

MEETING
BEFORE THE
CALIFORNIA AIR RESOURCES BOARD

COPY

HEARING ROOM
CALIFORNIA AIR RESOURCES BOARD
2020 L STREET
SACRAMENTO, CALIFORNIA

THURSDAY, JULY 28, 1994

9:45 A.M.

Nadine J. Parks
Shorthand Reporter

I N D E X

	<u>PAGE</u>
Proceedings	1
Call to Order and Roll Call	1
Opening Remarks by Chairwoman Schafer	1
<u>AGENDA ITEMS:</u>	
<u>94-7-1</u> Public Hearing to Consider Amendments to Emission Control Regulations for 1995 and Later Model Utility and Lawn and Garden Equipment Engines	
Introductory Remarks by Chairman Schafer	2
<u>Staff Presentation:</u>	
Jim Boyd Executive Officer	3
Ron Haste Off-Road Controls Section Mobile Source Division	5
Questions/Comments	20
<u>PUBLIC COMMENTS:</u>	
Jed Mandel Engine Manufacturers Association -and- Outdoor Power Equipment Institute	34
Questions/Comments	41
Matthew Hall Portable Power Equipment Manufacturing Association	77
Questions/Comments	84
Peter Stucke, Ph.D. Portable Power Equipment Manufacturing Association	105

INDEX, continued. PAGE

AGENDA ITEMS:

<u>94-7-1</u>	Questions/Comments	111
	Entry into Record of Written comments by Jackie Lourenco Manager, Off-Road Controls Section Mobile Source Division	117
	Questions/Comments	118
	Official Closing of Record by Chairwoman, awaiting notice of 15-day comment period	122
	Motion by Riordan to Approve Resolution 94-50	123
	Discussion	123
	Request by Lagarias to Staff	124
	Restatement of Lagarias Request to Staff	125
	Roll Call Vote	126, 127
	Questions/Comments	127
	Clarification of Request of Staff	127
	Luncheon Recess	129
	Afternoon Session	130
<u>94-7-2</u>	Public Hearing to Consider Amendments to the Air Toxics <u>Hot Spots Fee Regulation</u>	
	Introductory Remarks by Chairwoman Schafer	130
	<u>Staff Presentation:</u>	
	Jim Boyd Executive Officer	134

1 that I believe Supervisor Wieder will be here later this
2 morning, and also point that Supervisor Bilbray and Mr.
3 Parnell are unavoidably absent today due to some conflicts
4 in their schedules.

5 I'd like to remind those of you in the audience
6 who would like to present testimony to the Board on any of
7 today's agenda items to please sign up with the Board
8 Secretary over here to your right.

9 If you have any written statement, please give 20
10 copies to the Board Secretary.

11 The first item on the agenda today is 94-7-1, a
12 public hearing to consider amendments to the emission
13 control regulations for 1995 and later model utility and
14 lawn and garden equipment engines.

15 The 1988 California Clean Air Act directed the Air
16 Resources Board to regulate emissions from off-road vehicles
17 and other mobile sources.

18 To comply with these requirements, the Board
19 adopted emission control regulations for utility and lawn
20 and garden equipment engines in 1990. Included in the ARB's
21 regulations are emission standards and certification and
22 compliance requirements.

23 Even though the United States Environmental
24 Protection Agency has recently proposed national off-highway
25 small engine emission standards that are based on the

1 California Tier I standards, they have yet to issue
2 California a waiver to enforce its standards for 1995.

3 A lack of a waiver and EPA's delay in issuing a
4 decision on preempted equipment has caused the Air Resources
5 Board to delay its standards from 1994 to 1995.

6 Manufacturers, however, have made good progress in
7 developing and certifying lower emission engines. However,
8 these efforts have revealed a need to improve the process.

9 Before us for consideration today are proposed
10 amendments to the ARB's certification and compliance. The
11 proposed amendments include updating the test procedures to
12 incorporate the current industry and EPA approved version,
13 allowing the use of the current motor vehicle test fuels,
14 and clarifying engine and equipment manufacturers'
15 responsibilities.

16 The proposed Air Resources Board amendments
17 maintain consistency with the EPA procedures as required by
18 federal waiver provisions. Moreover, the proposal has
19 resulted from continuous discussion and cooperation between
20 the industry and the Air Resources Board in a mutual effort
21 to improve the efficiency of the compliance processes.

22 Mr. Boyd, at this point, would you please present
23 the item to the Board?

24 MR. BOYD: Thank you, Chairman Schafer, and good
25 morning, Board members. Good morning to members of the

1 public in the audience.

2 As you indicated, the proposal before you today is
3 essentially a cleanup of the utility engine regulations that
4 the Air Board adopted in December of 1990.

5 These regulations have been put into practice,
6 with manufacturers certifying, at least to date,
7 approximately three dozen of various types of utility
8 engines for the 1995 calendar year.

9 Since the adoption of the ARB regulations, the
10 industry has made efforts to update emission test
11 procedures. The US EPA has proposed new procedures, and
12 your staff, in its efforts to implement the regulations, has
13 identified improvements in the procedures and other changes
14 to better align our current procedures with the US EPA's.
15 Such an alignment of the California and Federal procedures
16 and standards does benefit everyone by allowing
17 manufacturers, for instance, to use the same test data for
18 both California and for Federal engines, as well as, on
19 occasion, to carry over current California certification to
20 future Federal certifications.

21 The proposal, which the staff will present,
22 reflects a tremendous amount of work and a lot of input from
23 the industry as well as a lot of work on the part of your
24 staff and, as you indicated, there's been a long cooperative
25 relationship between the staff and the industry in this

1 case.

2 With that, I'd like to turn the presentation over
3 to a member of the Mobile Source Division staff, Mr. Ron
4 Haste, who will give you an overview of the staff's
5 recommendations.

6 Mr. Haste.

7 MR. HASTE: Thank you, Mr. Boyd. Good morning,
8 Chairwoman Schafer and members of the Board. Today, I will
9 present the staff's proposal for amending the current
10 utility and lawn and garden equipment regulations.

11 I would like to begin by providing some background
12 on the item, including the history of the utility engine
13 regulations, the status of current utility engine
14 certification, and then move on to a discussion of the
15 proposed amendments, the impacts and issues related to the
16 proposal, and, finally, a summary of the presentation and
17 the staff's recommendations.

18 Because of the increasing significance of the off-
19 road mobile source emissions inventory, the California Clean
20 Air Act mandated the Air Resources Board to adopt emission
21 control regulations for utility engines, locomotives, marine
22 vessels, off-highway vehicles, off-highway motorcycles, and
23 construction and farm equipment.

24 Emission control regulations for utility engines
25 under 25 horsepower were approved by the Air Resources Board

1 in December of 1990. To date, the Air Resources Board has
2 also adopted emission control regulations for off-road
3 heavy-duty diesel engines of 175 and greater horsepower and
4 off-highway recreational vehicles.

5 In 1989, a court order based on the case of
6 Citizens for a Better Environment vs. Governor Deukmejian,
7 found that certain commitments of the Bay Area Air Quality
8 Management District's 1982 State Implementation Plan had not
9 been satisfied.

10 The SIP required a four ton per day reduction in
11 hydrocarbon emissions by 1987, and -- which was to be
12 accomplished from a ban on all new two-stroke utility
13 engines that could be replaced with either cleaner four-
14 stroke engines or electric motors.

15 The control measure was not adopted by the Bay
16 Area Air Quality Management District, and the court directed
17 the ARB or the district to adopt utility engine regulations
18 by January 7th, 1991, and to enact full implementation by
19 January 7th, 1994.

20 Upon passage of the California Clean Air Act, the
21 responsibility for this task was assigned to the ARB.
22 Consequently, the first off-road regulations considered by
23 the ARB were for utility engines.

24 The utility engine category includes engines less
25 than 25 horsepower. Utility engines are used primarily in

1 lawn and garden equipment, such as lawn mowers and leaf
2 blowers.

3 These engines also power utility equipment, such
4 as small generators, which provide electrical power at
5 sites where such power is typically not available.

6 Utility engines are also grouped for certification
7 purposes on the basis of whether the equipment usage either
8 handheld or nonhandheld. Equipment is considered to be
9 handheld if the operator supports the total weight of the
10 equipment during its use, and it is capable of operating in
11 various positions, such as horizontal, vertical, or
12 somewhere in between.

13 Chainsaws, leaf blowers, and string trimmers are a
14 few examples of handheld equipment. Handheld equipment is
15 typically powered by two-stroke engines, because these
16 engines are lightweight and can operate in various
17 positions.

18 Nonhandheld equipment, such as walk-behind mowers,
19 lawn tractors, and generators, are typically powered by
20 four-stroke engines. While two-stroke engines produce
21 significantly higher emissions compared to four-stroke
22 engines, the Board, in 1990, recognized that two-stroke
23 engines are necessary to satisfy the unique operating
24 requirements of handheld equipment.

25 Consequently, the Board adopted separate and less

1 stringent emission standards for handheld equipment engines.

2 The chainsaw shown is considered handheld
3 equipment. And this backpack leaf blower is also handheld.
4 The riding mower shown is considered nonhandheld equipment.
5 And this generator is also nonhandheld.

6 The Federal Clean Air Act amendments of 1990
7 created a federal preemption that prohibits any state or
8 political subdivision from regulating emissions from new
9 farm and construction equipment powered by an engine less
10 than 175 horsepower.

11 In 1991, the U. S. Environmental Protection Agency
12 proposed language in an effort to define farm and
13 construction equipment, and held a hearing to receive public
14 comments. Because it was unclear when the rule would be
15 finalized by the US EPA, the ARB and the industry entered
16 into negotiations, and ultimately agreed on a list which
17 clearly specified what equipment should be considered farm
18 and construction and, thus, preempted from ARB control.

19 In July, 1993, a letter and a list was sent to the
20 US EPA explaining ARB's intent. Finally, on July 1st, 1994,
21 the US EPA Administrator signed the final rule regarding the
22 preemption definitions.

23 This final rule is virtually the same as the
24 proposed rule originally drafted by the US EPA. Thus, the
25 staff believes that the agreed upon ARB industry preemption

1 list should still be sanctioned by industry.

2 The utility engine regulations were originally
3 applicable to engines produced on or after January 1st,
4 1994. However, without a finalized federal preemption rule,
5 manufacturers were uncertain about which engines might
6 eventually be exempt from California's control.

7 As result, manufacturers reportedly had difficulty
8 finalizing their engine production and marketing plans in
9 time for 1994 certification.

10 The ARB's response to this uncertainty was to
11 delay the implementation of the utility engine regulations
12 for one year to January 1st, 1995.

13 Lastly, the US EPA recently proposed emission
14 control regulations for nonroad small engines. Although
15 some differences do exist, these proposed regulations are
16 basically the same as the California Tier I utility
17 standards.

18 In California, there are two different sets of
19 emission standards for utility engines. The Tier I
20 standards shown in this table are effective for engines
21 certified for 1995 through 1998.

22 As indicated, there are five sets of emission
23 standards based on engine displacement -- two for
24 nonhandheld engines and three for handheld engines.

25 Nonhandheld engines also certify to a hydrocarbon

1 plus Nox standard and a carbon monoxide standard. Diesel
2 cycle nonhandheld engines must also meet a particulate
3 matter standard.

4 Handheld engines must certify to separate
5 standards for hydrocarbons, carbon monoxide, and Nox. These
6 standards were intentionally set at levels such that, in
7 order to comply, existing engines would require only
8 relatively minor modifications to the engine or carburetor.

9 The nonhandheld standards were based on emission
10 reductions using the best side-valve engines, which were the
11 least expensive and most common type of nonhandheld engines.

12 Many of the inherently cleaner nonhandheld
13 overhead valve engines available at the time of the adoption
14 of the regulations were already capable of complying with
15 the standards.

16 The allowable handheld emission levels for
17 hydrocarbons and oxides of nitrogen are significantly less
18 stringent than those for nonhandheld engines. The handheld
19 engine standards were set at these levels so that two-stroke
20 engines would be able to certify without needing to design a
21 completely new engine or to use advanced emission control
22 technology, such as catalytic converters.

23 The Tier II emission standards are applicable to
24 engines certified for 1999 and beyond. These standards are
25 based on a 60 to 70 percent reduction of the 1995 standards.

1 Such emission reductions are expected to be achieved by
2 using additional engine and fuel system design modifications
3 and by using cleaner overhead valve engines, and other
4 advanced technologies, such as catalytic converters or fuel
5 injection.

6 All nonhandheld engines, regardless of engine
7 size, must comply with the same hydrocarbon plus oxides of
8 nitrogen, carbon monoxide, and, as applicable, particulate
9 matter standards shown in this slide.

10 Likewise, all handheld engines, regardless of
11 engine size, must comply with the standards for
12 hydrocarbons, carbon monoxide, and oxides of nitrogen. Two-
13 stroke handheld engines must also satisfy a particulate
14 matter standard.

15 This chart illustrates the reduction in the
16 statewide emissions inventory that are expected to occur for
17 engines certified to the Tier I standards in the year 2000
18 and for the Tier II standards in the 2010.

19 The Tier I standards are expected to reduce the
20 baseline emission levels by 44 percent in the year 2000;
21 while, in 2010, the Tier II standards are expected to reduce
22 the baseline levels by 76 percent.

23 There are no specific durability or in-use recall
24 provisions for California-certified utility engines. To
25 ensure that production engines purchased by consumers are

1 and remain in compliance with the emission requirements, the
2 utility engine regulations contain four compliance
3 enforcement provisions.

4 These enforcement provisions contain requirements
5 for assembly line quality-audit testing, new engine
6 compliance testing, emission control system labeling, and
7 emission control system defects warranty coverage.

8 Assembly line quality-audit testing is required
9 beginning in 1996, and requires that an engine manufacturer
10 emission test one percent of the California sales engine
11 production at their assembly line. The other activities
12 listed are effective beginning in 1995.

13 To date, the California Air Resources Board has
14 certified or is in the process of certifying 28 separate
15 handheld engine models and 80 separate nonhandheld engine
16 models for the 1995 calendar year production.

17 This table indicates that engines for various
18 types of handheld equipment will be available based on
19 existing certification activities. Notice that
20 manufacturers have not submitted any 50 cc and greater
21 displacement engines for certification. This is probably
22 because most handheld equipment engines of this size are
23 used in commercial-type applications, such as chainsaws used
24 for forestry logging operations.

25 This equipment falls under the farm and

1 construction definition and is exempt from State regulatory
2 control. Also, the staff does not expect many handheld
3 engines with displacements under 25 cc to be certified,
4 because there are not that many equipment applications in
5 this engine size range.

6 This table provides the quantities of various
7 types of nonhandheld equipment that will be available for
8 consumers. Again, there appears to be sufficient
9 availability of all of the major types of nonhandheld
10 utility equipment.

11 Notice that some manufacturers have not yet
12 submitted certification applications for some engine
13 families that the manufacturers have indicated they intend
14 to certify. So, we expect even greater availability than
15 this figure shows.

16 The amendments that are being proposed today are
17 the result of experience acquired by both industry and the
18 Air Resources Board in developing and implementing
19 consistent and accurate procedures that are necessary for
20 establishing compliance with the utility engine regulations.

21 The proposed changes should accomplish this;
22 while, at the same time, improve the flexibility and lower
23 the costs associated with utility engine compliance.

24 Accordingly, the staff is proposing amendments
25 that allow for the utilization of the most state of the art

1 industry test methods and equipment.

2 The proposed amendments also clarify requirements
3 related to engine certification and compliance enforcement
4 in an effort to streamline the process for both
5 manufacturers and the ARB.

6 Also, amendments are proposed which are intended
7 to align, whenever possible, the California regulations with
8 the recently proposed US EPA regulations. By doing so, it
9 should minimize duplication of certification and compliance
10 requirements for the manufacturers.

11 I would like now to present in further detail the
12 various amendments being proposed.

13 Manufacturers have requested that the utility
14 engine test procedures use the most current versions of the
15 industry test procedures and methods available.
16 Accordingly, the staff proposes to incorporate, as
17 applicable, the latest Society of Automotive Engineers'
18 small engine test procedure and the particulate matter
19 related portions of the International Standards
20 Organization's test procedure 8178-1 into the Air Resources
21 Board's utility engine test procedures.

22 Manufacturers are also interested in certifying
23 engines that use natural gas. However, the existing
24 regulations do not include any specific standards for
25 natural gas engines. Because the primary exhaust component

1 of a natural gas engine is methane, requiring these
2 relatively clean engines to certify to a total hydrocarbon
3 standard would be inappropriate. Therefore, the staff is
4 proposing that these engines be allowed to certify to a
5 nonmethane hydrocarbon standard.

6 Manufacturers are also interested in using clean
7 California Phase 2 gasoline for certification testing,
8 because this gasoline is already used by passenger car
9 manufacturers and it will be available to consumers in 1996.
10 Use of this fuel in certification will ensure that engines
11 calibrated during certification will provide satisfactory
12 performance in customer use.

13 The staff proposes to broaden the criteria used to
14 group and certify very similar diesel cycle engines in an
15 effort to reduce the manufacturers' burden associated with
16 certification, but without any compromise in emissions
17 compliance.

18 The staff proposes changes to the labeling and
19 warranty statement to reflect current industry practices.
20 Many retail outlets prefer to sell their products to
21 consumers with only their company name and trademark
22 displayed on the equipment, such as the Sears' Craftsman
23 product line.

24 In such cases, there would not be any indication
25 of the company that actually manufactured and certified the

1 engine. This is a common industry practice. To avoid
2 disrupting these fundamental industry marketing
3 arrangements, the staff is proposing revisions to the engine
4 labeling and warranty regulations.

5 For example, the staff's proposal will allow the
6 Craftsman name and trademark to continue to be on the
7 product and in the warranty statement instead of those of
8 the actual manufacturer. Such changes do not affect the
9 ARB's ability to conduct compliance enforcement or
10 invalidate the emission control system warranty coverage.

11 (Thereupon, Supervisor Wieder took her place
12 on the dais.)

13 MR. HASTE: The existing assembly line quality
14 audit requirements are not sufficiently clear about how the
15 engine selection process is carried out.

16 Specifically, the procedures do not explain that a
17 manufacturer is eligible for reducing the number of engines
18 to be tested if prior testing indicates that the engines are
19 easily meeting the standards.

20 The quality audit provisions also do not provide a
21 complete methodology for evaluating the audit test results.
22 The staff proposes that revisions that clarify these engine
23 selection and evaluation methods be adopted.

24 The staff is proposing that the regulations be
25 made clear, so that the responsibilities for satisfying the

1 labeling, assembly line quality audit testing, and new
2 engine compliance testing requirements are addressed and
3 specific to the applicable manufacturer.

4 The staff is also proposing changes to specify the
5 type of product, such as the entire engine family or only
6 certain engine models, which may be enjoined from sales in
7 California when a noncompliance occurs.

8 As an example, an equipment manufacturer may
9 purchase engines from an engine manufacturer, and during the
10 installation of the engines in the equipment, changes are
11 made to the engine that affect the emissions. In cases such
12 as this, the proposed amendments would hold the equipment
13 manufacturer responsible for emissions compliance.

14 The staff also proposes revisions intended to
15 discourage consumers from tampering with the certified
16 factory settings. Such tampering often leads to rich
17 air-to-fuel ratio conditions which, in turn, result in
18 excessive emissions.

19 New definitions to the regulations are also being
20 proposed in order to add clarity to the certification
21 process.

22 Despite staff's efforts to provide flexibility and
23 streamline the certification and compliance requirements,
24 several issues of controversy remain. The first issue
25 involves the definition of handheld equipment.

1 Manufacturers have requested that the ARB expand
2 this definition to include additional equipment. Staff's
3 narrow definition of handheld is intentional, because we
4 believe that the less stringent standards should only be
5 allowed for equipment that requires the use of a two-stroke
6 engine.

7 To satisfy the existing definition of handheld,
8 the weight of the equipment must be fully supported by the
9 operator during its use and must be designed to operate in
10 multiple positions.

11 Thus, for example, if a piece of equipment is used
12 primarily in an upright position and its weight is supported
13 by a wheel, staff does not believe it would fit the
14 definition of handheld.

15 The second issue pertains to the engine and
16 equipment manufacturers' responsibilities. Industry has
17 expressed concern that the proposed revisions which clarify
18 manufacturer responsibilities represent new requirements on
19 equipment manufacturers.

20 The staff contends that this is not true. It is
21 always been the intent of the regulations that for both
22 engine and equipment manufacturers, enforcement actions
23 should apply and be directed toward the manufacturer
24 responsible for the noncompliance.

25 On May 11th, 1994, manufacturers contacted the

1 staff to present and discuss certain changes to the
2 regulations that had not been previously requested by
3 industry or considered by staff.

4 A more in-depth discussion of these particular
5 issues took place in meeting with staff on June 15th, 1994.
6 Since the staff's current proposal was mailed out and,
7 therefore, publicly available prior to that date, the CO
8 standard, additional leadtime, and averaging and banking
9 issues were not included in the hearing notice.

10 In the ensuing discussion, staff was most
11 concerned about the leadtime portion of the request, given
12 the regulations' implementation has already been delayed a
13 year.

14 However, without leadtime, changes in the CO
15 standards so close to the implementation date would affect
16 the competitive balance developed in the industry.

17 Near-term interest in banking averaging appears to
18 have subsided, but it will be evaluated in the future. The
19 staff believes, because the amendments proposed today will
20 have a positive -- will have a positive impact (sic).

21 The proposed changes maintain the emission
22 reductions that were projected when the regulations were
23 initially adopted.

24 Secondly, the proposed amendments seek to provide
25 more flexibility, and thereby lower the costs associated

1 with certifying engines.

2 Lastly, the proposed amendments serve to align, as
3 closely as possible, the California procedures with the
4 proposed federal regulations, thereby minimizing duplication
5 of certification and compliance requirements.

6 To summarize, the staff is proposing improvements
7 to the regulations that respond to industry requests by
8 updating and clarifying the test procedures and the
9 enforcement requirements.

10 The proposed changes improve the necessary
11 certification and compliance processes and were derived
12 through a cooperative effort with industry.

13 The changes proposed do not have any adverse
14 environmental impacts.

15 Accordingly, the staff recommends that the Board
16 adopt the amendments as they were proposed in the hearing
17 notice.

18 This concludes my presentation of the proposed
19 amendments to the utility engine regulations. The staff
20 will now answer questions that the Board may have at this
21 time.

22 CHAIRWOMAN SCHAFFER: Do any members of the Board
23 have questions for the staff on this presentation?

24 Yes, Dr. Boston.

25 DR. BOSTON: I just wanted to clarify. The staff

1 is proposing these amendments only. We are not hearing any
2 requests for change in the emission standards or the
3 effective date of those standards?

4 Is that a subject of this hearing?

5 MR. DRACHAND: The amendments do not include any
6 changes in the standards on the applicability date. That's
7 not part of the hearing rules.

8 MR. BOYD: So, that is not something that should
9 be taken up by this Board or cannot be taken up by this
10 Board, since it wasn't noticed?

11 MR. DRACHAND: It wasn't noticed.

12 MR. TERRIS: It can be discussed, but the Board
13 cannot action on those areas.

14 DR. BOSTON: I see. Okay. Thank you.

15 CHAIRWOMAN SCHAFFER: Yes, Supervisor Vagim?

16 SUPERVISOR VAGIM: Thank you, Madam Chair.

17 We have a list -- I don't know if it's in the
18 rule, but I did get it as part of a staff backup -- a very
19 specific list of those that are considered to be -- I guess
20 we've taken the tact: Anything under 25 horsepower will
21 have the federal preemption, except the following items that
22 we list. An we list a whole myriad of items.

23 And I presume, when you speak to things like
24 forklifts under the 25 horsepower -- and, of course, you
25 mention it again in the reverse logic, over 25 horsepower,

1 those things mentioned will be exempted or -- excuse me,
2 yeah. Not mentioned will be exempted. So, you have reverse
3 logic.

4 It's not only tough to think about; it's tough to
5 say.

6 (Laughter.)

7 SUPERVISOR VAGIM: The definition of what is
8 handheld and was isn't handheld, particularly in the under
9 25 horsepower classification -- we have an auger down as --
10 and I want to make sure I've got the logic right here. It
11 says, with the exception of the following equipment, which
12 are considered to be construction and farm equipment.

13 So, you have auger, which is the lateral auger
14 moving earth or the posthole digger? Or what is an --
15 because you use those words interrelated. I don't see
16 posthole digger, for example, in here. Is that under an
17 auger or --

18 MR. CROSS: What I'm checking here is to see
19 whether we have tiller, because that would be somewhat
20 analogous. We don't have tiller.

21 So, given that we have not listed tiller here, I
22 would presume that here we meant essentially a tiller-type
23 auger as opposed to a posthole digger.

24 SUPERVISOR VAGIM: So, we're considering a
25 posthole digger, then, to be a nonexempt.

1 MR. CROSS: Right. That's correct.

2 SUPERVISOR VAGIM: And that kind of gets into the
3 area of definition -- what is handheld and what isn't
4 handheld. And I guess the question that I want to ask is
5 what happens to a posthole digger if you take your hands off
6 of it?

7 MR. CROSS: I think the key -- it'd probably spin
8 backwards, but --

9 SUPERVISOR VAGIM: Wouldn't it just fall flat --

10 MR. CROSS: (Interjecting) Yeah, it would fall
11 over --

12 SUPERVISOR VAGIM: (Interjecting) So, it has to
13 be handheld just to operate, doesn't it?

14 MR. CROSS: The key --

15 SUPERVISOR VAGIM: (Interjecting) Just to run it
16 has to be handheld.

17 MR. CROSS: That's all true. Well, so does a
18 mower. You have to guide it, sort of.

19 SUPERVISOR VAGIM: Yeah, but you can have it
20 idling without your hands on it.

21 MR. CROSS: But the specific concern which drove
22 the definition of handheld was that the operator support the
23 weight of the piece of equipment while it's doing its job.

24 And a chainsaw, for example, or a backpack blower,
25 or a weed whacker, all of those devices, the operator's

1 involved in supporting the weight, operating it in
2 multipositions -- which is another aspect of the definition.

3 SUPERVISOR VAGIM: You mean the log doesn't
4 support the weight of some of the chainsaw?

5 MR. CROSS: Well, yeah, but so does the logger
6 when he's climbing around in the tree.

7 SUPERVISOR VAGIM: Yeah, but so does the ground on
8 a posthole digger.

9 MR. CROSS: But I think the key point of it -- of
10 this definition was that -- was that, if you look at the
11 existing equipment out there, there's certain kinds of
12 equipment which require the very high RPM, very lightweight,
13 multiposition capability of a two-stroke engine.

14 And those engines are 20 times dirtier than four-
15 stroke engines used in --

16 SUPERVISOR VAGIM: (Interjecting) No, I
17 understand that, but I mean --

18 MR. CROSS: (Interjecting) So, I'm granting your
19 point. We went through a tremendous amount of -- of debate
20 during the original proposal to try and draw a line between
21 the equipment that requires a two-stroke engine to do its
22 job and equipment that could do its job equally well with a
23 two- or four-stroke engine.

24 For example, there are two-stroke lawnmowers out
25 there, and there were arguments made that you can maneuver a

1 two-stroke lawnmower better than a four-stroke lawnmower,
2 because it's lighter.

3 But the Board concluded that there were enough
4 good lightweight four-stroke lawnmowers available, so that
5 wasn't a compelling argument to change the definition.

6 SUPERVISOR VAGIM: Isn't one of the functions of a
7 two-stroke that it is a lighter, smaller engine in a --

8 MR. CROSS: (Interjecting) Right. And, normally,
9 they can -- they don't have an oil pan, so you can run them
10 in any position, which is also another part of the
11 definition.

12 SUPERVISOR VAGIM: Right. But, anyway, I don't
13 want to dwell on that. I just wanted to lay out the kind of
14 a -- maybe a loophole in the logic, and maybe we'll walk
15 over that later in some discussion.

16 Another issue that I want to ask is I don't see
17 any exemption for the hobby-type engines. We talked about
18 that on the phone.

19 MR. CROSS: Yeah. You asked about, I think, model
20 airplanes --

21 SUPERVISOR VAGIM: (Interjecting) Or engines
22 that--

23 MR. CROSS: (Interjecting) -- was the specific --
24 (Thereupon, the reporter requested that
25 one person speak at a time.)

1 MR. CROSS: Sure. I'll slow down a little bit,
2 too.

3 He asked specifically about model airplanes. And
4 I think that, in the discussion that we had -- first of all,
5 I can say that the engines specifically designed for hobby
6 use like that would not fall under our definition; in other
7 words, a model airplane engine, which is --

8 SUPERVISOR VAGIM: Slot cars?

9 MR. CROSS: Yeah. Those are engines uniquely
10 designed for that purpose and they're clearly not utility
11 engines as defined in our regulation.

12 I think, if someone were to -- were to stretch it
13 a whole lot and build a giant model airplane, and put a
14 lawnmower or a week whacker engine on it, then that engine
15 would obviously carry the controls that came with it when it
16 was certified.

17 But there's no intent in this regulation -- never
18 was in the definitions contained in it -- to specifically
19 regulate hobby engines.

20 SUPERVISOR VAGIM: So, that should also take it to
21 the so-called larger engines out of that class into those
22 other -- these utility engines that are used for hobbies,
23 go-carts, midgets --

24 MR. CROSS: (Interjecting) That was handled in the
25 regular -- in the original adoption. If they're used for

1 competition go-carts -- in other words, like the two-stroke
2 racing engines -- they're exempt by State law.

3 If they're used for something like an amusement
4 park type setting, they're not exempt. And you would use
5 like a controlled engine.

6 SUPERVISOR VAGIM: Okay. Very good. Thank you,
7 Madam Chair.

8 CHAIRWOMAN SCHAFER: Thank you very much. Mr.
9 Calhoun.

10 MR. CALHOUN: My question pertains to a statement
11 that staff made concerning certification. It's my
12 understanding that a number of manufacturers have already
13 applied for certification, or perhaps you've already
14 certified some of these particular engines and lawnmowers.

15 My question is: Of the applications that you've
16 received, what percentage of the total volume would be
17 covered by those manufacturers if they all were approved?

18 MR. CROSS: I have a little bit more data on the
19 certification. First of all, I'm going to have to give you
20 about two-and-a-half answers, but it won't take long.

21 I, actually last night, was curious, also, and
22 went through what's called "letters of intent," which the
23 manufacturers list what engines they're going to certify or
24 that they're thinking of certifying, then also looked at our
25 certification applications to see which ones were well along

1 in the process; in other words, the applications were
2 essentially there, and either done and they're certified, or
3 very far along.

4 For the nonhandheld categories, 141 families show
5 up in the letters of intent; 79 are currently in the cert
6 process or certified. So, about 56 percent of everything
7 that was in the letters of intent, in terms of number of
8 families, is already in the process.

9 There is a -- okay. And that's for the
10 nonhandheld.

11 For the handheld, they're 79 families in the
12 letters of intent; 29 are in the process. So, about 37
13 percent are well along.

14 Not all engines listed in the letters of intent
15 would necessarily be certified. In other words, some
16 manufacturers would cover themselves by listing essentially
17 everything they would likely want to certify, and choose to
18 certify some, and choose to not certify others.

19 But the point from this is that, in terms of
20 number of models, they're fairly well along in the process.
21 In terms of sales volume, the largest sales volume, which
22 overwhelms everything else, is walk-behind lawnmowers. And
23 the traditional engines used in walk-behind lawnmowers are
24 the very, very low cost L-head engines, and there are
25 several American manufacturers and some foreign

1 manufacturers which produce these.

2 The L-head engines have not been certified yet
3 and, so, there is a substantial amount of sales volume,
4 which is -- which is not certified, associated with the L-
5 head engines in the walk-behind mowers.

6 There are walk-behind mower engines certified. In
7 fact, one of them is an advanced L-head engine. But -- but,
8 as yet, the large volume of walk-behind mower engines is not
9 certified.

10 And that sales volume overwhelms, essentially,
11 everything else out there.

12 In looking at the equipment applications, it
13 looked like there's reasonable coverage in most of the other
14 areas. In other words, it's specifically, I think, the
15 walk-behind mowers which is a little uncertain.

16 And I guess the uncertainty is not in terms of
17 whether there would be product out there, but whether or not
18 the cheap product that the consumers are used to would be
19 out there or not.

20 SUPERVISOR VAGIM: Madam Chair, I've got a quick
21 question --

22 CHAIRWOMAN SCHAFFER: Supervisor Vagim, go ahead.

23 SUPERVISOR VAGIM: -- on the dates. Is this to be
24 manufactured for -- or offered for sale by those dates, or
25 just the period to be able to sell them?

1 MR. CROSS: Essentially, it's the engine
2 manufacturer date which dictates it. So, if an engine
3 manufacturer were in trouble in terms of introducing some of
4 these cheap models, for example, they could stockpile
5 engines before January 1, '95, what is feasible within their
6 production schedule --

7 SUPERVISOR VAGIM: They have an --

8 MR. CROSS: -- or manufacture date. And equipment
9 manufacturers could actually produce using the '94 engines
10 into the '95 model year.

11 SUPERVISOR VAGIM: So, it's the date of
12 manufacture.

13 MR. CROSS: It's the date of engine manufacture.

14 SUPERVISOR VAGIM: Thank you.

15 MR. CROSS: In fact, that's one of the
16 clarifications which the staff is proposing in the
17 regulations to make sure of that.

18 SUPERVISOR VAGIM: Very good. Thank you.

19 CHAIRWOMAN SCHAFER: Okay. Are there other
20 questions at this time from Board members?

21 Ms. Edgerton?

22 MS. EDGERTON: This is for Mr. Cross. Following
23 up on the comment about the questionability as to whether
24 that product will be available to consumers or an equally
25 performing product will be available, I recall in our LEV-

1 ZEV hearing in May, there was some discussion of a new
2 product of walk-behind electric zero emission vehicle
3 lawnmower (sic). Is that a competitive product with the
4 lightweight, two-stroke walk-behind anyway?

5 MR. CROSS: This is a tough one to answer, because
6 we met with the manufacturer and a lot of what they told us
7 about the market position of that particular piece of
8 equipment was confidential; in other words, because they've
9 identified a certain area of the market which they think
10 this piece of equipment will fit.

11 I think the answer is that -- as much as I can say
12 is there should be a pretty good piece of equipment
13 available, and I think -- and this is my memory -- I'm
14 pretty sure it's the '96 calendar year timeframe.

15 MS. EDGERTON: Thank you.

16 CHAIRWOMAN SCHAFFER: Just out of curiosity, are
17 you referring to a battery operated?

18 MR. CROSS: Yeah. Yes.

19 CHAIRWOMAN SCHAFFER: Okay. Because --

20 MR. CROSS: No cord.

21 CHAIRWOMAN SCHAFFER: -- you know, there are
22 electric lawnmowers that have been around for many years.

23 MR. CROSS: Yeah. No, this is a battery operated
24 mower.

25 CHAIRWOMAN SCHAFFER: Yes, Mr. Lagarias.

1 MR. LAGARIAS: I think it's this morning's New
2 York Times that reports on the lawn and garden equipment
3 show being held, that reports that the problems still exist
4 with the battery operated lawnmower having a short period,
5 only a half hour to 35 minutes with a 16-hour charging time
6 required. So, that's still an issue.

7 MR. CROSS: Her question was in the context, I
8 think, of one of the advanced battery technologies, which is
9 also being looked at for electric vehicles and the
10 application of that technology to a piece of utility
11 equipment.

12 MR. LAGARIAS: Yeah, but this response is what's
13 on the market today.

14 MR. CROSS: That's true. Lead acid is short-
15 lived.k

16 CHAIRWOMAN SCHAFER: Ms. Edgerton?

17 MS. EDGERTON: I just wanted to clarify. I was
18 speaking about the -- I think it's the lithium --

19 MR. CROSS: The Westinghouse battery.

20 MS. EDGERTON: -- the Westinghouse battery that
21 they're very optimistic about and feel that it can give the
22 kind of flexibility -- the kind of performance that's
23 equivalent to a gasoline powered engine, so you'd be
24 cutting just as long.

25 I'm following up on Chairwoman Schafer's remark.

1 Yes, of course, about the existing electric lawnmowers.

2 MR. CROSS: You can buy one right now, but it's
3 either got a cord or it doesn't run very long. And the real
4 breakthrough would be --

5 MS. EDGERTON: (Interjecting) Would be to have one
6 that you can go out and cut your whole yard or your whole
7 field. Thank you.

8 MR. LAGARIAS: Madam Chair?

9 CHAIRWOMAN SCHAFER: Mr. Lagarias.

10 MR. LAGARIAS: I understood that inquiry was in
11 the context of how does this compare to the low-cost
12 lawnmower, and the response is that it's still considerably
13 more expensive and not competitive with the lower end of the
14 line of lawnmowers today.

15 MR. CROSS: Fair enough.

16 CHAIRWOMAN SCHAFER: Ms. Edgerton?

17 MS. EDGERTON: Today -- in 1996, whether it will
18 be competitive is the question -- costwise with that lower
19 amount.

20 I know some of the people at Westinghouse have --
21 my impression was that they are seeking to make it
22 competitive. So, thank you.

23 CHAIRWOMAN SCHAFER: Okay. If there are no other
24 questions at this time on the item before the Board on
25 utility engines, I'd like to open the opportunity for

1 witnesses to make public testimony on this item.

2 Just a reminder, I have several witnesses who are
3 identified and asked for an opportunity to speak. But, if
4 you are here and would like an opportunity, check with the
5 Board Secretary.

6 The first witness this morning is Mr. Jed Mandel
7 with the Engine Manufacturers Association.

8 Good morning, Mr. Mandel.

9 MR. MANDEL: Good morning, Madam Chairwoman,
10 members of the Board. My name is Jed Mandel. Can you all
11 hear me? I'm not sure it's on. (Speaking of podium
12 microphone).

13 MR. VALDEZ: Okay.

14 MR. MANDEL: Now?

15 MR. VALDEZ: Yes.

16 MR. MANDEL: I'll say good morning again. My name
17 is Jed Mandel. I'm here today on behalf of the Engine
18 Manufacturers Association and the Outdoor Power Equipment
19 Institute.

20 The members of EMA and OPEI manufacture the small
21 engines and equipment covered by today's proposed
22 amendments.

23 EMA and OPEI have worked and continue to work with
24 the ARB staff to address our concerns with the proposed
25 clean-up package.

1 EMA and OPEI support staff's efforts to amend its
2 rules in accord with industry's recommendations, and we will
3 continue to work with staff to address our remaining
4 concerns.

5 EMA has forwarded to staff a list of specific
6 technical issues that remain with Mailout No. 94-24. We
7 would appreciate the Board directing staff to make the
8 necessary additional technical corrections to the proposed
9 clean-up package.

10 EMA and OPEI also have been working with staff on
11 several key issues with respect to the effective date of the
12 Tier I standards, the carbon monoxide emission levels for
13 nonhandheld equipment, and provisions for small volume
14 equipment manufacturers.

15 EMA has filed a petition requesting that the ARB
16 amend the proposed regulations consistent with EMA's
17 concerns in those three areas.

18 EMA is asking that the Board amend the proposed
19 regulations by, one, extending the date of the Tier I
20 exhaust emission standards to August 1st, 1996; two,
21 revising the proposed CO standard for nonhandheld engines
22 from 300 to 350 grams per brake horsepower hour; and, three,
23 providing an exemption from the requirements of the
24 regulation for certain small volume equipment manufacturers.

25 Providing relief in these three areas of the rule

1 is critical to the small engine equipment industries and to
2 the citizens of California. Without additional leadtime, a
3 more reasonable CO standard and relief for small volume
4 producers, the utility and lawn and garden engine equipment
5 industry will be substantially harmed.

6 While there currently are many engine families
7 certified to CARB Tier I standards, those engine families on
8 both an application and sales volume basis do not meet the
9 needs of the marketplace.

10 Let me just take one minute to further expand on
11 that point in response to a question that Mr. Calhoun asked.

12 Indeed, a large number of engine families have
13 been certified, but those engine families do not represent
14 all of the needs of the marketplace.

15 As Mr. Cross commented, engines that are produced
16 for the small -- the entry price point walk-behind lawnmower
17 represents a huge percentage of the production, a huge
18 percentage of the sales volume, and a huge percentage of the
19 needs of people in the State of California.

20 Even where there are engine families that are
21 certified for walk-behind lawnmower application, I think
22 it's very important to understand that the manufacturers of
23 those engines do not have the production capabilities to
24 meet the needs of the marketplace.

25 So, even where there may be a walk-behind

1 lawnmower that could be purchased, it could not be produced
2 in the numbers that are required currently by those in
3 California who wish to purchase lawnmowers.

4 As more explicitly set forth in the petition,
5 additional leadtime is necessary for engine manufacturers to
6 meet the Tier I standards because of the substantial
7 development time that is necessary.

8 Engine manufacturers have worked diligently to
9 develop products that will meet the standards, yet more time
10 is needed because of the difficulties and time delays faced
11 by engine manufacturers.

12 Engine manufacturers rely on suppliers, and
13 suppliers' design and development processes, yet suppliers
14 and engine manufacturers have limited resources for the
15 research and development necessary to meet the new
16 standards, and there are only a limited number in the
17 industry.

18 Without the ability to obtain parts integral to
19 engine exhaust emission systems designed to meet the new
20 standards, engine manufacturers' ability to produce
21 complying engines is severely limited.

22 Engine operational problems often cannot be
23 discovered until engines are actually tested in final
24 equipment applications. Operational and performance
25 difficulties, which may be significant, must be resolved

1 before certifying an engine and offering it for sale.
2 Design modifications, which can take substantial time, may
3 be necessary.

4 A number of engine families, representing a large
5 portion of the sales volume in the utility and lawn and
6 garden industry, have not yet been certified. Without those
7 engines, the needs of the marketplace will not be met.

8 Further, even if those engines had been fully
9 redesigned and tested and were ready to be certified, the
10 ARB staff would not likely have the time and resources to
11 complete certification by the end of 1994.

12 As an added measure of uncertainty, EPA only
13 recently has signed its final rule on the criteria for
14 providing authority, under Section 209(e) of the Clean Air
15 Act, for California to adopt nonroad regulations.

16 However, a hearing has yet to be scheduled on
17 California's request for authorization to proceed with
18 implementing and enforcing its utility lawn and garden
19 rules.

20 In any event, getting -- granting additional
21 leadtime will not have a substantial adverse impact on
22 California's air quality. Engine manufacturers have
23 introduced and will continue to introduce lower emitting
24 products into the marketplace as they are developed.

25 Similarly, revising the CO standard from 300 to

1 350 grams brake horsepower hour will allow small engines in
2 nonhandheld equipment to operate satisfactorily; while the
3 environment will not be harmed, because hydrocarbon and
4 oxides of nitrogen emissions will not be adversely affected.

5 Although EMA members have worked actively to
6 develop reliable exhaust aftertreatment systems and improved
7 carburetor material, design and dimensional controls, many
8 engines still cannot meet the Tier I CO standard. Without a
9 change in the standard, those engines will disappear from
10 the California market.

11 One method for reducing CO emissions is to
12 decrease the fuel in the air mixture, essentially running
13 the engines lean. But, as the air/fuel mixture becomes
14 leaner, the engine will experience severe operational
15 problems. As the load on the engine varies, the engine will
16 not be able to respond and will stumble or die.

17 The exact CO level at which an engine will perform
18 acceptably varies, depending on the engine design and the
19 equipment application. To ensure acceptable engine
20 performance, the mean calibration level for certain engines
21 must be set at or above the 300 gram standard.

22 Variability in CO emissions within a given engine
23 family also results from dimensional tolerances in engine
24 cylinders and the carburetor, which lead to a range of air,
25 fuel, and compression ratios. This variability occurs

1 despite close dimensional tolerances.

2 Although machinery process improvements may
3 decrease dimensional variability slightly, the reduction
4 will not have a significant enough impact -- effect, excuse
5 me -- to reduce CO, while maintaining an acceptable engine
6 performance level.

7 Finally, in order to avoid substantial
8 disadvantage to small volume equipment manufacturers, a
9 modest small volume exemption should be adopted. A number
10 of small volume OEM customers will not have the resources to
11 make the design changes in their products necessary to
12 incorporate engines certified to meet the ARB standards.

13 Such an exemption, in conjunction with the
14 requirement that the engine manufacturer meet the standards
15 on average, should not result in any air quality problem and
16 will ensure that small California-based businesses are not
17 disadvantaged.

18 EMA recommends that the Board direct the staff to
19 consider these issues and to place them on the agenda for
20 the next available Board hearing. We would hope that would
21 be in September. We understand that there may be some
22 logistic difficulties in that request.

23 This will allow EMA to explore the issues more
24 fully with staff and will allow your staff to present these
25 issues to the Board based on our further discussions.

1 If you have any questions, I'd be pleased to
2 answer them.

3 CHAIRWOMAN SCHAFER: Mr. Calhoun?

4 MR. CALHOUN: Mr. Mandel, would you agree that a
5 fair assessment, a fair summary of your testimony would be
6 that it more or less supports the petition that you
7 submitted as opposed to the issue that's being addressed
8 here by the Board today?

9 MR. MANDEL: You're absolutely correct on that.
10 Obviously, we do want to underscore for the Board today that
11 we support the clean-up package that is being presented.

12 We have presented to the staff a somewhat lengthy
13 and detailed set of what we consider technical corrections.
14 I don't want to lose sight of the critical issue which is
15 before the Board today, and we hope that those technical
16 corrections, as well as the rest of the package, will be
17 adopted.

18 MR. CALHOUN: Of course, you also know that it
19 takes time to do what you want done, also. In order for the
20 staff to really give a thorough assessment and a fair
21 assessment to the request that you made, it's going to take
22 a little time. So, I don't think you're going to see it in
23 September.

24 MR. MANDEL: I guess reality has set in this
25 morning a little bit in that respect, and we understand that

1 September may not be real.

2 Let me add, however, that -- I want to underscore
3 that the staff has already invested a substantial amount of
4 time in this. And I want to acknowledge that, and
5 appreciate the staff's working with us. In that regard,
6 members of the industry, likewise, have invested a
7 substantial amount of time.

8 I think this is a very important issue, or we
9 would not be spending the Board's time addressing it this
10 morning in the context of the other action items respecting
11 the industry you have before you.

12 We are hopeful that these issues of importance can
13 be resolved. We would like to have the chance to work with
14 your staff to resolve them. Given their nature, however,
15 the fact that they go to issues, such as leadtime and
16 feasibility, for a rule that's set to go into effect in
17 January, we would like the Board's acknowledgment to sort of
18 proceed on an expedited basis with this and try and resolve
19 these issues in a timely fashion, so they don't become any
20 more of a sort of last-minute call for relief than they
21 already are.

22 MR. CALHOUN: One last question. You reiterated
23 the statement that Bob Cross made about the walk-behind
24 mowers. A large volume of those have not been certified to
25 this date.

1 Have you any indication from your member companies
2 as to why -- why they haven't been certified?

3 MR. MANDEL: Because they can't do it yet. That's
4 the reason for the request for both additional leadtime and
5 for CO -- for CO relief. It is -- it is industry's view --
6 and we have presented some data, and I think we can present
7 even more data that will show that those engines will simply
8 disappear from the marketplace if a rule were to go into
9 effect in January as is presently in the regulation.

10 CHAIRWOMAN SCHAFER: I have a question. Following
11 up on Mr. Calhoun's question, it's my understanding that
12 some of the engines are able to meet the standard. Is that
13 not also true?

14 MR. MANDEL: Absolutely correct.

15 CHAIRWOMAN SCHAFER: What percent of the sales in
16 California are represented by those engine families or could
17 be represented by those engine families?

18 I assume the point of your testimony and request
19 for delay is that the market is larger than the ability of
20 the industry to produce the clean engines which can meet the
21 standard.

22 MR. MANDEL: You've said it better than I have.
23 We don't have absolute, perfect data on this. As you can
24 imagine, industry doesn't always like to share all that
25 data. Our sense of the market that is not yet certified is

1 in the 70 to 80 percent range.

2 CHAIRWOMAN SCHAFER: So that there's an
3 opportunity to expand the market for the cleaner engines at
4 the expense, obviously, of the ones that can't meet the
5 standard.

6 MR. MANDEL: One of the reasons I think you see
7 our petition supported by the industry as a whole - even
8 those members of the Engine Manufacturers Association who
9 have certified engines -- is they do not have the production
10 capability to take advantage of this market.

11 They simply -- by January or even substantially
12 after January -- could not possibly produce these large
13 sales volumes, nor could they do so at the price point that
14 is a substantial segment of the market.

15 A walk-behind lawnmower at your local K-Mart, or
16 Sears, or Walmart store oftentimes is sold for, you know,
17 \$89, certainly less than a hundred dollars. And I believe
18 that the walk-behind engine families that are currently
19 certified for walk-behind lawnmowers are probably in walk-
20 behind lawnmowers in the 200 to \$300 range.

21 That's not to say you can't buy a walk-behind
22 lawnmower, but there is a recognizable segment that's out
23 there in the marketplace that will not be met. And that's
24 the large volume, and that's the regular homeowner who goes
25 to the mass merchandiser to buy a product to take care of

1 their lawn that will not have their needs met.

2 One other comment I'd just like to make to further
3 underscore this problem. There are some larger engine
4 families, larger horsepower size engine families, that have
5 been certified to meet the 300 CO standard; that engine
6 manufacturers now recognize, as that engine is put into a
7 wide range of applications, will have operational problems.

8 So, even though there may be products that area
9 certified today and could be sold, the customer -- the user
10 of that product -- is going to end up being very unhappy
11 because of this issue with respect to the calibration of the
12 engine in setting it for that low CO level, but the way the
13 engine would really like to run, which is at a somewhat
14 higher CO level.

15 So, that certified product that -- in the list of
16 products, the number of engine families certified -- clearly
17 can be sold may not be operated very satisfactorily by the
18 customer.

19 CHAIRWOMAN SCHAFFER: Are there any engine families
20 that can meet the standard and still operate satisfactorily
21 at this time?

22 MR. MANDEL: Absolutely.

23 MR. CROSS: Absolutely.

24 MR. MANDEL: Large numbers of engine families,
25 just not large numbers of sales volume or the capability to

1 meet that sales volume, and there are critical application
2 holes that aren't going to be available, the opening price
3 point of the walk-behind lawnmower being the most critical
4 example.

5 MR. CROSS: Jed, I -- if I may?

6 CHAIRWOMAN SCHAFFER: Mr. Cross.

7 MR. CROSS: Thank you. On this -- on the walk-
8 behind mower issue, we met with the manufacturers, and I
9 think you sat in on some of the meetings. And I guess I
10 feel that saying that they will be completely unavailable is
11 a little extreme.

12 I think that, with the leadtime that the
13 manufacturers have had, they've developed strategies to
14 control these low-cost engine, which, in some cases, they
15 don't want to implement. But I guess -- for example,
16 catalytic converters as a way of cleaning up a low-cost
17 engine, which, if you really wanted to be in the
18 marketplace, you could choose to put a catalyst on some of
19 these engines.

20 And that would increase the price of the product
21 some, but it certainly wouldn't increase it from \$89 to two
22 or \$300. And I guess the point I'm trying to make is that
23 the manufacturers have -- do have compliance options here.
24 They're not real excited about some of the options in terms
25 of being things that they want to do. In other words, some

1 of them aren't real comfortable with putting catalysts on.

2 But the point is that I don't think that there
3 would be a market hole. I think that a decision to proceed
4 would force the manufacturers to choose among the compliance
5 options, and there would be low-cost product available.

6 CHAIRWOMAN SCHAFFER: I have some more questions,
7 which really are for my staff, but you may want to comment,
8 also, Mr. Mandel.

9 When did the Board adopt this regulation, in '90?

10 MR. CROSS: '90, 12/90.

11 CHAIRWOMAN SCHAFFER: In December? Roughly, I
12 mean.

13 MR. TERRIS: It was in December of 1990, that the
14 Board hearing was held. It was formally adopted in March of
15 '92.

16 CHAIRWOMAN SCHAFFER: Okay. But there was four
17 years' leadtime built into the time that these engines would
18 be required for sale in California originally; is that
19 right?

20 MR. CROSS: Right.

21 CHAIRWOMAN SCHAFFER: '91, '2, '3, '4?

22 MR. LAGARIAS: Three.

23 CHAIRWOMAN SCHAFFER: Three years. Three years.
24 And an extra year was gained as a result of EPA's delay in
25 distinguishing which -- or the time that EPA required to

1 distinguish which ones were preempted by federal law?

2 MR. CROSS: Yes. There was concern on a few
3 manufacturers' part about where to invest the money in
4 product development, given that some of the equipment --

5 CHAIRWOMAN SCHAFFER: You have to speak up for the
6 reporter, Bob.

7 MR. CROSS: There was concern on some
8 manufacturers' part about where the money would get spent in
9 product development; in other words, if something was going
10 to be "preempt," then, clearly, the manufacturer would want
11 to invest in the "nonpreempt" product which would be
12 marketed in California.

13 So, the argument was made that, without some
14 clarity in that area, there should be more leadtime, and the
15 Board provided it -- with full industry support, obviously.

16 CHAIRWOMAN SCHAFFER: But, during that time, some
17 manufacturers were able to improve their engines
18 sufficiently to meet our standards?

19 MR. CROSS: Yeah, yeah. And during that entire --
20 and lawnmowers, there was never any question about whether
21 it was going to be preempt or not, I don't think. Most of
22 the ones that -- where there were issues were farm
23 equipment, and big brush cutters, and chainsaws, and things
24 like that.

25 Lawnmowers, I think, there's always been --

1 there's been a continuous effort on.

2 CHAIRWOMAN SCHAFER: So, is the request for delays
3 for equipment other than lawnmowers? Is that my
4 understanding then?

5 MR. CROSS: I think the request for delay -- there
6 are two focal points in this request.

7 One is the over 225 cc nonlawnmower engines;
8 there's a request for relief in CO, which is associated with
9 some performance problems and how the engines accept load,
10 for example.

11 In the under 225 cc, there's sort of a two-prong
12 request. One is for more leadtime, and the second is for an
13 increase in CO as well.

14 And the -- basically, the two requests from
15 industry go hand in hand to maintain competitive balance, I
16 think, more than anything else. In other words, if you
17 change the CO standard the night before you implement it,
18 then everybody -- that reshuffles the rules. And, then,
19 everybody who's been working for four or five years now has
20 to adjust to the new rules and get product out under the new
21 rules, if you will.

22 So, I think that the industry presented -- for the
23 under 225 proposal, particularly, which is all this volume
24 for several major manufacturers -- sort of a linked
25 proposal, saying they wanted leadtime and CO relief

1 together.

2 And the problem that the staff had with it was
3 that there's already been so much leadtime, if you will,
4 that we felt that, to some extent, that manufacturers had
5 already figured out what their niches should be in relation
6 to the standards.

7 I think I'll stop there.

8 MR. MANDEL: Madam Chair, may I just say a comment
9 about --

10 CHAIRWOMAN SCHAFFER: Yes, sir.

11 MR. MANDEL: -- if I could?

12 CHAIRWOMAN SCHAFFER: Go ahead.

13 MR. MANDEL: This is, I think, an issue that we
14 have to, in part, put in context. This is the first time
15 that any off-road industry was ever regulated, any
16 regulations for any off-road industry were adopted.

17 And for this industry, obviously, it's the first
18 set of regulations. I also want to put in context -- and
19 many of you remember, back in December of 1990, the timing
20 for how this rule was developed.

21 As it was presented by the staff, it was developed
22 in -- essentially under court order, with a rather short
23 staff development process.

24 When you have a short development process -- I
25 think the whole rule was developed in less than a year, and

1 I think the staff will acknowledge this. When you have a
2 short development process for a rule with an industry that's
3 never been regulated, some of the leadtime that one
4 ordinarily begins to develop during the rule process, a
5 database, experience in running certification -- well,
6 running tests on your engine, emissions testing, which will
7 ultimately lead to certification testing, getting the
8 knowledge of what can be done to reduce emissions did not
9 exist in this industry.

10 When the rules were initially adopted by the Board
11 in December of 1990, and then later finalized, approved in
12 March of '92, the industry, during that first year or two,
13 was really doing work that an industry ordinarily would have
14 done during the rule development process. I think it's
15 important to keep that in mind.

16 Secondly, with respect to the amount of time the
17 industry did have, there were some assumptions made on the
18 basis of not having as much data as one would have liked for
19 the Board's action in December of 1990.

20 There were some assumptions made in the rule by
21 the staff, by industry as to the direction in which the
22 industry would have to go to comply. The industry has
23 learned a great deal since then, and they frankly went down
24 some blind paths and had to double back, and come back
25 around and do some things over again.

1 And that takes a lot of time. And I tried to
2 indicate in my prepared remarks earlier that, when you
3 finally put the product in the application -- and these are,
4 for the most part, nonintegrated manufacturers. They make
5 loose engines. Somebody else makes the equipment it goes
6 into.

7 When they put the engine in the application, they
8 discovered things that required them to have to redesign and
9 go over. I just don't want to leave the impression that,
10 with whatever leadtime was available to industry, that
11 industry was sort of sitting there not doing anything.

12 They have been working very, very hard to comply
13 with your rules and, in many instances, have been able to;
14 and in the instances that we are particularly concerned
15 about, need some modest relief in CO and some additional
16 leadtime in order to meet the needs of the marketplace.

17 CHAIRWOMAN SCHAFFER: But the fact remains that, in
18 the amount of time that was available, some manufacturers
19 were able to design engines and make applications and
20 equipment that meet our standards.

21 MR. MANDEL: No question.

22 CHAIRWOMAN SCHAFFER: And, you know, I'm rolling
23 the tape back to the early seventies, when we also made
24 great demands in a very short period of time on the entire
25 automobile industry. And that was a very complex situation

1 as well. And I'm just trying to get a reasonable balance
2 here between our approach for moving technology ahead in a
3 particularly difficult air quality situation in California
4 and the request here, which is to accommodate every sector
5 of the industry.

6 MR. MANDEL: Well, we support the need for
7 regulations. And, indeed, it was this industry who went to
8 the EPA and encouraged them to adopt your regulations.

9 When we talk about a product category that seems
10 as simple as less than 25 horsepower, again -- I just want
11 to underscore -- there are different technologies there.
12 The horsepower differences allow different things to be done
13 in different applications.

14 And, yes, there are engine families that can be
15 certified. I believe -- I believe every EMA member company
16 has a certified product. It's just that there are certain
17 applications where the technology is different, where the
18 cost of the product is different, and the ability to meet
19 your standards is different that we're hoping can be
20 acknowledged by the Board, and we can continue to work with
21 the staff to address those issues.

22 I think it would be a shame if the homeowner
23 wouldn't be able to buy a relatively inexpensive walk-behind
24 lawnmower, when that represents -- as I think we've all
25 agreed -- a huge percentage of this industry, of the

1 production.

2 Likewise, I think it would be a shame if some of
3 the small volume manufacturers -- who take the engines
4 produced by EMA's members and put them in lots of different,
5 really relatively small, applications -- wouldn't be able to
6 have the resources to make the necessary design changes in
7 the time period provided to have product.

8 And, likewise, for the entire range of engines,
9 both the smaller ones and the larger ones, it'd be a shame
10 if there were operational problems because of the need for a
11 relatively modest change in the CO level, which we think
12 does not affect air quality, because of the -- the exchange,
13 the tradeoff in controlling CO emissions and controlling HC
14 plus NOx emissions.

15 HC plus NOx, which really -- is really designed to
16 control, will not be adversely affected by that.

17 CHAIRWOMAN SCHAFER: Let me ask the question in a
18 little bit different way.

19 To what extent will successful manufacturers be
20 penalized by our delay in implementing the regulation?
21 They've made investments in this area and have been
22 successful and, yet, they won't be able to bring their
23 product on the market in a competitive sense until, you
24 know, somewhere down the line when everybody else has caught
25 up with them.

1 MR. MANDEL: You asked a very critical question
2 for us. Because, as an association trying to represent the
3 industry, we -- those companies you're referring to are our
4 members. We have petitioned you as an industry. All of
5 EMA's members support the request for relief.

6 There are concerns of people, even who have
7 complying product, as to the need for more time -- because,
8 again, they're loose engine manufacturers -- in making sure
9 their customers have time to integrate it into their own
10 plans.

11 Obviously, these companies are already producing
12 cleaner engines that were produced several years ago.
13 Again, a point of our earlier prepared comments, that these
14 cleaner products, by virtue of your rules, are coming into
15 the marketplace. And we suspect they will continue to come
16 into the marketplace even if our leadtime request were to be
17 granted.

18 Those member companies have not indicated under
19 any aggrievement by that (sic), and support the request for
20 additional leadtime relief.

21 MR. LAGARIAS: Madam Chair?

22 CHAIRWOMAN SCHAFER: Yes, Mr. Lagarias.

23 MR. LAGARIAS: Mr. Mandel -- is this on? (speaking
24 of microphone).

25 MR. MANDEL: Yes.

1 MR. LAGARIAS: I agree. Your industry has come a
2 long way from the days when you were first being regulated,
3 and we could hear the "Texas Chainsaws" in the back row
4 adding their comments to our efforts.

5 (Laughter.)

6 MR. LAGARIAS: But I'd like to look at the three
7 requests you've made. Under the request for an exemption
8 for the small volume equipment manufacturers, I see you've
9 primarily directed it toward the manufacturers using the
10 side-valve technology.

11 MR. MANDEL: Not for our small volume exemption.
12 It would be overhead valve engines. As a matter of fact, it
13 may be almost primarily so.

14 And I didn't mean to cut you off on your question.
15 But the engine manufacturers in some of the -- for some of
16 the larger engines, overhead valve, larger horsepower
17 engines make those engines for an incredibly long list of
18 applications.

19 I think Supervisor Vagim referred to that list
20 earlier. You see the nature of that. Some of those people
21 who produce those equipment applications do so in a
22 relatively small volume and all have different design needs,
23 and the engines get modified slightly, or the equipment
24 needs to be modified slightly.

25 It is those people that we are principally

1 concerned with in terms of their ability to be able to
2 continue in the marketplace.

3 MR. LAGARIAS: All right. But, in your petition,
4 you specifically identified side-valve technology as one
5 example of the small volume manufacturers who could not
6 afford the cost to convert to overhead technology.

7 MR. MANDEL: There, the concern again is the -- is
8 the -- in that particular example, the side-valve engine
9 typically is a smaller package, besides a lower price, than
10 the overhead valve. And the manufacturer that currently is
11 using a side-valve engine cannot in the timeframe provided,
12 and sometimes at the cost, redesign their piece of equipment
13 to accommodate the larger engine. Thank you for reminding
14 me of my own example.

15 MR. LAGARIAS: But the specific point you're
16 making about the small volume manufacturers is that they
17 produce a unique or a special application type of engine for
18 a certain application; is this correct?

19 MR. MANDEL: Yes.

20 MR. LAGARIAS: And are these applications such
21 that they can't be met by the other, more conventional,
22 higher volume engine manufacturers?

23 MR. MANDEL: I think that they can. I think it's
24 a question of cost and timing.

25 MR. LAGARIAS: So, you're asking for -- what are

1 we asking for? Mr. Cross, can you enlighten me?

2 MR. CROSS: Well, we've -- we actually did meet on
3 this issue, and it sounded like a big issue to the staff.
4 And we got a list of equipment, which the specific engine
5 manufacturer was pursuing -- it provided; in other words, a
6 list of the small manufacturer companies.

7 And the bulk of the list was "preempt," so,
8 they're not affected by California control anyway. And,
9 then, many of them had already switched to overhead valve.

10 So, if such an exemption were to be proposed or
11 endorsed by the Board, it would affect very few companies.

12 MR. LAGARIAS: All right.

13 MR. MANDEL: We agree with that.

14 MR. LAGARIAS: Thank you. In regard to your first
15 request that the date of enforcement of these standards be
16 extended by seven months, what does the industry propose to
17 accomplish in a seven-month period that it can't accomplish
18 by the present standard date?

19 MR. MANDEL: First of all, let me underscore that
20 our request is not for seven months, but is for 20 months;
21 depending on 19 or 20, how you count, it's August of 1996,
22 not August of 1995.

23 MR. LAGARIAS: Well, I read it wrong.

24 MR. MANDEL: And in that time period, what we
25 expect is for -- especially those engine manufacturers

1 making the opening price point side-valve engines used in
2 the K-Mart special walk-behind lower (sic) -- lawnmower,
3 they will be able to do some things of a proprietary nature,
4 which has already been shared with the staff, to integrally
5 with the engine, produce engines that will meet your
6 standards in that timeframe.

7 There are major engineering changes that are under
8 development, in process that simply require more time. And
9 they will be able to produce engines then that will meet the
10 standards in that time period.

11 I might just also add one point, because it isn't
12 just in passing that we picked the August date.

13 Traditionally, the Board's rules and EPA's rules go into
14 effect on January 1.

15 Let me just try, in a very short fashion, explain
16 why August 1 is the date that this industry has asked for as
17 the effective date of your rules and for any changeover in
18 rules.

19 The engine -- the outdoor power equipment's
20 marketing year is essentially geared for a spring selling
21 season. That's, again, where the products get sold. As a
22 matter of fact, many of us just came from the big annual
23 trade show in Louisville. And that kicks off the selling
24 season.

25 In order to get product in the OEMs' hands and

1 eventually in the retailers' and dealers' hands for the
2 spring season, the production is geared up starting now.
3 And the July-August timeframe is actually the lowest
4 production volume in the industry.

5 If you graphed it by month, there'd be little tiny
6 bars for July and August, ramping up through the fall, with
7 the highest production coming December, January, February.

8 So, a changeover in the standards during the
9 highest production not only substantially can disrupt the
10 engine manufacturers' capability to accommodate the
11 changeover, but, for their customer -- for example, the mass
12 merchandiser, who's trying now to have one product line that
13 they can make available for their spring selling season --
14 they will have to have a change in their product right in
15 the middle of the year.

16 So, for that reason, we spent a lot of time within
17 the industry and with staff and, frankly, with EPA
18 discussing this issue. And, because we learned a lot since
19 December, when we frankly weren't focused on the effective
20 date in terms of the right date for changeover -- since that
21 time, we've learned a lot more.

22 EPA has proposed an August effective date for
23 their standards, and we would hope that, almost irrespective
24 of leadtime, there's an additional reason just to have an
25 August effective date. I don't want to take away from our

1 leadtime arguments. I want to underscore why we picked
2 August. It wasn't out of thin air.

3 CHAIRWOMAN SCHAFFER: Dr. Boston.

4 DR. BOSTON: Mr. Mandel, I remember back in
5 December of 1990, we did have an awful lot of discussion
6 about this very issue. And I think at that time staff told
7 us that, very likely, that some carburetion changes would be
8 all that was needed to make some engines qualify, or
9 possibly the use of a small catalytic converter could be
10 used for others.

11 But the thing that bothers me is that that was
12 back in December of 1990, and I think it was considered, at
13 that time even, that maybe some of the dirtier engines would
14 have to disappear, which was really what we want to happen.
15 We want to clean up the air in California.

16 And, now, you're asking us to delay these
17 standards until another 20 months. In the meantime, 70 to
18 80 percent of the engines out there that are these dirty
19 engines are going to still be emitting the pollution that
20 we're trying to clean up.

21 So, I'm not really very sympathetic to that
22 argument of extending it another 20 months. I'd like to see
23 the air cleaned up, and I think that, like Mr. Lagarias
24 mentioned, if you can't clean it up in four years, you're
25 not going to clean it up in six years either.

1 So, why not get on with it, put a catalytic
2 converter on the dirty ones and, in the meantime, continue
3 your research if you're going to make a smaller cheaper
4 engine.

5 MR. MANDEL: Let me try and respond. And it's
6 obviously a very important point I think you're making; but,
7 I think, one again that we need to put in context.

8 Those, quote/unquote, "dirtier engines" that you
9 say will still be sold are a lot cleaner now than they were
10 back in 1990. And I think we've presented some data to the
11 staff on that. We'll be happy to share additional data that
12 shows that there have been improvements that have been made.

13 The kinds of changes that the staff felt, back in
14 December of 1990, would be required for compliance with
15 their standards -- with the Board's standards haven't always
16 proved to be correct. Again, there's -- there was a huge
17 learning curve here for staff and for the industry. We know
18 more.

19 There were some efforts to improve carburetion
20 changes that turned out not to be the right efforts, had to
21 double back and try some other things; all of which have
22 resulted in cleaner products, which are on the market today.

23 My recollection from the December hearing is that,
24 in fact, the staff said to the Board -- and I believe it's
25 part of the Board testimony -- that it was not anticipated

1 that there be catalysts required for the Tier I standards,
2 but there was likely going to be catalysts for the Tier II
3 standards.

4 One of the concerns that industry has -- if, in
5 sort of a last-minute rush to get a complying product just
6 through certification, they put on a catalyst that may not
7 ultimately be the kind of robust, durable, effective
8 catalyst that ultimately the market will need, that it will
9 not only not do what we all want to do -- which is to have
10 the costs of investing in technology result in some real
11 emissions (sic) -- but it will perhaps cause some concern
12 about the users of the product for the whole idea of
13 catalyst technology, what it means, and what it does.

14 I think that this industry knows that, down the
15 road, there's a substantial likelihood that what further
16 emissions reductions they can't get through integral engine
17 design changes and component changes will have to be done
18 through aftertreatment.

19 The industry's working on that. But to sort of
20 prematurely rush that into the marketplace at a very high
21 cost -- and, again, high cost is relative to this industry
22 when you're dealing with walk-behind lawnmowers. Again, I
23 got a pretty good education at this trade show the last
24 couple of days.

25 A couple of pennies can make a big difference as

1 to whether you sell a product or not. But there is a very,
2 very substantial concern again to rushing forward with
3 technology that may not actually, ultimately be the kind of
4 technology that the industry wants to put on its products,
5 and that I think the Board and the staff would want to see
6 in the marketplace.

7 So, I'm not really disagreeing with your comment,
8 but I don't think it's fair to say that cleaner products
9 aren't in the marketplace, or that what can't have been done
10 in four years -- and, again, I tried to explain how some of
11 that time that was used for what would have been development
12 work can't yet be done in the next couple of years (sic).

13 I think that, again, the staff has shared --
14 excuse me -- the industry has shared with your staff some
15 proprietary data which shows there's some very promising and
16 real work that can be done, and will be done, and will
17 result in complying product and more robust complying
18 product.

19 DR. BOSTON: Okay. Thank you.

20 CHAIRWOMAN SCHAFER: Supervisor Vagim.

21 SUPERVISOR VAGIM: Thank you, Madam Chair.

22 Mr. Mandel, I just wanted to dwell on the -- since
23 your manufacturers are engine manufacturers, I presume
24 they've got to coalesce, as we've been discussing, with all
25 the OEMs out there and the eventuality where those engines

1 go. Has there been any or much discussion on the
2 handheld/nonhandheld environment as far as the application?

3 MR. MANDEL: Not among my members principally.
4 The Engine Manufacturers Association and the Outdoor Power
5 Equipment Institute, who represents our immediate customers,
6 who I'm speaking on behalf of today, while they make
7 products -- some of those companies make products that are
8 handheld, we -- that industry's principally represented by
9 the Portable Power Equipment Manufacturers Association, who
10 I trust will be speaking to you on this subject.

11 So, we have not had substantial discussions on the
12 handheld/nonhandheld definition.

13 SUPERVISOR VAGIM: What about as far as the engine
14 designs themselves to replace two-stroke? Does your
15 association feel confident that the four-stroke engines can
16 be as light and as functional as the two-stroke engines for
17 all environments?

18 MR. MANDEL: I think, again, that issue's probably
19 best addressed to the association who's really representing
20 those handheld products. The EMA and OPEI principally are
21 speaking today on behalf of the nonhandheld industry, again,
22 the walk-behind lawnmower, the garden tractor, utility
23 equipment.

24 SUPERVISOR VAGIM: Okay. Very good. Thank you.

25 CHAIRWOMAN SCHAFFER: We will, Supervisor Vagim, be

1 hearing from them. They're on the witness list.

2 Ms. Edgerton?

3 MS. EDGERTON: Mr. Mandel, thank you for coming
4 today. My comments are more general and, of course -- and
5 they are directed to your petition, which is not before us
6 today.

7 MR. MANDEL: I understand.

8 MS. EDGERTON: But I still would like to comment.
9 As you decide what sort of resources -- of course, you're
10 free to file any petition and to pursue it with any vigor
11 that you want, but -- and we encourage you to do so. But --
12 however you think is best.

13 But there are a couple of principles I think you
14 might want to keep in mind, broad themes that you might want
15 to keep in mind as you decide about how to proceed with
16 that. Actually, there are three points I want to make.

17 One is that a key theme of the California
18 Environmental Protection Agency, of which the Air Resources
19 Board is one part, is that the State's high environmental
20 standards go hand in hand with the State's economic future;
21 that it is the role that we have charted for ourselves to
22 continue California's leadership in high environmental
23 standards and in facilitating and encouraging the
24 development of those products which are good for the
25 environment. And, so, we will be there, using a broad

1 brush.

2 I think the second principle that I would remind
3 you of, which you know very well, is that the California
4 Legislature has directed us to meet certain attainment
5 standards, and the Federal Clean Air Act has also directed
6 us, as well as the California Clean Air Act, to meet very
7 important and difficult air quality standards.

8 And we are under very strict guidance to and
9 direction to develop a program which moves us as quickly as
10 possible, hopefully within this generation of children who
11 are raised now -- and will become adults in California -- to
12 be able to breathe clean air.

13 And, so, to go in the -- my point third is that
14 you are asking us to swim in a different direction. You are
15 asking this Board to reduce its standards -- that is my view
16 of it; you may have a different view; that's my
17 interpretation of it -- when there is product out there
18 which meets the standards.

19 And, so, that puts us in the position of really
20 looking at what the tremendous requests we have made of
21 other sectors -- whether it be automotive sector, whether it
22 be the gas -- our strong oil industry with reformulated gas
23 2, asking them to provide the lowest polluting blend of
24 gasoline in the world, asking the automobile industry to
25 bring in the cleanest vehicles in the world, and asking the

1 diesel industry to bring in the cleanest diesel fuel (sic)
2 anywhere, and having them introduce it at considerable
3 effort.

4 So, that fairness issue is one which I would ask
5 you to reflect on, because it's something we will be
6 reflecting on as well.

7 Thank you.

8 MR. MANDEL: Thank you for your admonishment. I
9 listened carefully and will continue to pay attention to
10 what you said.

11 One comment in terms of your second point, which
12 is the air quality needs of the State. There is little good
13 that I would like to take out of EPA's Federal
14 Implementation Plan. I think we all have substantial
15 concerns about it. But in EPA's Federal Implementation
16 Plan, as they've looked at this very difficult question of
17 what tons per day reduction must be achieved by what dates
18 under the Clean Air Act, they did look at all sources that
19 needed to be reduced.

20 And one of the sources they looked, obviously,
21 very carefully at was the lawn and garden and utility engine
22 industry. And EPA in the FIP said that California could
23 achieve its tons per day reductions that were required if
24 California had in this State products meeting EPA's Phase 1
25 and Phase 2 standards in the timeframes that they've

1 proposed.

2 And EPA's Phase 1 standards are identical to your
3 Tier I standards. And, again, it's in large part because
4 the industry recommended it.

5 But the EPA Phase 1 standards are set to go into
6 effect in August of 1996. And that effective date ought to
7 achieve the tons per day reductions that at least EPA says
8 California would require from this segment of the sources of
9 emissions in the State.

10 CHAIRWOMAN SCHAFFER: Mr. Cross, did you have a
11 comment?

12 MR. CROSS: Is there any federal proposal for Tier
13 II on the street? I mean, I think the tons per day
14 reductions, which we showed in our chart, were -- during the
15 staff presentation -- are substantial. And I think you're
16 aware that there is a -- that the problem extends far beyond
17 the utility industry. But the staff, in terms of trying to
18 put some sort of list of ideas together, which would get us
19 to attainment in 2010, is really scrambling.

20 So, I'm not sure I agree with EPA's -- your view
21 of EPA's FIP.

22 MR. MANDEL: Well, I said there wasn't a whole lot
23 of good we could take out of it. I'm trying to find what
24 good I can.

25 Just to answer your question, the EPA Phase 2

1 rules are being developed through a Federal Advisory
2 Committee Act, chartered regulatory negotiation, in which
3 ARB was invited to participate and declined -- although I
4 understand that you are monitoring it -- but in which the
5 proposed Phase 2 rules are being created through a
6 regulatory negotiation, in which the NRDC, the American Lung
7 Association, several states, industry, EPA -- I'm sure I'm
8 forgetting someone -- are all participating.

9 And EPA's FIP projections are that there will be
10 about a 90 percent reduction, which they expect from that
11 process, and that they expect about a 70 percent reduction
12 out of their Phase 2 rules, which I said are identical to
13 your Tier II rules.

14 And just to close the loop on this, so there's no
15 misunderstanding, we have also asked EPA to adopt a 350 CO
16 standard in lieu of their 300 CO standard. And they are
17 taking that into consideration.

18 MR. CROSS: Have you also asked for a delay?

19 MR. MANDEL: We have asked, because of, again, the
20 concerns from ramping up production nationwide from -- about
21 five percent of the market representing California to 95
22 percent of the market -- and because, as we also heard this
23 morning, on the issue of preemption, there are lots of
24 categories that are now going to be covered by the proposed
25 federal rules that are not covered by the California rules,

1 we've asked EPA to consider delaying their rules by one
2 year, so that they'll get sort of this opportunity for
3 product to be introduced in California and then spread
4 across the country.

5 CHAIRWOMAN SCHAFFER: Are there any other questions
6 from Board members for Mr. Mandel?

7 Yes, Mayor Hilligoss.

8 MAYOR HILLIGOSS: Yes. I was just wondering what
9 the impacts of the CO increase would be, from 300 to 350?

10 CHAIRWOMAN SCHAFFER: That's a question for the
11 staff?

12 MAYOR HILLIGOSS: Yes, for the staff, please.

13 MR. CROSS: The CO increase for the equipment
14 categories represented by this -- in other words, the
15 nonhandheld equipment would be essentially minuscule. In
16 other words, there's not going to be much increase in CO.

17 The real question that one has to ask is whether
18 or not HC plus NOx will go up or not.

19 And for this industry again -- for this specific
20 equipment category, HC plus NOx probably won't change much
21 either.

22 The problem that the staff had with bringing you a
23 recommendation to change the standard was that the CO can be
24 discriminator in terms of what technology would go on the
25 engine.

1 And if you change the standard, then that could
2 disrupt the balance in the marketplace. So, the real -- the
3 story again is that to recommend a CO change, we would also
4 have to recommend a leadtime -- additional leadtime. And
5 that was what we were uncomfortable with.

6 So that, the staff's logic was, for it be fair to
7 change the standard, you need to provide leadtime. And if
8 you provide the CO standard without the leadtime, you
9 disrupt the balance in the industry.

10 MAYOR HILLIGOSS: Would it be possible for us to
11 start in August of 1995 instead of January, since that's
12 when their year starts?

13 MR. CROSS: That was one proposal that the staff
14 discussed with industry or, in fact, with Mr. Mandel. I
15 don't think that that was viewed as sufficient leadtime for
16 the major competitive adjustments that would need to be
17 made.

18 We had, at one point, discussed some modest amount
19 of CO relief, maybe for some limited categories of equipment
20 and some modest amount of leadtime with the industry.

21 MAYOR HILLIGOSS: Well, aren't we saying this is
22 going into effect in January of 1995?

23 MR. CROSS: Right. And if you --

24 MAYOR HILLIGOSS: Yeah.

25 MR. CROSS: And if you pushed it off till August,

1 essentially, that would align -- that would be essentially
2 giving them another year of leadtime because of their cycle.

3 MAYOR HILLIGOSS: Thank you.

4 CHAIRWOMAN SCHAFER: Now, just to make sure I
5 understand.

6 The petition that Mr. Mandel has made is to
7 postpone the leadtime until -- the effective date of our
8 regulations until what date?

9 MR. CROSS: August, '96, rather than '95.

10 CHAIRWOMAN SCHAFER: August, '96, as distinguished
11 from the question that the Mayor asked concerning August,
12 '95.

13 MR. CROSS: Right.

14 CHAIRWOMAN SCHAFER: Mr. Mandel, did you want to
15 comment on that?

16 MR. MANDEL: Only that these are the issues that
17 we think it would be prudent for us to discuss further with
18 your staff. And we would hope that, in the course of those
19 discussions, your staff -- supported by industry -- might be
20 able to bring a recommendation back to the Board for action,
21 which is why we -- in the course of all this substantive
22 discussion, which, by the way, I greatly appreciate the
23 opportunity to have with the Board today, what we're really
24 asking for, besides the action on today's agenda item on the
25 cleanup package, is for you to give direction to staff to

1 continue to work with us and try and get this back on your
2 agenda for a -- a Board hearing as quickly as possible.
3 Presumably, if September's not doable, we would ask for
4 October.

5 CHAIRWOMAN SCHAFFER: All right. Let me ask the
6 staff one final question while you're still here, Mr.
7 Mandel.

8 You have been engaged in a dialogue with the
9 industry on the very points that are in this petition, but
10 did not conclude that you had an item to bring to the Board
11 for its consideration up until this time; is that right?

12 MR. CROSS: That's correct.

13 CHAIRWOMAN SCHAFFER: Is there anything that's
14 changed as a result recently that would make -- other than,
15 I guess, EPA's obviously issued its preemption list?

16 MR. CROSS: Not really. I mean that I think that
17 the information that we have is what we have.

18 MR. MANDEL: We feel there's more information that
19 we can bring and perhaps some willingness to look at the
20 issues differently from industry's perspective.

21 I mean, we don't want to waste our time and
22 certainly don't want to waste staff's time or the Board's
23 time. We wouldn't want to waste our time if we did not
24 think there was more effort that could be expended on this
25 critically important issue. We wouldn't be asking just to

1 spend more time talking to your staff, as much as we enjoy
2 it --

3 (Laughter.)

4 MR. BOYD: Madam Chair, just --

5 CHAIRWOMAN SCHAFFER: Mr. Boyd.

6 MR. BOYD: -- just to elaborate. We have, because
7 of an excellent working relationship, been having these
8 informal discussions with the association and its members as
9 you've heard in the discussions and dialogue.

10 Now that we have a formal petition, we, of course,
11 have to respond to it. So, by necessity, we will indeed be
12 having more dialogue with the industry to get to the issues
13 that they broached, and get behind all the issues. And we
14 may or may not, after that review, feel that there's
15 something new, you know, some new light has been shed on the
16 subject.

17 By the time we had to notice this hearing, which
18 was quite some time ago, that wasn't, of course, the case.
19 There is such leadtime requirement on us, as Mr. Mandel has
20 painfully found out, we couldn't necessarily hold a hearing
21 for him in September, even if we were sympathetic, because
22 the notice for that would have been several days ago or last
23 week. I've forgotten the exact timing.

24 So, that's part of the dilemma. Were there to be
25 some effort, it would have to be later than September. But

1 we will look at the details, see if there's anything new.
2 And, of course, we're obliged to make a recommendation on
3 their petition. And we will continue to work with them to
4 do just that.

5 CHAIRWOMAN SCHAFFER: Okay. If there are no other
6 questions from members of the Board for Mr. Mandel, I want
7 to thank you for your presentation and dialogue with the
8 Board this morning. You are obviously an articulate
9 representative of your industry, and we appreciate the
10 assistance that you've given us in California in improving
11 the technology in this particular area. And I know it will
12 contribute greatly to our attainment of our air quality
13 goals in the future.

14 MR. MANDEL: Thank you, Madam Chair. And thank
15 you very much for your time.

16 CHAIRWOMAN SCHAFFER: Thank you, Mr. Mandel.

17 Our next witness is Mr. Matthew Hall of the
18 Portable Power Equipment Manufacturers Association.

19 And, Mr. Hall, there's -- if I'm not
20 mispronouncing his name, Dr. Peter Stucke. Is he going to
21 be testifying with you?

22 MR. HALL: Yes. Dr. Stucke will be making a
23 presentation after me.

24 CHAIRWOMAN SCHAFFER: Separately. All right.
25 Thank you. If you'd like to proceed at this time, please.

1 MR. HALL: Please. Madam Chairwoman, members of
2 the Board, good morning.

3 My name is Matthew Hall. I'm an attorney with the
4 law firm of Dunaway & Cross, and I'm here this morning to
5 present comments on behalf of the Portable Power Equipment
6 Manufacturers Association on the proposed amendments to the
7 emissions regulations for lawn and garden equipment engines.

8 As many of you are aware from this regulatory
9 proceeding, PPEMA is the national not-for-profit trade
10 association representing manufacturers of chainsaws, brush
11 cutters, trimmers, edgers, cut-off saws, blowers, and
12 similar products that use two-stroke engines.

13 These portable products are lightweight, provide a
14 high power-to-weight ratio, and may be operated in any
15 position.

16 Because of their portability and form of
17 operation, these products are often called handheld
18 equipment. PPEMA's provided extensive written comments on
19 the proposed amendments today. Many of these comments are
20 technical in nature and are directed at test procedures and
21 definitions that PPEMA believes should be corrected. I'll
22 limited my remarks today to a few overarching issues that
23 PPEMA believes are important, especially important -- I'd
24 request, though, that you'd give careful consideration to
25 all of PPEMA's written comments in addressing the proposed

1 amendments to the regulations.

2 The areas I'd like to speak about today are varied
3 by nature, but all important to PPEMA. These include the
4 definition of handheld equipment, the treatment of edgers,
5 the carbon monoxide emission standard for handheld engines
6 50 cc and above, NOx measurements during quality audit
7 testing, labeling requirements, and the effective date.

8 First, with regard to the definition of handheld
9 equipment, although PPEMA has addressed CARB's definition of
10 handheld equipment on several occasions, PPEMA recognizes
11 that CARB staff has not proposed any amendments to that
12 definition.

13 PPEMA believes that EPA's recent proposal of
14 federal emissions regulations for spark-ignited engines less
15 than 25 horsepower is a significant new development that
16 warrants revisiting this issue.

17 The definition of handheld equipment is critical
18 PPEMA members for one simple reason; that is, that their
19 two-stroke products cannot meet emission standards for
20 nonhandheld equipment.

21 Unlike the CARB definition, EPA defines handheld
22 equipment to include equipment that is fully supported by an
23 operator or that it is operated multipositionally in order
24 to perform its intended function. Under CARB's definition,
25 both of these criteria must be met.

1 Additionally, EPA's definition of handheld
2 equipment includes equipment that weighs less than 14
3 kilograms, has no more than two wheels, and meets one of the
4 following criteria: (1) that the operator provides support
5 or carries the equipment throughout its performance; (2) the
6 operator provides support or attitudinal control of the
7 equipment throughout its performance, or (3) it is a pump or
8 generator.

9 PPEMA believes that EPA's proposed rule generally
10 defines handheld equipment more accurately than CARB. EPA's
11 definition recognizes that lightweight equipment should be
12 classified as handheld whenever the operator must provide
13 significant support or control of the equipment in order for
14 it to perform its intended function.

15 EPA's definition does not automatically exclude
16 equipment because of the presence of one or two wheels.
17 Instead, it establishes specific criteria that may be used
18 to determine whether or not the product is or is not
19 actually handheld.

20 Under EPA's definition, edgers, small pumps, and
21 small generators are considered handheld equipment, and thus
22 are subject to the handheld emission standards. This
23 treatment recognizes that these types of equipment share the
24 operator control and portability characteristics that are
25 typical of handheld equipment.

1 Under CARB's current regulation, however, these
2 products that are considered nonhandheld will be subject to
3 the nonhandheld emission standards, and will be eliminated
4 from the California market.

5 Consequently, in order to permit handheld
6 classification of these products, PPEMA requests that CARB
7 adopt EPA's approach to defining handheld equipment.

8 One caveat to that request, at the same time,
9 PPEMA is requesting that CARB continue to specify the two-
10 stroke snow throwers will be subject to the handheld
11 emission standards.

12 I'll just say a few words about edgers, because,
13 as I mentioned, Dr. Peter Stucke will be making a
14 demonstration regarding edgers.

15 I would just like to say a few words regarding how
16 this issue arose. In October of 1993, PPEMA requested
17 clarification from CARB staff that two-stroke edgers would
18 be considered handheld equipment. The reason PPEMA made
19 this request was that, although the CARB's proposed --
20 notice of proposed rulemaking in October of 1990, indicated
21 that edgers would be considered handheld, a literal
22 application of the handheld definition would exclude any
23 two-stroke edgers that were equipped with a wheel.

24 This decision would effectively ban the sale of
25 two-stroke edgers in California. PPEMA believes that CARB

1 staff's decision was incorrect because of the substantial
2 similarities -- actually tremendous similarities -- between
3 edgers and two-stroke string trimmers.

4 As I said before, Dr. Stucke will be making a
5 demonstration regarding these types of equipment. In any
6 event, PPEMA believes that there's no justification to
7 applying disparate emission standards to these two types of
8 equipment. Both of them should be subject to the handheld
9 equipment emission standards.

10 Regarding carbon monoxide emissions for handheld
11 engines 50 cc and over, there will be very few handheld
12 equipment products using these types of engines that would
13 be regulated in California due to federal preemption.

14 However, that's not the only reason why CARB has
15 not received any applications or certification applications
16 regarding these engines so far. The primary problem with
17 these engines is that they will require extensive enleanment
18 of the air/fuel mixture and, as a result, this kind of --
19 this type of enleanment will result in generating excessive
20 temperatures and would also negatively affect product
21 durability.

22 A more reasonable standard that would avoid
23 potential temperature and durability problems, while still
24 ensuring significant reductions in CO emissions, would be
25 450 grams per horsepower hour, up from the current standard

1 of 300 grams per horsepower hour.

2 Accordingly, PPEMA requests that CARB modify the
3 existing standard to this limit.

4 Regarding quality audit testing, test data so far
5 is indicating that NOx emissions from two-stroke engines are
6 considerably less than CARB's 4.0 grams per horsepower hour
7 standard, often less than 25 percent of the limit.

8 Test data's also showing that there's a high
9 correlation between NOx emissions and carbon monoxide
10 emissions.

11 As a result, it's possible, using a correlation
12 between -- a correlation factor between CO emissions and NOx
13 emissions, it's possible to demonstrate that, using CO
14 testing results, that the NOx emissions limits remain well
15 below the standard, even under worst-case situations.

16 PPEMA is therefore requesting that CARB delete the
17 NOx measurement during quality audit testing, because
18 omitting this measurement will save time and money for
19 engine manufacturers. Instead of performing these NOx for
20 audit testing, manufacturers could confirm low NOx emission
21 levels by using CO testing results in conjunction with a
22 NOx/CO correlation factor.

23 Accordingly, PPEMA requests that CARB modify its
24 audit regulation by providing engine manufacturers with this
25 option.

1 Regarding fuel tank labeling, PPEMA again requests
2 that CARB withdraw its fuel tank labeling requirement,
3 because it imposes unwarranted cost. Staff's concern, when
4 originally proposing this fuel label, was to prohibit the
5 use of leaded gasoline -- or leaded fuel in these engines.
6 This is not a problem, however, because leaded fuel is not
7 available in California.

8 The fuel labeling requirement does not affect
9 engine emissions nor does it provide otherwise unavailable
10 information, because fuel requirements are specified and
11 clearly provided in the owners' manuals. There's no
12 reasonable basis to duplicate this information with an
13 engine label, nor to require handheld equipment
14 manufacturers to assume the cost of such a label.

15 Finally, with regard to the effective date of the
16 standards, as we've heard here this morning, EMA has
17 petitioned to extend the date to August, '96. In the
18 interest of fairness, PPEMA requests that, if CARB responds
19 to this request by providing any relief, such relief should
20 apply to all engine manufacturers. Such an approach would
21 be consistent with CARB's past practice regarding effective
22 dates.

23 Like EMA's members, the 1995 Tier I standards mean
24 for PPEMA members severely constricted product lines being
25 available in California. In order to be able to allow

1 manufacturers to provide a more reasonably complete product
2 line, PPEMA also believes that extending the effective date
3 would be appropriate.

4 As I stated before, Dr. Stucke will be making a
5 presentation on edgers; however, at this time, I'd be glad
6 to try to answer any questions you might have.

7 CHAIRWOMAN SCHAFFER: Thank you very much, Mr.
8 Hall. Are there any questions from Board members for this
9 witness at this time?

10 Supervisor Vagin.

11 SUPERVISOR VAGIM: Thank you, Madam Chair.

12 I want to make sure from a clarification from
13 staff, first of all, what's before us is not the definition
14 at this particular point or modifying a definition of
15 handheld/nonhandheld; is that correct?

16 MR. CROSS: That's correct. We are proposing no
17 modifications to that.

18 SUPERVISOR VAGIM: Right. But you haven't -- in
19 the regulatory process, is that open for modification today
20 or would that have to be another notification?

21 MR. CROSS: We think it could be -- I'll ask legal
22 on that to make sure.

23 MR. TERRIS: An argument --

24 CHAIRWOMAN SCHAFFER: Counsel?

25 MR. TERRIS: An argument could be made either way.

1 It's a borderline question.

2 SUPERVISOR VAGIM: I always like answers to my
3 questions that are balanced.

4 (Laughter.)

5 SUPERVISOR VAGIM: Then let me proceed, if I may.

6 And that is, the definition of handheld, you folks
7 have dwelled on, of course, the edger, which is possibly a
8 major salable item, I presume, for the portable equipment
9 folk.

10 The issue that I've discovered in my discussions
11 with staff and reading some of the backup material were some
12 other classifications of what is handheld. And one of the
13 most notable things was the handheld posthole digger. It's
14 not considered to be handheld.

15 In your discussions with your manufacturers, will
16 they have an engine that will meet the weight class? In
17 other words, the ability to have a lightweight engine in a
18 unit that will be functional with a four-stroke? Does it
19 seem to be a problem with you guys at this point, or --

20 MR. HALL: At this point -- let me make a couple
21 points.

22 First, with regard to the handheld definition in
23 response to your question to staff, PPEMA takes the position
24 that, regardless of whether or not CARB amends the
25 definition of handheld equipment, edgers should be treated

1 as handheld -- classified as handheld equipment.

2 Regarding posthole diggers, augers, these types of
3 equipment are not directly represented by PPEMA; however,
4 PPEMA does not believe that four-stroke engines would be
5 substitute or available as a substitute for these or any
6 other types of handheld products that use two-stroke
7 engines.

8 SUPERVISOR VAGIM: Then, back to the edger issue,
9 we have basically in staff's report that something that's
10 got wheels on it and it can stand up and basically do its
11 function in the attitude, that it would be used without
12 having its weight borne by the human that is using it, it is
13 considered to be nonhandheld.

14 And can you give us a definition of why an edger
15 would be outside of that?

16 MR. HALL: I'm not sure if I understand exactly
17 your question, but I'll try to respond.

18 SUPERVISOR VAGIM: Well, an edger's -- in more
19 simple terms, the edger stands by itself. It's attitude is,
20 in operation, upright. And, basically, the only thing it
21 needs is the human to push it.

22 MR. HALL: Well, Dr. Stucke will be making a
23 demonstration here this morning.

24 SUPERVISOR VAGIM: Is he going to add something
25 for us?

1 MR. HALL: He does have an edger here, which he
2 would wish to demonstrate before you -- not operate, but
3 show you.

4 SUPERVISOR VAGIM: So, okay. So, you're going to
5 give us -- you're going to show us that. But what you're
6 saying is posthole diggers have no representation.

7 MR. HALL: They're not being represented by PPEMA.
8 I'm not sure --

9 SUPERVISOR VAGIM: It doesn't like they're
10 represented by anybody. It's an important issue for me,
11 because there's a lot of folk in my area of, I guess,
12 influence that it's -- particularly for the agricultural
13 uses out there, grapevines, what have you -- there's a lot
14 of holes being dug, and I just wanted to know from a
15 portable equipment manufacturer what you folks thought of
16 that definition.

17 MR. HALL: My understanding is that earth augers
18 are considered preempted equipment and would not be
19 regulated by CARB.

20 SUPERVISOR VAGIM: We're writing a waiver of
21 exemption, though.

22 MR. CROSS: I think that if it's -- if the
23 equipment is demonstrably used primarily in farm and
24 construction, and somehow it's been missed, if you will, on
25 the lists that were sent to you, that could be handled

1 through the preemption process.

2 SUPERVISOR VAGIM: Okay. Well, I don't think
3 there's going to be separate labeling on these "for
4 agriculture."

5 MR. CROSS: No, no. But I guess what I'm saying is
6 that I think the predominant use of that equipment is
7 construction and farm as opposed to people digging
8 postholes.

9 SUPERVISOR VAGIM: Right. But we're taking the
10 tack that, if it's under 25 horsepower, we're going to
11 explicitly list it or otherwise is not exempt.

12 MR. CROSS: Right. But there will be a process --

13 SUPERVISOR VAGIM: Add --

14 MR. CROSS: -- to fix the list --

15 SUPERVISOR VAGIM: -- in an administrative form?

16 MR. CROSS: -- for omissions or mistakes, yeah.

17 SUPERVISOR VAGIM: In an administrative --

18 MR. CROSS: Yeah. Uh-huh.

19 SUPERVISOR VAGIM: Okay. Thank you.

20 CHAIRWOMAN SCHAFER: Are there other questions?

21 Yes, Dr. Boston.

22 DR. BOSTON: Sir, you mentioned that you'd like to
23 remove the unleaded label from the engines because we don't
24 sell gasoline that's not unleaded in California. However, I
25 was thinking about people moving to the State of California

1 bringing their equipment with them.

2 Wouldn't it be helpful for them to know that this
3 label should warn them that they shouldn't use California
4 gasoline in their edgers or whatever, so it wouldn't be
5 ruined?

6 MR. HALL: My understanding is that the proposal
7 now is to require a label, such as "gasoline only." There's
8 no requirement now to specify use of unleaded gasoline in
9 this requirement in the regulation.

10 So, I believe that -- really, the point that
11 PPEMA's trying to make is that it's unnecessary to include a
12 label, such as "gasoline only," or any label on the fuel
13 tank, because the fuel specifications are clearly provided
14 in operators' manuals.

15 And to duplicate that information on the fuel tank
16 label simply increases time and expense for the engine
17 manufacturer.

18 DR. BOSTON: Your written report here specified
19 leaded for "leaded fuel only," I thought, but just for
20 "gasoline only" is what you had in mind. Correct?

21 MR. HALL: What PPEMA would have in mind is no
22 fuel labeling -- fuel tank labeling requirement.

23 DR. BOSTON: Could staff report -- give a comment
24 on that?

25 MR. CROSS: I have a couple of comments. I'll try

1 to make them brief, though.

2 I think we're in a mental transition, if you will,
3 from the misfueling issue, where there is a concern about
4 leaded gasoline to where there is no concern. And I think
5 the point that they're making is well taken.

6 At the present time, everything we certify,
7 whether it be utility equipment, on-highway vehicles, still
8 does use an unleaded fuel label. And, so, basically, that's
9 carried forth in the regulation.

10 I think there will be a time in the near future
11 where we'll probably be able to make that adjustment. In
12 the case of PPEMA, I would be concerned that many of their
13 engines require gas/oil mix as opposed to just unleaded
14 gasoline. And I think having that label on there is very,
15 very important as well as us, because you blow the engine up
16 if you don't mix oil with the gas.

17 So, I think that there's still a need to let the
18 operator know what the fuel of choice is, but unleaded
19 gasoline may not be the exact right words for future
20 engines. It's something we can work on with time. And I'm
21 not sure making a quick change now is going to make a big
22 difference.

23 MR. HALL: If I could just respond to that
24 comment. To the present, it has not been necessary for
25 PPEMA members to label their handheld products and provide a

1 fuel tank label for the gasoline-plus-oil requirement.

2 This is something, as I said, is specified in the
3 operators' manuals, something that's understood by operators
4 of handheld two-stroke products. The fuel labeling
5 requirement, as proposed now, really has nothing to do with
6 engine emissions; as I understand Mr. Cross' comments,
7 they're not directed towards engine emissions.

8 For that reason, we believe that that requirement
9 is unnecessary and inappropriate for these regulations.

10 MR. CROSS: We're confused here, because the
11 staff, and I misspoke a little bit -- the staff proposal
12 responds, I think, to the concern that Dr. Boston raised.
13 It gives manufacturers a choice of gasoline only, propane
14 only, diesel only, gas/oil mix, or gasoline plus oil,
15 specifying what the mix is.

16 And those are -- those are basically the kind of
17 labels that I think should be on fuel tanks to make sure the
18 consumer has some idea what to put in it. The point being
19 that the word "unleaded" is already omitted from this staff
20 proposal.

21 CHAIRWOMAN SCHAFFER: Yes, Mr. Calhoun.

22 MR. CALHOUN: In your statement, you request that
23 the Board delete the NOx measurement from the quality audit
24 requirement, and my initial reaction to that is to not
25 support that. But I wouldn't want to preempt the staff's

1 views on it. So, I guess I'd like to get the staff's
2 reaction to that.

3 MR. CROSS: I think that's something that we could
4 look at with the manufacturer, because two strokes do have
5 very, very low NOx emissions. And if they're far, far below
6 the standard, sure, that's something we could work with them
7 on.

8 MR. HALL: We appreciate that.

9 CHAIRWOMAN SCHAFER: I was going to ask the staff
10 to address themselves, sort of in order, to the points that
11 Mr. Hall made. I think we've had some discussion of them.
12 I'd like to get a staff view while Mr. Hall's still standing
13 here of the points that he's raised on those items which are
14 before the Board for decision this morning.

15 MR. CROSS: I think the biggest issue is the
16 handheld issue, and I think we've discussed that already.
17 But I'll remind you quickly.

18 The definition of handheld in 1990 was established
19 with the idea of limiting the two-stroke engines to
20 applications where they were absolutely essential, because
21 they are significantly dirty, dirtier than the four-stroke
22 engines. And the standards were accordingly set much, much
23 higher.

24 So, the question that we tried to answer in
25 setting the definition is, is there something else available

1 that would do the same job? And there was an extended
2 debate in 1990 about four-stroke lawnmowers -- or two-stroke
3 lawnmowers. And the Board chose to go with the staff
4 definition and not keep two-stroke lawnmowers in the market,
5 even though that would cause one manufacturer to withdraw
6 its product from California.

7 I think that the EPA definition is more geared
8 towards maintaining the status quo in terms of product
9 availability than the originally Board-adopted definition.

10 And, so, I think that what PPEMA is pushing us to
11 do is move in the direction of keeping the status quo in
12 terms of product availability; instead of answering the
13 question, is there something else which is -- which will do
14 the job?

15 Let me drop to the -- well, I guess we'll be
16 discussing the edger issue, I think, in the context of the
17 next witness. But I can tell you that's one that staff has
18 been struggling with, because it is on the fence, and that's
19 probably why it's ended up in front of you.

20 If it had been mower or something, we wouldn't
21 have had any problem with it.

22 Another point was CO for over 50 cc, and he's
23 calling for an increase from 300 to 450. That's outside the
24 scope of the notice, because it's a standards change.

25 So, if the Board directed us to interact with the

1 engine manufacturers, we would have to look at this issue as
2 well if you so directed us to.

3 The difference between the PPEMA request and the
4 Engine Manufacturers' request is that, in the air/fuel ratio
5 or calibration range where these engines are, HC will track
6 CO.

7 In other words, if you increase the CO standard
8 significantly, we think that hydrocarbons will also go up at
9 the same time. And our basis for reaching that conclusion
10 was the database which the industry supplied us, which we
11 used to set the standards back in 1990.

12 In other words, we looked at HC versus CO
13 settings, and it appears that relaxation in the CO standard
14 would mean more hydrocarbons. And I think we looked at --
15 we looked at an assumption where EPA set the same standard
16 as they're asking for, so all preempt and nonpreempt
17 equipment in California ended up with the HC increase. And
18 what was it? It was tons per day -- it was small. I think
19 it was less than a ton per day. But it was not zero either.

20 In other words, if you assumed that all this
21 equipment had this dirtier engine in it, it was half a ton,
22 I believe.

23 We talked about the NOx on Q/A. I think that's
24 something we can work out administratively.

25 We talked about fuel tank labeling. And, then, I

1 think he also mentioned the effective date. And I think
2 that's something that the Board will -- in other words, I
3 would suggest that if the Board directs us to do something
4 in terms of looking at leadtime for the nonhandheld, I think
5 we should keep it equal in the industry.

6 CHAIRWOMAN SCHAFER: What did you say about the
7 fuel tank, Mr. Cross?

8 MR. CROSS: The fuel tank labeling issue
9 essentially, based on the language that I read, the staff
10 proposal already handles it.

11 CHAIRWOMAN SCHAFER: Okay. Thank you very much.

12 Ms. Edgerton.

13 MS. EDGERTON: Mr. Kenny, I was -- there's a clear
14 implication of the Portable Power Equipment Manufacturers
15 Association -- and I take it, you're a lawyer.

16 MR. HALL: Yes.

17 MS. EDGERTON: Yes. I was glad to have another
18 lawyer in the room. We have Mr. Kenny and his colleagues,
19 but often they make jokes at our expense.

20 But I take the implication was that counsel for
21 Portable Power's concerned about the notice that was given
22 in 1990 of the definition of handheld and nonhandheld
23 equipment; in that, apparently, there was some specification
24 that edgers would not be included.

25 And the implication to me was that they question

1 whether the procedures used to adopt that regulation, as
2 applied to their product, were appropriate.

3 Do you have a comment?

4 MR. KENNY: Well, the procedures were appropriate.
5 I mean, we basically always follow the Administrative
6 Procedures Act in adopting any regulation. We provide 45-
7 days notice for any regulatory modification or any
8 regulatory proposal. And that is what's required by
9 California law.

10 That is essentially the first time we have heard a
11 challenge to the procedures that were used for the adoption
12 of the regulations in 1990. I'm a little surprised by that,
13 because it would be our position that, in fact, there was no
14 regulatory irregularity with regard to the adoption of any
15 regulation in 1990.

16 MS. EDGERTON: Well, I guess what he has said, if
17 I understand correctly -- and I'll let you speak to this --
18 what you have said is that, when the definition -- the
19 notice of the definition was -- was provided, perhaps the
20 explanation that accompanied it had a list of likely
21 products meeting that definition, and edgers were off of it.

22 MR. HALL: If I could clarify my remarks. First
23 of all, PPEMA's not making a challenge right now regarding
24 the procedures in which these regulations were adopted.

25 What I was referring to in discussing the history

1 of -- or how the issue came up regarding edgers is simply
2 this: In the notice of proposed rulemaking in 1990, the
3 language that was included in the staff's initial statement
4 of reasons indicated that edgers would be treated as
5 handheld equipment. Yet, they seem to contemplate these --
6 this equipment needed to be made available or kept available
7 in California.

8 And, since they use two-stroke engines, they would
9 be subject to handheld standards.

10 In the fall of 1993, PPEMA made a request for
11 clarification regarding the treatment of edgers. Based upon
12 the notice of proposed rulemaking -- the statement of
13 reasons specifically -- it appeared that edgers would be
14 treated as handheld.

15 However, a literal application of the definition
16 of handheld equipment would exclude any edgers that were
17 equipped with a wheel. Even though these two-stroke engines
18 are operated like other two-stroke engine handheld
19 equipment, they would be subject to different emission
20 standards using a literal application of that definition.

21 Therefore, PPEMA made a request for clarification
22 regarding the treatment of edgers. CARB staff responded
23 subsequently that they would be treated as nonhandheld
24 equipment. Consequently, PPEMA has been in contact with
25 CARB staff regarding this issue, and is continuing to make a

1 specific request regarding edgers; that they be treated and
2 subject to handheld equipment standards.

3 As Dr. Stucke will demonstrate, the equipment
4 resembles two-stroke string trimmers, which are subject to
5 the handheld standards. Both these products use a depth
6 gauge to adjust the cutting height. The edger will use a
7 wheel as a depth gauge; the trimmer will use a different
8 device to adjust the cutting height of the blade or string.

9 So, that is how the issue has arisen. It's not
10 through a challenge to the procedures used in proposing the
11 standards or subsequently approving them for adoption in
12 December of 1990.

13 MS. EDGERTON: So, let me -- I guess I
14 misunderstood. There was no specific mention of edgers in
15 the original notice. It was that the language led edger
16 producers to believe that edgers would be handheld.

17 MR. HALL: There's nothing specific in the actual
18 regulations or definitions that are included in the
19 regulations specific to edgers. However, in the initial
20 statement of reasons, there is a specific reference to
21 edgers, and it is in the context of them being treated as
22 handheld equipment.

23 MS. EDGERTON: Are there handheld edgers and
24 nonhandheld edgers?

25 MR. HALL: Well, there are some edgers which may

1 be considered more closely resembling handheld equipment,
2 such as string trimmers than other edgers.

3 MS. EDGERTON: Because they have a wheel. Well,
4 we'll --

5 MR. HALL: In this case, Dr. Stucke has brought a
6 wheel-equipped edger, which he plans to show you and
7 demonstrate the similarities between this product and a
8 string trimmer.

9 MS. EDGERTON: Well, you've clarified, I think.
10 Just to make sure, on closure, that you're not challenging
11 the procedures. You're merely saying that your clients
12 thought that they would probably be handheld. But it turned
13 out they weren't, but they thought they would probably be.
14 They were wrong.

15 Is that what you're saying, sir?

16 MR. HALL: That's --

17 MS. EDGERTON: That was perhaps not very eloquent.

18 MR. HALL: Right. That's not exactly how I would
19 put it.

20 MR. CROSS: Some were and some weren't.

21 MR. HALL: The basic issue is that they had
22 understood that these products -- they thought these
23 products were handheld. The definition, the actual
24 definition would appear to exclude them. They requested
25 clarification.

1 That clarification came back that they were not to
2 be treated as handheld, and that's why we're making the
3 request today that, regardless of whether or not CARB
4 modifies its definition of handheld equipment, wheel-
5 equipped edgers using two-stroke engines should be
6 classified as handheld equipment and subject to the handheld
7 standards.

8 MS. EDGERTON: Thank you. I don't want to cut you
9 off. Did you all have anything to say? Mike?

10 MR. KENNY: Well, the only response I'd have is,
11 with regard to the edgers -- I just was conferring with Bob
12 Cross, and he's probably the more appropriate person to
13 provide a technical --

14 MS. EDGERTON: Okay.

15 MR. KENNY: -- response to this. But Bob was
16 indicating that there was at least some question surrounding
17 the classification of this particular piece of equipment.
18 And I'd defer to Bob in providing more information on that.

19 MR. CROSS: I think the issue is basically that,
20 when we said "edgers" in the original proposal, we meant
21 edgers like a string trimmer used on its side, if you will,
22 where the actual weight of the edger was supported by the
23 operator in a sort of free hand using the string trimmer to
24 edge, if you will.

25 And the equipment that is of concern is the same

1 device with a wheel on it to guide it. And at that point,
2 the wheel becomes something which is used to support the
3 weight and stabilize it. And then, there is competing
4 product, which is the little four-stroke powered edgers with
5 several wheels on it, which, as Supervisor Vagim said, the
6 operator just pushes.

7 So, it's a very, very marginal call, which the
8 staff had a hard time making. And, ultimately, we just went
9 with the existing definition. In other words, if it had no
10 wheel on it, it's supported by the operator and it's
11 essentially a string trimmer used for edging. If it has a
12 wheel on it, there's a competing product, and it's therefore
13 nonhandheld.

14 And I think what they'll show you is that the one
15 with the wheel and the one without the wheel look identical
16 other than the presence of the wheel.

17 MR. HALL: The point being, also, that the wheel-
18 equipped edger, such as Dr. Stucke will be demonstrating,
19 still has to be supported substantially by the operator,
20 controlled by the operator. It is not a free-standing
21 machine or something that can be used without significant
22 control and support by the operator.

23 MR. CROSS: Very quickly. The only other -- I
24 think the only other concern, which was guiding the staff,
25 was the issue of -- sort of, where do you draw the line on

1 this stuff? In other words, we were more concerned about
2 the -- about eroding the definition, if you will, than the
3 specific piece of equipment.

4 So, once you start moving and you have two wheels,
5 three wheels --

6 MS. EDGERTON: I was wondering -- thank you. And
7 I had another comment, generally, I just wanted to make in
8 response to some of your excellent testimony and counsel.

9 And that is, following up on the comments about
10 where it's appropriate for California to harmonize with the
11 U.S. Federal -- with the Federal Government, Federal EPA,
12 and where it's not.

13 I think it's a difficult subject. But, from my
14 own view, I'm generally guided by the notions that have been
15 set out by the California Environmental Protection Agency
16 again, which is that there is a difference between emission
17 standards that really do add value and -- and permission --
18 I mean permitting difficulties, where we still streamline if
19 there's overlap or duplicative emissions (sic), where we
20 will work to harmonize in those settings.

21 But where the proposal would be to downgrade
22 emission standards or where it would be to fail to meet our
23 obligation to deliver the clean air that we have to deliver
24 to California, in view of its much more difficult federal
25 and State attainment goals, that is not appropriate.

1 So, we are going to be continuing to have
2 standards which exceed those of the Federal Government. And
3 we must, in order to meet the obligations of the Federal
4 Clean Air Act and the California Act; so, I just wanted to
5 make that philosophical comment.

6 CHAIRWOMAN SCHAFFER: Thank you very much. Are
7 there any other questions for Mr. Hall?

8 If not, I want to thank you very much for your
9 testimony, and invite Dr. Stucke to make the presentation.

10 MR. HALL: Before Dr. Stucke comes up, if I could
11 just make a couple comments real briefly.

12 First of all, with regard to national emission
13 standards, PPEMA understands your point about California air
14 and the need to improve the air quality in California,
15 certainly.

16 I just want to make -- reemphasize a point that
17 Mr. Mandel made earlier today; that the proposed federal
18 emission standards for these types of engines are identical
19 to the California standards. So, it's not a matter of
20 sacrificing air quality.

21 The second point I really want to make is
22 addressed to Mr. Cross' comment regarding CO emissions and
23 the relief that PPEMA's requesting there -- increasing the
24 emission standards to 450 grams per horsepower hour.

25 We're talking about a small number of products to

1 which this elevation of the emission standards would apply,
2 as I said before, because most of the products that use
3 these engines are not regulated in California and will not
4 be regulated because of federal preemption.

5 However, they still represent a significant number
6 of products for PPEMA manufacturers, the products that would
7 be regulated. As Mr. Cross has demonstrated, there have not
8 been any applications for certification of these engines --
9 the problem not being -- partially due to the fact of
10 federal preemption but, more importantly, due to the fact
11 that this emission standard cannot be met without extensive
12 enleanment of the air/fuel mixture, which is going to cause
13 excessive cylinder temperatures and raise some durability
14 concerns.

15 My overall point, though, is that raising the
16 standard to 450 is only going to affect a small number of
17 products in California and would not make a measurable
18 difference in emissions -- in CO emissions in the State.

19 CHAIRWOMAN SCHAFFER: Thank you very much. But I
20 understand from staff's presentation that it would involve
21 an increase in hydrocarbon emissions by approximately a half
22 a ton per day.

23 MR. CROSS: That's correct.

24 CHAIRWOMAN SCHAFFER: Thank you very much, Mr.
25 Hall. Dr. Stucke, I just have a question for you before you

1 make your presentation. You're not planning to turn that
2 on, are you? (Speaking of string trimmer.)

3 It's not required to turn that on indoors, is it?

4 DR. STUCKE: No.

5 CHAIRWOMAN SCHAFFER: Okay. Thank you.

6 DR. STUCKE: It will be a quiet presentation here.

7 CHAIRWOMAN SCHAFFER: Certainly. One moment,
8 please, while we change the recording tape.

9 (Thereupon, there was a pause in the proceedings
10 to allow the reporter to replenish her
11 stenograph paper.)

12 DR. STUCKE: My name is Peter Stucke and I
13 represent Steele, Incorporated from Virginia Beach, and I'd
14 like to support the approach of Matthew Hall of PPEMA in a
15 short presentation of the product.

16 First, I'd like to express that it's a great honor
17 for me to have the opportunity today to present here the
18 units. And let me further thank you for the very
19 cooperative manner in which you handled all the proposals
20 carried out by industry and integrated them into the
21 regulation, taking into consideration the economy and the
22 welfare of customers and the environment.

23 The very serious situation concerning one-wheel
24 edgers needs the particular procedure of a presentation here
25 in Sacramento, and I'd like to point out that edging is a

1 100 percent American business.

2 (Laughter.)

3 DR. STUCKE: I'm from Germany, and most of the
4 people in Germany don't even know that edgers exist. And a
5 lot of landscaping applications have become more efficient
6 since the introduction of lightweight one-wheeled edgers.
7 And efficiency here means not only an economic advantage,
8 but also shorter running times resulting in less emitted
9 pollutants like hydrocarbons and carbon monoxides.

10 For a common understanding, I'd like to give a
11 short description of the units involved. You see here,
12 those are the both units and, as you stated before, they
13 look more or less the same.

14 The difference between the line trimmer and the
15 edger is just found at the cutting device. The engine, as
16 you see, and the shaft device is the same and constructed in
17 the same way.

18 For an explanation, the line trimmer cuts parallel
19 to the ground; whereas, the edger has a perpendicular
20 cutting device close to an edge, and with a certain cutting
21 depth.

22 And to maintain this working distance to the
23 ground, the line trimmer has a bumper-like flat surface and
24 is always in close contact to the ground, because the
25 operator needs the feedback of the ground to keep the right

1 operation distance.

2 So that, that reflects certainly the definition of
3 handheld, because there's a certain support of the ground.
4 But this is very little, just to keep the feeling for it.

5 The edger, the situation is a little bit
6 complicated. And, so far, on the one hand, you have to keep
7 the direction close to the edge, which has to be maintained,
8 and also the right cutting depth. And you see here, one
9 fundamental question occurs, why has this edger then a wheel
10 and not something else? I think the wheel is the problem we
11 have here.

12 The advantage of the wheel is that the wheel has
13 one primary running direction. And, as you have to keep
14 very close to the edge, you need this guidance and, as well,
15 given by the diameter of the wheel and the adjustments of
16 the wheel, like so, you can provide a constant cutting
17 depth.

18 And here, the advantage of the wheel is easily
19 shown, because it's easier to work with the wheel instead of
20 something rigid, like a guiding device or something like
21 that.

22 To give a conclusion, the wheel here has only a
23 guide function and not a support function. And I'd like to
24 demonstrate that now.

25 (Thereupon, Dr. Stucke demonstrated the

1 devices as follows:)

2 DR. STUCKE: This is the line trimmer. The liner
3 trimmer, as you see, is supported by one hand easily, and
4 the center of mass lies very close to the user and not close
5 to the surface here. And to keep it working, you do it in
6 that way. You have a side by side shifting and then you
7 walk it, walk forward. And you keep always a contact to the
8 ground to have the correct working distance above the
9 ground. But you can maintain it with one hand, and it's
10 lightweight.

11 If you'd like to test it, please go ahead.

12 Now, we have here the edger. It is clearly
13 understandable that, if you go around like this, it is
14 ground supported more or less. But this is not the way you
15 can earn your money, because you have to go around very fast
16 and have to do it in the most efficient way.

17 Secondly, the weight is also supported by the
18 user; as you see, the center of mass is closer to you and
19 not down there where the wheel is.

20 If you go around very, very small corners, you
21 have to change the position that way, so that you can
22 maintain a small --

23 SUPERVISOR VAGIM: Can you edge over here --

24 (Laughter.)

25 DR. STUCKE: And you take the unit up and go over

1 this way, and you have always opportunity to change
2 position. And that is the main advantage of the wheel, that
3 you can carry it around and adjust the wheel to keep the
4 right position on the ground, not to support it and to take
5 off the weight.

6 We have had the discussion concerning the
7 chainsaw. You mentioned this -- Supervisor Vagim mentioned
8 it in the morning -- it is not clear whether the chainsaw is
9 supported during operation by the operator or not. If it is
10 in the wood -- I mean the wood carries the load; that's the
11 way people like to do it.

12 I feel working with an edger is more exhausting,
13 because you have to carry it around; whereas, if you're
14 working with a chainsaw, it's often in the wood and you
15 don't have to worry about the load.

16 Here, you carry most of the time the whole load of
17 the unit.

18 (Thereupon, Dr. Stucke replaced the devices
19 and returned to the podium.)

20 DR. STUCKE: And it was mentioned that it might be
21 possible to take off the wheel and to edge with the edger
22 without the wheel, but you can see that, if you take off the
23 wheel, you have not such the guiding device anymore, and it
24 might be dangerous if you cut with the cutting device, which
25 is a metal blade, into the concrete edge, or you hit the

1 ground and you bite deep into the ground. It will have a
2 certain impact on the unit and on the user itself. And I
3 feel you don't want to increase dangerous working conditions
4 for the user.

5 What I see is that the nature of edging is purely
6 handheld and multipositional, as I demonstrated it, and
7 especially if you go around small obstacles, you have to
8 change the position. And if you often come to the
9 situation, but you don't use force of engines, because if
10 you go to the vertical position, the whole oil inside the
11 engine will go around and that will cause blue smoke, and
12 you don't like to have blue smoke in California I fear.

13 And for a short conclusion of my statement, and
14 one-wheel edger is a two handheld unit, according to the
15 regulation, firstly, because ground contact to provide the
16 correct working position is allowed, as shown by the line
17 trimmer I showed you; and, secondly, because it has been
18 demonstrated clearly that a one-wheel edger is, per
19 definition, a multipositioned lightweight unit which, as a
20 matter of fact, has to be carried around frequently by the
21 user according to variable applications.

22 Therefore, classification and certification of
23 one-wheel edger as a handheld product is fully in accord
24 with the contents of the regulation.

25 Thank you for your attention.

1 CHAIRWOMAN SCHAFER: Thank you very much, Dr.
2 Stucke. Are there questions from members of the Board?
3 Yes, Supervisor Vagim.

4 SUPERVISOR VAGIM: Thank you, Madam Chair.
5 Are those units field convertible between each
6 other? In other words, can you put the wheel unit on the
7 unit that you have with the string edger in the field? I
8 can buy the kit to put either one on?

9 DR. STUCKE: Yes, you can change it fully, yes.

10 SUPERVISOR VAGIM: So, basically, that is a
11 universal unit all the way down to the head, and you change
12 the various -- I think you even have a cutter on it -- on
13 another application, too, don't you?

14 DR. STUCKE: Well, the demands --

15 SUPERVISOR VAGIM: A steel blade?

16 DR. STUCKE: The demands for that kind of unit
17 comes strongly from the market.

18 SUPERVISOR VAGIM: So, it's a totally convertible
19 unit, though.

20 DR. STUCKE: Yes, definitely.

21 SUPERVISOR VAGIM: And, indeed, that's your
22 change. This is now to staff. The concept, if you have a
23 convertible unit that can be handheld for string and then
24 converted to a wheel, doesn't that make that unit more
25 universal into more of a -- really into more of a gray area

1 than a traditional three-wheel edger?

2 MR. CROSS: That's why we've been struggling with
3 this one all along. This one is clearly a borderline case.

4 SUPERVISOR VAGIM: But if they sell it as a string
5 unit with a kit to put the wheel on it, what happens then?

6 MR. CROSS: We had that discussion internally and
7 couldn't decide.

8 (Laughter.)

9 SUPERVISOR VAGIM: Okay. And let me, since you
10 seem to be the most expert on portable so far, let me ask
11 you this question. I don't know if Steele makes posthole
12 diggers, but --

13 (Laughter.)

14 DR. STUCKE: I've seen quite a few of them during
15 the Louisville exhibition.

16 SUPERVISOR VAGIM: And are they considered --
17 they're not considered to be handheld at this point.

18 DR. STUCKE: Well, as far as I know, certain units
19 of them are excluded by law, because of the definition above
20 45 cc or 40 cc anyhow, like the augers. And I don't know
21 how many products that exist with a displacement less than
22 the limit, 45 or 40 cc.

23 SUPERVISOR VAGIM: Smaller units, though --

24 DR. STUCKE: Yeah.

25 SUPERVISOR VAGIM: -- what could be a concern.

1 And I just wondered if the same logic was held from your
2 standpoint from a handheld device -- something that does not
3 have the ability to stand by itself and move by itself.

4 DR. STUCKE: Well, I mean, definitely, if you see
5 the walk-behind digging device, you have to guide it. There
6 is certainly the discussion of how much load of this device
7 is needed to get the cutting process.

8 Here, it is clearly the edger, there's no load
9 needed to make the cutting process itself. If you are firm
10 enough, you can guide the unit without any wheel, But you
11 cannot provide this eight hours a day constantly, full
12 concentration. We have just guard which keeps the right
13 distance to the ground. We don't want to carry load on the
14 wheel. Because if you are cutting in grass, I mean, a load
15 on the wheel would increase the force you need to push the
16 unit. And that is against efficiency again. I mean, low
17 load is just the thing we like to have here.

18 SUPERVISOR VAGIM: Madam Chair, I want again a
19 clarification from staff. And I believe I heard you say
20 this type of thing could be handled administratively. Yet,
21 they're here because, I presume, you said, from an
22 administrative point of view, you didn't want to make the
23 modification.

24 They're appealing to us to include this but, yet,
25 you could still make your decision administratively if cases

1 can be made by industry; is that correct?

2 MR. CROSS: Yeah. Our concern is that we not --
3 that the line not -- that the line between handheld and
4 nonhandheld not just move over time in terms -- in terms of
5 giving up emissions. And this one is sort of a classic case
6 of one on the fence. And that's why it ended up here
7 probably.

8 I think that the Board handled an analogous case
9 in 1990 was, rather than changing the definition, it added
10 the borderline piece of equipment as something else which is
11 handheld. And that would have to be done by regulatory
12 change, which would be before you anyway.

13 So, essentially, they're bringing it to you rather
14 than the staff bringing it to you as a proposal.

15 SUPERVISOR VAGIM: So, it's within our purview
16 today to add that?

17 MR. CROSS: Yes. It would be a 15-day change.

18 SUPERVISOR VAGIM: 15-day change.

19 MR. CROSS: You could do that.

20 SUPERVISOR VAGIM: Okay. thank you.

21 CHAIRWOMAN SCHAFFER: Ms. Edgerton.

22 MS. EDGERTON: But what would your opinion be, for
23 example, the handheld with the wheel in it? That could
24 equally be classified so that all of that would be
25 nonhandheld. And they want to move -- the proposal they --

1 that is before us, as I understand it, is that the wheel
2 nonhandheld move over to the handheld. But it's equally
3 possible, isn't it, just to move all of it back over to
4 nonhandheld if there's a wheel in the box.

5 MR. CROSS: Possibly.

6 MR. LAGARIAS: Madam Chair?

7 (Laughter.)

8 CHAIRWOMAN SCHAFER: Let me ask members of the
9 Board whether they have further questions for Dr. Stucke?

10 MR. LAGARIAS: Yes, I do.

11 CHAIRWOMAN SCHAFER: All right. Mr. Lagarias.

12 MR. LAGARIAS: Dr. Stucke, you present a bit of a
13 dilemma, because the edger you present here does very --
14 seem to fit the handheld category.

15 The one I have at home, Black & Decker, has a
16 wheel on it, and when it turns, it more closely resembles a
17 walk-behind mower than it does a handheld piece of
18 equipment. It definitely would never fit a handheld
19 definition in my eyes.

20 So, it seems to me, there are some edgers that
21 could be handheld and some that definitely would seem to fit
22 the walk-behind type design.

23 DR. STUCKE: What I feel here, the regulations
24 give a clear guidance. If the unit has to be supported by
25 the user, then it is handheld; and if it is not -- has to be

1 not supported by the user, then it is not handheld. If you
2 have a three-wheel edger and it's standing by itself, I mean
3 it's a different case than if you have a one-wheel edger,
4 which cannot stand itself (sic) and cannot even function
5 itself without the user.

6 MR. LAGARIAS: There's no difference in my mind
7 between the edger I use and the walk-behind mower as far as
8 the effort I put into it. I walk behind and push them both.

9 DR. STUCKE: You know, these kind of units I
10 presented here are used in commercial applications. And
11 what they need is fast working, because for them, time is
12 money, that's clear. And they need also lightweight unit
13 for the efficiency of the work they are doing here.

14 CHAIRWOMAN SCHAFER: Are there other questions
15 from Board members for Dr. Stucke?

16 Ms. Edgerton?

17 MS. EDGERTON: I just wanted to go back again with
18 the staff. It's my understanding --

19 CHAIRWOMAN SCHAFER: I was trying to allow Dr.
20 Stucke to leave, and then we can have a discussion with the
21 staff.

22 MS. EDGERTON: Well, then, I'll pass. Thank you.

23 CHAIRWOMAN SCHAFER: All right. Thank you very
24 much. Are there -- have I given the Board members an
25 opportunity to ask the questions that they'd like to present

1 to the witness?

2 If not, I want to thank you very much, Dr. Stucke.
3 I have a feeling the rest of the discussion will be with the
4 staff members. So, thank you very much for coming today.

5 Ms. Edgerton, at this point I would ask the staff
6 to summarize written submissions into the record, and I'd
7 like to close the record. And then, I'd like to have some
8 discussion with the staff, if the Board members have any, on
9 the resolution itself.

10 And before we get into all of that, I'd like to
11 give the court reporter a five-minute break. So, are there
12 any comments that the Board has received by individuals who
13 were unable to testify on this item?

14 Yes, Ms. Lourenco.

15 MS. LOURENCO: The comments -- I'll take them in
16 order here. There are three comments, one from Kohler, one
17 from Onan, and one from Tecumseh.

18 Primarily, their issues are the same as the ones
19 presented by Jed Mandel from EMA today. So, I think those
20 were primarily already discussed.

21 Another comment has come in from American Honda
22 Motor Company. Specifically, they have some very specific
23 testing concerns. Most of their concerns are things that
24 certainly can be handled under the authority of the
25 Executive Officer during certification and compliance

1 activities.

2 So, those can certainly be handled at a later
3 time.

4 The other comment that has come in is from Kubota
5 Tractor Corporation. Primarily, their letter states that
6 they have invested considerable resources into the
7 compliance of the '95 regulations, and they request the
8 Board -- they request rapid and reasonable resolution of
9 these regulations. And that's it.

10 CHAIRWOMAN SCHAFFER: All right. Thank you very
11 much, Ms. Lourenco.

12 Mr. Boyd, does the staff have further comments at
13 this point?

14 MR. BOYD: Madam Chair, I think that concludes our
15 presentation and our comments.

16 CHAIRWOMAN SCHAFFER: All right. Do the members
17 have further questions for the staff?

18 SUPERVISOR VAGIM: Well, Madam Chair, just for
19 clarification, we received other letters from -- through
20 staff, directed to us, from folks that don't seem to be part
21 of the discussion today.

22 And, just for clarification, significant numbers
23 of letters have come from folks that are representing
24 themselves and interested in motorcycles with two-stroke
25 engines. And what was the status of those folks and why are

1 we receiving all those letters now?

2 MR. CROSS: That's not in our -- it's not within
3 the scope of this hearing at all. It's a completely
4 different subject. But it's essentially a group of
5 motorcyclists, which was concerned about the off-highway
6 vehicle regulation that you adopted, and was concerned about
7 whether or not they could continue to buy the vehicles that
8 they use in their trials/events.

9 And we're seeking to clarify with them that
10 competition vehicles are exempt by State law from
11 regulation, and that they can continue to buy and use those
12 vehicles.

13 The concern -- the secondary concern is where can
14 they operate them, and that's something that we're working
15 with, also, because the State law basically is designed for
16 closed-course racing events. And I think the trials is kind
17 of a borderline case, which uses a little bit different kind
18 of course. So, we're trying to clarify with other State
19 agencies exactly how to deal with the trials' riders
20 concerns.

21 SUPERVISOR VAGIM: Okay.

22 MR. CROSS: But the purchase and use of the
23 vehicles is legal under State law, which was their major
24 concern.

25 SUPERVISOR VAGIM: Okay. The use in a particular

1 way or use for general --

2 MR. CROSS: Used for competition.

3 SUPERVISOR VAGIM: Okay. But not for general
4 recreational?

5 MR. CROSS: I think, when we discussed this at the
6 other item, it was recognized that you can -- or our only
7 constrictor, if you will, in terms of once somebody buys a
8 competition motorcycle, our only way of controlling it is at
9 the State Parks where, if they want to ride their motorcycle
10 on State facilities, if it's an uncertified motorcycle, in
11 the future, they won't be able to do that. Right now, they
12 can.

13 But if they take a trials motorcycle that was
14 purchased for competition out in the middle of the desert
15 someplace, I doubt that there's going to be any enforcement
16 action there.

17 SUPERVISOR VAGIM: Are you saying that those
18 motorcycles that are offered for sale will have to be only
19 offered for sale as competition bikes, not general
20 recreational bikes?

21 MR. CROSS: Yeah, if they don't meet the
22 standards, they have to be offered for sale as competition
23 bikes.

24 SUPERVISOR VAGIM: But yet, we can -- we'll allow
25 a two-stroke engine in an outboard motor for general

1 recreation.

2 MR. CROSS: There's standards coming for those,
3 too.

4 (Laughter.)

5 MR. CROSS: Not here yet, but they're coming.

6 CHAIRWOMAN SCHAFFER: Ms. Edgerton?

7 MS. EDGERTON: Again, I keep being reminded of the
8 history of these regulations, in which the Board was very
9 mindful of the fact that two-strokes are about 20 times more
10 polluting than four-strokes.

11 And, so, it seems to me that, where there is
12 ambiguity, it's not unreasonable for us to expect that the
13 ambiguity will be resolved in a way that throws whatever
14 product that is more into the cleaner category than into the
15 dirtier category, because we are trying to clean the air.

16 CHAIRWOMAN SCHAFFER: I have a -- are there any
17 other questions from Board members? Yes, I have a question
18 for counsel.

19 In view of the discussion and resolution that's
20 pending, will we need to reopen the comment period, 15-day
21 comment period?

22 MR. KENNY: Yes, you will, Madam Chair. There
23 were basically 15-day modifications that were proposed by
24 staff.

25 CHAIRWOMAN SCHAFFER: Okay. Thank you.

1 At this point, if there is no other discussions
2 between staff and Board members, I'd like to close the
3 record on this agenda item.

4 The record will be, as we've just discussed,
5 reopened when the 15-day notice of public availability is
6 issued. Written or oral comments received after this
7 hearing date but before the 15-day notice is issued will not
8 be accepted as part of the official record on this agenda
9 item.

10 When the record is reopened for a 15-day comment
11 period, the public may submit written comments on the
12 proposed changes, which will be considered and responded to
13 in the final statement of reasons for the regulation.

14 At this point, just as a reminder to our Board
15 members of our policy concerning ex parte communications.
16 While we may communicate off the record with outside persons
17 regarding the Board rulemaking, we must disclose the names
18 of our contacts and the nature of the contacts on the
19 record.

20 The requirement applies specifically to
21 communications which take place after the notice of the
22 Board hearing has been published. If there are any
23 communications which you need to disclose, you should do so
24 at this time.

25 Hearing none, we now have a resolution before us,

1 and I would recommend that we take a brief pause while we
2 read the resolution. It's No. 94-50.

3 (Thereupon, there was a brief pause while
4 the members perused the resolution.)

5 CHAIRWOMAN SCHAFFER: This resolution, which the
6 Board has before it, No. 94-50, contains the staff's
7 recommendations. I'm happy to entertain a motion and a
8 second to adopt the staff proposal.

9 SUPERVISOR RIORDAN: I would so move, Madam
10 Chairman.

11 MR. CALHOUN: Second.

12 CHAIRWOMAN SCHAFFER: Motion by Supervisor Riordan,
13 and Mr. Calhoun seconds the motion.

14 MR. LAGARIAS: Madam Chair?

15 CHAIRWOMAN SCHAFFER: Yes, Mr. Lagarias.

16 MR. LAGARIAS: Am I correct in understanding that
17 the petition that has come up will be reviewed by the staff
18 and they will be reporting to us?

19 (Thereupon, Mr. Lagarias turned on his
20 microphone.)

21 MR. LAGARIAS: That having reviewed the petition
22 presented to us today, that the staff will come back with an
23 assessment of this and come back to us in this regard?

24 MR. BOYD: Yes, if it's the wish of the Board, we
25 can make a formal report to the Board and public, or we can

1 give you a written recommendation, as we often have, on
2 these petitions.

3 But you will be apprised of our view of the
4 petition most certainly.

5 MR. LAGARIAS: Fine.

6 CHAIRWOMAN SCHAFER: Okay. Very good.

7 If there is no further discussion -- yes, Dr.
8 Boston.

9 DR. BOSTON: Mr. Boyd, where does that leave us
10 with the one-wheel handheld edger? Is that something that
11 will be handled administratively?

12 MR. BOYD: No -- well, I think Mr. Cross gave you
13 an example of how that issue may be before you right now.
14 If you should so choose to modify the regulation, it can be
15 done within the context of today's noticed item. But it
16 would, you know, be part of the 15-day package if you wanted
17 to take an action to sort your way through that.

18 SUPERVISOR RIORDAN: Could it be done separate,
19 though, from the resolution?

20 MR. KENNY: I guess the easy response to that is
21 that the resolution really reflects what the Board is
22 directing the staff to do and what the Board is basically
23 adopting with regard to this regulation.

24 So, in the context of the matter before the Board
25 right now, it could be done separately from the resolution.

1 But it also then be done really separately from this Board
2 action item right now. I guess the --

3 SUPERVISOR RIORDAN: In other words, you don't
4 prefer that method.

5 CHAIRWOMAN SCHAFFER: If I understand you, unless
6 it is an amendment to this resolution, then we should take
7 it up at a different time?

8 MR. KENNY: Correct.

9 CHAIRWOMAN SCHAFFER: Does any member of the Board
10 wish to propose an amendment to the resolution before us?

11 SUPERVISOR RIORDAN: Madam Chair, just in
12 thinking, and I was going to handle it immediately
13 thereafter, would be just some instruction for the staff to
14 look at the type of edger that we just viewed. And I speak
15 very specifically to that type of edger as opposed to what
16 Mr. Lagarias was talking about, his type of edger. But,
17 obviously, those are real clear. And just handle it
18 administratively.

19 That's what I wanted to do, but I didn't realize
20 you had to couple that into this resolution.

21 MR. KENNY: You're correct. Basically, my
22 assumption was that what you were going to suggesting was a
23 regulatory amendment, and that's why I was suggesting a
24 coupling of it into the resolution.

25 To the extent that you're suggesting an

1 administrative review by the staff, that can be done
2 informally.

3 SUPERVISOR VAGIM: That goes to pothole diggers,
4 too.

5 CHAIRWOMAN SCHAFFER: We'll get to that one in a
6 second.

7 (Laughter.)

8 CHAIRWOMAN SCHAFFER: Then, having a motion and a
9 second on Resolution No. 94-50, and hearing no amendments
10 proposed thereto, I would like to ask the Board Secretary to
11 take the roll.

12 MS. LOUNSBURY: Boston?

13 DR. BOSTON: Yes.

14 MS. LOUNSBURY: Calhoun?

15 MR. CALHOUN: Yes.

16 MS. LOUNSBURY: Edgerton?

17 MS. EDGERTON: Yes.

18 MS. LOUNSBURY: Hilligoss?

19 MAYOR HILLIGOSS: Aye.

20 MS. LOUNSBURY: Lagarias?

21 MR. LAGARIAS: Yes.

22 MS. LOUNSBURY: Riordan?

23 SUPERVISOR RIORDAN: Aye.

24 MS. LOUNSBURY: Vagim?

25 SUPERVISOR VAGIM: Aye.

1 MS. LOUNSBURY: Wieder?

2 SUPERVISOR WIEDER: Yes.

3 MS. LOUNSBURY: Chairwoman Schafer?

4 CHAIRWOMAN SCHAFFER: Aye.

5 MS. LOUNSBURY: Resolution 94-50 passes 9-0.

6 CHAIRWOMAN SCHAFFER: As I mentioned before, there
7 will be a 15-day comment period for this item.

8 Now, as Mr. Boyd has said, the staff will review
9 the petition that's before us and communicate to us any
10 conclusions that they have -- analysis and conclusions that
11 they may have with respect to that.

12 Supervisor Riordan?

13 SUPERVISOR RIORDAN: My hope would be to add also
14 a request to staff just to look at those edgers that were
15 demonstrated to us today, those types of engines that maybe
16 we ought to consider them a little differently than we had
17 originally thought, and maybe come back with something
18 different.

19 MR. BOYD: We'd be glad to do that, Madam Chair,
20 and to the extent we can, report on all the developments
21 when we weave our through it. And when I say report on all
22 the developments, I have a minor little concern about any
23 chilling effect on -- what has been occurring out there is
24 there are people out there trying to devise four-stroke
25 versions of that very same piece of equipment based upon the

1 existing regulation.

2 And I'd want to know the extent of that before
3 we'd recommend a change to see if that -- if somebody's put
4 a lot of effort into it, and this suddenly leaves them with
5 an investment for naught.

6 But, yes, it just adds to the complication, but we
7 will be glad. And, quite frankly, sitting here, I'm like
8 you, taking this in isolation, I would agree the juice isn't
9 worth the squeeze. But when you look at the whole orange
10 grove, why, it gets a little more complicated.

11 CHAIRWOMAN SCHAFER: Mr. Lagarias.

12 MR. LAGARIAS: I'd like to advise the staff, in
13 considering that petition, with regard to extending the time
14 for the Tier I standard, that in no way sends a message that
15 the Tier II standards, which area due for '99, would be
16 relaxed in any way. They are still, first and foremost, a
17 requirement that we hold very high. And attempting -- we
18 would not look, I'd say, warmly on a petition that says,
19 because the time is too short between Tier I and Tier II, we
20 can't meet that.

21 CHAIRWOMAN SCHAFER: Supervisor Vagim.

22 SUPERVISOR VAGIM: In the same vein of the one-
23 wheel edger, on the current regulation, you have something
24 called "auger-earth," and I would like further examination,
25 hopefully, if that includes posthole diggers.

1 CHAIRWOMAN SCHAFFER: With that understanding, the
2 staff needs no further clarification at this time. I'd like
3 to propose a break for the lunch hour, returning at about a
4 quarter to two for Item 94-7-2.

5 Thank you very much.

6 (Thereupon, the luncheon recess was taken.)

7 ---o0o--
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25