

TELECONFERENCE MEETING  
STATE OF CALIFORNIA  
AIR RESOURCES BOARD  
SCIENTIFIC REVIEW PANEL

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APPEARANCES

PANEL MEMBERS

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Jesús A. Araujo, M.D., Ph.D.

Paul D. Blanc, M.D.

Alan R. Buckpitt, Ph.D.

Stanton A. Glantz, Ph.D

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Mr. Peter Mathews, SRP Support Administration

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ASSESSMENT:

Dr. Daryn Dodge, Staff Toxicologist

Dr. Melanie Marty, Chief, Air Toxicology and Epidemiology  
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PROCEEDINGS

CHAIRPERSON FROINES: We have a quorum. Could we have members introduce themselves. I've opened the meeting and we're now presumably being recorded. And so will people who are in the Bay Area introduce themselves.

PANEL MEMBER GLANTZ: This is Stan Glantz.

PANEL MEMBER BLANC: Paul Blanc.

CHAIRPERSON FROINES: And from Davis?

PANEL MEMBER BUCKPITT: Alan Buckpitt. Good afternoon

CHAIRPERSON FROINES: And from UCLA it's?

PANEL MEMBER ARAUJO: Jesús Araujo.

CHAIRPERSON FROINES: And John Froines.

So we have a quorum and we'd like to begin. And we should begin by Melanie taking responsibility -- taking charge for OEHHA and proceeding.

OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay. Good afternoon, everyone. This is Melanie Marty from the Office of Environmental Health Hazard Assessment.

(Thereupon an overhead presentation was Presented as follows.)

OEHHA SUPERVISING TOXICOLOGIST MARTY: And with me to give the presentation is Dr. Daryn Dodge. We have a large number of people in the room, so I don't think it makes sense at this point to go around. It's largely ARB

1 and OEHHA staff. And actually I should introduce Lauren  
2 Zeise who is the new Deputy Director for Scientific  
3 Affairs at OEHHA. So Lauren is here. And also Gina  
4 Solomon who is the -- Gina, what is your title?

5 CALEPA DEPUTY SECRETARY SOLOMON: Deputy  
6 Secretary for Science and Health.

7 OEHHA SUPERVISING TOXICOLOGIST MARTY: Thank you.  
8 For Calepa.

9 Okay. Following --

10 CHAIRPERSON FROINES: Congratulations, Gina and  
11 Lauren.

12 OEHHA DEPUTY DIRECTOR ZEISE: Thank you.

13 CALEPA DEPUTY SECRETARY SOLOMON: Thanks, John.

14 CHAIRPERSON FROINES: So, Melanie, go ahead.

15 --o0o--

16 OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay. So  
17 Slide 2 is a number of acknowledgments. This just shows  
18 you the number of people that worked on this document and  
19 a number of reviewers, including folks from both OEHHA and  
20 ARB.

21 --o0o--

22 OEHHA SUPERVISING TOXICOLOGIST MARTY: Slide 3 --  
23 the next 2 slides are just a couple of introductory slides  
24 to just remind the Panel what it is we're looking at, and  
25 why we're looking at it. So the document that's being

1 discussed today is actually the second SRP review version  
2 of our technical support document for exposure assessment  
3 and stochastic analysis under the Air toxics Hot Spots  
4 Program.

5           So what is that? That's a program whereby  
6 stationary sources in California report their emissions of  
7 a specified list of chemicals. The stationary sources are  
8 prioritized by the air pollution control districts, based  
9 on these reported emissions and other factors like the  
10 distance to the nearest actual receptor, a person, living  
11 or working nearby, information on potency of toxicants,  
12 and so on.

13           The high-concern facilities then are ones that  
14 have to conduct a risk assessment using OEHHA's risk  
15 assessment guidelines. So this document, the exposure  
16 assessment guidelines, is a piece of the OEHHA risk  
17 assessment guidelines.

18           We have revised these guidelines after passage of  
19 SB 25, which required more explicit consideration of  
20 infants and children in risk assessments. So that's today  
21 we are discussing then our -- the revisions of the  
22 document that were in response to SRP comments from the  
23 April 5th meeting.

24           So the next slide --

25           CHAIRPERSON FROINES: Melanie?

1 OEHHA SUPERVISING TOXICOLOGIST MARTY: Yes.

2 CHAIRPERSON FROINES: Just one comment for the  
3 Panel. We'd appreciate it if Panel members would hold  
4 their questions until the slides were finished, so we can  
5 have a -- so you could have more freedom in your  
6 presentation.

7 OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay.  
8 Thank you.

9 --o0o--

10 PANEL MEMBER GLANTZ: It would help, Melanie,  
11 when you change them if you told us the slide number.

12 OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay.

13 Slide 4. So we're just -- a reminder that the  
14 hot spots exposure assessment guidelines and actually the  
15 entire risk assessment guidelines have to be practical,  
16 because they get applied to a wide variety of facilities.  
17 Yet, at the same time, we want them to be as comprehensive  
18 as we can within this concept of being practical to apply.

19 They have to be adaptable to many different  
20 scenarios. And they are useful to compare potential  
21 health impacts across facilities, which is one of the  
22 major utilities of the exposure assessment and risk  
23 assessment guidelines in general. And we want them to be  
24 protective of public health.

25 Okay. I'm going to turn the presentation over to

1 Daryn, who's going to walk the Panel through revisions to  
2 the document in response to their comments at the April  
3 5th meeting and comments that were sent to us by the  
4 different Panel members, and also the lead, Dr. Glantz.

5 So now we're on Slide 5.

6 --o0o--

7 OEHHA STAFF TOXICOLOGIST DODGE: All right.  
8 Thank you, Melanie.

9 Now, there's 2 main changes that we made to all  
10 chapters in which we derived variates. Those were  
11 Chapters 3 through Chapter 10. The first change that  
12 affected all those chapters was that we moved the  
13 recommendations from the back to the front,  
14 recommendations being the point estimates and the  
15 distributions.

16 The other major thing we did for all those  
17 chapters was we present both dose and cancer risk  
18 equations separately in each chapter. And this is because  
19 we have dose and risk assessed for different age groups  
20 and we have different age sensitivity factors depending on  
21 the age group as well.

22 --o0o--

23 OEHHA STAFF TOXICOLOGIST DODGE: Okay. Next  
24 slide, number 6. Now, I'll go through each chapter  
25 individually and talk about the revisions we made.



1           For Chapter 1, the comment came in that we needed  
2 more clarification on what the tier levels were doing.  
3 Now, for Tier 1, all facilities are required to conduct  
4 this Tier 1 point estimate and risk -- point estimate risk  
5 assessment using OEHHA's recommended exposure variates.

6           Facilities may choose to also conduct a  
7 stochastic assessment of exposure and risk using OEHHA's  
8 distributions to provide more information to the risk  
9 managers and the public. That's a Tier 3 level.

10          Facilities may also choose to use a site-specific  
11 point estimate or a site-specific distribution, provided  
12 they are justified. This is Tier 2 and Tier 4 levels  
13 respectively.

14   --o0o--

15          OEHHA STAFF TOXICOLOGIST DODGE:   Okay. Slide 7.  
16 Chapter 2 revisions. These are for air dispersion  
17 modeling. Revisions clarify modeling adjustments for  
18 daily 8-hour cancer risk. For non-continuous sources use  
19 an adjusted factor to estimate daily air concentrations  
20 from the annual averages. This is because the facilities  
21 determine an annual average concentration, so they need to  
22 adjust down to a daily 8-hour.

23          They can also use a model post-processing method,  
24 which, from what I understand, may be a little more time  
25 consuming and expensive process.

1           The next point is use 8-hour breathing rates to  
2 estimate dose to the worker. And this is because  
3 long-term breathing rates take into account sleeping. We  
4 don't want to underestimate the potential cancer risk.

5           The next major point, revisions clarify modeling  
6 adjustments for non-cancer hazards. This is referring to  
7 the 8-hour RELs. What we really want to know with the  
8 8-hour RELs is is there a daily 8-hour period in which the  
9 8-hour REL is exceeded?

10           For non-continuous sources use an adjustment  
11 factor, just as we did for the risk -- cancer risk above,  
12 to estimate daily 8-hour concentrations from annual  
13 averages. And they could also use the model  
14 post-processing method here as well.

15                           --o0o--

16           OEHHA STAFF TOXICOLOGIST DODGE: Slide 8.

17           In response to a comment, we clarified what the  
18 model does, and what ARB can do in cases of excessive  
19 hours of "calms" in the met data. And this was referring  
20 to very calm weather or little or no wind situations, how  
21 does the model handle that?

22           Next point, the chapter now states that  
23 deposition of emitted particles can be estimated using the  
24 AERMOD air deposition model.

25                           --o0o--

1           OEHHA STAFF TOXICOLOGIST DODGE:    Let's go on to  
2 Slide 9. Chapter 3 is the breathing rates. We now have a  
3 new breathing rate for women in their third trimester  
4 estimated from individual data and doubly-labeled water  
5 and the CSFII databases. CSFII is referring to the  
6 continuing survey of food intake of individuals. We  
7 determined breathing rates for all the other groups using  
8 these same databases.

9           And I included the table here to show the  
10 comparison to the 16 to 30 year age group, which is what  
11 we originally were intending to use the represent women in  
12 their third trimester.

13           As you can see in liters per kilogram day when  
14 normalized to body weight. Women in their third trimester  
15 are breathing -- their breathing rate is a little higher.

16   --o0o--

17           OEHHA STAFF TOXICOLOGIST DODGE:    Okay. Let's go  
18 to Slide 10. There was concern about combining breathing  
19 rates of males and females. OEHHA uses breathing rates  
20 normalized to body weight for all our dose algorithms.  
21 And this reduces the differences between the breathing  
22 rates of men and women.

23           In our previous version of the exposure document,  
24 2000 version, we found in evaluating measured breathing  
25 rates in Adams(1993) that when normalized to body weight,

1 there is little difference in breathing rate for men and  
2 women doing specific tasks.

3 --o0o--

4 OEHHA STAFF TOXICOLOGIST DODGE: Slide 11.  
5 Panel member comment. OEHHA should be able to find  
6 hospital data for VQs, this is the ratio of the volume of  
7 air to the volume of oxygen breathed, of infants less than  
8 11 months of age. And this is referring to an equation  
9 that is used to take food energy or expended energy and  
10 determine the breathing rate.

11 OEHHA looked into the available data for VQs in  
12 healthy infants. And what we found is that neonates have  
13 extremely variable breathing rates. You need a large  
14 study to get reliable estimates.

15 Also, the VQ data on infants often measured  
16 during hospitalization for illness and are not  
17 representative.

18 And the final point, many studies evaluated  
19 volumes during mechanical ventilation, which is not  
20 spontaneous breathing.

21 --o0o--

22 OEHHA STAFF TOXICOLOGIST DODGE: Okay. Slide  
23 12.

24 This chapter is the mother's milk pathway. We  
25 clarified Equation 5.5 -- or 5-5 to show that

1 multi-pathway exposure to the mother is considered for  
2 determining concentration in milk. We will add a sentence  
3 regarding which pathways are always considered and which  
4 are site specific.

5 We also added Equation 5-7 to clarify use of  
6 chemical-specific transfer coefficients, Tcos. We use an  
7 ingestion Tco for pathways subject to first-pass  
8 metabolism, including food, water, and soil ingestion  
9 pathways.

10 For the inhalation Tco, it's inhalation and  
11 dermal pathways.

12 --o0o--

13 OEHHA STAFF TOXICOLOGIST DODGE: Slide 13.

14 This is the dermal exposure to soil pathway. As  
15 a request from the Panel, we added discussion of the  
16 Kissel paper, which is also in Appendix F. The Kissel  
17 paper looked at the mismeasure of chemicals applied  
18 directly or neat to skin. Now, in most cases, we derived  
19 ABSs, or fractional absorption values, based on soil-bound  
20 chemical applied to skin. It wasn't applied directly to  
21 skin. In other words, the chemical was not applied  
22 directly to skin. And in these studies, they attempted to  
23 get as close to mono-layer as possible in terms of the  
24 soil on the skin to get a fractional absorption value.

25 Now, there are 3 chemicals in which we derived a

1 fractional absorption, in which the chemical was actually  
2 applied neat to skin. And it's because we didn't have any  
3 data of the chemical mixed with soil and then applied to  
4 skin. So in each of these 3 cases, we discussed the  
5 potential mismeasure of the fractional absorption.

6 We also added a discussion of the air-to-skin  
7 transdermal pathway for semi-volatile chemicals. This is  
8 the paper co-authored by Dr. Bill Nazaroff, in which he  
9 found that for some chemical groups the air-to-skin  
10 transdermal pathway could surpass the inhalation pathway  
11 in terms of exposure. This pathway is inherent in whole  
12 body inhalation toxicology and epidemiology studies, on  
13 which nearly all risk values are based.

14 Thus, the RELs and the CPFs, or cancer potency  
15 factors, based on air concentration inherently include  
16 this exposure route.

17 --o0o--

18 OEHHA STAFF TOXICOLOGIST DODGE: Slide 14.

19 A Panel member had asked to substantiate the  
20 statement, "Clothing is expected to at least drastically  
21 reduce exposure to the covered skin area from contaminated  
22 soil".

23 So we clarified this by adding two studies that  
24 show the protective effect of clothing.

25 --o0o--

1 OEHHA STAFF TOXICOLOGIST DODGE: Slide 15.

2 A Panel member commented that dermal  
3 absorption -- that the dermal absorption factor --

4 PANEL MEMBER GLANTZ: Excuse me. There's  
5 suddenly a big echo coming in

6 MR. MATHEWS: We're getting an echo.

7 OEHHA SUPERVISING TOXICOLOGIST MARTY: Do you  
8 guys have yours on mute. I think that might be part of  
9 the problem is we're getting -- it's feeding back through  
10 you guys's phones.

11 MR. MATHEWS: Are we okay?

12 Let's continue.

13 OEHHA STAFF TOXICOLOGIST DODGE: Back to slide  
14 15. A Panel member commented that dermal absorption --  
15 the dermal absorption factor, or ABS, for inorganic metals  
16 have a range of 0.2 to 4 percent, and that we used a  
17 default of 1 percent, which appears low.

18 We used the default ABS for 3 metals, beryllium,  
19 fluoride, and selenium because we didn't have any data on  
20 these chemicals applied to soil and then applied to skin.

21 So at the recommendation of the Panel member, we  
22 took the average of the derived ABS values for metals,  
23 including the semi-metal arsenic, and revised this 1  
24 percent default ABS to 3 percent, and applied it to these  
25 particular 3 chemicals, or metals.

1                   --o0o--

2           OEHHA STAFF TOXICOLOGIST DODGE:   Slide 16.

3           A Panel member asked how we came up with the  
4 annual dermal load for the 0 to 2 year age group noting  
5 that it is lower than the 2 to 9 year group. The  
6 reasoning for this is discussed in Section 6.4.4. And the  
7 main factor is that the 1 to 2 year age group had lower  
8 soil mass on skin than older children in a daycare study.

9           And we only had data for the 1 to 2 year age. We  
10 did have -- couldn't find any information for the 0 to 1  
11 or the infants, as we call it. Although one study  
12 observed infants remain mostly indoors and are given  
13 little opportunity for direct contact with outdoor soil.

14           So what we did is we assumed that the 0 to 1 year  
15 old infants have the same exposure as the 1 to 2, in order  
16 to avoid underestimation.

17                   --o0o--

18           OEHHA STAFF TOXICOLOGIST DODGE:   Slide 17.

19           Chapter 7. This is the home produced food  
20 exposure route. At the request of ARB, we clarified the  
21 use of recommended meat, milk, and egg transfer factors  
22 for mercury, dioxins, and furans, and the PCBs. And this  
23 is presented in Table 7.16 and 7.17. The same tables are  
24 also in Appendix K. So we made the clarifications there  
25 as well.



1                   --o0o--

2                   OEHHA STAFF TOXICOLOGIST DODGE:   Slide 18.

3                   This is a drinking water chapter.   OEHHA  
4 clarified that the recommendation for drinking water  
5 intake for pregnant women in their third trimester is that  
6 of combined adult males and females, as these values were  
7 slightly more health protective than the values derived  
8 for pregnant women by U.S. EPA.   Now, the disadvantage of  
9 the U.S. EPA data is that it includes all pregnant women  
10 not just the third trimester.

11                   --o0o--

12                   OEHHA STAFF TOXICOLOGIST DODGE:   Slide 19.

13                   The fish consumption chapter.   In response to a  
14 comment about separating body weights for males and  
15 females for fish consumption and soil ingestion estimates  
16 as well, we decided, for simplicity's sake, to keep body  
17 weights of combined genders.   This is an approach -- the  
18 practical yet comprehensive approach we discussed at the  
19 beginning.

20                   And this is because the fish consumption pathway  
21 is rarely invoked in hot spots risk assessments.   In fact,  
22 it's just 1 out of 850 that we've reviewed.   Fish  
23 consumption normalized to body weight reduces the gender  
24 differences.   And for soil ingestion, the soil ingestion  
25 rates are relatively rough estimates to begin with.

1                   --o0o--

2           OEHHA STAFF TOXICOLOGIST DODGE:    Okay.  Slide  
3  20.

4           Chapter 11.  This chapter contains information on  
5  a variety of topics, including residential exposure  
6  duration, time at home for residents, job tenure for  
7  offsite workers, and individual versus population cancer  
8  risk.  We added an introduction to tie these disparate,  
9  yet related topics together.

10                  --o0o--

11          OEHHA STAFF TOXICOLOGIST DODGE:    Slide 21.

12          A Panel member expressed concern that data on  
13  residence times is inherently truncated because it is  
14  retrospective.  OEHHA realizes this may underestimate  
15  residence times in some instances, but these data on  
16  residence times are the best we could -- we have to work  
17  with.

18                  --o0o--

19          OEHHA STAFF TOXICOLOGIST DODGE:    Okay.  Final  
20  slide, number 22.

21          This is in regard to Appendix E.  Determination  
22  of chemicals for multi-pathway analysis.  In response to a  
23  Panel member comment, Appendix E was updated to include  
24  the KOA model, which is an absorption model, using the  
25  octanol-water coefficient as a means of determining gas

1 particle partitioning.

2           If either the KOA model or the Junge-Pankow  
3 model, which is the absorption model, show a chemical as  
4 being equal to or greater than 0.5 percent particle bound,  
5 we will include it for multi-pathway assessment.

6           An example table there is at the bottom. For  
7 benzo[a]pyrene, using the Junge model, it is 87.9 percent  
8 particulate. For the KOA model, it's similar, 60.2  
9 percent.

10           Now, for mixed PCBs, Junge model is 0.86, so that  
11 is above our cutoff of 0.5 percent, so we would consider  
12 it particle for multi-pathway assessment.

13           However, by the KOA model, it is under 0.5, it's  
14 0.142. However, considering our methodology, we would  
15 consider it a particle, because it surpassed 0.5 percent  
16 with the Junge model.

17           OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay.  
18 That's it for the presentation on the revisions to the  
19 document.

20           CHAIRPERSON FROINES: Melanie, do you have  
21 anything else that you would like to comment on before we  
22 move to Stan?

23           OEHHA SUPERVISING TOXICOLOGIST MARTY: No.

24           CHAIRPERSON FROINES: Okay. The first person up  
25 for the Panel will be Stan Glantz, who was the lead on

1 this document.

2 So, Stan, take it away.

3 PANEL MEMBER GLANTZ: Well, it's very short. I  
4 mean, I've reviewed all the revisions and everything that  
5 I was concerned about has been taken care of. We also had  
6 a meeting with Melanie and her staff and me and Dr.  
7 Nazaroff about a month ago -- he's out of town right now  
8 and couldn't make the meeting -- and went over things and  
9 he was happy.

10 So I found a few typos. And there was one place  
11 I guess where I was a little confused about what you were  
12 trying to say. Let me just raise that just to get it  
13 clarified. It's on page 4-2. The last sentence of the  
14 first paragraph, where you're talking about soil  
15 ingestion. And you just say, "Pollutants found among  
16 indoor dust from many studies may misinterpret the amount  
17 contributed from stationary sources". Before you had said  
18 overestimate, so what did you really mean there?

19 OEHHA SUPERVISING TOXICOLOGIST MARTY: We  
20 really -- I saw that as well, Stan. And that was -- we  
21 intended to fix that. What we really mean is that  
22 pollutants found in indoor dust from many sources may not  
23 reflect the amount contributed from stationary sources.

24 PANEL MEMBER GLANTZ: Okay.

25 OEHHA SUPERVISING TOXICOLOGIST MARTY: So what

1 we're getting at is there is -- and we used lead as an  
2 example, because there was multiple sources of many  
3 chemicals. If you go and measure the dust, it's pretty  
4 hard to say what percentage of chemical X came from the  
5 stationary source versus another source.

6 PANEL MEMBER GLANTZ: Okay. Well, that's fine.

7 OEHHA SUPERVISING TOXICOLOGIST MARTY: Yeah. So  
8 we really need to fix that.

9 PANEL MEMBER GLANTZ: Other than that, I don't  
10 have anything to say.

11 OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay. I  
12 do have to --

13 PANEL MEMBER GLANTZ: I found a few typos, which  
14 I send you.

15 OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay.  
16 Thanks, Stan. Yes, I also found a bunch of typos. And I  
17 have to say we have to go through and fix the formatting,  
18 including the section numbering, which got bollocksed up  
19 in a couple of chapters.

20 PANEL MEMBER GLANTZ: So anyway, Paul, do you  
21 want to say anything?

22 CHAIRPERSON FROINES: Paul, you are the next  
23 person.

24 PANEL MEMBER BLANC: Well, since we have the mute  
25 button off, can I ask if -- this may already be in there,

1 but I assume when you say breathing rate, you mean  
2 ventilatory rate?

3 OEHHA SUPERVISING TOXICOLOGIST MARTY: Yeah.  
4 Paul, what we are using to estimate dose from inhalation  
5 is breathing rate in terms of liters per kilogram body  
6 weight day.

7 PANEL MEMBER BLANC: Yeah. No, I mean it's  
8 obvious in the units that it's ventilatory rate or  
9 ventilation.

10 OEHHA SUPERVISING TOXICOLOGIST MARTY: Yeah. We  
11 use those 2 terms interchangeably. Although, in the  
12 literature, a lot of people think when you say ventilation  
13 rate, they're thinking of minute ventilation. So it is  
14 confusing and we're hoping that the way we've written the  
15 chapter it's clear what we're talking about.

16 PANEL MEMBER BLANC: Do you think -- well, I  
17 mean, the issue is that you don't mean respiratory rate,  
18 which is what is the interpretation, which would be  
19 inappropriate. So can you just with one asterisk the  
20 first time you use breathing rate and a footnote on the  
21 page say by breathing rate -- for convenience, the term  
22 "breathing rate" will be used throughout. It means  
23 ventilatory rate --

24 OEHHA SUPERVISING TOXICOLOGIST MARTY: Sure.

25 PANEL MEMBER BLANC: -- not respiratory rate? So

1 that nobody else goes down that wrong pathway.

2 OEHHA SUPERVISING TOXICOLOGIST MARTY: Sure.

3 Okay. We'll mark that down.

4 PANEL MEMBER GLANTZ: Anything else?

5 PANEL MEMBER BLANC: Is fluoride a metal?

6 CHAIRPERSON FROINES: No.

7 OEHHA SUPERVISING TOXICOLOGIST MARTY: No.

8 PANEL MEMBER BLANC: Oh and maybe just -- if that  
9 only appears in the slide, that's fine, but if you say  
10 that in the next, you might want to clean that up.

11 OEHHA STAFF TOXICOLOGIST DODGE: Right, it only  
12 applies in the slide.

13 CHAIRPERSON FROINES: It's important to clarify  
14 that.

15 PANEL MEMBER BLANC: All right. That's it.  
16 Thanks.

17 OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay.  
18 Stan mentioned --

19 CHAIRPERSON FROINES: Paul -- excuse me, Melanie.  
20 Paul, are you finished?

21 PANEL MEMBER BLANC: Yes.

22 CHAIRPERSON FROINES: And you're satisfied with  
23 what you've heard today?

24 PANEL MEMBER BLANC: Yes.

25 CHAIRPERSON FROINES: Okay. So that the next

1 person is Alan Buckpitt from Davis.

2 PANEL MEMBER BUCKPITT: Hi, John. I thought the  
3 document was pretty decent when we first looked at it. I  
4 really liked the fact that the conclusions were moved up,  
5 the summary was moved up to the front of the Chapter. I  
6 thought that made things a lot easier to read. I found a  
7 couple wording type of things, but nothing serious, and I  
8 can send those along. But I thought this was quite well  
9 done and liked the clarifications.

10 CHAIRPERSON FROINES: Okay. Thank you.  
11 Jesús.

12 PANEL MEMBER ARAUJO: Yeah, this is my first  
13 opportunity of looking at the document since I didn't  
14 really go through the first meeting. But I don't really  
15 have any objections to this.

16 CHAIRPERSON FROINES: So, at this point, we have  
17 unanimity and so does -- is there further discussion?

18 OEHHA SUPERVISING TOXICOLOGIST MARTY: John, can  
19 I just clarify one thing?

20 CHAIRPERSON FROINES: Please.

21 OEHHA SUPERVISING TOXICOLOGIST MARTY: That when  
22 Stan mentioned that OEHHA staff -- Stan, who's lead on the  
23 document -- met with Bill Nazaroff and that Nazaroff was  
24 satisfied with how we addressed his comments, I just want  
25 to point out that those were some of the changes that we



1 just talked about in the slide. So those are the things  
2 that changed in response to Dr. Nazaroff.

3 CHAIRPERSON FROINES: Yeah. I don't think we  
4 have to point out each change that was his. It's -- I  
5 think it's okay. People recognize Bill's input as we were  
6 going through, I think.

7 OEHHA SUPERVISING TOXICOLOGIST MARTY: Okay.

8 CHAIRPERSON FROINES: So I have no comments at  
9 this point.

10 Is there further discussion?

11 PANEL MEMBER BLANC: No. I'd like to move the  
12 question. I'd like to move that the document be accepted  
13 presuming the minor typographical and related corrections  
14 are made.

15 PANEL MEMBER GLANTZ: Second.

16 CHAIRPERSON FROINES: Second for that?

17 PANEL MEMBER GLANTZ: Yes, I second. Stan  
18 seconds.

19 CHAIRPERSON FROINES: Any further discussion?

20 Not hearing none, we'll take a voice vote.

21 So Stan?

22 PANEL MEMBER GLANTZ: Yes.

23 CHAIRPERSON FROINES: Paul?

24 PANEL MEMBER BLANC: Yes.

25 CHAIRPERSON FROINES: Alan?

1 PANEL MEMBER BUCKPITT: Yes.

2 CHAIRPERSON FROINES: Jesús?

3 PANEL MEMBER ARAUJO: Yes.

4 CHAIRPERSON FROINES: And I'm a yes.

5 So that we have a unanimous vote, positive vote.

6 And that's it for today, in terms of the items on the  
7 agenda that we're going to discuss.

8 So, Paul, do you want to make a motion further?

9 PANEL MEMBER BLANC: I'd like to move that we  
10 adjourn the meeting.

11 CHAIRPERSON FROINES: Stan, anybody else?

12 PANEL MEMBER GLANTZ: I'll second it.

13 CHAIRPERSON FROINES: Good.

14 Discussion?

15 Hearing no discussion, take a vote.

16 Stan?

17 PANEL MEMBER GLANTZ: Yes.

18 CHAIRPERSON FROINES: Paul?

19 PANEL MEMBER BLANC: Yes.

20 CHAIRPERSON FROINES: Alan?

21 PANEL MEMBER BUCKPITT: Yes.

22 CHAIRPERSON FROINES: Jesús?

23 PANEL MEMBER ARAUJO: Yes.

24 CHAIRPERSON FROINES: And I'm a yes. So --

25 PANEL MEMBER GLANTZ: Can I say one thing before

1 you actually adjourn. I just wanted to thank Melanie and  
2 her staff for doing a really good job on this document. I  
3 think we got through this quite quickly, because it was so  
4 well done, and because they were very responsive to the  
5 comments too. So I think they deserve a round of  
6 appreciation.

7 PANEL MEMBER BUCKPITT: I agree, Stan.

8 CHAIRPERSON FROINES: I think you're right. I  
9 would also say, in addition, I think the Panel made very  
10 good comments on the document and really helped improve  
11 it, and so we both benefited from the process. So I  
12 appreciate both the Panel and the OEHHA staff for their  
13 efforts.

14 OEHHA SUPERVISING TOXICOLOGIST MARTY: Thank you  
15 very much.

16 CHAIRPERSON FROINES: So the meeting is closed.

17 (Thereupon the California Air Resources Board,  
18 Scientific Review Panel adjourned at 2:47 p.m.)

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CERTIFICATE OF REPORTER

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

That I am a disinterested person herein; that the foregoing California Air Resources Board, Scientific Review Panel meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California;

That the said proceedings was taken before me, in shorthand writing, and was thereafter transcribed, under my direction, by computer-assisted transcription.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 28th day of June, 2012.

\_\_\_\_\_

JAMES F. PETERS, CSR, RPR  
Certified Shorthand Reporter  
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