add that to your body of knowledge.

4 CHAIRWOMAN SCHAFFER: I understand. And I
5 understand that's with the caveat of the protection of
6 confidentiality in the commercial sense with which that's
7 offered.

8 Okay. I would like to now close the record on
9 this agenda item. I'd like to also note, however, that the
10 record will be reopened when the 15-day notice of public
11 availability is issued.

12 Written or oral comments received after this
13 hearing date, but not before the 15-day notice is issued,
14 will not be accepted as part of the official record on this
15 agenda item. As part of the record on this agenda item --
16 I'm sorry.

17 When the record is reopened for a 15-day comment
18 period, the public may submit written comments on the
19 proposed which will be considered and responded to in the
20 final statement of reasons for this regulation.

21 At this time, I think it also is an opportunity to
22 remind the Board members of the policy concerning ex parte
23 communications. While we may communicate off the record
24 with outside persons regarding rulemaking, we must disclose
25 the names of our contacts and the nature of the contents on

1 the record. This requirement applies specifically to
2 communications which take place after notice of the Board
3 hearings has been published.

4 If there are any communications which anyone would
5 like to disclose, now is the time to do so.

6 Hearing none, I'd like to pause for a moment to
7 give the Board members an opportunity to review the
8 resolution which has been placed in front of us and is
9 available for reading.

10 (Thereupon, there was a brief pause in
11 the proceedings.)

12 CHAIRWOMAN SCHAFFER: The Board has before it
13 Resolution No. 94-1, which contains the staff
14 recommendations, which we have reviewed.

15 Do I have a motion and a second to adopt the staff
16 proposal or an alternate motion, if appropriate?

17 SUPERVISOR RIORDAN: Madam Chair, if I might, I'd
18 like make a motion to --

19 CHAIRWOMAN SCHAFFER: Supervisor Riordan.

20 SUPERVISOR RIORDAN: -- approve -- I'd like to
21 move that we approve this Resolution 94-1 that's before us
22 now.

23 MS. EDGERTON: I'll second it.

24 CHAIRWOMAN SCHAFFER: Is there any discussion?

25 MR. LAGARIAS: Madam Chair?

1 CHAIRWOMAN SCHAFER: It's been seconded by Ms.
2 Edgerton. Yes, okay, Jack, go ahead. Mr. Lagarias.

3 MR. LAGARIAS: I have some reservations about this
4 proposal, and I'd like to bring them up.

5 First of all, I'm not certain we're discussing the
6 right issue. In fact, I think it would have been more
7 appropriate for this meeting if we had been discussing
8 mufflers rather than emissions. Because the noise from
9 mufflers has been more of a problem than the emissions from
10 these vehicles.

11 SUPERVISOR RIORDAN: Very good point, Mr.
12 Lagarias.

13 MR. LAGARIAS: Specifically, I'd like to suggest
14 we consider that we remove the requirement -- that reporting
15 of the sales be deleted in favor of a voluntary gathering of
16 information from the competition vehicle manufacturers.

17 I think the discussion of load limits definition
18 is not appropriate. I think it's covered very well by the
19 original definition. And I suggest that we delete that load
20 limits requirement.

21 I'm in agreement that the -- or I suggest that we
22 extend the compliance date for the more than 90cc -- equal
23 or less than 90cc engines be extended to '99 to give the
24 manufacturers -- 1999 -- appropriate time.

25 And I feel that the under 50cc engine is not that

1 big a problem, and I would recommend that we exempt engines
2 under 50cc, in part because the data we've heard today on
3 how many vehicles there are, how often they're used, what
4 mileage they make is quite contradictory. And I'm not
5 comfortable that the magnitude of this problem is as great
6 as the staff is presented, nor as small as the industry has
7 claimed.

8 I think it's somewhere substantially less than
9 that.

10 And, as for golf carts, I think there are cases
11 where zero-emission, battery-operated vehicles are not
12 appropriate. And I would like to see that the golf carts
13 use -- be required to meet the same engine specifications as
14 lawn and garden utility Tier One regulations would apply,
15 since they are essentially the same engines, and for the
16 same time period.

17 Now, those are my principal concerns.

18 SUPERVISOR WIEDER: Are you amending that?

19 MAYOR HILLIGOSS: I'll second that.

20 MR. LAGARIAS: That's an amendment.

21 CHAIRWOMAN SCHAFFER: Is there any discussion on
22 the proposal?

23 SUPERVISOR RIORDAN: I think Mr. Lagarias -- I
24 certainly can understand the voluntary information, and I
25 should have thought to make that a part of the motion,

1 because that clearly is the better way to resolve the
2 problem.

3 I think I would want to ask -- on the golf cart
4 issue, again, we're just extending the time, correct? In a
5 sense -- no, Mr. Cross?

6 MR. LAGARIAS: No.

7 MAYOR HILLIGOSS: No.

8 SUPERVISOR WIEDER: We're putting them on the same
9 level as the --

10 MR. LAGARIAS: They're using the same engine
11 currently as the lawn and garden people, and we've got a
12 regulation for lawn and garden people, the tractor --
13 cutting of grass, for example -- has to meet a certain
14 requirement. And it may be on the same golf course. Why
15 shouldn't the golf cart have the same requirement?

16 SUPERVISOR RIORDAN: I think what I was asking
17 was, it's just extending the time to where you can achieve
18 some of the corrections --

19 MR. CROSS: If the staff -- if we hear Mr.
20 Lagarias' amendment correctly, he's suggesting that the Tier
21 One standards be an option, if you will, for certification
22 of golf cars indefinitely.

23 So, essentially, the electric -- the staff's
24 proposal is a zero-emission proposal, which would produce an
25 all-electric fleet in nonattainment areas. And,

1 essentially, the result of the proposed amendment would be,
2 essentially, the status quo with the gas cars meeting the
3 utility standards.

4 In other words, the status quo in terms of mix of
5 gas and electric.

6 SUPERVISOR WIEDER: Except that the reasons would
7 be very justifiable.

8 MR. CROSS: I'm not addressing the reasons. I'm
9 just --

10 MR. LAGARIAS: Let me make it quite --

11 SUPERVISOR RIORDAN: No, he's just -- I'm just
12 asking for the results.

13 MR. CROSS: That's what I heard. And I want to
14 make sure.

15 MR. LAGARIAS: Let me make it quite clear. I'm
16 very much in favor of a zero-emission golf cart, and I would
17 like to see it in every place where it is truly applicable.
18 And I think the pressures are there. It's a type of
19 activity that lends itself to a zero-emission application.
20 But I'm just -- don't want to mandate these things when
21 there are other ways of getting at that.

22 We've got engines that we're mandating. If
23 they're going to use those engines, I think they should be
24 allowed to have that privilege.

25 CHAIRWOMAN SCHAFFER: Could I ask counsel to repeat

1 the modifications to the staff proposal in the order in
2 which they have been made?

3 MR. KENNY: The original staff proposal, as I
4 heard it, was adoption of the resolution. The modifications
5 that were proposed -- excuse me.

6 (Thereupon, Mr. Kenny flipped the switch to
7 turn on his microphone.)

8 MR. KENNY: The original motion by Supervisor
9 Riordan and seconded by Ms. Edgerton was adoption of the
10 resolution, as proposed. There was at least a caveat
11 provided by Supervisor Riordan, to the extent that there
12 would be a modification to the original proposal to reflect
13 the reporting of competition numbers on a voluntary basis as
14 opposed to a mandatory basis.

15 That particular amendment was not seconded, but --
16 so, that is an open question at the moment.

17 The proposal made by Mr. Lagarias, as seconded by
18 Mayor Hilligoss, would have modified the proposal to reflect
19 that the competition reporting requirement would become
20 voluntary; that the load limits in the ATV definition would
21 be deleted; that the less than or equal to 90cc requirement
22 would be delayed until 1999; that the less than 50cc would
23 be exempted from regulation; and that with regard to golf
24 carts, that the staff proposal, as it results in a zero-
25 emission vehicle for golf carts at a particular time frame,

1 would not be accepted but that, instead, the utility engine
2 regulation, as it currently exists, would be the basis for
3 the regulation of golf carts.

4 CHAIRWOMAN SCHAFFER: Okay. I'd like some advice
5 from counsel on proceeding, because I'd like to try to
6 divide these questions.

7 MR. KENNY: I think what we have right now are
8 basically three questions before the Board. We have the
9 initial motion by Supervisor Riordan that was seconded by
10 Ms. Edgerton, which is simply an adoption of the proposal
11 without modifications.

12 So, there is one question pending there.

13 There is a question with regard to that same
14 motion as modified by Supervisor Riordan, but not seconded
15 by anyone, with regard to whether or not the competition
16 reporting should be allowed as an amendment to the original
17 motion by Supervisor Riordan.

18 And then, thirdly, we have a motion by Mr.
19 Lagarias, as seconded by Mayor Hilligoss, which provided for
20 substantial modifications to the staff proposal, completely
21 different from the original proposal that was offered.

22 I think the most appropriate way to deal with that
23 would be to, first of all, determine whether or not the
24 amendment to Supervisor Riordan's proposal, which was to
25 adopt the staff proposal, allowing for voluntary reporting

1 of competition numbers, is going to be seconded. If not,
2 you can then delete that particular aspect. If it is, then
3 you're down to two questions and you can then debate the two
4 questions.

5 CHAIRWOMAN SCHAFFER: I'd like to second, if I'm
6 allowed to, that motion as you just stated it.

7 Can this be amended?

8 MR. KENNY: To the extent -- there's still a
9 question now. To the extent that Ms. Edgerton seconded the
10 original proposal, that is still a question before the Board
11 if she does not wish to withdraw her second or she does not
12 wish to agree to the amendment as proposed by Supervisor
13 Riordan.

14 So, that question will still exist on the table.
15 To the extent that there is a second on that, then there's
16 that question there, and then there's the third question by
17 Mr. Lagarias.

18 It's quite a --

19 SUPERVISOR WIEDER: Point of information.

20 CHAIRWOMAN SCHAFFER: Yes, ma'am.

21 SUPERVISOR WIEDER: Is the problem that the
22 amendment that Mr. Lagarias has offered and that has been
23 seconded is more of a substitute motion? Does it change the
24 intent of the motion? And if that's so, why can't he not
25 then -- why don't you advise him to make this a substitute

1 motion, and then act on it that way?

2 MR. LAGARIAS: No, I accept the motion that
3 Supervisor Riordan has presented with the suggested
4 amendments.

5 So, I suggest we vote on our amendments first.

6 MS. EDGERTON: Well, in my case --

7 SUPERVISOR WIEDER: Then what's the problem?

8 MS. EDGERTON: In my case, I don't accept them as
9 friendly amendments.

10 MR. LAGARIAS: I know that.

11 MS. EDGERTON: Yeah, so --

12 MR. LAGARIAS: So we bring it up for a vote.

13 MR. KENNY: I think what we need to do is I think
14 we need to address --

15 MS. EDGERTON: Although I accept you as a friend.
16 It's not personal.

17 MR. LAGARIAS: Quite all right.

18 (Laughter.)

19 CHAIRWOMAN SCHAFFER: Please remember that the
20 court reporter needs to get down what the statements of the
21 Board members are. So, we need to slow down our rpm here.

22 MR. KENNY: I think what we need to do is to
23 ensure that we have basically a precise understanding of
24 each of the motions that's before the Board. And to the
25 extent that we have a motion that has been raised by

1 Supervisor Riordan and that has been seconded by Ms.
2 Edgerton, that is a question that is before the Board with
3 regard to the adoption of the resolution without any
4 modifications.

5 That is the question number one that's before this
6 Board.

7 CHAIRWOMAN SCHAFFER: And that takes precedence
8 over the other two --

9 MR. LAGARIAS: No.

10 MR. KENNY: Not necessarily.

11 (Thereupon, several members of the Board
12 spoke simultaneously, and the reporter was
13 unable to decipher what was said.)

14 MR. KENNY: There is also the question that has
15 been raised with regard to the modification of her own
16 motion by Supervisor Riordan that allowed for the voluntary
17 reporting of the competition numbers. That was basically an
18 issue that -- I have not heard a second on that. So, that's
19 still open. If there was one, I missed that.

20 MR. LAGARIAS: I second it.

21 MR. KENNY: Okay. Then, there's a question there
22 and there's Mr. Lagarias' motion with regard to substantial
23 modifications to the proposal as offered by the staff.

24 SUPERVISOR WIEDER: Okay. Point of information
25 again. I think you're making it much more complex, if I

1 might suggest. And I think it is, from where I come from.

2 Supervisor Riordan's attempt at a motion was to
3 amend the staff recommendation that's before us to include
4 the voluntary business. That's the way I heard it. And
5 then, if that's so, then Mr. Lagarias wanted to, I guess,
6 amend it even further from the staff recommendation.

7 So, what we have before us is kind of an unfolding
8 back. We have to first act on Mr. Lagarias' amendment to
9 her amendment of the original staff action.

10 MR. KENNY: Well, I would respectfully disagree to
11 the extent that I think we need to make sure that we clearly
12 understand the precise issues that are before the Board.
13 And to the extent that there was a motion made by Supervisor
14 Riordan, which was seconded by Ms. Edgerton, there is at
15 least a question with regard to that before the Board.

16 There was then an amendment to that potential
17 issue that is also is a question before the Board, and that
18 was the amendment by Supervisor Riordan with regard to the
19 competition reporting. And then, lastly, there was a
20 substantial amendment. And so, there are really three
21 issues which are all pending before the Board in terms of
22 resolution.

23 SUPERVISOR WIEDER: Wait a minute. Excuse me.
24 It's my understanding -- and let me turn to Supervisor
25 Riordan and ask her. When you made your comments, did you

1 not incorporate in the original action amending what the
2 staff had by the voluntary?

3 SUPERVISOR RIORDAN: No, I didn't.

4 SUPERVISOR WIEDER: Okay. I apologize.

5 SUPERVISOR RIORDAN: Mr. Lagarias raised it in one
6 of his amendments, and it was something that I should have
7 included. It would be very simple if the seconder would
8 accept my amendment or clarification, and then it would get
9 very simple, and then we can get to Mr. Lagarias' rather
10 substantive amendments which are pending.

11 MS. EDGERTON: I just have a point of information
12 then about your -- your amendment, because it's possible
13 that it's something that I would be comfortable with.

14 If I understand it right, the VIN number would
15 still be on, so that would be a way of knowing which
16 competition vehicles were actually sold. No? That's a
17 question.

18 MR. BOYD: What's being offered is that, instead
19 of regulatorily requiring the industry to report their sales
20 of these competition vehicles, that in order to verify that
21 the DMV VIN number process gives us that kind of data, that
22 instead of regulatorily requiring it, that the industry be
23 asked to volunteer, which they have basically volunteered to
24 give us that information in confidence for a period of years
25 so we can ascertain that the DMV system truly works, and

1 then that that data is available to us through that other
2 system.

3 And, frankly, the staff is quite willing to accept
4 that. That will work fine for us. It's a friendly
5 amendment.

6 MS. EDGERTON: I'd be comfortable accepting that
7 if we could say how long that interim provision of voluntary
8 data would apply, some date certain, say two years, three
9 years. For three years. Then, I would be very comfortable
10 with your motion.

11 (Laughter.)

12 MR. KENNY: Excuse me. But I'm trying to
13 understand. What we have right now is a mandatory
14 requirement in the regulation which is proposed that would
15 require the manufacturers to provide that competition
16 information.

17 If, in fact, that requirement is deleted and we
18 simply have the good faith of the manufacturers to rely upon
19 that they will voluntarily provide that information, I'm not
20 sure how we can tie a time frame to that, unless you were to
21 come back at some future point and to reimpose the
22 regulatory requirement.

23 MS. EDGERTON: I suppose my thought was that if,
24 for some reason, there should be a change of heart in terms
25 of voluntary provision of data --

1 MR. KENNY: I think you would then need to modify
2 the regulation.

3 MS. EDGERTON: Then you would need to modify the
4 regulation. But I would state that, of course, it's very
5 difficult to know -- have the information. We have to get
6 it one way or the other. But I'm agreeable to give it a try
7 if that's what you'd like to do.

8 CHAIRWOMAN SCHAFFER: So the second is withdrawn?

9 MR. KENNY: What would happen is -- yes, the
10 second would actually apply to the amendment as made by
11 Supervisor Riordan, so you now have only two motions before
12 you, and those would be the two alternatives that have been
13 proposed -- Supervisor Riordan's proposal, as amended, to
14 allow for voluntary reporting of the competition
15 information, and Mr. Lagarias' proposal as enunciated
16 earlier.

17 CHAIRWOMAN SCHAFFER: Is there any discussion on
18 Mr. Lagarias' proposal?

19 MR. LAGARIAS: I'd like to suggest, since there
20 will be discussion, that we break it up into its individual
21 parts and vote on each part separately, if you would.

22 The first one I had was to remove the staff
23 definition requiring the addition of load weight limits in
24 their definition for ATVs. Because the definition for ATV
25 already covers that.

1 CHAIRWOMAN SCHAFER: Do we need to have an
2 additional statement? Because, as I understand, he proposed
3 it en bloc.

4 MS. EDGERTON: Madam Chairwoman, are you planning
5 on having sort of a pro -- pro and con, or how are you
6 planning on --

7 CHAIRWOMAN SCHAFER: We can go through each of the
8 items individually and discuss them to the extent that the
9 Board members would like to discuss them further.

10 The first one is the load limit, which you propose
11 to be deleted.

12 SUPERVISOR WIEDER: I support it. I don't need to
13 second it anymore, do I?

14 MAYOR HILLIGOSS: Did we want to vote?

15 CHAIRWOMAN SCHAFER: I'm not proposing them for
16 voting yet. I'm proposing them for discussion.

17 SUPERVISOR WIEDER: You want to take a straw vote?

18 CHAIRWOMAN SCHAFER: Mr. Boyd would like to say
19 something. I'll give him the opportunity to do that.

20 MR. BOYD: Two of Mr. Lagarias' suggestions we've
21 not had any discussion of, and we'd like to have the
22 opportunity to enter into the record, at least for your
23 benefit, before you do take an action.

24 MR. LAGARIAS: That's why I'm breaking them up
25 into individual parts.

1 MR. BOYD: Some of the environmental consequences.
2 The load limit issue was not one that we had discussed at
3 all before. So, it has a fairly significant consequence. I
4 think the staff would like to react to that for your
5 information.

6 MR. CACKETTE: Yeah, we didn't -- we did a poor
7 job of saying what that was. I don't think we said it at
8 all. So, it's a pretty poor job.

9 The load limit definition was an attempt to divide
10 the specialty vehicle category -- the kind of golf carts
11 that really aren't used for golfing, that are used for
12 pulling stuff around -- from the ATVs.

13 And I think the impact of eliminating it is that
14 the specialty vehicles could then certify to the ATV
15 standards, which are less stringent, and we're trying to
16 apply to these specialty off-road, pseudo golf-cart type
17 vehicles.

18 So, that's why it was there, was to try to break
19 them into appropriate categories and put the appropriate
20 emission standard to each category. It wasn't a trivial
21 definition like I think it came across.

22 CHAIRWOMAN SCHAFFER: Yes, Supervisor Wieder.

23 MR. CACKETTE: And it has the impact of about
24 something under one ton per day of doing that.

25 SUPERVISOR WIEDER: You mentioned -- and you can

1 correct me -- did you say that the thrust of this was really
2 based on those golf carts that are used other than on golf
3 courses and, if that's so, then, are we not penalizing the
4 whole industry?

5 MR. CACKETTE: No. What we did was -- there are
6 vehicles that kind of look like golf carts; they're four-
7 wheel drive. And some of them end up being for like lawn
8 care, those kind of things. We call those specialties. And
9 then, real golf carts were golf carts.

10 So, we split them up and we also split those
11 specialty ones up from motorcycles. And the way that we did
12 that for four-wheel vehicles was we had this load limit
13 applied which separates an ATV four-wheel vehicle in our
14 definition from a thing with a little bed on it that runs
15 around and hauls plants around in some park and puts, you
16 know, so you can plant trees or things.

17 And we didn't treat that category as electric,
18 because we didn't think it could be electrified, because it
19 had such different usage patterns.

20 So, that's where the definition came in. I know
21 in our presentation, it sounded like it was some unnecessary
22 addition to the --

23 MR. LAGARIAS: Well, the testimony we heard today
24 about ATVs was that it has a very specific design
25 specification. It requires astride seating, four wheels

1 only, and handlebar steering. Does that apply the type of
2 vehicle that you're talking about, these specialty vehicles?

3 MR. CROSS: We have a picture we can show you, Mr.
4 Lagarias.

5 MR. LAGARIAS: Well, I don't want to see a
6 picture. I know it's worth a thousand words.

7 MR. CROSS: We have a picture of a vehicle which
8 looks very much like an ATV recreational vehicle, except
9 it's bigger, and it has a bed on it like a little pickup.
10 And the person sits astride of it and steers handlebars.

11 MR. LAGARIAS: Okay. You've made your case. I
12 withdraw that.

13 CHAIRWOMAN SCHAFFER: The next item of discussion
14 regards the delay until, as I understand, 1999 for smaller
15 than 90cc.

16 MAYOR HILLIGOSS: 50 to 90 cc engines.

17 MR. LAGARIAS: Madam Chair, what's the issue at
18 hand? I'm sorry.

19 CHAIRWOMAN SCHAFFER: We're going on to your next
20 segment of your proposed amendment dealing with the delay
21 for a 90cc and smaller engine.

22 MR. LAGARIAS: Well, the current proposal, I
23 believe, is '97 for compliance. And this is '94 now. I
24 don't think that's an unreasonable request to give a little
25 more time to make sure we bring these engines into the fold.

1 CHAIRWOMAN SCHAFFER: Is there any other
2 discussion?

3 MAYOR HILLIGOSS: This is 50 to 90cc that you're
4 talking about, right?

5 MR. LAGARIAS: Yes.

6 MAYOR HILLIGOSS: Right.

7 CHAIRWOMAN SCHAFFER: Ms. Edgerton?

8 MS. EDGERTON: Yes, it seems to me, and I'm always
9 going to return to the legislative mandate that I'm asked to
10 apply, and that is to achieve the maximum degree of
11 emissions possible from vehicular and other mobile sources
12 in order to accomplish the attainment of State standards at
13 the earliest possible date.

14 Now, I know the standards that we're asked to
15 apply are also whether the control measures are necessary,
16 cost-effective, and technologically feasible.

17 Now, in this case, I haven't heard and am not
18 aware of any reason -- any technological infeasibility
19 argument that has been made. I believe they've suggested
20 that, in fact, there is a -- there are four-stroke engines
21 in the 80cc category.

22 And there are existing engines in that way. So,
23 technological feasibility is not -- not the question here.
24 And I am mindful of our obligation to meet this legislative
25 goal. So, I guess my sense is that three years was

1 basically what one of the gentlemen testified as what was
2 required for -- three to five years for product development.

3 These products are already -- they already exist
4 in some of the competitors. So, I have difficulty -- I
5 would have difficulty sitting before the Legislature and
6 explaining why a three-year period, phase-in for these
7 improvements was -- why something more than that was
8 required.

9 So, I would have to say that, in terms of meeting
10 my obligation under the law, I think I would have to support
11 the -- the staff report.

12 MR. LAGARIAS: Well, my reasoning is primarily
13 economic. There are a lot of things that are
14 technologically feasible. But the matter of bringing them
15 into the market, recognizing the leadtimes that are required
16 to make these changes are always a matter of judgment and
17 resources you commit to this sort of thing.

18 And I just feel that -- I certainly agree that
19 objectives of meeting our Clean Air Act requirements is
20 paramount. But trying to balance that with technical and
21 economic considerations means to me that, for the issue at
22 hand, a two-year extension is not unreasonable.

23 CHAIRWOMAN SCHAFFER: I had one point I wanted to
24 clarify. As I originally made a note on your proposal, it
25 applied to -- the delay applied to 90cc and below. I've

1 heard some other discussion about 50 to 90. How did that
2 come into play in the proposal?

3 MR. LAGARIAS: Well, it's 90 and below. We're
4 going to handle the 50 separately. But if the 50 were
5 exempted --

6 CHAIRWOMAN SCHAFFER: So, this would be 90 and
7 below, the extension for 90 and below.

8 This is important for those of us that may or may
9 not want to agree with the exemption for 50.

10 MR. BOYD: Because Mr. Lagarias talked about
11 exempting 50 and below entirely, we concluded, therefore --
12 I think many of us concluded that this other recommendation
13 was just the 90 to 50 level.

14 CHAIRWOMAN SCHAFFER: I'd like to -- all right.
15 I'd like to clarify that, because it's important for those
16 of us who may want to grant an extension, but are not
17 willing to exempt those below 50.

18 MAYOR HILLIGOSS: That's fine.

19 CHAIRWOMAN SCHAFFER: So, I will restate it. The
20 delay would be for those which are 90 and below to 1999, and
21 if the other amendment is accepted, it would turn out to be
22 50 to 90. All right.

23 And on the next item is the 50cc and below as an
24 exemption.

25 Mr. Lagarias?

1 MR. LAGARIAS: Well, it's a small engine. It has
2 limited use. The information we've heard is that it is
3 primarily for off-the-road vehicles, which means children or
4 youngsters running it without a muffler --

5 (Laughter.)

6 SUPERVISOR RIORDAN: And kicking up lots of dust.

7 MR. LAGARIAS: And I don't see that as a major
8 contribution to the air pollution issue.

9 CHAIRWOMAN SCHAFFER: My comment is that it does
10 look like a major contribution, given the emission inventory
11 calculations that were presented to us today, a fairly
12 significant one I think.

13 Seven tons per day and a 10 percent loss of
14 benefit of the regulation overall.

15 MR. LAGARIAS: No, actually, if there were no
16 exemptions, there'd be four tons per day, the goal; if there
17 are -- if there is an exemption, it would be three tons per
18 day, not seven tons per day.

19 MR. CACKETTE: It was the loss of benefit.
20 Overall, the whole package of everything is about 40 tons
21 per day of ozone precursor benefit. The loss of the 50cc
22 and below exemption, a permanent exemption, is about three
23 tons per day. But that is about, you know, roughly 10
24 percent of the benefit.

25 So, those are the statistics that the staff has

1 the most confidence in.

2 MR. LAGARIAS: And, as I indicated at the very
3 beginning, my sense of the statistics of the amount of
4 emission reductions we're going to get from this program
5 does not agree with your projected figures. I don't think
6 we see three tons a day there.

7 MS. EDGERTON: Well, with all due respect, though,
8 I will state for the record that the figure that the staff
9 used of the number under 90cc motorcycles, which was what,
10 around 1950? 1,950 --

11 MR. CROSS: Yeah. About 2,000.

12 MS. EDGERTON: -- motorcycles? About 2,000 in
13 use?

14 MR. CROSS: Well, no, no. Under 90 is about 2,000
15 and under 50 is about 1200.

16 MS. EDGERTON: Are they additive, cumulative, or--

17 MR. CROSS: In other words, the -- yes.

18 MS. EDGERTON: So, it's 2,000 --

19 MR. CROSS: 0 to 50 is about 1200, 50 to 90 is
20 about 800.

21 MS. EDGERTON: Well, we know that those are -- I
22 mean, today's record has indicated that those are at least
23 correct, in that --

24 MR. CROSS: That's annual sales.

25 ///

1 (Thereupon, a short discussion was held off the
2 record.)

3 MR. CROSS: That may be the industrywide sales as
4 opposed to --

5 MS. EDGERTON: He said Yamaha. I beg your pardon.
6 He said Yamaha. Under --

7 MR. LAGARIAS: Suzuki said they had 100 vehicles
8 under 50cc.

9 MR. CROSS: The data which we provided are '92
10 numbers for the industry. It could have changed --

11 MS. EDGERTON: It could have changed.

12 MR. CROSS: -- in terms of the balance. But the
13 number -- the roughly 2,000 per year is the Motorcycle
14 Industry Council, which puts the -- which sums the input
15 from the manufacturers.

16 MS. EDGERTON: And all I'm saying is that, from
17 what we've been provided today, it is at least that much,
18 because Yamaha did that much last year.

19 So, your estimate is at least correct on that
20 point.

21 The other thing I'd just like to say for the --
22 for all of my colleagues here is that, in my -- my comments
23 have nothing to do with the noise made by these vehicles and
24 are solely and quite seriously directed toward the emissions
25 reductions likely to be achieved under the program.

1 CHAIRWOMAN SCHAFFER: Thank you, Ms. Edgerton.
2 Yes, Supervisor Riordan.

3 SUPERVISOR RIORDAN: I would echo the comments
4 that have just been made. I tend to believe that our staff
5 is rather conservative with the estimate of the numbers that
6 we're talking about. I really do believe that.

7 So, I do think, again, it's a part, a cumulative
8 sort of score, if you will, of -- if you continue to exempt
9 or change, it's just a longer period of time until we can
10 achieve our goals as set forth by the Legislature and the
11 Administration. And I think it's very important that we
12 kind of keep on track.

13 CHAIRWOMAN SCHAFFER: Mr. Lagarias, did you have
14 anything further to say about the exemption for the 50cc and
15 below?

16 MR. LAGARIAS: No.

17 CHAIRWOMAN SCHAFFER: Okay. Finally, the last
18 point that you were proposing for amendment was with respect
19 to the electric golf carts.

20 MR. LAGARIAS: Well, instead of requiring the golf
21 carts to have to go to zero emissions in all cases; that in
22 the case where they use gasoline-powered engines, those
23 engines must meet the Tier One standards for garden and
24 utility engines, which we adopted -- I believe it was last
25 year -- which call for substantial reductions.

1 CHAIRWOMAN SCHAFFER: Any further discussion on
2 that?

3 MS. EDGERTON: Well, I would have to indicate that
4 it would seem that if -- that this is the one -- this is a
5 key opportunity for emissions reductions for the Air Board
6 and is fully consistent with the low-emission vehicle
7 program's identification of zero-emission vehicles as a key
8 goal for us to achieve.

9 And I would be -- I would urge my colleagues to
10 reconsider his motion in that light.

11 MR. BOYD: Madam Chair, might we ask Mr. Lagarias
12 a question?

13 CHAIRWOMAN SCHAFFER: Mr. Boyd.

14 MR. BOYD: There is a little confusion on our
15 part, Jack. I've heard two things. One, seeing equity with
16 the small utility engine lawn and garden regulation that we
17 already passed. On other occasions, I've heard a concern
18 about perhaps the nongas golf carts can't handle some hilly
19 terrain.

20 If the latter was your concern, we could probably
21 work out some approach to solve that problem for those
22 particular golf courses. If the former is your concern,
23 just you want equity between the various categories, then
24 I'd have to point out, yes, the staff saw this as a unique
25 niche of vehicles that were far more eligible for full

1 electrification and the cost of the other approach -- your
2 recommended approach, if it's equity with the small utility
3 engines' use in other applications, that's about a six-ton
4 per day hydrocarbon and ozone precursor cost. And that
5 concerns us.

6 MR. LAGARIAS: Well, both of my concerns still
7 apply. I don't believe in mandating a technology. I don't
8 believe that's the purpose of our Board. Our Board is
9 concerned with adopting regulations and then challenging the
10 industry to meet those regulations.

11 In this case, we have adopted a regulation for
12 engines for garden utility engines, which are the identical
13 engines which could go into a golf cart, then we're -- are
14 we going to suggest, "You can't put that in a golf cart.
15 You can put that in something else, but not in a golf cart."

16 I don't think that's what our intent should be.
17 Certainly, we're looking at reducing emissions, and that's
18 why we set the standards for utility engines and pushed them
19 very hard in the process.

20 But I'm just not in favor of mandating something
21 that is not essential.

22 SUPERVISOR WIEDER: Madam Chairman?

23 CHAIRWOMAN SCHAFFER: Yes, Supervisor Wieder.

24 SUPERVISOR WIEDER: I would like to totally
25 support Jack's frame of reference and where he's coming from

1 on that. Are you suggesting, Mr. Boyd, then, that -- since
2 this seems to be such an attractive niche to achieve
3 reductions, should not then -- if you follow that line of
4 reasoning -- should not then we go to the comparable engines
5 that are not in golf carts and change the rules there?

6 MR. LAGARIAS: They've tried that.

7 MR. BOYD: Well, I mean, as explained earlier, we
8 certainly considered that in the beginning. Because, as the
9 statute requires, we need to go to the best technology
10 feasible. But it was deemed not feasible for all the
11 applications to which these various pieces of equipment were
12 applied.

13 So, we did not do it there. We felt -- we feel
14 that; in this application, what we're recommending is
15 feasible.

16 SUPERVISOR WIEDER: Well, you can get at it,
17 because there's less complexity and probably less numbers.
18 Whereas, with all the other products, it's difficult.

19 MR. BOYD: It's the usage. It's the type of usage
20 that is utilized for this kind -- this piece of equipment.
21 It's not as severe, in spite of the hilliness of some golf
22 courses, as the uses to which many of these other small
23 utility engines that we discussed in the previous hearing
24 were applied to.

25 Now, we were dealing with golf carts in that

1 setting, and deferred it for future review because of the
2 concerns. And the consequence of that future -- of delaying
3 that review is the recommendation that we bring you today.
4 We looked into the technology specifically. We looked into
5 the service and application. And it brought forth the
6 recommendation that you have before you today.

7 MR. LAGARIAS: Well, certainly, I'm in favor of
8 zero-emission golf carts. I think the very type of activity
9 that it involves would recommend that. And I would
10 encourage and do everything that we could do to encourage
11 the use of electric golf carts. I just don't want to
12 mandate it.

13 CHAIRWOMAN SCHAFFER: Thank you very much, Mr.
14 Lagarias. I think it's important that we proceed to a vote,
15 because one of our members has to leave, perhaps others.
16 So, I'd like some assistance from counsel on -- shall we
17 work on these from the last one back up to the first one?

18 MR. KENNY: I think that it might be the easiest
19 way to go, and probably the one with the most clarity
20 associated with it.

21 CHAIRWOMAN SCHAFFER: That occurred to me, too.
22 All right. On the amendment with respect to golf carts,
23 would you, Counsel, state that for us?

24 MR. KENNY: With regard to the golf carts, as I
25 understand the proposal made by Mr. Lagarias and seconded by

1 Mayor Hilligoss, the staff proposal would be for the use of
2 electric vehicles on a specified date.

3 Mr. Lagarias' modification to that, actually is an
4 alternative, and his alternative is that the utility engine
5 regulations, as adopted in 1990, would be used as the basis
6 for the golf cart compliance, and that would be pursuant to
7 the Tier One standards in those regulations.

8 MR. TERRIS: Well, I'd like to just try to clarify
9 one thing. Mr. Lagarias raised the question of equity with
10 the utility standards.

11 The utility standards have two tiers to them.

12 MR. LAGARIAS: This is Tier One.

13 MR. TERRIS: And are you saying that just Tier One
14 would apply to golf carts and Tier Two would not?

15 MR. LAGARIAS: That's all we had discussion on,
16 and Tier One is all we've brought to date today (sic).

17 (Thereupon, several members and the staff spoke
18 simultaneously, prompting the reporter to ask that
19 only one person speak at a time.)

20 MR. TERRIS: In 1999, the utility regulations have
21 a second tier to them, which are more stringent than the
22 first tier.

23 MR. LAGARIAS: I think we'd have to bring that up
24 separately. I'm not prepared to recommend that at this
25 time.

1 CHAIRWOMAN SCHAFFER: All right. Let me make sure
2 I understand. A no vote on this, then, would be an
3 affirmation of the staff's proposal --

4 MR. LAGARIAS: That's right.

5 CHAIRWOMAN SCHAFFER: -- on golf carts.

6 MR. KENNY: Correct.

7 CHAIRWOMAN SCHAFFER: May I ask for the roll to be
8 called?

9 MS. HUTCHENS: Edgerton?

10 SUPERVISOR WIEDER: Excuse me. We're on
11 Lagarias', aren't we?

12 CHAIRWOMAN SCHAFFER: We're on Lagarias, the golf
13 carts portion of his amendment.

14 MS. EDGERTON: No.

15 MS. HUTCHENS: Edgerton?

16 MS. EDGERTON: No.

17 MS. HUTCHENS: Hilligoss?

18 MAYOR HILLIGOSS: Aye.

19 MS. HUTCHENS: Lagarias?

20 MR. LAGARIAS: Aye.

21 MS. HUTCHENS: Riordan?

22 SUPERVISOR RIORDAN: No.

23 MS. HUTCHENS: Wieder?

24 SUPERVISOR WIEDER: Yes.

25 MS. HUTCHENS: Wortman?

1 DR. WORTMAN: No.

2 MS. HUTCHENS: Chairwoman Schafer.

3 CHAIRWOMAN SCHAFER: No.

4 MS. HUTCHENS: Doesn't pass 3 to 4.

5 CHAIRWOMAN SCHAFER: Moving on to the next, I'd
6 like to ask counsel to state that portion of the amendment.

7 MR. KENNY: The next portion of Mr. Lagarias'
8 amendment had to do with the motorcycles and ATVs. And his
9 amendment, as it relates to those, was to -- would you like
10 me simply to break it down by its parts, or would you like
11 me to go through all four of those parts that he had?

12 CHAIRWOMAN SCHAFER: No, no. I just want to be
13 able to vote on the 50cc or below exemption.

14 MR. KENNY: Oh, Mr. Lagarias' motion there and
15 seconded was to exempt the less than 50 cc category of
16 motorcycles and ATVs.

17 CHAIRWOMAN SCHAFER: And I understand that a no
18 vote in that case would be an affirmation of the staff
19 recommendation?

20 MR. KENNY: That's correct.

21 CHAIRWOMAN SCHAFER: Would you please call the
22 roll.

23 MS. HUTCHENS: Edgerton?

24 MS. EDGERTON: No.

25 MS. HUTCHENS: Hilligoss?

1 MAYOR HILLIGOSS: Aye.

2 MS. HUTCHENS: Lagarias?

3 MR. LAGARIAS: Aye.

4 MS. HUTCHENS: Riordan?

5 SUPERVISOR RIORDAN: No.

6 MS. HUTCHENS: Wieder?

7 SUPERVISOR WIEDER: Aye.

8 MS. HUTCHENS: Wortman?

9 DR. WORTMAN: No.

10 MS. HUTCHENS: Chairwoman Schafer?

11 CHAIRWOMAN SCHAFFER: No.

12 Next, on the delay for the implementation of the
13 90cc and below -- excuse me. We need a break here with our
14 court reporter.

15 (Thereupon, there was a pause in the
16 proceedings to allow the court reporter
17 to replenish her stenograph paper.)

18 CHAIRWOMAN SCHAFFER: Let me restate the vote, the
19 third vote that will be taken. Counsel, would you please
20 state the proposal by Mr. Lagarias.

21 MR. KENNY: The aspect of the motion that was made
22 by Mr. Lagarias is that, for 90cc and under, compliance
23 would be extended until 1999.

24 CHAIRWOMAN SCHAFFER: A no vote would affirm the
25 staff's proposal, a yes vote would extend the compliance

1 deadline for two years; is that correct?

2 MR. KENNY: That is correct.

3 CHAIRWOMAN SCHAFFER: Call the roll, please.

4 MS. HUTCHENS: Edgerton?

5 MS. EDGERTON: No.

6 MS. HUTCHENS: Hilligoss?

7 MAYOR HILLIGOSS: Aye.

8 MS. HUTCHENS: Lagarias?

9 MR. LAGARIAS: Aye.

10 MS. HUTCHENS: Riordan?

11 SUPERVISOR RIORDAN: No.

12 MS. HUTCHENS: Wieder?

13 SUPERVISOR WIEDER: Aye.

14 MS. HUTCHENS: Wortman?

15 DR. WORTMAN: No.

16 MS. HUTCHENS: Madam Chair?

17 CHAIRWOMAN SCHAFFER: Aye.

18 MS. HUTCHENS: Passes 4 to 3.

19 CHAIRWOMAN SCHAFFER: Mr. Lagarias, you withdrew
20 the load limit proposal? So, we will not be voting on that.

21 MR. KENNY: That's correct. The load limit
22 proposal was withdrawn, and then there is the competition
23 reporting requirement, which is also outstanding.

24 For the sake of clarification, also, we still have
25 the two outstanding motions in their entirety, which have

1 not yet been resolved, but we can clean that up at the end
2 of this.

3 CHAIRWOMAN SCHAFFER: All right. The next vote
4 that we'll need to take, Counsel, would you please state
5 that for us.

6 MR. KENNY: The final aspect of Mr. Lagarias'
7 motion had to do with deleting the mandatory requirement for
8 reporting of competition vehicles, and would instead request
9 that the manufacturers provide voluntary information on
10 that. A yes vote on that would delete the mandatory
11 requirement; a no vote would maintain the mandatory
12 requirement.

13 CHAIRWOMAN SCHAFFER: Would you please call the
14 roll.

15 MS. HUTCHENS: Edgerton?

16 MS. EDGERTON: A yes vote deletes the mandatory
17 requirement?

18 MR. KENNY: That's correct.

19 MS. EDGERTON: No.

20 MS. HUTCHENS: Hilligoss?

21 MAYOR HILLIGOSS: Aye.

22 MS. HUTCHENS: Lagarias?

23 MR. LAGARIAS: Aye.

24 MS. HUTCHENS: Riordan?

25 SUPERVISOR RIORDAN: Let me be sure I understand.

1 I think it's doing the same thing that I proposed.

2 MR. KENNY: That's correct.

3 MAYOR HILLIGOSS: That's right. It is.

4 SUPERVISOR RIORDAN: Then I have to vote aye to be
5 consistent.

6 MS. HUTCHENS: Wieder?

7 SUPERVISOR WIEDER: Aye.

8 MS. HUTCHENS: Wortman?

9 DR. WORTMAN: Aye.

10 MS. HUTCHENS: Madam Chairwoman?

11 CHAIRWOMAN SCHAFFER: Aye.

12 MS. HUTCHENS: Passes 6-1.

13 MS. EDGERTON: I'd like to reverse my vote to aye
14 to make it unanimous, please.

15 MS. HUTCHENS: So noted.

16 MS. EDGERTON: Thank you.

17 CHAIRWOMAN SCHAFFER: Finally, Counsel, could you
18 state the next and, I presume, last vote we'll be required
19 to take. Next to the last.

20 MR. KENNY: There are really two motions which are
21 still before the Board. I mean, the votes that have just
22 basically been utilized were used for clarification purposes
23 on Mr. Lagarias's motion.

24 Mr. Lagarias' motion in its entirety still stands,
25 which would be the motion to modify the staff proposal with

1 the number of modifications as he suggested.

2 CHAIRWOMAN SCHAFFER: May we dispense with that
3 without a roll call vote?

4 MR. KENNY: I think you could very easily.

5 CHAIRWOMAN SCHAFFER: All right. Well, I propose
6 that we do that.

7 MR. KENNY: The other motion that stays on the
8 table is Supervisor Riordan's proposal to modify the staff
9 proposal to delete the competition requirement, which was
10 also an aspect of Mr. Lagarias' motion, which was just
11 discussed.

12 And so, I think you could also dispense with that
13 without a roll call vote if you chose to do so.

14 CHAIRWOMAN SCHAFFER: So proposed.

15 All in favor, say aye?

16 (Ayes.)

17 CHAIRWOMAN SCHAFFER: All right. Finally, is there
18 a need to take a vote on the proposal, as amended?

19 MR. KENNY: I think you have a resolution, which
20 is still before you, which is 94-1, and I think it would be
21 beneficial to do that.

22 CHAIRWOMAN SCHAFFER: All right. I would ask the
23 roll to be called on adopting the resolution, as amended.

24 MS. HUTCHENS: Edgerton?

25 MS. EDGERTON: Aye.

1 MS. HUTCHENS: Hilligoss?

2 MAYOR HILLIGOSS: Aye.

3 MS. HUTCHENS: Lagarias?

4 MR. LAGARIAS: Aye.

5 MS. HUTCHENS: Riordan?

6 SUPERVISOR RIORDAN: Aye.

7 MS. HUTCHENS: Wieder?

8 SUPERVISOR WIEDER: Aye.

9 MS. HUTCHENS: Wortman?

10 DR. WORTMAN: Aye.

11 MS. HUTCHENS: Chairwoman Schafer?

12 CHAIRWOMAN SCHAFER: Aye.

13 MS. HUTCHENS: Passes 7-0.

14 CHAIRWOMAN SCHAFER: I'd like to note that there
15 is a 15-day comment period for this item as I mentioned
16 earlier.

17 I'd like also to propose a movement of the
18 original next order of business, which is to consider a
19 status report on the State's efforts to meet the Clean Air
20 Act, to our February meeting. If there's any objection to
21 that, we can change that. But I think it's an information
22 item, and I think it can hold.

23 That will give us an opportunity to move to the
24 next item. Yes, we will break, and take up Item 94-1-3
25 within five minutes.