

STATE OF CALIFORNIA  
ENVIRONMENTAL PROTECTION AGENCY  
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

GREEN RIBBON SCIENCE PANEL  
MEETING

VOLUME I

Cal/EPA HEADQUARTERS  
COASTAL HEARING ROOM, 2ND FLOOR  
1001 I STREET  
SACRAMENTO, CALIFORNIA

THURSDAY, MAY 5, 2011

1:00 P.M.

EHLERT BUSINESS GROUP

(916) 851-5976

APPEARANCESGreen Ribbon Science Panel Members

William F. Carroll, PhD, Co-Chair

Ken Geiser, PhD, Co-Chair

Ann Blake, PhD

Jae Choi, PhD

George P. Daston, PhD

Tod Delaney, PhD

Richard Denison, PhD

Arthur T. Fong, PhD

Joseph Guth, PhD

Lauren Heine, PhD

Dale Johnson, PhD

Michael Kirschner

Richard Liroff, PhD

Timothy F. Malloy, JD

Roger McFadden, PhD

Kelly Moran, PhD

Robert Peoples, PhD

Julia Quint, PhD

Julie Schoenung, PhD

Megan R. Schwarzman, MD

Michael P. Wilson, PhD

Julie B. Zimmerman, PhD (via Webcast)

California Environmental Protection Agency

Linda S. Adams, Secretary

DTSC Staff

Odette Madriago, Chief Deputy Director

Kathryn Barwick

Colleen Heck, Senior Staff Counsel

Radhika Majhail

Hortensia Muñiz-Ghazi

Evalia Rodriguez

Jeffrey Wong, PhD

Corey Yep

Also Present

Deborah Raphael  
City and County of San Francisco

Maia Jack, PhD  
Grocery Manufacturers Association

Dawn Koepke  
Green Chemistry Alliance

Gene Livingston  
American Cleaning Institute

INDEX

	<u>Page</u>
1. Welcome	5
Opening Remarks	
Co-Chair Carroll	5
Introductions	10
Cal/EPA Secretary Adams	13
DTSC Chief Deputy Director Madriago	14
2.The Green Ribbon Science Panel Subcommittee Process: a Debrief	16
3.De Minimis/Unintentionally-Added Chemicals GRSP Subcommittee Report, Discussion & Advice	36
Public Comment	
Dr. Maia Jack	54
Dawn Koepke	55
Gene Livingston	58
GRSP discussion and advice	62
Decision Point 1	63
Decision Point 2	85
Decision Point 3	99
Decision Point 4	113
Decision Point 5	134
Second Day Agenda Briefing	141
4. Adjourn for the day	151
Certificate of Reporter	152



1 and a few more -- Okay. All right. Thank you Dr. Daston.  
2 I don't know what you're doing but that's all right  
3 (laughter).

4           So, first of all, some logistics. As you know  
5 you're on the second floor of the Cal EPA Building. The  
6 restrooms are out into the foyer and to your left and then  
7 on the right again. So as to the exit, you know how to get  
8 out because you came in, so right down the stairs and out  
9 the door.

10           I want to mention that there's a little lunch room  
11 downstairs. So when we have a break you can go the stairs  
12 and towards the east side of the building there's a little  
13 lunchroom. But they're only open until 3:30 so if you need  
14 anything you need to get that before then.

15           So I want to just talk a minute about the packet  
16 for you Science Panel members. The agenda and materials for  
17 today's discussion are on the right hand side and tomorrow's  
18 are on the left. And I'm not going to say more about that  
19 because Odette and your Co-Chairs will kind of lead you  
20 through which document you might need to be referring to as  
21 we go through the meeting.

22           So a very short agenda review. We're going to do  
23 some introductions. The panelists will identify themselves.

24           We'll have some opening remarks from Chief Deputy  
25 Director Odette Madriago and perhaps from Linda Adams, Cal

1 EPA secretary. I don't see her here yet but we're expecting  
2 her.

3 And then we're going to have a short discussion  
4 and review of the subcommittee process that you guys have  
5 just gone through. We would like to hear your thoughts  
6 about how you feel about that process. And just so that you  
7 know, we're going to circle back to that discussion on  
8 Friday afternoon so you have an opportunity to really assess  
9 how that worked in the context of the full meeting.

10 So Odette will then review some of the outcomes  
11 from the Subcommittee 3.

12 Today's discussion will be Bill's subcommittee on  
13 de minimis and unintentionally-added chemicals. We will  
14 then have a public comment period followed by panel  
15 discussion and we'll adjourn for the day.

16 I want to talk a little bit about the public  
17 comment period. For those members of the public here today  
18 we welcome you And you are encouraged to provide comments to  
19 the panel. If you would, it would help us manage the time  
20 if you would fill out a comment card and those are on the  
21 registration table. And Radhika will be coming back and she  
22 will be collecting those.

23 So, let's see. for members of the public that are  
24 watching on the webcast, we welcome you as well. And you  
25 may submit comments and you can do those anytime before the

1 public comment period to green.chemistry@dtsc.ca.gov.

2           And tomorrow we will do a short introduction and  
3 we're going to have a similar schedule with Odette giving  
4 you some information about the outcome in going through some  
5 of the regulatory options, followed by public comment,  
6 followed by grass discussion and advice.

7           And, as you can see, we have combined the first  
8 two subcommittees, the product and chemical prioritization  
9 and identification for tomorrow's discussion.

10           One more thing: Your microphone, you need to push  
11 the little tab on the front, on, and then if you push again  
12 it'll turn off. So you might want to keep track about  
13 whether that's on or off; a little green light will come on.

14           And I think, oh, one more word about the public  
15 comment process. We're going to do some self introductions  
16 and so you'll get to know Radhika. We want to limit  
17 comments to three minutes. Our Co-Chairs will have  
18 prerogative to manage that process if there's extra time.  
19 And don't forget you're addressing the Panel not the  
20 Department.

21           And I think that's it.

22           CO-CHAIR CARROLL: Very good, thank you Kathy.  
23 And I want to take a minute to congratulate you, if I  
24 understand correctly, you're CD is out. Is that correct?

25           (Applause)

1 CO-CHAIR CARROLL: And will be available for sale  
2 at the table outside (laughter).

3 MS. BARWICK: Well, I didn't bring that many in  
4 but maybe tomorrow. Thank you very much. I appreciate  
5 that.

6 CO-CHAIR CARROLL: Very good.

7 CHIEF DEPUTY DIRECTOR MADRIAGO: Kathy, did you  
8 want to say something about dinner?

9 MS. BARWICK: Oh, thank you. Panel members will  
10 be adjourning for dinner this evening at a local brew pub  
11 and I am collecting money. I have an envelope on the desk  
12 with your exact amount that you owe. And it would be really  
13 great if sometime today, we can get together, I'll collect  
14 your cash and then you guys can go over there and have a  
15 nice meal. Please, we need to get that before you leave  
16 today's meeting. So I'll hand that money over to Odette and  
17 she'll handle it from then on. Thanks Odette.

18 CO-CHAIR CARROLL: Very good, thank you Kathy.

19 Odette, now I want to ask a question. Do you want  
20 to make opening remarks now or shall we do it introductions  
21 and wait and see if the Secretary comes?

22 CHIEF DEPUTY DIRECTOR MADRIAGO: Excellent idea.  
23 I hear she's on her way. So let's stall a little bit and do  
24 some introductions.

25 CO-CHAIR CARROLL: Very good. So you usually this

1 is the time when Jeff Wong attempts to introduce us all but  
2 we've decided not to let him do that his time.

3 We're just going to do self introductions and I  
4 will start and then pass it to my left. I'm Bill Carroll,  
5 Occidental Chemical Corporation.

6 CO-CHAIR GEISER: Ken Geiser, University of  
7 Massachusetts, Lowell and one of the Co-Chairs.

8 MS. RAPHAEL: Debbie Raphael, City and County of  
9 San Francisco.

10 CO-CHAIR CARROLL: And more to come.

11 DR. WONG: Jeff Wong, DTSC.

12 PANEL MEMBER BLAKE: Ann Blake, independent  
13 consultant.

14 PANEL MEMBER McFADDEN: Roger McFadden, Staples.

15 PANEL MEMBER DELANEY: Tod Delaney, First  
16 Environment.

17 PANEL MEMBER DASTON: George Daston, Proctor and  
18 Gamble.

19 PANEL MEMBER MORAN: Kelly Moran, TDC  
20 Environmental.

21 PANEL MEMBER JOHNSON: Dale Johnson, Emiliem and  
22 UC Berkeley.

23 PANEL MEMBER WILSON: Mike Wilson at the Center  
24 for Occupational and Environmental Health and the Center for  
25 Green Chemistry at UC Berkeley.

1 PANEL MEMBER LIROFF: Richard Liroff, the Investor  
2 Environmental Health Network, Falls Church, Virginia.

3 MS. RODRIGUEZ: Evalia Rodriguez, DTSC.

4 MS. YEP: Corey Yep, DTSC.

5 MS. MUÑIZ-GHAZI: Hortensia Muñiz, DTSC.

6 MS. HECK: Colleen Heck, DTSC.

7 PANEL MEMBER FONG: Art Fong, IBM Corporation.

8 PANEL MEMBER DENISON: Richard Denison,  
9 Environmental Defense Fund.

10 PANEL MEMBER PEOPLES: Bob Peoples, The American  
11 Chemical Society, Green Chemistry Institute.

12 PANEL MEMBER GUTH: Joe Guth, Berkeley Center for  
13 Green Chemistry and Science and Environmental Health  
14 Network.

15 PANEL MEMBER KIRSCHNER: Mike Kirschner, Design  
16 Chain Associates.

17 PANEL MEMBER SCHWARZMAN: Meg Schwarzman, UC  
18 Berkeley Center for Occupational and Environmental Health  
19 and I also see I have my UCSF affiliation on here. I'm an  
20 associate physician there.

21 PANEL MEMBER CHOI: Jae Choi at Avaya.

22 PANEL MEMBER QUINT: Julia Quint, retired from the  
23 California Department of Public Health, Hazard Evaluation  
24 System and Information Service.

25 CHIEF DEPUTY DIRECTOR MADRIAGO: Odette Madriago,

1 Department of Toxic Substances Control.

2 CO-CHAIR CARROLL: Lauren would you care to  
3 introduce yourself since you came in after it went past you.

4 PANEL MEMBER HEINE: Lauren Heine, Clean  
5 Production Action.

6 CO-CHAIR CARROLL: Very good, thank you. And just  
7 as a note, you're going to have to hit the button on the --

8 CHIEF DEPUTY DIRECTOR MADRIAGO: And Julie also.

9 CO-CHAIR CARROLL: Oh, hi Julie, I didn't see you  
10 come in, yes please.

11 PANEL MEMBER HEINE: We apologize for being late.  
12 Lauren Heine, Clean Production Action.

13 PANEL MEMBER SCHOENUNG: Julie Schoenung, UC  
14 Davis.

15 CO-CHAIR CARROLL: All right, very good. Pots  
16 right, I guess, at this point. Odette, would you care to  
17 introduce the Secretary?

18 CHIEF DEPUTY DIRECTOR MADRIAGO: I think you all  
19 know Linda; she was gracious enough to give us opening  
20 remarks at our teleconference back in February.

21 And she's very excited with all of the work you've  
22 been doing and wanted to join us today and give some opening  
23 remarks. So, Secretary Adams?

24 SECRETARY ADAMS: Thank you very much Odette. And  
25 I just arrived back in the country about 3 a.m. so please

1 forgive me, I'm trying to wake up here.

2 This is really an extraordinary group that we have  
3 here today. You know, in December I made a very tough  
4 decision to hold the green chem regulations.

5 I think it was the right decision. I think we all  
6 agree that we need a science-based approach to these  
7 regulations and I felt that we needed to make much better  
8 use of the tremendous amount of expertise that we have on  
9 this Panel.

10 And I really, really appreciate all the time that  
11 you all have put into this. I know you have gone above and  
12 beyond to help us get these regulations back on track.

13 You know, we have not only the best minds in the  
14 state but in the country to help us here. So we need to  
15 make the maximum use of all this expertise. It will be of  
16 huge value.

17 So I really, again, I really, really appreciate  
18 you all hanging in with us and you'll be rewarded in your  
19 next life, I'm sure (laughter).

20 And I know today is a big day, some big decisions  
21 to be made on some very tough issues. So again, thank you  
22 so much for being here.

23 CO-CHAIR CARROLL: Thank you Secretary. So at  
24 this point on the schedule you see something called, GRSP  
25 Subcommittee process, a debrief.

1           SECRETARY ADAMS: Can I -- I apologize, I forgot  
2 to congratulate Debbie. Where's Debbie? Oh, there you are.

3           I was very thrilled to see the announcement that  
4 our Governor has appointed Debbie Raphael, did I pronounce  
5 that right? Good. As Director of DTSC. The choice could  
6 not have been a better one and not a minute too soon.

7           So welcome to Debbie. I'm absolutely thrilled and  
8 there's really no better person to step in and take over  
9 this job. So, congratulations to Debbie.

10          (Applause).

11          CO-CHAIR CARROLL: Debbie, do you want to take a  
12 minute and talk about how your interaction with the Panel  
13 will be over the course of the next two days.

14          MS. RAPHAEL: Yes.

15          CO-CHAIR CARROLL: Okay.

16          CHIEF DEPUTY DIRECTOR MADRIAGO: I'll cover that.

17          So my turn for some opening remarks. First of  
18 all, I really want to thank all of you for the time, effort  
19 and thought that you've put in over the last month or so  
20 preparing for today's meeting.

21          You all spent a lot of time preparing for and  
22 participating in our conference calls and then providing  
23 input afterwards. And it's been very helpful for us. We  
24 got some very divergent but very concrete and specific  
25 recommendations and thoughts. So I just want to start by

1 saying thank you and acknowledging that.

2 Then I do want to say a few words to try to  
3 clarify Debbie's status. She has been appointed by the  
4 Governor as our new Director. However, her official start  
5 date is not until May 23rd.

6 So, she's in, with respect to the Panel, a little  
7 bit of a limbo role because in view of her impending actual  
8 appointment she has made the appropriate decision to step  
9 down from the Panel. But she can't yet actually, officially  
10 act as our Director.

11 So we have asked her, though, to be here today to  
12 be in a very active listening role, which I think is very  
13 appropriate for going forward. So she will be listening to  
14 all of you, and as is appropriate for active listening, at  
15 times she may step in and ask for more specifics and  
16 clarification on your thoughts.

17 One final word on the agenda, we are, for the rest  
18 of the day -- well, Bill is going to talk to you a little  
19 bit about what you thought about the process we've been  
20 through and then we'll devote most of the day to discussing  
21 the topic of de minimis and unintentionally-added chemicals.

22 If we have some time at the end of the agenda,  
23 just very briefly, I'm just going to get your thought  
24 processes started for tomorrow's discussion on chemical and  
25 product prioritization. It will only be about a 15, 20

1 minute conversation just to get you thinking about it  
2 tonight.

3           So with that, I think I turn it over to Bill.

4           CO-CHAIR CARROLL: Very good. Thank you Odette.  
5 And I would say that it's going to be my goal in that  
6 section to bring us to a point where we can have 15 or 20  
7 minutes to talk about the topic for tomorrow because I think  
8 just by its nature it is a more complex topic and it will be  
9 worth you having had the opportunity to think about it  
10 overnight. So just to let you know, I'm going to try to  
11 structure the discussion to end the de minimis discussion in  
12 the 4:30 time frame rather than 4:50.

13           So, now we've been through a little bit different  
14 process this last time and we made the decision actively to  
15 create some subcommittees and to divide up some topics for  
16 discussion. And to do it in a way that would give  
17 individuals more air time, more of an opportunity to have a  
18 dialogue with others on the Panel on a topic.

19           We haven't done it this way before. We did it in  
20 some ways relatively arbitrary. We asked you the sorts of  
21 things that you would be interested in and we then assigned  
22 you to a subcommittee and asked that you participate in only  
23 one subcommittee in order to, in order, once again, to  
24 preserve that air time for others.

25           Then, through that process you had approximately

1 six hours of discussion time. In many cases we asked you  
2 for something of a written report out back to DTSC about the  
3 process. And now here we are back together again face-to-  
4 face. And I thought it would be worthwhile, at the  
5 beginning of this discussion, to ask you, what did you  
6 think?

7 Now what I'd like you not to do is to talk about  
8 how you want to go forward. I want to save that discussion  
9 for tomorrow after we've seen how this all plays out in the  
10 next two days.

11 But if you'd like to please take this opportunity  
12 to give us some feedback on the pros and cons of the process  
13 and what parts you liked and what parts you didn't like.

14 The floor is open.

15 MS. BARWICK: Bill, may I? this is Kathy. I  
16 apologize. I'm over here.

17 CO-CHAIR CARROLL: Oh, you're over there.

18 MS. BARWICK: I just remembered something that we  
19 should have done in the introductions. And I just want to  
20 let people know that Dr. Julie Zimmerman is participating  
21 this afternoon via webcast and may be submitting comments  
22 through our mailbox. So I just wanted to, I want to  
23 acknowledge her participation and let you all know that that  
24 could be happening. My apologies for interrupting.

25 CO-CHAIR CARROLL: All right, very good. Megan I

1 see your flag. Go ahead.

2 PANEL MEMBER SCHWARZMAN: Thanks. First of all I  
3 want to thank the DTSC staff for all of the obvious work  
4 that it took to outline the questions, put together the  
5 subcommittees, conduct the meetings. And it wasn't a  
6 perfect process, not all of us could make all the meetings,  
7 but I think that was an excellent move and it was well done.

8 In terms of my experience on Subcommittee 1, this  
9 is obviously a tremendously large topic and it's a large  
10 part of the regulatory process that needs to be completed.

11 Nobody at this point wants to step away from  
12 details. DTSC is trying to get more concrete, not less.  
13 And yet I felt the absence of guiding principles and it may  
14 have been more helpful.

15 So I just want to draw attention for those who  
16 were not on the subcommittee and haven't read the questions  
17 maybe in detail. There were three questions, 1A through 1C,  
18 and 1B has eight sub-parts. And this just reflects, it's no  
19 fault of DTSC as it reflects the complexity of the  
20 situation.

21 But sub-part, I believe it's, seven or something.  
22 Oh no, that's not the right one. But in any case, one of  
23 those sub-parts to one of the questions was something about,  
24 when you prioritize chemicals should it be based on hazard  
25 traits that were identified by OEHHA and if so, which ones?

1 And so one sub-part of one of the three questions felt to  
2 me like something we could have devoted both calls of the  
3 subcommittee on.

4 And so, if we're going to take on questions like  
5 that I feel like it, what may, after our experience, may  
6 have been more helpful, is actually to retreat to the larger  
7 questions, to establish what is it that we're trying to  
8 accomplish by doing this.

9 And once we have the guiding principles for the  
10 goal of identifying priority chemicals is X, Y and Z, then  
11 we know how to answer the more specific questions.

12 So I know it's difficult to stomach stepping back  
13 from specifics when what DTSC really needs is concrete  
14 proposals but I think it will actually help us get there.  
15 And I felt the absence of that with this process.

16 CO-CHAIR CARROLL: Thank you Megan. Mike.

17 PANEL MEMBER WILSON: Thank you, Bill. Yeah, I  
18 think, I thought this was a good idea when the Panel first  
19 came up with it and I continue to support it.

20 And I think the process we went through was  
21 successful in gathering more focused attention from the  
22 members and more focused and concrete input, at least on  
23 Subcommittee 3 that had to do with priority products.

24 And I think I would echo Dr. Schwarzman's point  
25 about as we're moving forward what are the guiding

1 objectives, the guiding principles that we're attempting to  
2 achieve now?

3           And then, how do we best gather this group's input  
4 without -- in a way that is also focused and with a degree  
5 of granularity that is concrete and we don't end up in a  
6 sort of open discussion that is, leaves DTSC a little bit at  
7 sea again.

8           CO-CHAIR CARROLL: Thank you. Other thoughts? Go  
9 ahead Dale.

10           PANEL MEMBER JOHNSON: Yeah, I was on Subcommittee  
11 3. And what the Subcommittee really needs is a really good  
12 facilitator and chairperson to lead it. And fortunately,  
13 that was Bill. And Bill just did an exceptional job keeping  
14 everything on focus, not letting it drift and so it was  
15 really a good job.

16           And I think what was interesting about it, you got  
17 to look at it in detail and I think everything got on the  
18 table, every view, every opposing view and everything was on  
19 the table and discussed.

20           So I think it actually really worked well.

21           CO-CHAIR CARROLL: Well, and thank you for the  
22 compliment. Ken.

23           CO-CHAIR GEISER: There was also a variation on  
24 that different subgroups in which a couple of times, at  
25 least in some subgroups, we asked for people to do homework.

1 That is, we asked people to step, to do some work between  
2 the calls. And we were really interested in your experience  
3 of that as well. So does anybody have comments on that? It  
4 would be helpful.

5 CO-CHAIR CARROLL: I see Julia, go ahead.

6 PANEL MEMBER QUINT: Okay. Julia Quint. First  
7 I'd like to say that I started off being a little unsure  
8 that this was going to work because I was on Subcommittee 1  
9 and we were the first. So we were the guinea pigs for the  
10 process. And, so it was -- the first meeting was a little,  
11 I felt I didn't, I wasn't sure whether or not we were being  
12 helpful or just sort of random, you know, free associating.

13 But I found the process very helpful. And I  
14 listened to all of the subcommittees in between which was a  
15 lot of time by the way. But it was very helpful to see, to  
16 hear everybody on the various subcommittees and the points  
17 that sort of were interwoven in this whole process, like  
18 products in chemicals and prioritizing those. There was a  
19 lot of overlap.

20 But the de minimis also impacted some of the  
21 discussion for the chemical prioritization.

22 So I thought for the first time that it gave the  
23 Green Ribbon Science Panel separate air time which, I think,  
24 was the thought when we were convened, is to hear from the  
25 Science Panel.

1           And I thought the subcommittee process allowed us  
2 to do that or it allowed me to do that.

3           I also think a way to maybe, aside from some of  
4 the earlier comments, is to, the homework was very  
5 important. I mean it really forced me to go back and  
6 actually read a lot more.

7           I think Tim Malloy had some attachments that were  
8 very, very helpful to me in forming some of my thoughts.

9           So I think the homework is a good idea. I also  
10 think a good idea is to have people write down.

11           Subcommittee 3 I thought was excellent in that  
12 regard. You know, having people write down their thoughts  
13 because you can tend to sort of roam when you're thinking  
14 which is not bad but it isn't concrete.

15           And so I think as we go forward if we have more of  
16 these, and I hope we do; I think having people just  
17 concretize their thoughts by putting them in writing is  
18 really a good idea. Thanks.

19           CO-CHAIR CARROLL: Thank you Julia. Tim, you've  
20 come in. Would you care to introduce yourself.

21           PANEL MEMBER MALLOY: Thank you, sorry, my plane  
22 was delayed. My name is Timothy Malloy. I'm a professor of  
23 law from UCLA Law School.

24           CO-CHAIR CARROLL: Thank you. Kelly I see your  
25 flag.

1           PANEL MEMBER MORAN: I just wanted to briefly echo  
2 what Meg said about the construction. Note that I felt a  
3 little sense of frustration of not being in the room a few  
4 times with folks and particularly with Odette.

5           I think Odette was sitting there nodding her head  
6 agreeing with stuff and saying, I totally understand that,  
7 let's move on and I didn't realize that.

8           So I think that process-wise we need to think a  
9 little bit about kind of how that all works. Because we  
10 know each other a bit but when you know each other better  
11 it's easier to proceed to a phone conversation. And that  
12 may have to do with the structuring and how we charge the  
13 groups.

14           I also want to comment that I think that the way  
15 this happened where it kind of forcing everybody to be in  
16 three groups and trying to them all in a compressed period  
17 of time created some awkwardness that maybe doesn't need to  
18 be replicated.

19           And it also required a pretty heroic effort on  
20 Odette's part in particular; doing that and putting together  
21 all the stuff for the meeting and I'm a little worried about  
22 the requirement of doing that in the future.

23           But I do want to thank everyone because I think a  
24 lot of folks put together a lot of good stuff.

25           And then the last thing is, I think it would have

1 helped, at least me a lot, to have seen, even if they were  
2 just brief notes, if there were a specific question where  
3 members could have provided a little brief note before the  
4 conversation then we would start having some idea what  
5 people were thinking about.

6           So for future subcommittees we might be able to  
7 get pretty far in one meeting if there was a specific  
8 question and a few brief thoughts, you're not asking for  
9 really detailed treatises. But then we would start having  
10 an understanding of what kinds of issues folks were thinking  
11 about in their brains and be more likely to provide  
12 productive advice to the Department.

13           CO-CHAIR CARROLL: Thank you Kelly. Art.

14           PANEL MEMBER FONG: Thank you Bill. I was on  
15 Subcommittee 1 and my experience was that we actually had a  
16 great opportunity to go into the scientific end policy  
17 issues in a much greater detail than we were able to do  
18 during the regular meetings.

19           However, the frustration that I had, and maybe  
20 because this wasn't part of the process, is that after Ken  
21 was able to, you know, direct us and maneuver us through the  
22 process is that, you know, I get a sense that, what next?  
23 Where do we go from here? So that was my frustration.

24           And again, maybe because that just wasn't part of  
25 the, you know, the objective of the various subcommittees.

1 Thank you Bill.

2 CO-CHAIR CARROLL: Well, and thank you all for  
3 your feedback. Are there others who would like to weigh in  
4 here?

5 Let me just take a minute and I'll stall to see if  
6 there are any more ideas that come out. Remember, this was  
7 an opportunity to sort of expand what we're doing.

8 I think we all felt, have felt similar frustration  
9 in having the meetings as we've had them in which there  
10 really wasn't enough time to fully develop a topic or the  
11 discussion.

12 And, in a way, what I hear some of you saying is,  
13 even with another six hours of subcommittee calls it wasn't  
14 enough time to fully develop the discussion. Which suggests  
15 to me that if we'd tried to compress it into, you know, one  
16 of our face-to-face meetings the frustration would have  
17 been, you know, even greater than it was.

18 So it's not an absolute thing, maybe it's a  
19 relative thing. And on a relative basis in spite the fact  
20 that you didn't feel that you had all the time that you  
21 might have wanted maybe this was a better approach.

22 I also want to echo the amount of effort that was  
23 put in by Odette and staff on shaping this up beforehand and  
24 afterward. This was no mean feat.

25 And I think from the materials prepared beforehand

1 we had -- as Co-Chairs some input on to that and helping it.

2 But afterwards assembling it for us into the packages that  
3 you have for today I thought it's a marvelous job to develop  
4 some concrete options that we can talk about. And I'll talk  
5 about how we'll structure that discussion a little bit later  
6 on. Bob.

7 PANEL MEMBER PEOPLES: Thank you Chair. Bob  
8 Peoples. You know, I would, I would say that I did not hear  
9 anything in all the comments that were made that I would  
10 disagree with it at this point in time, in fact, I agree  
11 with all of them.

12 And if I were to articulate one frustration that  
13 maybe wasn't mentioned or maybe it was indirectly is that  
14 the compression of the time resulted in frustration on my  
15 part not being able to give it, you know, the immediate  
16 attention it needed to get everything done. And that's  
17 just, I think, a symptom of what we're all dealing with at  
18 this point in time.

19 And I would echo Dale's comment. I thought you  
20 did a heck of job wrestling a tough issue for Subcommittee 3  
21 going forward.

22 CO-CHAIR CARROLL: Thank you, I appreciate that.  
23 Ken.

24 CO-CHAIR GEISER: Yeah, two points that I am  
25 interested in here as well. And that is one of the

1 downsides of our little plan was that it meant that only  
2 certain people could talk during that time and other people,  
3 I think, may have, I discovered that many other people did  
4 listen in on some of these sessions.

5           So I'd be curious to know if that frustrating in a  
6 way that made it difficult for people where you weren't  
7 involved in those early discussions and that, I mean our  
8 anticipation is today we will get more out on it.

9           The second piece and this speaks a bit to Meg's  
10 point. And that is, that there -- from the very deep,  
11 detailed grassroots kind of discussion we had in the actual  
12 subcommittees someone had to lift all that up to a higher  
13 level and put it together. And I think I echo Bill's point  
14 that Odette did a remarkably great job at lifting that up.

15           But there was a gap there. And if we hadn't had  
16 such a talented person doing that I think we wouldn't have  
17 gotten to where we are at this point.

18           So, any comments you have about how we can both  
19 address things at that principled level as well would be  
20 helpful to us and helpful in thinking about how Odette  
21 proceeds.

22           CO-CHAIR CARROLL: And I -- oh fine, go ahead  
23 Mike.

24           PANEL MEMBER KIRSCHNER: Sort of to just answer  
25 your first question, Ken. I attended Subcommittee 3's

1 meetings. I tried to attend One but I couldn't, just  
2 couldn't make the time.

3 But I was particularly interested in that because  
4 it's an area I have zero knowledge of. And I felt that it  
5 gave me a real, real solid understanding of what the issues  
6 were and what some potential approaches were to it. In  
7 fact, I thought it was, actually, extremely interesting how  
8 that subcommittee worked and what actually happened.

9 And I think the general virtue of all this is that  
10 it kicked the can down the road in three different areas  
11 that we had to kick the can down. We had to make some  
12 progress. It gave us an additional, as you say, 15, 18  
13 hours of discussion time, time to think about these things  
14 before we convene.

15 So I think it's a good process. I thought the  
16 time compression between those meetings and between when we  
17 had to get our thoughts down on paper and get them to the  
18 Department was compressed. That was problematic because,  
19 you know, it happened right before this meeting.

20 So I would have preferred a little bit more, more  
21 time to get my thoughts more straight but overall I'm very,  
22 very positive on it. I think it was well, again, well done  
23 by DTSC.

24 CO-CHAIR CARROLL: Lauren.

25 PANEL MEMBER HEINE: Thank you. Lauren Heine. As

1 someone who did some listening in I felt that I could sort  
2 of console myself knowing that with the, there would be  
3 opportunity for later input in that the calls whether you  
4 could or part of that committee or able or not able to  
5 participate were simply opportunities to air more  
6 information, more ideas, but that opportunity is not over.

7           And my understanding is that there are future  
8 opportunities to even add to what was created.

9           And I just wanted to be clear about that. And so  
10 despite the frustration of the compression of it, I knew  
11 that there would be further opportunity to engage and  
12 contribute and that these are not, these are not closed at  
13 this point.

14           CO-CHAIR CARROLL: Correct. Thank you, Lauren.  
15 Richard.

16           PANEL MEMBER DENISON: I was on Subcommittee 3 and  
17 I thought there were two aspects to your second question,  
18 Ken, about sort of raising things up were very helpful.

19           One was Odette was very good at saying when she  
20 wasn't getting enough substance on a topic and it meant that  
21 we went back to it.

22           And second and related to that, we were asked to  
23 go back and answer in writing the questions that we were  
24 first posed for the first session. And not only did I think  
25 pretty much everybody did that but Bill had the good idea of

1 having each of us summarize that at the beginning of the  
2 second call.

3 And it really helped to sort of us make all of us  
4 go back and think through in a little more disciplined way  
5 what we had said and resolve and react to what other people  
6 had said on the call so that we went into that second with a  
7 pretty clear understanding of where we were on the first set  
8 of questions and we were able to tackle the third one in  
9 that time allotted.

10 CO-CHAIR CARROLL: We also asked you to do a lot  
11 more work than we usually do in terms of the amount of time  
12 that you spent but also in writing your thoughts and sharing  
13 them in that way.

14 You know, in the past we' have simply asked you,  
15 pretty much, to come to the meeting and pontificate. But in  
16 this it was a matter of then also reviewing and interacting.

17 So this was a different mode of operation.

18 Let me see, oh I'm sorry, George, go ahead. I  
19 didn't see you.

20 PANEL MEMBER DASTON: I thought that I have been  
21 stewing on. So my observation that might add to this is  
22 that this is, these calls were probably the time when we  
23 have had the greatest give and take with DTSC.

24 Much more than in the meetings to date. And I  
25 think that a lot of that is where we are in the time line.

1 I mean, I don't know how many times you guys have written  
2 these only to be told to write them a different way.

3 So, you know, I think that there's a lot more of  
4 an appreciation of what the span of opinions is.

5 But I guess my question is -- it's almost twofold.  
6 One is, you know, was this helpful for you because it's,  
7 you know, I think it is a lot of work for us but it's way  
8 more work for you. Was it helpful for you in terms of, you  
9 know, digesting the range of opinion and getting facts?

10 And then the other is, and I think maybe this is  
11 where Megan was going too is, you know, we're still a little  
12 at, I'm still a little at sea, I should say, as to, you  
13 know, what the magnitude of this is going to be. I think we  
14 all want it to be wonderful, we all want it to be  
15 innovative, we all want it to be leading but we don't know  
16 what, how big it, how big it's going to be.

17 And a lot of the answers, at least you know the  
18 ones that I've looked at, are really dependent on how big,  
19 you know, like one list or two. You know, all those are  
20 really dependent on things that we don't have a lot of  
21 control over.

22 So, you know, that might be another thing is I  
23 started to get some sense of what you guys were thinking  
24 about magnitude of program but, you know, from my  
25 perspective it actually, I think, helps provide better

1 advice to you if we know that.

2 CO-CHAIR CARROLL: Odette.

3 CHIEF DEPUTY DIRECTOR MADRIAGO: Sure, I'll be  
4 happy to respond to both questions.

5 We found it really helpful. Acknowledging, you  
6 know, Megan's suggestion about maybe some guiding discussion  
7 or guiding principles might be good in the future.

8 But getting down to some concrete specifics on  
9 these issues we've been wrestling with was really helpful.

10 And it was, you know I know you all were  
11 frustrated with some of the process last year and, you know,  
12 we were too because as several of you have pointed out, when  
13 you just all come into a room together and we try to  
14 compress the whole regs into one meeting we don't get to  
15 really concrete, clear understanding. So, yes, it was a  
16 very positive experience for us.

17 Now as to your question about magnitude. And I  
18 think where you're going here is how big the lists are going  
19 to be? Is that kind of where you're going?

20 PANEL MEMBER DASTON: Yeah, I mean, it, and I  
21 don't need a concrete answer about that but, you know.

22 CHIEF DEPUTY DIRECTOR MADRIAGO: I can give you  
23 both.

24 PANEL MEMBER DASTON: How one might advise you in  
25 terms of, you know, what's the most important thing to pick

1 in terms of chemicals, in terms of products, those sorts of  
2 things really does depend on magnitude.

3 CHIEF DEPUTY DIRECTOR MADRIAGO: Okay. Well first  
4 of all let me make it clear that this will be an ongoing  
5 iterative process.

6 So, you know, the list of chemicals, the list of  
7 products that are tackled will grow over time. So that's  
8 important to understand.

9 In terms of the initial lists I think they will be  
10 what some people might consider relatively small.

11 And that's really, you know, there's two reasons  
12 for that. You know, one obviously is, is we have stressed  
13 is we expect to continue to be resource constrained for the  
14 foreseeable future. So that's obviously a factor.

15 But there's another really important factor. This  
16 is a brand new, very complex process. We're going down  
17 really uncharted territory for certain aspects of it.

18 And I think we will be a lot more successful if,  
19 you know, the first go around we start with something that  
20 is small and manageable as we are all learning from the  
21 process and make improvements going forward.

22 So I would say initially it will be small but over  
23 time I certainly think it will grow and become, hopefully, a  
24 very robust program, if that helps.

25 CO-CHAIR CARROLL: Thank you Odette. Jae.

1           PANEL MEMBER CHOI: Yeah, I have a couple --  
2 sorry, experience and observations.

3           Number one, I think DTSC I think did a tremendous  
4 job in terms of providing us with all the information to  
5 start with.

6           Then, of course, the immediate feedback, you know.  
7 A couple of times I need to send emails to Kathy and Odette  
8 for information they already provided because I couldn't  
9 find where from several hundred other emails I had  
10 (laughter).

11           But I think -- and also I think our, you know, our  
12 Chair, Debbie did a tremendous job in terms of putting all  
13 the, you know, people into one place to make sure, you know,  
14 compress time that we do a good job.

15           And, of course, odette gave me some credit to me.  
16 She said, okay, you are the first one to send the homework,  
17 you know, so that was good.

18           The second one, I myself, you know, the compressed  
19 time, it reminds me of school days, you know, cramming  
20 things. So, I guess, under that kind of pressure I worked  
21 better, you know (laughter).

22           Actually, I came up very short, you know, checking  
23 the table system for Odette and DTSC, if there was no  
24 compression time I think I may not think about that.

25           So the experience I had, I really got to know

1 more, you know, different people like Roger. You know, have  
2 some kind of very subtle but yet simple way of giving us  
3 some kind of idea, you know, what to do.

4 So, those are three points. I appreciate that.

5 CO-CHAIR CARROLL: Thank you Jae. And I don't a--  
6 now I do see one more flag and then I think I'm probably  
7 going to try to wind this down. Go ahead, Roger, wrap it up  
8 for us.

9 PANEL MEMBER McFADDEN: Yeah, mine will be brief  
10 for sure. This is no attack on the Co-Chairs, either Ken or  
11 Bill. Both of you have had, you know, people compliment  
12 you. But I had the privilege of having the facilitator in  
13 our committee be appointed by the Governor (laughter).

14 So there, beat that, no.

15 CO-CHAIR CARROLL: Well, and that sort of feedback  
16 really is important (laughter).

17 PANEL MEMBER McFADDEN: There are benefits.

18 My observation is real simple. I felt like the  
19 dialogue had an opportunity to exchange. Jae, you mentioned  
20 that. The exchange back and forth. This environment is  
21 important to have this panel and this one-on-one kind of  
22 arrangement and it's valuable. But it seemed like we are  
23 able to delve into the issues a little bit deeper than we  
24 have been able to get to here. And in addition to kind of  
25 have some back and forth between a couple of the panel

1 members that helped to kind of build on some ideas that  
2 maybe were of use to you, Odette. So compliments to DTSC,  
3 an excellent job.

4 CO-CHAIR CARROLL: Very good. And thank you all  
5 for your comments, I appreciate that. I am going to  
6 summarize only by saying I didn't hear such terrible  
7 negatives in these comments. I think in general it seems  
8 like the process accomplished what it was trying to  
9 accomplish, even if not perfectly, so I think that's good  
10 for us to know.

11 Let's go ahead and move on in the schedule. We re  
12 going to deal with Topic 3 this afternoon, the de minimis  
13 aspects. And to start out, Odette, I would like you to  
14 present your report and some of your concepts. And then  
15 after that we will take some time for clarifying questions  
16 and then the public comment period. Odette, the floor is  
17 yours.

18 CHIEF DEPUTY DIRECTOR MADRIAGO: Thank you, Bill.  
19 And I am not going to go through the detailed report out  
20 itself; hopefully you had a chance to read that.

21 What I am going to go through is on the right hand  
22 side towards the back is this document. You'll see it says  
23 "Five Decision Points." It says "De Minimis,  
24 Unintentionally-Added and Unknown Chemicals" at the top.

25 So to begin with I just want to make it clear

1 that, you know, this document and the one that is prepared  
2 for the discussion tomorrow should not be viewed as being  
3 DTSC recommendations or perspectives. This was, you know an  
4 attempt to put down in writing how the regs might be  
5 structured based upon the different ideas that we heard. So  
6 that's the idea.

7           And all of you, whether you're members of this  
8 subcommittee or not, you may like some of these particular  
9 ideas but you may have ideas for variations on them. So  
10 just keep that in mind.

11           So as I was sorting through, you know, all the  
12 recommendations, it really kind of boiled down to what I saw  
13 as five basic decision points. In other words, decision  
14 points that we need to make in addressing this issue and the  
15 regulations.

16           There's the question of the de minimis level. If  
17 we are going to have one what should it be?

18           Then assuming we have one, how do we calculate the  
19 concentration of the priority chemical in the priority  
20 product. And we'll obviously get into these in details.

21           Then we talked quite a bit about limitations on  
22 the allowance of the exemption. Some of the ideas were  
23 focused around the type of chemical.

24           Other ideas were focused around the source of the  
25 chemical.

1           And finally there was the discussion about the  
2 exemption process itself.

3           Those are the five topics that we will be  
4 discussing today and I will very briefly go over the options  
5 under each one.

6           So with regard to the de minimis level. I boiled  
7 this down to two basic options. Option 1A would have a  
8 default de minimis level of 0.1 percent with the provisions  
9 that DTSC could set a lower de minimis level based upon  
10 levels that have been specified or accepted by Authoritative  
11 Bodies. Also that there would be the provision for DTSC to  
12 set a higher de minimis level upon receipt and consideration  
13 of a manufacturer's petition with supporting documentation.

14           The second option, Option 1B, would have DTSC  
15 specifying the de minimis level, if any, for each individual  
16 priority chemical/product combination. And then the  
17 criteria that are set out here are some of the criteria that  
18 were suggested by subcommittee members were we to take this  
19 approach.

20           So for example, the hazard traits of the chemical,  
21 exposures based on likely consumer uses, sensitive sub-  
22 population exposures, potential cumulative exposures and  
23 existing relevant regulatory thresholds, and of course  
24 detection limits.

25           It also was strongly recommended that in doing

1 this, if we take this approach, that DTSC consult with OEHHA  
2 in determining the de minimis levels.

3 And finally just to be clear, under this option  
4 there would not be any default de minimis level.

5 So that's topic number one for your discussion  
6 today.

7 The second topic deals with how we would go about  
8 calculating the concentration of the priority chemical in  
9 the priority product.

10 Option 2A has two parts. With respect to the  
11 product, the de minimis concentration calculation would be  
12 applied to the product as a whole unless the chemical was in  
13 an externally exposed component so that it presents a  
14 potential for direct contact.

15 Then with respect to chemicals under this option:  
16 The calculation would be applied separately to each  
17 individual chemical in the product. So say the product had  
18 three different priority chemicals. As long as none of  
19 those chemicals individually exceeded the de minimis level  
20 then that would qualify for the exemption.

21 Option 2B for the product, for formulated product:  
22 The calculation would be applied to the product as a whole.

23 For assembled products the calculation would be  
24 applied separately to each reasonably separable component of  
25 the product.

1           And for chemicals the calculation would be done  
2 separately for each individual PC in the product, similar to  
3 Option 1, with the exception that an aggregate concentration  
4 limit for multiple PCs in the product where there --  
5 basically there are three different scenarios that were  
6 suggested. But the idea is where there is evidence that the  
7 multiple chemicals working together created special hazards.

8           Whether it's through testing or cumulative synergistic  
9 effects n biological pathways or that they have same or very  
10 similar adverse effects. There's probably other ways you  
11 could approach this but these were three of the ideas  
12 suggested by subcommittee members.

13           Okay, decision point number four (sic). This  
14 deals with one of the ways that people talked about whether  
15 or not there should be a limitation on the allowance for the  
16 de minimis exemption. Here we're talking about limitations  
17 that would be based upon the type of the priority chemical.

18           There are three options here.

19           Option 3A was basically no limit. The de minimis  
20 exemption could be allowed for all priority chemicals.

21           Option 3B would state that there would be no de  
22 minimis exemption. Or alternatively that if DTSC specified  
23 a lower de minimis level that was at least two logarithms  
24 below 0.1 percent for high potency carcinogens, compounds  
25 for which linearized low-dose calculation methods are not

1 appropriate, compounds known to bio-accumulate, thus  
2 presenting cumulative exposure levels above the established  
3 de minimis level.

4 Option 3C is no de minimis exemption for CMRs,  
5 PBTs and endocrine disruptors except that manufacturers  
6 could submit for DTSC consideration documentation that the  
7 priority chemical is present below a safe level and cannot  
8 reasonably be removed from the priority product.

9 Topic 4, this again deals with should there be  
10 limitations on the allowance of the de minimis exemption.  
11 And this deals with a limitation based upon the source of  
12 the priority chemical. And that goes on to the second page;  
13 there are two options in this category.

14 Option 4A, there would be no alternatives  
15 assessment -- you know, the background here is the de  
16 minimis comes into play in determining whether or not an  
17 alternatives assessment must be conducted for a priority  
18 product. So there would be no alternatives assessment  
19 required if the priority chemical is not known by the  
20 manufacturer to be present in the product above the de  
21 minimis level.

22 The presence of the chemical in the product above  
23 the de minimis level would be considered to be known if  
24 either of the following apply: The priority chemical is  
25 included as an ingredient above the de minimis level in the

1 product recipe or the manufacturer has other credible  
2 information that the PC is present. And some examples are  
3 given here of what that credible information might be.

4           And finally, if the chemical is not known to be  
5 present in the product above the de minimis level but  
6 subsequently information comes to light showing that in fact  
7 it is. Then an alternatives assessment would later be  
8 required.

9           And Option 4B. this again deals with the  
10 limitations on allowing the exemption based upon the source  
11 of the chemical. Under this option no alternatives  
12 assessment would be required if a de minimis level has been  
13 set and both of the following apply: The chemical is not  
14 present in the product above the de minimis level; and the  
15 chemical does not contribute functionally or performance-  
16 wise to the product but one of the following applies:

17           The chemical is a known or expected contaminant  
18 and cannot reasonably be removed; the chemical is a residual  
19 reagent or other chemical that cannot reasonably be removed  
20 but that is critical to the acquisition or production of  
21 another chemical that does serve a functional or performance  
22 purpose in the product; the source of the chemical is  
23 recycled content, if the chemical concentration and the  
24 product does not exceed the concentration in the recycled  
25 content; or the source of the chemical is a naturally-

1 occurring material or the source is air or water that is  
2 used as a processing aid or an ingredient. And again the  
3 concentration of the chemical does not exceed the  
4 background.

5 One of the things we discussed kind of in  
6 conjunction with this option was the concept of the  
7 manufacturer having a duty of responsible investigation to  
8 become aware of whether or not the chemical is present in  
9 their product.

10 We talked about chemical analysis if there is any  
11 basis to expect the PC, the priority chemical or the  
12 priority product may be presumed, subject to rebuttal by  
13 DTSC or another party, to not contain the chemical above the  
14 de minimis level if there are strong arguments as to why  
15 this is a reasonable presumption.

16 And finally the last topic for consideration today  
17 is the exemption process itself and there are three basic  
18 options. The first one would be that the exemption would be  
19 completely self-implemented by the manufacturer except that  
20 the manufacturer would be required to provide documentation  
21 to DTSC upon request.

22 Option 5B. The manufacturer would be required to  
23 provide a notification to DTSC identifying the chemicals  
24 present in the product at or below the de minimis level.  
25 But under this option no DTSC approval would be required

1 unless the department had specified a de minimis level below  
2 the default .1 percent. And in this case the notification  
3 to DTSC would have to include supporting documentation and  
4 DTSC approval would be required.

5 And finally Option 5C. the manufacturer would be  
6 required to provide notification and supporting  
7 documentation to DTSC in all cases.

8 The manufacturer would have to demonstrate that  
9 they can and will continue to meet the criteria assumptions  
10 and conditions that would form the bases for the exemption.

11 The manufacturer in this case would bear the  
12 burden of proof to demonstrate that the chemical is below  
13 the specified de minimis level and will cause no potential  
14 threat to human health or the environment, including  
15 consideration of cumulative and aggregative exposures.

16 And under this option DTSC approval would be  
17 required unless the manufacturer's notification and all  
18 supporting documentation was made publicly available by the  
19 manufacturer or the Department. Obviously the Department  
20 could only do this if there was no CBI claim. And also the  
21 caveat here is that DTSC does not take any action  
22 disapproving the exemption.

23 So I know that's an awful lot to digest. And you  
24 can see that, you know, a lot of people thought that this  
25 topic would be, you know, not very substantive but it really

1 is very substantive. And DTSC has known this for the past  
2 year, which is why we brought this to the group. That's why  
3 we put these two topics, de minimis and unintentionally-  
4 added together, because they are very interrelated and it's  
5 a complex topic.

6 So I am going to turn it back over to Bill.

7 CO-CHAIR CARROLL: Thank you, Odette.

8 Here is the way I would like to proceed. If you  
9 truly have a question for clarification -- and I know we  
10 have been down this road before. But if you truly have a --  
11 Dale, I'm looking right at you. We had this discussion lo  
12 these many years ago.

13 If you truly have a clarifying question please ask  
14 it at this point. But what I would like to do is preserve  
15 as much time as I can for allowing you to express opinions  
16 about what you're hearing. So if there are questions, fine,  
17 let's raise them now and then after that I want to go to the  
18 public comment. Richard and then Tim, please.

19 PANEL MEMBER DENISON: I'm looking at Option 3B.  
20 I believe there's a typo there but I -- that's why I wanted  
21 to clarify it. In the second sub-bullet under 3B I believe  
22 that should read: "Compounds for which linearized low-dose  
23 calculation methods are appropriate." That refers to  
24 substances for which there is not a threshold, above which  
25 -- I'm sorry, below which no risk is to be assumed.

1 CO-CHAIR CARROLL: Yes, I think that's probably  
2 correct. Tim.

3 PANEL MEMBER MALLOY: Thank you. I just had kind  
4 of a contextual question to try and fit where this, you see  
5 this fitting into the broader scope of the regulations. So  
6 it's got two aspects to it. First, it said here that this  
7 is an exemption from the alternatives assessment  
8 requirement. So does it relate only to alternatives  
9 assessment? So for example, something that falls within the  
10 de minimis exception to alternatives assessment could still  
11 be subject to a regulatory response. That would be -- just  
12 how broad a scope is this?

13 And kind of similarly, would it also apply to  
14 alternatives that are being compared against a baseline?  
15 Does this somehow give them, you know, a pass on the  
16 inclusion of a priority chemical within them?

17 And then just to kind of add to the context there.  
18 The reading of this leads me to believe that this would be  
19 applied to priority products after the chemicals and the  
20 products have gone through the prioritization process. So  
21 is the idea that you'd end up with a category of products  
22 that are of great concern and that there may be particular  
23 products within that category that for some reason have much  
24 lower levels of a priority chemical, is that what this is  
25 designed to do? I wasn't quite sure how it related to the

1 prioritization process.

2 CHIEF DEPUTY DIRECTOR MADRIAGO: Okay. Well let  
3 me start with your last question first because it's an easy  
4 answer, yes. Because, you know, the de minimis has to be  
5 applied based upon the chemical in the product this has to  
6 be dealt with once we have identified the products.

7 And it is the concept that, you know, we might  
8 list a product where generally the chemical in that product  
9 is considered to be above the de minimis level but  
10 individual manufacturers may manufacture their product so  
11 that it's below the de minimis level. That's the general  
12 concept.

13 In terms of how this fits in relative to  
14 alternatives assessment and regulatory responses. We have  
15 to go back to the statute and remember that the statute  
16 tells us that we can only assign regulatory responses once  
17 an alternatives assessment has been completed. So what that  
18 means is that yes, the de minimis determination determines  
19 whether or not an alternatives assessment is required. So  
20 ergo, if an alternatives assessment is not required and one  
21 is not completed, we don't have the authority under the  
22 statute to impose regulatory responses.

23 And you are going to have to remind me about your  
24 second question.

25 PANEL MEMBER MALLOY: You answered it.

1 CHIEF DEPUTY DIRECTOR MADRIAGO: Did I answer it?

2 CO-CHAIR CARROLL: Very good, thank you. Okay, so  
3 let's review the bidding. I have Julia, George, Mike and  
4 Megan.

5 And for those of you who will want to make public  
6 comment, the public comment period this afternoon will have  
7 to do with this topic, with respect to de minimis. And also  
8 if you have comments about the subcommittee process you are  
9 welcome to make those as well. Okay, Julia, it's yours.

10 PANEL MEMBER QUINT: I'm sure this is simple but I  
11 don't understand it completely. Under Option 2A when we say  
12 that you would apply the de minimis concentration to the  
13 product as a whole. I'm a bit confused about what we mean  
14 there because all of the products, you know, will have  
15 chemicals of concern. So when you say a product as a whole  
16 it means if there is a de minimis -- over the de minimis  
17 amount of one ingredient in the product then that product is  
18 not exempt? I just don't understand how this is being used.

19 CHIEF DEPUTY DIRECTOR MADRIAGO: Okay. Okay.  
20 We'll use my cell phone as an example. Under this option we  
21 would determine the concentration of the given chemical,  
22 whatever it is, present in this entire cell phone.

23 PANEL MEMBER QUINT: Right.

24 CHIEF DEPUTY DIRECTOR MADRIAGO: Grind it up,  
25 determine it. The other way of looking at it, which is one

1 that was discussed many times last year, is we take this  
2 thing apart into its various components and we'd say each  
3 component could not exceed the de minimis level.

4 PANEL MEMBER QUINT: Right. But when we have  
5 chemicals in that same category we are applying the de  
6 minimis to the chemicals in the product.

7 CHIEF DEPUTY DIRECTOR MADRIAGO: So you're talking  
8 about the chemical. Okay, I misunderstood you.

9 PANEL MEMBER QUINT: I see them interchangeably.

10 CHIEF DEPUTY DIRECTOR MADRIAGO: Okay.

11 PANEL MEMBER QUINT: Because a product only is  
12 important because it has chemicals of concern in it.

13 CHIEF DEPUTY DIRECTOR MADRIAGO: Right.

14 PANEL MEMBER QUINT: So if we are applying the de  
15 minimis to each of the chemicals in the product then how do  
16 you turn around and say you are looking at the product as a  
17 whole?

18 CHIEF DEPUTY DIRECTOR MADRIAGO: Okay.

19 PANEL MEMBER QUINT: It doesn't make sense to me.

20 CHIEF DEPUTY DIRECTOR MADRIAGO: All right. So  
21 let me -- again using my BlackBerry here. Let's assume that  
22 we have priority chemical A and B in here. With respect to  
23 -- I have already given the discussion about how we can just  
24 look at this whole thing ground up as one mass or we could  
25 break it apart into components and measure the

1 concentrations in each component.

2 Now with respect to Chemicals A and B. We could  
3 say that each of those, that you can have A up to the de  
4 minimis level and you can have B up to the de minimis level.  
5 That's what this says. The converse would be that you would  
6 look at A and B together and the combined concentration of A  
7 and B cannot be above the de minimis level.

8 CO-CHAIR CARROLL: All right, very good. I have  
9 George, Mike, Megan, Rich and Mike. I remind you that this  
10 needs to be just questions, please, because we are going to  
11 have some time for discussion. George.

12 PANEL MEMBER DASTON: So my question is about  
13 whether you discussed definitions. There's a number of  
14 things in here that might not be agreed upon as to what they  
15 are, like authoritative body or endocrine disrupter. Did  
16 people have more specificity around what they thought those  
17 should be or did you just leave it vague so we could discuss  
18 it as a group?

19 CHIEF DEPUTY DIRECTOR MADRIAGO: I don't think we  
20 got into too much of a discussion about that. In part, I  
21 think, because we felt those were topics for other  
22 discussions. Not that they're not important.

23 CO-CHAIR CARROLL: Mike Wilson, please.

24 PANEL MEMBER WILSON: Thank you. How was the 0.1  
25 percent generated or derived as the default?

1 CHIEF DEPUTY DIRECTOR MADRIAGO: It was what was  
2 suggested by some of the members of the subcommittee.

3 CO-CHAIR CARROLL: Megan.

4 PANEL MEMBER SCHWARZMAN: I just wanted to return  
5 to Richard's issue on Option 3B because I think we are  
6 talking about two separate things there. One is that --  
7 this is sub-bullet two under Option 3B. I think there are  
8 two very separate issues around the concept of a threshold  
9 and a non-linear dose response. And I think that was -- the  
10 elimination of the word "not" there was conflating those  
11 two. That can get into more detail but I don't want that to  
12 stand in the record because I think there's actually two  
13 separate issues and they would be stated differently.

14 CHIEF DEPUTY DIRECTOR MADRIAGO: I think you're  
15 right and I've put a question mark by it.

16 PANEL MEMBER SCHWARZMAN: We can talk more later.

17 CO-CHAIR CARROLL: Very good, thank you. Rich.

18 PANEL MEMBER LIROFF: Also on 3B. Just the  
19 scientific logic behind the suggestion of a level being logs  
20 below 0.1 percent.

21 CHIEF DEPUTY DIRECTOR MADRIAGO: I think that's  
22 for discussion later. Remember, this is just a reiteration  
23 of comments we heard. So that's probably something you want  
24 to engage your fellow members in.

25 CO-CHAIR CARROLL: Mike Kirschner.

1           PANEL MEMBER KIRSCHNER: And this might fall into  
2 the same category. Excuse me. Option 2B under Assembled  
3 Products. I wanted clarification on what "reasonably  
4 separable" means. There's been a lot of argument in  
5 different governments about that.

6           CHIEF DEPUTY DIRECTOR MADRIAGO: I know. I don't  
7 think we tried to define it specifically but it might be  
8 something if you feel it's important that you do want to  
9 discuss among yourselves.

10          PANEL MEMBER KIRSCHNER: Okay.

11          CO-CHAIR CARROLL: Okay. I have Joe and then  
12 Julie and then I'd like to wind it down, please.

13          CO-CHAIR GEISER: My question is related to Option  
14 1A, the second bullet point. What are -- I was on this  
15 committee. I'm not sure, what are we talking about with  
16 authoritative bodies? Usually that's IARC or something like  
17 that and I'm not -- they don't usually set de minimis  
18 levels. Are you talking about an authoritative body like  
19 IARC or is this referring to a statute like REACH or  
20 something?

21          CHIEF DEPUTY DIRECTOR MADRIAGO: It could be. And  
22 again, we did not get into a lot of definition around that  
23 so this was a general -- it's basically -- maybe a different  
24 term than "authoritative bodies" could be used. The basic  
25 concept is that the suggestion was that it be based upon

1 levels that have already been established or accepted by  
2 other chemical regulatory programs.

3 CO-CHAIR CARROLL: All right, very good, thank  
4 you, Joe. Julie.

5 PANEL MEMBER SCHOENUNG: Just a quick question on  
6 the .1 percent. I'm assuming that's weight percent --

7 CHIEF DEPUTY DIRECTOR MADRIAGO: That was our  
8 assumption, yes.

9 PANEL MEMBER SCHOENUNG: -- as opposed to volume  
10 percent or others?

11 CHIEF DEPUTY DIRECTOR MADRIAGO: Um-hmm.

12 PANEL MEMBER SCHOENUNG: That should probably be  
13 articulated.

14 CO-CHAIR CARROLL: Very good. Okay, seeing no  
15 other flags then let's go ahead and go to the public comment  
16 period. As it stands right now I know of one public  
17 comment. Kathy, you want to come help facilitate this,  
18 please.

19 MS. BARWICK: Of all the moving parts we have in  
20 our meeting the only glitch is that our printer is not  
21 working. So if we get a public comment from our webcast  
22 viewers I'll be sitting over there and I'll read those in.  
23 So let's do the people here first.

24 CO-CHAIR CARROLL: Very good. Maia Jack, please.

25 DR. JACK: I am Senior Manager of Science Policy

1 at the Grocery Manufacturers Association.

2 Per the statute the goal of California's Green  
3 Chemistry Initiative is to create a program that will  
4 significantly reduce adverse health or environmental impact  
5 from chemical uses of concern. The focus then should be on  
6 those product chemical/use combinations that contribute most  
7 to exposure for a targeted subpopulation or a targeted  
8 environmental end point. Thus looking at ingredients above  
9 .1 percent in products would achieve that goal.

10 Regarding the .1 percent de minimis threshold. de  
11 minimis provisions are standard in a variety of chemical and  
12 product safety laws such as Europe's REACH Chemical Law, the  
13 European Cosmetic Law, the European Classification, Labeling  
14 and Packaging Law.

15 With respect to Europe's REACH chemical law, the  
16 .1 percent de minimis in fact does apply to the designated  
17 substances of very high concern compounds that have become  
18 banned in Europe. So what else?

19 In terms of the Classification, Labeling and  
20 Packaging Law and the European Cosmetic Law. These laws  
21 allow the flexibility to scientifically adjust the de  
22 minimis level lower or higher on the basis of likelihood of  
23 harm. Establishing a .1 percent de minimis for the whole  
24 product is consistent with other national and international  
25 laws and should be adopted.

1           As analytical capabilities improve detection  
2 limits will continue to lower detecting presence to -- will  
3 continue to lower detecting presence of a chemical at  
4 trivial amounts. Thank you.

5           CO-CHAIR CARROLL: Thank you very much. Next I  
6 have Dawn Koepke.

7           MS. BARWICK: Before Dawn speaks I just want to  
8 make a comment to our webcast listeners. This is your  
9 opportunity to submit comments into the mailbox,  
10 [green.chemistry@dtsc.ca.gov](mailto:green.chemistry@dtsc.ca.gov). Thank you.

11           CO-CHAIR CARROLL: Kathy, this is really  
12 disconcerting. The speaker is right above me and every time  
13 you speak I look up at it.

14           MS. BARWICK: It's a voice from God.

15           CO-CHAIR CARROLL: It is. It is and that's what  
16 is so disconcerting about it. Dawn, please.

17           MS. KOEPKE: Thank you. Dawn Koepke with the  
18 Green Chemistry Alliance. One of the co-chairs along with  
19 my colleague, John Ulrich.

20           We have had a lot of discussion about this. With  
21 the subcommittee obviously voiced some thoughts but wanted  
22 to share those with the rest of you that may have not been a  
23 part of that and didn't hear the comments, brief comments  
24 that we made.

25           Green Chemistry Alliance really feels very

1 strongly that there does need to be a de minimis threshold.

2 And we believe that that should be set at a baseline of .1  
3 percent, as Maia indicated, with the option for setting  
4 lower or higher thresholds based on those thresholds set by  
5 other authoritative bodies on a chemical by chemical basis.

6 We really think that this would help address the  
7 highest risks first. It would target meaning levels in  
8 products that pose a real threat and really gets to the  
9 heart of what we really need to address here.

10 Also relative to the unintentionally-added  
11 substances. Just some thoughts to consider is that  
12 companies take into account unintentional components through  
13 their product stewardship efforts in raw material sourcing  
14 and selection.

15 And in practical considerations relative to  
16 naturally-occurring substances in recycled content, that  
17 there is a concern that those unintentional components in  
18 those scenarios will not pose the highest risks because they  
19 are doing these product stewardship efforts to make sure  
20 that those chemicals are not at a level of concern and we  
21 really think that we should be focusing on intentionally-  
22 added ingredients.

23 Furthermore relative to Prop. 65 and  
24 unintentionally-added substances. Prop. 65 regulates the  
25 presence of naturally-occurring or unintentionally-added

1 chemicals in consumer products. In this regard if  
2 unintentionally-added substances are regulated through the  
3 green chemistry regulations this may lead to inconsistencies  
4 and conflict with Prop. 65.

5 The question was raised with regard to other  
6 entities that have established regulatory thresholds. There  
7 are a number of them at the state, federal and international  
8 level. Prop. 65, OSHA, Department of Transportation, GHS,  
9 Classification Labeling System, REACH and a number of others  
10 that we can certainly provide you information on.

11 And just a couple of more specific examples. At a  
12 fixed .1 de minimis level, OSHA, REACH articles, are just  
13 two examples. Adjustable de minimis thresholds have been  
14 set under Prop. 65's no significant risk levels, maximum  
15 allowable dose levels. RoHS has a system for adjustment of  
16 thresholds, EU Classification Labeling System, EU Cosmetics  
17 Directive and more.

18 So we really feel strongly that there is basis for  
19 consideration of a de minimis threshold with the ability to  
20 alter that based on a chemical-by-chemical basis. And just  
21 the last comment is that we don't necessarily believe that  
22 there needs to be an additional requirement on DTSC to  
23 establish different levels. The work has already been done  
24 by these other authoritative bodies. And so from a resource  
25 standpoint DTSC doesn't have to reinvent the wheel, there

1 are other systems that they can rely on that is based on  
2 sound science. Thank you.

3 CO-CHAIR CARROLL: Very good, thank you. Kathy.

4 MS. BARWICK: Yes. I find out that microphone  
5 does not go to the Webcast so I am going to just tell our  
6 Webcast viewers one more time, [green.chemistry@dtsc.ca.gov](mailto:green.chemistry@dtsc.ca.gov)  
7 for your public comments, thank you.

8 CO-CHAIR CARROLL: Very good, thank you, Kathy.  
9 Gene Livingston, please.

10 MR. LIVINGSTON: Thank you, Mr. Chairman. At the  
11 outset I would like to congratulate Debbie Raphael in her  
12 appointment. I haven't had a chance to say hello to you and  
13 to extend my congratulations to you.

14 I am here on behalf of the American Cleaning  
15 Institute. And as I look at the options that have been set  
16 out in the document that Odette prepared I think we support  
17 the A options, 1 through 5, as i look at that.

18 And you've heard the purpose of the de minimis  
19 really is an administrative level to try to focus this whole  
20 effort on the chemicals in the products that are of most  
21 concern, that pose the greatest risk and so on. And  
22 obviously we support DTSC being able to set a higher lower  
23 level if the science justifies that.

24 And at the same time if you start making that  
25 process too complex in breaking it out into the various

1 component parts and so on, you not only complicate that and  
2 diminish its value as an administrative device for focusing  
3 on the most critical products but you also start increasing  
4 the workload on the department.

5           And one of the things that we have been cautioned  
6 of is that there are limited resources. And that to the  
7 extent that we can come up with processes that minimize the  
8 work that DTSC has to do, that's a better process. And I  
9 think for both the reasons for the administrative advantages  
10 as well as being mindful of DTSC's resources that the A  
11 options make the most sense across the board.

12           CO-CHAIR CARROLL: Very good, thank you.

13           All right, Kathy, do we have any comments from the  
14 web? I guess the answer is no.

15           MS. BARWICK: I was just doing an update. No. We  
16 had one clarification question but I'm dealing with that.

17           CO-CHAIR CARROLL: Okay.

18           MS. BARWICK: I don't see any other comments,  
19 thank you.

20           CO-CHAIR CARROLL: All right, fine. I have us at  
21 2:16. What I would like to do is give you your 15 minute  
22 break and convene just after 2:30.

23           Let me take just a minute and tell you how I'd  
24 like to conduct the next part of this. I have a feeling  
25 there are probably 50 bad ways of doing this, this is

1 undoubtedly one of them. But the approach I'd like to take  
2 to this is to disaggregate the question into the five  
3 decision points and ask you for comments on each of those.  
4 As you comment I would like you to start your comments by  
5 picking one of the options and designating it as being the  
6 closest to your views.

7 Now, you may also say, I think Option 1A is  
8 closest to my views but I'd like to modulate that by adding,  
9 and that's in bounds. But the goal here is to give DTSC  
10 some feedback on the options as they were written rather  
11 than to start and free associate as we did in the  
12 subcommittee. With that said, I will give a preference in  
13 speaking to those who were not members of the subcommittee  
14 in order to get those ideas on the table.

15 So that's the way I'd like to proceed. Think  
16 about it for 15 minutes. If that's totally out of bounds  
17 let me know and I will try to allocate the time between when  
18 you get back and the end of the session so that we have  
19 dealt with all five of those adequately. Very good, see you  
20 in 15 minutes.

21 MS. BARWICK: And may I remind the panel members  
22 of their obligations under the Bagley-Keene Open Meetings  
23 Act. You all remember what the rules are; thank you.

24 (Off the record at 2:16 p.m.)

25 (On the record at 2:34 p.m.)

1 CO-CHAIR CARROLL: I want to try to clear up two  
2 little bits of potentially unfinished business. I'm looking  
3 for Kathy. Kathy, do we have a comment that needs to be  
4 made? Then while you're checking we do have one other  
5 unresolved clarifying question. Rich, go ahead, please.

6 PANEL MEMBER LIROFF: Yeah, and I apologize for  
7 not asking this earlier. I think it qualifies as a  
8 clarifying question. Under --

9 CO-CHAIR CARROLL: I'll be the judge of that.

10 (Laughter)

11 PANEL MEMBER LIROFF: And I know you won't  
12 hesitate. Under Option 1A in the second bullet, third line,  
13 it references setting a de minimis lower level and it  
14 mentions with public notice. And I am just curious, not  
15 being an attorney, what flows from "with public notice." Is  
16 it simply printing something in the California equivalent of  
17 the Federal Register? Does it trigger a whole bunch of  
18 other administrative proceedings? I'm just curious what's  
19 involved. Thank you.

20 CHIEF DEPUTY DIRECTOR MADRIAGO: Well, we did not  
21 discuss that in detail when the subcommittee talked about  
22 this. I guess the best way to answer that is if you look at  
23 the last several versions of the regulations, you know, they  
24 talk about we do put a proposed. So proposed limits might  
25 be in conjunction with the list. It would be in the

1 regulatory register, it would be emailed to everybody, it  
2 would be on our website. You know, our usual blast of  
3 information. And then there would be an opportunity for a  
4 public comment period before a final decision was made.

5 PANEL MEMBER LIROFF: Thank you.

6 CO-CHAIR CARROLL: Okay. So now we get into the  
7 substantive discussion. We have approximately two hours for  
8 this discussion. And I would like to try to generally  
9 divide the time up into 20 minute segments if I could.

10 Now those of you who are proficient at math will  
11 note that that is six sessions of 20 minutes rather than  
12 five. And so my plan is to go through at least the first  
13 four and see how the time allocates. Of the five decision  
14 points probably the fifth requires the least discussion and  
15 could be most easily handled off-line with a note to Odette  
16 and so if we have to compress time we'll probably compress  
17 it there.

18 I wanted to allow a little time at the end for the  
19 potential for integrative comments because what we are going  
20 to do is disaggregate this. And I think some of you will  
21 note that as you disaggregate it you will feel that it is a  
22 sub-optimization and it may well be. So I want to allow at  
23 least a little bit of time at the end for the potential for  
24 integrative comments.

25 Two hours is a long session. If you need a break,

1 if you're sick of it, if you need to just go out and get a  
2 breath of air from the hall you are welcome to do that, I  
3 won't take away from you.

4 But what I would like to do then is to reiterate  
5 the way I'd like you to approach this. As we talk about  
6 each of these decision points, as you make your comments I  
7 would like you to start from the idea of saying, Option X is  
8 closest to my point of view and then expand on that  
9 perspective if you will. And we'll start with Option 1  
10 which is called De Minimis Level and I'd like to see if  
11 anyone has some comments they would like to offer on this.

12 Okay, I see flags going up; I am going to start  
13 over here. George.

14 PANEL MEMBER DASTON: Thank you, Bill. So I'm  
15 going to say that Option 1A is closest to my point of view.

16 And the reason is, as we started this process we really had  
17 a choice between taking a risk-based approach and a hazard-  
18 based approach. And I think the value of taking a risk-  
19 based approach, there's a lot of merit to it but it's highly  
20 complex in that one has to have quantitative assessment of  
21 the hazard, quantitative assessment of the exposure. And as  
22 we went through the process we thought that that would be  
23 too complex for the system and so we went with a hazard-  
24 based approach where we would have a list of chemicals.

25 If we do that you really have to have some sort of

1 a practical limit, a practical threshold, which is what  
2 Option 1A is. And this is a practical threshold that has  
3 been recognized as being necessary by various regulatory  
4 agencies that have adopted hazard-based approaches as we  
5 heard in some of the public comments.

6 If you don't do that then you end up with what is  
7 essentially, although it doesn't say it in Option 1B, is  
8 risk assessment. And this is going to be a highly complex  
9 process that will require not just assessing the hazard  
10 characterization and reference does of each chemical but  
11 also really understanding for each product that contains the  
12 chemical what the range of potential exposures is. It  
13 becomes orders of magnitude, a more complicated regulatory  
14 process.

15 And that doesn't mean that there aren't chemicals  
16 that have high potencies for which .1 percent doesn't make  
17 sense and I think that is also recognized; but those are the  
18 exceptions and not the rule. And what we are dealing with  
19 here is setting a rule. And so, you know, I think that  
20 that's recognized in Option 1A and I would speak for it.

21 CO-CHAIR CARROLL: Thank you, George.

22 Okay, here is nominally my list but I'm going to  
23 modify this as I go, once again, to give people who were not  
24 on Subcommittee 3 as I remember it, the opportunity to speak  
25 first. Tim, Julie, Megan, Art, Mike Wilson, Jae, Bob and

1 then Joe and Richard. Oh, Kelly, you had your, okay, fine.

2 PANEL MEMBER MALLOY: Thank you.

3 CO-CHAIR CARROLL: Tim, the floor is yours.

4 PANEL MEMBER MALLOY: Thanks. So I'm just a  
5 lawyer. But I have to say the thing that probably comes  
6 closest to my viewpoint is Option 1B for a couple reasons.  
7 It just strikes me that .1 percent appears to be fairly  
8 arbitrary. The fact that a number of people have suggested  
9 it or that it appears in some other, may appear in some  
10 other regulatory program seems not to be a strong enough  
11 basis to choose it.

12 My sense is that the idea here, as George said, is  
13 we are trying to kind of cull out things of lesser concern.

14 And it seems appropriate to use a surrogate for hazard, you  
15 know, or for risk. But using .1 percent by weight seems to  
16 not map against any kind of principled chemical or product-  
17 specific basis for saying that something is or isn't a  
18 hazard.

19 I take George's point that if you turned it into  
20 risk assessment it kind of defeats the purpose of having a  
21 practical approach to dealing with -- but from the  
22 description seems to be marginal case. This isn't going to  
23 come up in every case, it's going to come up in the case  
24 where you have a product category and perhaps a manufacturer  
25 who is close to that line.

1           And I also recognize that it can have some value,  
2 as some other folks have said, in terms of incentivizing  
3 people to reduce the level of chemicals in their products.  
4 But I think you have to trade that off against being  
5 careful. So, for example, .1 percent really doesn't, to me  
6 doesn't seem to mean very much when you think about more and  
7 more products incorporating nano-materials in them.

8           And it also kind of strikes me that suddenly it  
9 makes it depend a lot on how heavy the product is in terms  
10 of the amount of a chemical that you are allowed to have in  
11 that product. That doesn't seem very much of a principled  
12 way to achieve the particular goal that yo had in mind.  
13 Examples like Prop. 65 and the No Significant Risk Level.  
14 My understanding is that those are essentially risk-based  
15 calculations, not, you know, somebody picked a particular  
16 weight level and we thought we would all go with that.

17           Having said that, and again I am a lawyer, I am  
18 not a scientist or a toxicologist, I have noticed that there  
19 has been quite a bit of development in the area of more  
20 streamlined risk assessment and qualitative risk assessment.

21           And it seems that more work ought to be done to identify a  
22 more streamlined way to create, if you are going to have a  
23 de minimis level, a de minimis level that is more closely  
24 reflective of relative risks associated with a particular  
25 product.

1           And just in closing I would say I recognize that  
2 1A does give DTSC the ability, it is just not much comfort.  
3 1A has kind of got the thumb on the scale against it. So,  
4 for example, it looks to me like DTSC would be limited to  
5 setting a lower level if somebody else has done that, some  
6 other authoritative body. Those bodies may or may not have  
7 an incentive to think about it in ways that are relevant to  
8 this particular program. Whereas you can get a higher level  
9 basically on the basis of a manufacturer's petition.

10           So I am really worried about the administrative,  
11 the reality that we have seen in a lot of programs like this  
12 where there is a default de minimis level imposed on an  
13 agency with constrained resources. That that default level  
14 becomes de facto, absolute level because it is very  
15 difficult for the agency to move off that for resource and  
16 political reasons. Thank you.

17           CO-CHAIR CARROLL: Thank you, Tim. I have Julie,  
18 Megan and then Jae.

19           PANEL MEMBER SCHOENUNG: Thank you. I also would  
20 say that 1B comes closer to my thinking on this de minimis  
21 level. I guess the main reason why I am on that side, I  
22 worry about all the sub-bullet points. I worry about having  
23 too many things by which to set your de minimis on. But  
24 having just one number --

25           As a material scientist who has learned about

1 toxicology and hazard traits through my career I have been  
2 amazed at the exponential, logarithmic relationship, the  
3 powers that we are looking at for toxicity measurements. So  
4 .1 percent multiplied by a factor of ten or easily  
5 multiplied by a factor of 1,000 or 10,000 between one  
6 substance and another is a tremendous difference in the  
7 hazard or potential risk associated with that substance.

8           And in materials very few of our attributes range  
9 more than a one order of magnitude wide except things like  
10 electrical conductivity, which is 23 or 25 orders of  
11 magnitude. So in my world to see these 10 orders of  
12 magnitude difference from one substance to another was, you  
13 know, an eye opener and very hard to deal with in getting  
14 material scientists to even look at them. How do you  
15 determine whether something that's an order of magnitude  
16 higher, what does that mean. And so I have come to realize  
17 that there are big differences from one substance to  
18 another.

19           I recognize just the practicality of having to  
20 assess each substance so I would argue that maybe two or  
21 three de minimis levels be chosen. You know, .1, .01 and  
22 just it goes in one category or the other depending on an  
23 expert opinion poll or something instead of having 50  
24 different de minimis levels but you have just an order of  
25 magnitude difference for the things that are considered

1 really bad and those that aren't. So that would be my  
2 suggestion.

3 CO-CHAIR CARROLL: Very good, thank you, Julie.  
4 Megan.

5 PANEL MEMBER SCHWARZMAN: Thanks. I have three  
6 thoughts about this. Also Option 1B is closest to my way of  
7 seeing this and there's three aspects that I want to mention  
8 about it.

9 The first is when we look at other legal regimes  
10 that have established a .1 percent de minimis level. That  
11 has to do with establishing what is subject to the  
12 regulation, not what is a harmful level of a chemical in a  
13 product. So in REACH you are subject to the regulation, you  
14 know, when the .1 percent applies. The same for with Prop.  
15 65, it's the percent of the chemical in your product that  
16 makes you fall into the net of the regulation.

17 We are talking about something very different  
18 here. Where the Department has already identified a  
19 priority chemical, so they have already identified it as a  
20 hazard. They have already identified its presence in a  
21 product that has been deemed a priority product. So we are  
22 already dealing with something that is an established  
23 hazard.

24 At that point we need to know what are the  
25 appropriate exemptions. This is not unlike REACH which is

1 saying, of the universe of substances that are used in the  
2 European Union this is the percent at which we start caring,  
3 that you have to report to us. This is something totally  
4 different. So I think it is apples and oranges to talk  
5 about that. We are using this in a very different sense.

6 The second is that our goal is to find  
7 alternatives. So the whole point of subjecting, deciding  
8 that there is a priority chemical in a priority product is  
9 to then make it subject to an alternatives analysis. So the  
10 goal is not to eliminate it.

11 For that reason I think it is really important for  
12 there to be a de minimis exemption allowable for impurities  
13 and those sorts of things and that's what the proponents of  
14 a de minimis exemption have cited as -- including in one of  
15 the things that came out from the subcommittee report is  
16 making the case for that, that it's impractical to require  
17 manufacturers to prove there is zero chemical in a product  
18 due to impurities and knowledge gaps in the supply chain.  
19 However, so that therefore applies. What that is saying  
20 itself is that a de minimis exemption is important for  
21 impurities and unintentionally present and unknown  
22 chemicals, not for intentionally-added ingredients.

23 The third point is that as has been alluded to  
24 already I think, a blanket .1 percent de minimis exemption  
25 is scientifically undefensible. There is no way of

1 supporting that scientifically based on toxicology.

2           So I think it is important that there be a de  
3 minimis exemption for unintentionally present chemicals;  
4 that's practical. And that a blanket de minimis exemption  
5 undercuts the main goal of this existing, which is to  
6 subject priority products with the presence of a priority  
7 chemical to an alternatives analysis.

8           I have a couple of very small -- well, not very  
9 small but just to flag a couple of text things. In the  
10 first bullet: "agreed upon risk levels" is I think something  
11 that would need some expanding upon that we don't have to go  
12 into here now.

13           The fourth sub-bullet under the first bullet it  
14 says "potential for" it should be really "aggregate  
15 exposures."

16           And finally I just wanted to support the second  
17 major bullet about OEHHA is very good at determining these  
18 kinds of levels so I think they should be set on a chemical-  
19 specific basis and OEHHA is good at doing that. Thank you.

20           CHIEF DEPUTY DIRECTOR MADRIAGO: Megan, let me ask  
21 you a clarifying question.

22           PANEL MEMBER SCHWARZMAN: Um-hmm.

23           CHIEF DEPUTY DIRECTOR MADRIAGO: So you were  
24 talking about you see the practicality of having de minimis  
25 for impurities and unintentionally-added. Are you also

1 saying that in that case that we should not use a default  
2 0.1 percent or I --

3 PANEL MEMBER SCHWARZMAN: That's right, yes.

4 CHIEF DEPUTY DIRECTOR MADRIAGO: So it should be  
5 individually set.

6 PANEL MEMBER SCHWARZMAN: That there should be a  
7 de minimis exemption for the unintentionally present  
8 chemicals or impurities. But that should not be a blanket  
9 default, it is not scientifically defensible.

10 CO-CHAIR CARROLL: Okay, I am going to go to Jae  
11 and then Art and then Mike Wilson. And I would ask you to  
12 the extent that you can be terse in your comments it will  
13 allow us to get more comments over the course of the  
14 afternoon. Jae, please.

15 PANEL MEMBER CHOI: Thank you, Chair. I lean  
16 toward Option 1A; a couple of reasons. Number one, the de  
17 minimis level is at .1 percent. If I recall the existing  
18 laws the de minimis level is .1 percent, except I think  
19 cadmium, if I recall, .1 percent. And also because I guess  
20 DTSC needed to start from somewhere so somewhere that means  
21 the level that is already applied the last five years or so.

22 And then also we talking about consumer product.  
23 So it is product-related, not chemical-related per se. So  
24 that later on I think we talking about how you going to  
25 calculate .1 percent, as a whole product or in discrete

1 component level, et cetera. Those are somehow already been  
2 practicing in industry so why do we have to reinvent the  
3 wheel? At the same time, if I look at Option 1B there are a  
4 lot more work to do, you know, if we have some kind of a  
5 time limit of implementing this. So that's one of my  
6 reasons.

7           And then in terms of the de minimis level, in  
8 terms of number. I think the manufacturer needed to be  
9 clarified on that. So if we put it up all different kind of  
10 de minimis level depending on the situations, I think that  
11 confuse more the manufacturers.

12           CO-CHAIR CARROLL: Very good, thank you, Jae.  
13 Art.

14           PANEL MEMBER FONG: Thank you, Bill. Option 1B  
15 appeals to the beady-eyed, geeky scientist Art Fong and  
16 Option 1A appeals to the business, industrial, practical Art  
17 Fong. (Laughter).

18           Now in terms of Option 1A. Speaking as a, you  
19 know, not really a business person because IBM tells me that  
20 I am not. Speaking as someone in industry, I am all for  
21 harmonization but I --

22           Tim brought up a really good point. You know, if  
23 in fact we are going to go with a default de minimis of 0.1  
24 percent we are going to have to come up with a better reason  
25 than just the fact that somebody else is using it. So if in

1 fact that is what DTSC is going to go with I would really  
2 like to see them come up with a defensible reason, you know,  
3 for doing so.

4           So let's switch to the geeky, the beady-eyed  
5 scientist Art Fong and Option 1B. Now I think that's just,  
6 that just makes a lot of scientific sense, you know. But  
7 here is the reality from practical experiences. I don't  
8 think we can do it at this point because we don't have the  
9 information.

10           And let's say, take the very specific example of  
11 even potent carcinogens. If we were to try to do something  
12 like this we need to have some kind of, you know, measure of  
13 potency of carcinogens. And even for the really well-known  
14 carcinogens, you go into EPA's IRIS, there are very few unit  
15 risks calculated for these compounds. So how are we going  
16 to accomplish 1B? So thank you very much.

17           CO-CHAIR CARROLL: Thank you, Art. I have Mike  
18 Wilson then Bob then Kelly.

19           PANEL MEMBER WILSON: Thank you, Chair. I think  
20 Dante talked about destiny and free will; I'm going to talk  
21 about free will that -- on three points. The first is  
22 around making correct comparisons. And again, I am  
23 advocating for Option 1B. That the .1 percent is -- we are  
24 using it within the constraints of prioritized products  
25 where we see it applied in REACH it's the vehicle that

1 determines whether chemicals are going to be subject to the  
2 regulation. They are not constrained within pre-determined  
3 priority chemicals. So it really doesn't make sense for us  
4 to just apply that so I am advocating for free will. We  
5 take our own, we need our own determination.

6 The second is the science. And again, the .1  
7 percent, it isn't scientifically justified. As we have  
8 heard again, 8 to 10, 8 to 12 orders of magnitude in potency  
9 and when we look at questions of hazard exposure as well as  
10 vulnerability, you know, the .1 percent, we just can't  
11 justify it with the science.

12 And the third is the goal ultimately is to  
13 motivate innovation. And my concern is that once we  
14 establish this level that that is where the market will  
15 move. It will dampen innovation that will see most likely  
16 dilution to those and no real motivation to invest in safer  
17 alternatives and so it undermines our over-arching goal.

18 So that leads to three problems that we will need  
19 to deal with, I think a de minimis level for unintentionally  
20 present priority chemicals. The problem of risk assessment  
21 paralysis is real that was raised previously and so we will  
22 need an efficient, transparent and very likely imperfect  
23 system developed by OEHHA to follow through on 1B. Thank  
24 you.

25 CO-CHAIR CARROLL: Very good, thank you, Mike.

1 Bob, you're next. Bob then Kelly then Lauren.

2 PANEL MEMBER PEOPLES: Thank you, Chair. Well I  
3 have to tell you that someone said recently they thought the  
4 21st century would be the century of chemistry and I am  
5 beginning to think very strongly that that's the case  
6 because I am going to support the Option B approach here.  
7 And I do it based on not only some of what I believe are  
8 excellent observations already made here but if I think  
9 about the fundamental definition of green chemistry it moves  
10 us in a direction that supports the concept of hazard.  
11 Because the risk equation is based on two parameters and we  
12 tend to ignore the hazard parameter.

13 So I would suggest that it is, number one,  
14 consistent with the definition of green chemistry. Number  
15 two, it offers us an opportunity to shift the paradigm, to  
16 really shift the paradigm in a significant fashion. And  
17 when it does that it facilitates being a game changer for a  
18 new path forward; and I would argue that that path forward  
19 will support the concept of innovation as we tackle the  
20 problems. And then finally I think it also allows us in the  
21 construct of this new paradigm to really inform the process  
22 of these regulations going forward from an evolutionary  
23 point of view. So that's my observation for 1B.

24 CO-CHAIR CARROLL: Very good, thank you. Kelly.

25 PANEL MEMBER MORAN: Briefly. I too believe that

1 the most scientifically sound approach and frankly the  
2 practical approach is going to be 1B and here's why.

3           The first is that like the other scientists here,  
4 I don't see a solid scientific basis, or in fact really any  
5 scientific basis for picking .1 percent or any default  
6 number. And since I work in the water world, a thousand  
7 parts per million is a huge concentration and you often  
8 don't see the necessary dilution to get to those part per  
9 billion levels that we are talking about when we are talking  
10 about water pollution.

11           That said, I actually see something else in 1B  
12 which is that there are going to be probably a lot of cases  
13 where we are going to want to have a default that is higher  
14 than that. And that is because the considerations that  
15 should be put into that de minimis -- or not default but to  
16 the product-specific de minimis will include things like the  
17 product is made from recycled materials. And that's going  
18 to be a societal tradeoff that will probably need to be  
19 considered when we are setting what is the de minimis for a  
20 particular product.

21           And the reason I'm saying that, I'll give you  
22 brake pads as the example since I always give you the brake  
23 pad example. But it's actually a really good one because e  
24 went through this process of figuring out what was a de  
25 minimis concentration of the different metals in brake pads.

1 And we wind up stealing from RoHS for a lot of the metals  
2 because that was a number that was established and we said,  
3 that's good enough. The weight of the evidence is that that  
4 won't be harmful in the environment.

5 But for copper we went through and examined what's  
6 the environmentally important level, what are the  
7 uncertainties, what's the concentration that might be in  
8 from recycled starting materials that would be reused and  
9 then recognizing the societal benefit of that. That's how  
10 we came up with the half-percent copper being the right  
11 level. So below a half-percent copper was basically  
12 environmentally negligible.

13 And I don't think the Department needs to do a  
14 risk assessment to set the individual levels. That it  
15 should be free to use the weight of evidence. But I would  
16 actually simplify these criteria to just hazard exposure,  
17 cumulative. And include any input from the public and  
18 factors like recycled material. Another one is manufacturer  
19 process controls because that's a really important. We can  
20 go into that more later; given the time I won't do that  
21 right now.

22 And the Department should be free to use as the  
23 basis for its decision internationally set levels or other  
24 things that are out there that apply to that product because  
25 that may be the best choice.

1           So I urge B and thinking about those other things  
2 on a weight of evidence basis. Thank you.

3           CO-CHAIR CARROLL: Thank you, Kelly. I have --  
4 let's go through the list. I have Lauren then I get to the  
5 subcommittee members, I believe, Joe, Richard. And Dale,  
6 I'll give you the last word at that point. Lauren, it's  
7 yours.

8           PANEL MEMBER HEINE: Thank you. I too would tend  
9 towards the 1B. In part because I agree that .1 percent is  
10 not scientifically based; it's expedient and it will not  
11 serve to drive development and use of alternatives. It may  
12 serve to drive the dilution of chemicals in products and  
13 that is not where we are trying to go.

14           And secondly, as Odette said, applying these  
15 regulations are going to start slowly. Implementing is  
16 going to be a challenge and it is going to build and expand.  
17 And in practice I think it will be much easier to have no  
18 de minimis and to find out that in practice you can really  
19 set thresholds, as Julie was saying. In practice you could  
20 start internally with some default thinking than it is to  
21 sort of be locked into a de minimis and not be able to back  
22 that up.

23           So I think in practice it makes more sense to have  
24 no de minimis, allow DTSC and OEHHA to determine what kinds  
25 of de minimi apply to what kinds of products and what kinds

1 of chemicals to let that come through practice. And that it  
2 will become more and more efficient. And even though it's a  
3 lot of work up front it will become efficient over time.

4 CO-CHAIR CARROLL: Thank you, Lauren. Joe.

5 PANEL MEMBER GUTH: Thank you. Okay. Option 1B  
6 is closer to my way of thinking but I want to -- you know,  
7 there is something that is unfortunate about the way Options  
8 1A and B are articulated here. The most important  
9 difference between them from my position as a member of the  
10 Committee is that Option 1A is suggesting that there be a  
11 blanket de minimis level set at .1 percent for all products  
12 of concern, all chemicals of concern right now at the outset  
13 before they are identified at all.

14 Option 1B is saying that we shouldn't do that. We  
15 should wait and look at chemicals of concern, priority  
16 chemicals, priority products, on more of a case by case  
17 basis and see whether there should be a de minimis level set  
18 based on a variety of considerations. I think that was the  
19 idea.

20 And I would strongly advocate that for reasons  
21 that Mike and Meg and others have mentioned, which is REACH  
22 and other regulatory programs are very broad, they involve a  
23 lot of chemicals, a lot of products. Some of them are  
24 chemicals of concern, some are not, some are products of  
25 concern, some are not. We have in this statute a very

1 strong prioritization program that is going to be going in  
2 place to identify priority chemicals and priority products.

3           And once you get to that point the question of  
4 whether you need to have a de minimis exemption I think is  
5 really open to question. I think it should be very narrowly  
6 contained. The point of the statute is to drive towards  
7 safer alternatives, not product reformulations, not using  
8 less amounts of priority chemicals in the priority products,  
9 not substituting, you know, other toxic chemicals, not  
10 making a lighter product or a heavier product, whatever. We  
11 want to look at safer alternatives in those situations.

12           What also is unfortunate I think about 1B is it is  
13 characterized as the only other option for setting a de  
14 minimis level is a risk assessment. I don't think that  
15 that's the only kind of option that we talked about on the  
16 committee. For example, maybe there should be no de minimis  
17 level for intentionally-added ingredients and they should  
18 only be there for unintentionally-added ingredients.

19           There are other dimensions and some of them come  
20 up in the later options. So I don't think that is the only  
21 option for whether there should be -- the criteria for  
22 setting a de minimis level, you know, at all based on our  
23 thinking.

24           CO-CHAIR CARROLL: Thank you, Joe. Richard.

25           PANEL MEMBER DENISON: Thank you, Bill. I am more

1 of a 1B kind of guy, I guess. Let me make a few quick  
2 points. One is to pick up on the question that Tim asked  
3 earlier that I think we need to bear in mind in this whole  
4 discussion and it starts here.

5           And that is that what we are dealing with is a  
6 decision that will determine the conditions under which a  
7 chemical and a product is able to be subject to any kind of  
8 regulation under this authority including labeling, work  
9 place controls, et cetera, all the way up to a ban on a use.  
10 Because of the way the statute is structured you have to go  
11 through an alternatives assessment in order to get to any of  
12 those regulatory options. And therefore what gets into that  
13 alternatives assessment mode is profound. I mean, it's a  
14 profound question we are dealing with.

15           Okay. One quick thing about REACH. There is a  
16 provision under REACH that deals with chemicals of highest  
17 concern under REACH in articles and it sets a .1 percent  
18 level for those. And that would appear to be germane here  
19 but for those fact: That puts those chemicals and articles  
20 in a mode of essentially a ban as the only option whereas  
21 here we are talking about a process that leads simply to an  
22 alternatives assessment and then a range of potential  
23 regulatory responses. So again, I don't think it is apples  
24 and oranges.

25           Two other quick points. These are going to be

1 very data rich chemicals by definition. And I think we are  
2 going to have a good amount of information on both hazard  
3 and exposures that allows a more health-based, science-based  
4 process for setting de minimis levels. I like Joe believe  
5 that these should apply only to unintentionally present  
6 materials and we will get to that in a bid more detail.

7 But the last point I'd make is to echo something  
8 else Joe said and that is that I do think that there are  
9 some technology-driving ways of thinking about setting de  
10 minimis levels that ought to be coupled in and integrated  
11 here.

12 For example, we have a protection limit thing  
13 listed here. Another one is certain materials are going to  
14 be present as naturally occurring or as contaminants that  
15 cannot be removed and things like that. Those may be other  
16 levels by which a de minimis could be set that would again  
17 be chemical and application-specific.

18 The way I think about this is sort of that you  
19 might set a level, a de minimis level based on the lowest of  
20 either a risk-based type level or a technology driven  
21 determination. And we can talk about that a bit more later.

22 Thanks.

23 CO-CHAIR CARROLL: Thank you, Richard. Dale, you  
24 get the last word.

25 PANEL MEMBER JOHNSON: Do I have to have it as a

1 question?

2 PANEL MEMBER JOHNSON: Thank you. Well, my -- you  
3 know, I say this as a toxicologist and also someone after a  
4 couple of years of doing this who wants to get this  
5 implemented. And so I tend to lean to Option 1A as a way to  
6 implement it.

7 My problem with Option 1B is that, you know, if  
8 you start talking about scientific evidence for getting  
9 there, this is not a list of scientific evidence. This is a  
10 list of speculation and some kind of a, something that is  
11 going to be there in the future.

12 So what I would like to see -- and I say this 1A,  
13 noting that the first chemicals that come into this process  
14 -- and maybe I don't know how many will come into the  
15 process, will actually be adjusted either above or below the  
16 .1 level. They will be adjusted because there is a lot of  
17 information on them.

18 But you are also giving some kind of a threshold  
19 that you are laying out there to various manufacturers and  
20 other people that you are not going to accept chemicals of  
21 concern that come to DTSC at a level above that. You are  
22 not going to accept that without a lot of information on  
23 that.

24 But what I see in 1B is that this will eventually  
25 over time once we start to get a good understanding of this,

1 this will eventually start to modify the way we think about  
2 the de minimis level.

3           So to summarize that I think you should implement  
4 it with 1A, knowing that the chemicals that come in will all  
5 be adjusted on the front end with the relevant information.

6       And then keep 1B, keep the regulations so it can be  
7 modified over time when new information comes in.

8           You know, the issue of -- you go to that last  
9 bullet point, detection levels (sic). Well this is  
10 detection limits. This changes every year and it is almost  
11 impossible to deal with that with any kind of thing based on  
12 risk or anything else. Because you will just see it going  
13 down and down every year and we see that. So you can't  
14 just, you know, you can't do something on that.

15           So again, 1A start, with 1B as it develops over  
16 time to be able to modify it.

17           CO-CHAIR CARROLL: Thank you. Okay, I think that  
18 takes care of all the interventions on this topic. I would  
19 like now to move to decision point 2 - Calculation of the  
20 Concentration of a Priority Chemical in a Priority Product.

21       You have two options here.

22           And without directing the discussion, one of the  
23 things that we talked a significant amount about in the  
24 subcommittee was the difference between a formulated product  
25 and an assembled product. And that I think also carries

1 some bearing here.

2 So I would open the floor for comments here on  
3 Options 2A and 2B. All right, very good, Kelly, you go  
4 ahead and get us started.

5 CHIEF DEPUTY DIRECTOR MADRIAGO: Let me just say  
6 one quick thing. This was sort of triggered by something  
7 Joe said. For a lot of this there's a lot of iterations  
8 that could have been put together with different options.  
9 so if there is an option that one of you would like to see  
10 that you don't see here, you know, in your comments address  
11 that.

12 PANEL MEMBER MORAN: I am so glad you said that,  
13 Odette, because I was just about to break the rules and I  
14 feel a little better about it. Because I actually think  
15 that this needs to be set when the de minimis level is set  
16 for the product and that it is product context dependant.  
17 So sometimes it could be A and sometimes it could be B.

18 And I actually don't think that there is always a  
19 scientific reason for selecting it. That sometimes that  
20 selection needs to be made on the basis of DTSC's ability to  
21 enforce it. And the reason I say that is that it drives me  
22 crazy that DTSC is buying electronic devices and sticking  
23 them in a blender to homogenize them so that they can  
24 measure the concentrations, that just drives me nuts. And  
25 all of us have watched the "will it blend" videos; if you

1 haven't you've got to watch them, they're really funny.

2 But the idea that we are doing that and that's our  
3 enforcement method is a problem for me. So that is not a  
4 consideration that I, you know, have enough detail about to  
5 advise a department on practicalities of enforcement but I  
6 think that's really important.

7 More importantly, the reason I think this needs to  
8 be set on a product-specific basis is that exposures can  
9 differ depending on the design of the product. And the  
10 example I am going to go back to is the brake pad example  
11 because I think it's really compelling here.

12 A brake pad is a friction material that is mounted  
13 on a backing. The backing is usually metal, the friction  
14 material is usually a composite of many different materials.

15 It is the friction material that wears off in the  
16 environment that causes the water pollution that caused it  
17 to be regulated under law this year. It should have been  
18 regulated under this program and hopefully the next time we  
19 have a brake pad it will be able to be regulated here.

20 But the friction material is the piece of this for  
21 which the concentration matters, for which the concentration  
22 being de minimis or not matters, not the entire unit. The  
23 friction material is not easily separable from the backing.

24 In fact, this is a hazardous waste management problem. If  
25 you've got copper brake pads they might actually be

1 hazardous waste even when you average the backing in. But  
2 no one really wants to know that.

3 So as DTSC is setting that it is not, that is  
4 actually kind of a third option. It is not readily  
5 separable but they don't really want to set the  
6 concentration based on the whole thing including the  
7 backing. What they want to do is set the de minimis based  
8 on the concentration of the pollutant in the friction  
9 material.

10 CO-CHAIR CARROLL: Kelly, I just have a question  
11 for you. Is there any scientific or ethical question for  
12 which brake pads are not an appropriate metaphor?

13 (Laughter)

14 PANEL MEMBER MORAN: There are many. But it does  
15 provide a recent and relevant case study, which is why I  
16 keep bringing it up.

17 CO-CHAIR CARROLL: Thank you. Okay, Richard, you  
18 are next.

19 PANEL MEMBER DENISON: Thanks, Bill. In general I  
20 lean toward Option 2B here. A couple of clarifications. I  
21 think for formulated products my sense would be that we  
22 would be applying the concept to the formulation as a whole.  
23 I would not want to see, for example, the heavy metal can  
24 in which the formulation is used, factored into the  
25 denominator for the concentration. So that's a

1 clarification I think for formulated products where talking  
2 about the weight percent of the formulation.

3 Under Chemicals in the second -- Option 2B. I  
4 believe this is just a clarification but I think where it  
5 says "aggregate" that really should be "cumulative" to  
6 account for multiple chemicals that are contributing to the  
7 same or similar effects. Thanks.

8 CO-CHAIR CARROLL: Thank you. Dale, is your flag  
9 up for this round?

10 PANEL MEMBER JOHNSON: Yes.

11 CO-CHAIR CARROLL: Yes, okay. Joe and then Mike  
12 Kirschner then Dale.

13 PANEL MEMBER GUTH: My only comment, and I think  
14 this would apply to -- I support 2B since it is more in line  
15 with my thinking.

16 But the main point I want to make applies to  
17 either which is that the question of whether the de minimis  
18 concentration should apply to chemicals separately or to all  
19 the CSEs in a product I thought ought to turn in part on --  
20 or turn on the purpose of the de minimis exemption. So if  
21 it's a risk-based de minimis level then it seems like it  
22 ought to be the risk of the all the chemicals involved. Or  
23 if it is a detection limit de minimis level it wouldn't make  
24 sense for that to apply to all the chemicals together  
25 because it is a detection limit that applies to each one

1 individually, right? So I think it depends on the purpose  
2 of the de minimis.

3 CO-CHAIR CARROLL: Thank you, Joe. I have Mike  
4 Kirschner and then Dale, please.

5 PANEL MEMBER KIRSCHNER: Okay, I guess now is the  
6 time to talk about what "reasonably separable" means and  
7 Kelly kind of led into that. There is really, you know, a  
8 variety of different ways the Europeans look at this and  
9 they never use the word de minimis in RoHS or REACH, both of  
10 which look at those assembled products.

11 And I am only talking about assembled products. I  
12 don't really have an opinion on formulated products although  
13 2B is the closest I think to what I am thinking. REACH  
14 looks at the entire article, so to speak, and RoHS looks at  
15 a homogeneous material, which could be the coating on this  
16 metal of the microphone stand and then another piece would  
17 be the metal tube itself. So we have to define what  
18 reasonably separable means for this.

19 And if the de minimis is a source of the pollution  
20 then it should be limited to that piece that -- whether it's  
21 a homogeneous material or not. In an assembled article it  
22 will probably be in a homogeneous material of some sort.  
23 But if it is responsible for the pollution then you have to  
24 include it and make that the source of the calculation. It  
25 can't be based, I think, on including the weight of other

1 irrelevant to the priority chemical irrelevant materials in  
2 the priority product. You have to incorporate that which is  
3 relevant, only that which is relevant to the priority  
4 chemical.

5 CO-CHAIR CARROLL: Thank you, Mike. Dale.

6 PANEL MEMBER JOHNSON: Yes, 2B is my preference on  
7 this one. And I'll just mention going down into the part on  
8 chemicals, the idea of additivity, synergism and antagonism.  
9 This is an important issue and not easily determined from  
10 things that are linked to certain types of either, you know,  
11 whether it's a receptor or a certain type of biological  
12 target.

13 Because you really have to put these -- you know,  
14 if you are going to prove something like that you have to  
15 put this into a system where there is a biological end point  
16 you can read. Because, I mean, I have been doing this for a  
17 number of years and you can't just, for instance, take a  
18 high through-put screen on a target, a biochemical screen,  
19 hit the same target and then say that they are going to be  
20 additive or synergistic. You have to get them into a system  
21 that actually allows you to get a biological readout on  
22 that. So it does require a little bit different type of  
23 process to actually get there rather than just a -- it  
24 potentially hits the same target therefore it's synergism.  
25 But 2B is what I --

1 CO-CHAIR CARROLL: All right, very good, thank  
2 you. I see no other flags. Oh, I'm sorry, Ken, I'm sorry.  
3 I've got you. That's new. Ken and then Mike.

4 CO-CHAIR GEISER: Well this picks up for me the  
5 sort of question that floats through other parts of this  
6 which is, what is a product. In most of this we don't use  
7 the word "article" but, you know, article is much more used  
8 internationally as a way to try to separate out some of  
9 this.

10 But it depends, to me, I'm much more interested in  
11 2B here because it, for me, not only does thinking about the  
12 way in which the de minimis works per unit or per element or  
13 assembly, subassembly or whatever is more important than  
14 thinking about it as a whole, because it dilutes the whole  
15 idea of what de minimis would mean if you are not taking it  
16 down to the very specific parts.

17 Because those specific parts can be disassembled,  
18 those specific parts are not assembled prior to the  
19 production of the product. And during recycling or during  
20 some other part of the life cycle of that product those  
21 parts are taken apart. So for me the question of de minimis  
22 basically needs to be tied to that subassembly. But it also  
23 in regards to the chemical, this one speaks closer to the  
24 way I tend to think about chemicals, which is more in the  
25 context of other chemicals.

1           So the concentration or the relationship between  
2 multiple chemicals becomes important as to where you think  
3 about de minimis in regards to its cumulative or synergistic  
4 effects with other chemicals. It's just closer than the  
5 more simple, and I have to admit more practical you might  
6 sort of say, way in which 2A is set up. This, I think, gets  
7 us into looking at chemicals in context of how they really  
8 show up in products so I would be looking at 2B.

9           CO-CHAIR CARROLL: Thank you, Ken. Mike and then  
10 Julie.

11           PANEL MEMBER WILSON: I also am in favor of Option  
12 2B and would amend Richard's clarification on formulated  
13 products around the calculation of the formulation and I  
14 would add the non-aqueous proportion of the product  
15 formulation as a whole as a way to give equal treatment  
16 across product forms.

17           And also on the assembled products. I think  
18 Kelly's example is great on brake pads. And the other one  
19 is the idea of the steering wheel in the vehicle, that it's  
20 actually an important pathway of exposure. And it makes  
21 sense to focus our concentration in that way rather than as  
22 a component or a proportion of the entire vehicle, which  
23 doesn't make sense to me for the reasons Ken is describing.

24           And then on chemicals I would -- the de minimis  
25 concentration. Let's see. I misread this. It says -- if I

1 understand this right it is saying, apply the de minimis  
2 concentration separately to each individual priority  
3 chemical. So that means you could theoretically have 50  
4 percent of a product, a priority product that consists of  
5 priority chemicals. Is that right? I wouldn't want us to  
6 go in that direction but I guess I am entering a clarifying  
7 question here on the language.

8 CHIEF DEPUTY DIRECTOR MADRIAGO: Well, you're  
9 looking under Chemicals under 2B, is that correct?

10 PANEL MEMBER WILSON: That's correct, yes.

11 CHIEF DEPUTY DIRECTOR MADRIAGO: What it's saying  
12 is that you could have up to whatever the de minimis level  
13 is of each priority chemical that is in the product. With  
14 the exception that you would, instead of looking at the  
15 individual chemicals you would look at aggregate or  
16 cumulative concentrations of multiple priority chemicals  
17 where one of the three bullets applies.

18 PANEL MEMBER WILSON: Yeah, okay. Thank you for  
19 that clarification. All right.

20 CO-CHAIR CARROLL: All right, thanks, Mike. Julie  
21 and then George and then Roger.

22 PANEL MEMBER SCHOENUNG: Thank you. I just wanted  
23 to comment, 2B is for me also more in line with my thinking.  
24 And in particular on the assembled products and echoing what  
25 many others have said, that there's individual components or

1 subassemblies that need to be accounted for.

2 But that is also important to realize that that's  
3 where the decisions are made about what goes into a  
4 substance or how a product is made is not usually at the  
5 bigger aggregate assembled level, it's at each of these  
6 subassemblies. Each component there's decisions being made  
7 about what substances should be in there and what processes  
8 are used to make it.

9 So that is also where you have the most power to  
10 make change is by -- you might not want to throw out the  
11 whole cell phone but you might want to get rid of one of the  
12 components in that cell phone. And so being able to  
13 identify that, which ones need to be targeted and which ones  
14 don't, I think is critical to part of that definition.

15 CO-CHAIR CARROLL: Very good, thank you. George  
16 and then Roger, I think you are going to have the last word.

17 PANEL MEMBER DASTON: You know, I think that what  
18 I hear everybody saying is that there is a kitchen logic to  
19 how to do this, you know. And much as I like the thought of  
20 the Will It Blend or the depleted uranium container for  
21 these things there is a kitchen logic on how to do this that  
22 I think that everybody is in a common place about so I don't  
23 want to speak to that.

24 What I sort of have been stewing over for this 20  
25 minute period or however long it is are the three bullet

1 points in the end that really get into a real different  
2 discussion than de minimis. I mean, I think that doing  
3 cumulative risk assessment is an interesting topic that we  
4 ought to think about but I don't think it should be buried  
5 in de minimis and certainly not in this, you know, really  
6 strange question of de minimis as to whether you should do  
7 the Will It Blend or the, you know, the actual components of  
8 a product or the whole formulation kind of thing.

9           So my strong recommendation is that you pull these  
10 things out of de minimis and have these be a more over-  
11 arching discussion as to whether, you know, this particular  
12 set of regulations is going to include cumulative risk  
13 assessment processes and if so, how. Because it ought to be  
14 for everything not just the de minimis chemicals.

15           CO-CHAIR CARROLL: Okay, I see Roger and Lauren  
16 and Richard, you have your flag up again. I would like to  
17 move us on after that if I could, please. Go ahead, Roger.

18           PANEL MEMBER McFADDEN: Thank you, thank you,  
19 Bill. Just as Kelly always talks about brakes I have a  
20 reoccurring theme and it's my grandkids. So excuse me for a  
21 moment to take about my grandson for a moment. Not by name  
22 and it does pertain.

23           He wanted a bicycle so I went down to buy a  
24 bicycle. But you see these days you just don't just buy a  
25 bicycle, the product, you buy a bicycle that is

1 disassembled. And so I made the unfortunate decision to buy  
2 this bicycle that I then took home and had to assemble so I  
3 became the assembler. And each one of those individual  
4 components that made that bicycle up were a product because  
5 they were made by someone and not necessarily by the same  
6 company that even sold the bicycle to me.

7           So to me, when we begin to look at products that  
8 way we realize that products are products as we see them as  
9 consumers but it doesn't take very long to realize they  
10 really become, you know, individual products. So I think I  
11 would lean to 2B simply because I think it is hard to just  
12 say that one product is only one thing because they all have  
13 their kind of uniqueness.

14           CO-CHAIR CARROLL: Thank you, Roger. Lauren.

15           PANEL MEMBER HEINE: Thank you. I too would tend  
16 towards 2B. And I think it won't be that difficult really  
17 to identify those cases where there might be interactions  
18 between chemicals. Because you could think of the chemical  
19 groups. For example, if you were talking about chemicals  
20 with similar structures, the idea of chemical groups is used  
21 to classify hazards so that if you had chemicals that are  
22 related by chemical class or chemical group then it would  
23 make sense to treat them as a unit and to not measure the  
24 limit of each one separately.

25           So if you want to use that method for assessing

1 hazards you should also use that method for determining the  
2 concentration of a chemical in a product. You can't have it  
3 both ways. I think you should be able to consider chemical  
4 groups and additive effects of end logs that might even be  
5 part of a read-across methodology.

6 PANEL MEMBER SCHWARZMAN: Lauren? Sorry, Meg  
7 here. Can you say what you mean by chemical groups. Like  
8 what kind of categories are we talking about?

9 PANEL MEMBER HEINE: Well it could be anything  
10 from -- say you wouldn't --

11 PANEL MEMBER SCHWARZMAN: But not like carcinogen.

12 PANEL MEMBER HEINE: Right.

13 PANEL MEMBER SCHWARZMAN: Okay.

14 PANEL MEMBER HEINE: Right. It would be more the  
15 chemical class --

16 PANEL MEMBER JOHNSON: Chemical structure.

17 PANEL MEMBER HEINE: Right, right.

18 CO-CHAIR CARROLL: Richard and you get the last  
19 word here.

20 PANEL MEMBER DENISON: Thanks. I think Mike's  
21 clarifying question earlier does raise an issue that I just  
22 hadn't quite appreciated here. Because I think we are  
23 talking about situations where there is more than one  
24 chemical of concern in a priority product. And I'd say  
25 maybe we do need to sort of think through this a little bit

1 more.

2           The subset of that situation is where those  
3 chemicals may have similar effects or modes of action or  
4 what have you. But the broader question is, if you have  
5 three such substances do you let them be added up so that  
6 you have three times the de minimises -- de minimi, thank  
7 you, for those. (Laughter) Or do you apply. you know, the  
8 number to all three? And I am not thinking fast enough here  
9 to come up with a solution but I want to flag this as  
10 something that I don't think we really thought through in  
11 our group.

12           CO-CHAIR CARROLL: All right, very good. Let's  
13 move on then to Topic 3 - Limitation on Allowance of  
14 Exemption - Based on Type of Priority Chemical. And you  
15 have three options here. And I guess I would go ahead and  
16 open the floor for those of you who have some thoughts.

17           CHIEF DEPUTY DIRECTOR MADRIAGO: Let me just say  
18 something.

19           CO-CHAIR CARROLL: Go ahead, Odette.

20           CHIEF DEPUTY DIRECTOR MADRIAGO: I realized as I  
21 was reading it and then with your questions that I could  
22 have structured 3B a little bit differently. So the first  
23 paragraph where it says either no de minimis exemption or a  
24 DTSC-specified lower de minimis level if that level is at  
25 least 2 logs below 0.1,, that those choices are meant to

1 apply only to the three types of chemicals that are  
2 described in these three bullets. So what is not stated  
3 here is that this option would envision that for any other  
4 type of chemical there would be no limitation on the  
5 allowance of the exemption. I hope that helps.

6 CO-CHAIR CARROLL: Okay, with that. Good,  
7 Richard, it's all yours.

8 PANEL MEMBER LIROFF: Since this was not a  
9 clarifying question before, why 2 logs below? Can I get an  
10 explanation of the logic behind that, please.

11 CHIEF DEPUTY DIRECTOR MADRIAGO: I don't remember  
12 who offered that comment. If one of you remembers offering  
13 it, please --

14 CO-CHAIR CARROLL: Dale, I think you did.

15 PANEL MEMBER JOHNSON: Yeah, I did. I did it as  
16 an example that you would use a logarithmic approach to look  
17 at as you lower levels; and so I used a 2 log as an example.  
18 So not specifically to say that it's 2 logs.

19 PANEL MEMBER LIROFF: Thank you.

20 CO-CHAIR CARROLL: And I would also suggest that  
21 going back to the discussion of the subcommittee that when  
22 numbers are thrown out in many cases you can substitute any  
23 number you like but the goal was to have a discussion, in  
24 that case to say that for certain types of chemicals you  
25 might have a substantively lower default than you might for

1 otherwise.

2           Okay, I see you, George.

3           PANEL MEMBER DASTON: Thanks, Bill. I guess after  
4 we have had the discussion around Option 1 I am struggling  
5 with how this is materially different from Option 1, you  
6 know, where we talked about, you know, is there a default de  
7 minimis level or is there not? Which I see is the same  
8 question here. And then, you know, is there a way to figure  
9 out if there is a default, you know, what the exceptions are  
10 to it, which is at least part of Option 3B. So I guess I am  
11 seeing us make this a lot more complicated by making it a  
12 separate question than I think it needs to be.

13           I also have a small concern in option 3B around,,  
14 you know, what's meant by endocrine disruptors. There are  
15 some fairly standard definitions that we have talked about  
16 for CMRs and PBTs but we haven't for endocrine disruptors  
17 and so the endocrine disruptor definition that is floating  
18 in my head is the one that the US EPA uses, which would  
19 effectively also classify something as a reproductive  
20 toxicant.

21           In the end it wouldn't be in the European CMR  
22 classification because the US EPA doesn't do that but I  
23 think that that would, if there were some sort of no  
24 exemption default for those kinds of compounds we really  
25 need to define what we meant by something like endocrine

1 disruptor. But my main point is, you know, I think that  
2 this makes it, this whole set of options is way more  
3 complicated than what we need given the discussion we have  
4 had on Option 1.

5 CO-CHAIR CARROLL: Very good, thank you. So I  
6 have Julia and then Megan and then Joe, please.

7 PANEL MEMBER QUINT: Yes, I'm confused about the  
8 options here as well. Option 3A wouldn't be my choice. But  
9 Option 3B is troubling because of lack of clarity about high  
10 potency carcinogens. What does that mean? And I was in  
11 favor of Option 1B so it seems that we are allowing -- in  
12 that option I think we would have DTSC specify de minimis  
13 for some things.

14 And then when we got to Option 2B Chemicals, I  
15 have the same concern that Mike and I think Richard brought  
16 up about a lot of de minimis amounts of really troubling,  
17 you know, chemicals, you know, highly toxic chemicals.

18 So I think Option C comes closest because there  
19 wouldn't be a de minimis level for certain toxicants. But I  
20 am troubled by CMRs because what mutagens? All mutagens?  
21 In vitro, which in vitro tests? I mean, that's much too  
22 broad in my opinion. I would, you know, use the -- GHS I  
23 think has a category I and II for heritable mutagens, which  
24 would be closer. And then reproductive toxicants, you know.  
25 The way we do risk assessment now there is a threshold for

1 those chemicals. You know, they are not like some  
2 carcinogens where there is no threshold.

3           So I would be in favor of 3C if we use hazard  
4 traits as defined by OEHHA and if we use the strongest  
5 evidence category of a certain subset of those hazard traits  
6 for Option 3C. Because I think the things that we have  
7 here, if we don't have some sort of evidence criteria for  
8 whatever toxicants that we pull out to say these are  
9 special, these are -- you know, these pose high risk either  
10 to health or the environment. I think we have to have some  
11 evidence of what those things are and the hazard traits as  
12 defined by OEHHA gets at that a bit better so it's not a  
13 list-driven thing.

14           CO-CHAIR CARROLL: Thank you, Julia. Megan.

15           PANEL MEMBER SCHWARZMAN: Thanks. I sort of am  
16 picking up where George was because I see, I'm in the same  
17 kind of conundrum given our conversations about 1 because I  
18 see where this is sort of contradictory or is already  
19 covered.

20           So if DTSC adopted the approach that there was no  
21 default de minimis, no blanket de minimis exemption granted,  
22 then in a sense the Department takes on some combination of  
23 these kinds of considerations because they are saying, we  
24 will consider setting a de minimis exemption that is  
25 specific to the substance that we are looking at. So in

1 that sense this goes away if 1B is adopted and I think  
2 that's kind of where you were -- maybe that's not what you  
3 were getting at but that's what I took from it.

4           So if there is no default limit established and it  
5 is set for unintentionally present substances then it seems  
6 like there is a collection of guiding principles, specifics  
7 that may help the Department figure out where to set that  
8 level. And some of them are here and I think some of them  
9 have merits and some of them are harder in ways that people  
10 have already presented around what is a high-potency  
11 carcinogen and things like that.

12           For example, I think it is quite strong to think  
13 about in the way that REACH does and in the way that GHS  
14 pulls out substances whose effects are heritable and may  
15 propagate across generations or bioaccumulation, for  
16 example. Which it's hard to say there is a safe level if  
17 they are just going to continue to build.

18           So I think we don't necessarily have to plunge  
19 into all those details now but I think what this may be  
20 doing is putting forward some of the ideas for the  
21 categories that would help guide the Department in setting a  
22 substance-specific de minimis exemption for unintentionally-  
23 present chemicals.

24           CO-CHAIR CARROLL: Joe and then Mike, Richard and  
25 Tim, please.

1           PANEL MEMBER GUTH: Yeah, I just want to clarify  
2 my thinking about this as a member of the Committee and what  
3 we are doing here.

4           George raised a great point and Meg has probably  
5 articulated it better than I can. But, you know, those of  
6 us that are concerned about a blanket de minimis exemption,  
7 we are offering ways to think about containing it or  
8 curtailing it and there's a number of ways to do it and  
9 that's what these options reflect. So that doesn't mean  
10 that we should do all of them that way. In other words,  
11 there might be, you know. If we do 1B maybe 3C doesn't make  
12 so much sense or 4B could replace the others. So I think we  
13 need to have some room for a discussion somewhere along the  
14 line about which of these might be the best way to do it if  
15 we do want to contain the de minimis exemption.

16           CO-CHAIR CARROLL: Thank you. Mike.

17           PANEL MEMBER WILSON: Thank you, Chair. I guess  
18 the question for me hinges around the question of type. As  
19 others have articulated, if this is intentionally-added or  
20 unintentionally present.

21           And I would favor Option 3B but I would amend it  
22 to say: no de minimis exemption for priority chemicals,  
23 period.

24           The next sentence would be: A DTSC-specified de  
25 minimis level for unintentionally-present priority

1 chemicals.

2           And I think we want this regulation to move the  
3 market away from the intentional use of priority chemicals  
4 and that that is the vehicle for doing that.

5           CO-CHAIR CARROLL: Thank you. Richard.

6           PANEL MEMBER PEOPLES: May I ask him a question?

7           CO-CHAIR CARROLL: Yes, go ahead.

8           PANEL MEMBER PEOPLES: Thank you very much. Mike,  
9 I'm not sure I completely understood your comment about --  
10 with regard to the Option 1B that we talked about. Did you  
11 say that there would be no de minimis for a chemical of  
12 concern?

13           PANEL MEMBER WILSON: For a priority chemical.

14           PANEL MEMBER PEOPLES: For a priority chemical.

15           PANEL MEMBER WILSON: That's the way I would like  
16 to see it go.

17           CHIEF DEPUTY DIRECTOR MADRIAGO: That wouldn't  
18 make sense to --

19           PANEL MEMBER WILSON: For -- I'm sorry. For  
20 intentionally-added priority chemicals. That would be the  
21 clarification.

22           PANEL MEMBER PEOPLES: Okay, thank you.

23           CO-CHAIR CARROLL: Are we square?

24           PANEL MEMBER PEOPLES: Yes. Thanks, Chair.

25           CO-CHAIR CARROLL: Richard, please.

1           PANEL MEMBER DENISON: I think if we move this  
2 document forward in some way, just having a header at the  
3 top to clarify that this applies to any situation under  
4 which a de minimis blanket or not blanket, intentional or  
5 not intentional, these are options there. So I think we are  
6 getting hung up because a lot of us said we didn't want  
7 blanket de minimis levels and we didn't want them applied to  
8 intentional. So I think just making that clear at the  
9 outset.

10           The one thing I would say. I have sympathy,  
11 George, on the endocrine disruption front. I think we would  
12 need to bear in mind that first of all for a chemical to get  
13 to this point as an endocrine disruptor it would obviously  
14 have to meet criteria that had been agreed to and imposed  
15 for it to get to this point.

16           I will be the first to say that I think the  
17 definition and the way and which it is tested is evolving.  
18 But I think we are setting up a regulation that would have  
19 to work for some time to come. And so we need to be sure  
20 that those definitions and the criteria for them are well-  
21 established when they are being applied but we need to have  
22 something that is anticipating evolving science here as  
23 well.

24           I think the rationale -- and I am of two minds on  
25 this in terms of these no exemptions for CMRs, PBTs and

1 endocrine disruptors. Because on the one hand those are the  
2 likely things that are going to get chemicals to this point.

3 If you then turn around and say no de minimis for those, it  
4 basically means no de minimis, period.

5 On the other hand for some of them, and I am  
6 taking Julia's point and picking it up on it, there is a  
7 rationale for thinking about why an initial level that you  
8 think might be safe over time may not be. And the two  
9 rationales are, one, there is no safe level. That's a  
10 genotoxic carcinogen, et cetera.

11 And the other is that that level may grow over  
12 time and that's the rationale for PBTs getting special  
13 treatment, for example. And I think the rationale for  
14 endocrine disruptors is if this all pans out those are  
15 chemicals that act at exceedingly low doses. So the  
16 rationale is there but I worry a little bit about swallowing  
17 the exemption, if you will. So I think this needs some more  
18 thought.

19 CO-CHAIR CARROLL: Thank you, Richard. Tim.

20 PANEL MEMBER MALLOY: Thank you. I guess sitting  
21 next to Art has created a split personality as well for me  
22 and it's rubbing off on you too I think. (Laughter). I am  
23 really torn.

24 (Dr. Fong stood up and stepped away from  
25 the table for a moment.)

1           PANEL MEMBER MALLOY: I feel better now. I am  
2 really torn by this one and let me just start by saying I  
3 don't see an inconsistency with Option 3C and taking a  
4 position of Option 1B because I view 3C as the regulation  
5 creating a restriction on what DTSC could do under their  
6 discretion of setting de minimis or not. So it is giving  
7 them some guidance about where to be extremely cautious  
8 about it. And I think it is appropriate perhaps with the  
9 limitations Julia had set out, it is appropriate to say  
10 there are certain classes of chemicals where you just have  
11 to be much, much more cautious.

12           The reason I'm split here is because the goal of  
13 the statute is to integrate the idea of safer design and  
14 there are no safe levels for particular classes of  
15 chemicals. So it would seem to be inconsistent with those  
16 notions to create a de minimis level, particularly one that  
17 looks at whether something can be safely removed from the  
18 product but doesn't ask whether there are safer alternatives  
19 for the product. So that seems inconsistent with the kind  
20 of broader notion that we have that you don't just look at  
21 one product, you look at what's possible out there and try  
22 to come to the safest outcome.

23           But on the other hand the more I think about  
24 preventative based regulation in general the more you come  
25 to the conclusion that you can't completely divorce yourself

1 from these notions that you do have to make some choices  
2 about tradeoff of hazard and implementability of a program.

3 And you might pretend that you could move completely to an  
4 alternative-based approach and always pick the safer thing  
5 but the fact is that that is a moving target and there's  
6 resource constraints and at some point you have to say  
7 something is going to be safe enough, at least for today.  
8 And I think that's what 3C I think is trying to do.

9 But I end up where I think Richard is. I think  
10 what I draw from 3C and I think 3B as well is this notion  
11 that there needs to be a higher level of caution about a de  
12 minimis standard for these particular classes, however you  
13 define them.

14 And I am not completely comfortable with 3B  
15 because I feel like, again, it's a little bit like the .1  
16 percent. I like it better but it's a little bit like the .1  
17 percent. I wasn't feeling like it was grounded in something  
18 other than a general sense of caution.

19 3C kind of punts on it by putting "safe" in  
20 parentheses, right. So my idea of what might be a safe de  
21 minimis level could be -- I could come up with one that  
22 would make me comfortable with 3C that would allow some de  
23 minimis level but not a broad one. So I think for me it all  
24 turns on well what do you mean when you say, what is a safe  
25 de minimis level in quotes like that. So I think I am where

1 Richard is on this. Thank you.

2 CO-CHAIR CARROLL: Thank you, Tim. Dale, you look  
3 like the last flag up at this point. Oh, okay.

4 PANEL MEMBER JOHNSON: Oh, there is another flag.

5 You know, I'm kind of going back to the one,  
6 question one. So under various considerations people are  
7 saying that there should be either a blanket de minimis or  
8 that could be adjusted chemical by chemical or you could  
9 start and do it chemical by chemical.

10 So in the end what everybody has said is there  
11 should be a de minimis level for each chemical. And based  
12 on that the question is, should there be an exemption for  
13 certain classes of chemicals based on that de minimis level?

14 And to me there -- and so what happens underneath that, you  
15 know, when you have either an exemption or no exemption?

16 So under an exemption, at least my concept is,  
17 then, you know, whatever comes into play, whether there is  
18 reporting or no reporting or whatever it's just,, you know,  
19 it's an exemption so essentially there is no reporting based  
20 on that.

21 If there is no exemption what does that actually  
22 mean? So no exemption means, it could mean, number one,  
23 that under -- with those compounds in a product then that  
24 product is banned. That could be if there is no exemption  
25 into that. Or it could mean that it requires a certain type

1 of reporting and data criteria that actually go into  
2 substantiating what the de minimis level, whether you're  
3 below or above or so forth.

4           And I think that's what this, what this means. I  
5 hope that's what this means anyway, that it doesn't just ban  
6 the product. So under the situation where everybody has  
7 come to an agreement that there should be a -- and that may  
8 not be true with my come to an agreement of how you set a de  
9 minimis level, whether it's chemical by chemical or how you  
10 actually do that, then you're stuck with the exemption  
11 thing.

12           So to me the question is, what falls under that no  
13 exemption? And I think it's, you know, I think it's fairly  
14 clear, the CMRs, the PBTs. And then you have to look  
15 relatively carefully at how you describe endocrine  
16 disruptors because that is not a -- as you mentioned,  
17 George, that is not a very specific type of thing but it  
18 certainly is important, absolutely important.

19           CO-CHAIR CARROLL: Thank you, Dale. Bob. And you  
20 do have the last word then.

21           PANEL MEMBER PEOPLES: My thinking is evolving so,  
22 you know. I had moved toward 3C here but I am going to go  
23 back to the comment that Mike made earlier. And that may be  
24 the idea is that if it's a priority chemical of concern  
25 there shouldn't be a de minimis and force the analysis to be

1 done.

2           The thing that concerns me about the way 3C is  
3 written at this point in time is there is a word in there  
4 that from a legal point of view I think has great ambiguity  
5 in that it says: "and cannot reasonably be removed from the  
6 Priority Product." And your reasonable and my reasonable  
7 could be, you know, light years apart here. I am not  
8 offering an answer. I am offering you a conundrum that I  
9 have got that I haven't had a chance to think through at  
10 this point.

11           CO-CHAIR CARROLL: All right, very good.

12           Let's move on to Topic 4 then, please. And this  
13 is entitled Limitation on Allowance of Exemption - Based on  
14 the Source of the Priority Chemical. And you have kind of  
15 touched on this a bit in some of your earlier discussions  
16 but I think this is the place where you might have a little  
17 more fulsome discussion about these sorts of things. Joe, I  
18 see you are champing at the bit.

19           CHIEF DEPUTY DIRECTOR MADRIAGO: And let me remind  
20 everybody that on this particular one you need to look at  
21 two different pages.

22           CO-CHAIR CARROLL: So you have Option 4A and 4B.

23           PANEL MEMBER GUTH: Right. I guess maybe I am  
24 champing at the bit. I think this is the most important  
25 mention for doing the cut between where we ought to allow a

1 de minimis exemption and not. And I would strongly advocate  
2 for B. So 4B, I know there are a lot of sort of double  
3 negatives in there but the basic idea is the distinction  
4 between intentionally-added and unintentionally-added  
5 ingredients where what we mean by intentional is if they are  
6 added for a specific purpose, a specific industrial purpose  
7 for a specific function by the manufacturer. That is  
8 intentionally-added.

9           And in those cases I think, given the context that  
10 we are talking about in AB 1879 where we have identified a  
11 priority chemical in a priority product, it has gone through  
12 all that process, which we are going to talk about tomorrow.

13       In those cases we should not allow a de minimis exemption  
14 for a chemical that is intentionally put into the product  
15 for industrial use with a function that is intended. We  
16 want to drive alternatives analysis, we want to drive those  
17 manufacturers to find a safer alternative in those cases.

18           And so I think -- I actually want to commend  
19 Odette for putting this together. This is not a form that  
20 anybody on the Committee put together but I think it does  
21 capture a lot of people's thinking and identifies, you know,  
22 what kinds of circumstances unintentional chemicals come --  
23 incorporate into a product unintentionally as contaminants,  
24 et cetera.

25           And so I think -- and if we did this I think some

1 of the other ways of thinking about this like with risk and  
2 CMRs, PBTs, would become less, you know, less important and  
3 maybe we could do without them if this was in there. So I  
4 think that is pretty important.

5           Then the only just minor editorial suggestion I  
6 would make is on the last two bullet points, the source of  
7 the PC. Is it recycled or the fourth one, naturally-  
8 occurring. I think they ought to have the same  
9 qualification of cannot be reasonably removed as are in the  
10 previous two.

11           And then well maybe one final small point in the  
12 second one. I am not -- "is critical to the acquisition or  
13 production of another priority chemical." Maybe it should  
14 be 'any ingredient." I am not sure why that should be only  
15 applicable for priority chemicals. But anyway.

16           CO-CHAIR CARROLL: Very good, thank you. Kelly.

17           PANEL MEMBER MORAN: Thank you. I too fall into  
18 the 4B camp here. The reason for this -- I'll just express  
19 that I am not going to opine. I am a little unsure about  
20 part two under the beginning of 4B so I am not going to  
21 opine on that.

22           But the part of this that is really important to  
23 me has to do with: The manufacturer has a "duty of  
24 reasonable investigation" or some other phrase here.

25           One of the most common reasons that we are finding

1 problem products, as it were, at least the ones that get in  
2 the press and everything else, are because a manufacturer  
3 doesn't have adequate control of its supply chain. And I  
4 think that one of the most important things we could do with  
5 these regulations as a state to protect California consumers  
6 would be to establish a reasonable approach towards making  
7 it clear that manufacturers need to have control over their  
8 supply chain. And that's, you know, then we won't have more  
9 lead paint in Thomas the Toy Train and all kinds of other  
10 things that have been just so regrettable.

11 I am not super comfortable with the two bullets  
12 below "duty of reasonable investigation" and so I think  
13 those probably will need to be fleshed out a little bit. I  
14 tend to like the phrase due diligence but I realize that is  
15 a legal phrase and has a whole bunch of meaning that I am  
16 not familiar with. But I think that that concept is the  
17 most important part of all of this. Thanks.

18 CO-CHAIR CARROLL: Thank you. Okay, I have Mike  
19 Kirschner, Megan and Richard.

20 PANEL MEMBER KIRSCHNER: Okay, thanks Bill.

21 I am in the 4B camp as well. I think the  
22 fundamental problem with 4A is that it drives manufacturers  
23 to not want to know anything about the product they are  
24 selling. This regulation's intent is to drive manufacturers  
25 to understand more about the product that they are selling;

1 therefore 4A is a non-starter.

2 4B on the other hand is proof that the European  
3 Union's RoHS law -- directive, I'm sorry, it's a directive,  
4 is not about de minimis levels, it has nothing to do with de  
5 minimis levels. The proof is in the fact that cadmium is at  
6 .01 percent level. All the standards, ASTM standards for  
7 metals, at least at the time of the RoHS directive and for  
8 quite a while thereafter, maybe even today, allowed 1500 PPM  
9 contaminants in metals, no greater than 500 PPM of any one  
10 specific contaminant. Therefore if they wanted to be  
11 consistent with an actual industry de minimis they would  
12 have made that cadmium threshold .05 percent not .01  
13 percent.

14 I think it's important that manufacturers  
15 understand their products, they get driven to understand it,  
16 they get driven to understand what is in the recycled  
17 material that they are using. Because as was raised in the  
18 Subcommittee 3 meeting, based on what your recycled material  
19 is coming from, its provenance so to speak, you should have  
20 an idea of what it contains. And if you don't then you have  
21 got to learn. Manufacturers have to do the due diligence.  
22 They must understand what is in their product. Simple, it's  
23 as simple as that.

24 CO-CHAIR CARROLL: Very good, thank you, Mike.  
25 Yes, Megan it's yours. And then Richard and then Rich.

1           PANEL MEMBER SCHWARZMAN: Thanks. When I put my  
2 flag up before, people have said most of the things that I  
3 wanted to say so I won't belabor them. Except to say that  
4 Option 4B does come the closest to what I would want to see  
5 here. I think it accomplishes the whole point of having a  
6 de minimis exemption, which is to not create an unreasonable  
7 expectation in our process for trying to create a regulation  
8 that increases supply chain knowledge the way that Mike  
9 Kirschner was just saying and increases the search for and  
10 innovation of alternatives. Which you can't do if you are  
11 exempting the presence of an intentionally-added priority  
12 chemical in a product.

13           So I think this is an excellent element of the  
14 proposal and i would second Joe's point about adding the  
15 cannot be reasonably removed aspect to the second two bullet  
16 points under number two. I'm sorry, the last two bullet  
17 points under number two. And I think that there are some  
18 tradeoffs that we may choose to make as a society that has  
19 been referred to about using recycled content that may  
20 contain a chemical but that we should still be asking the  
21 question, can we remove it.

22           CO-CHAIR CARROLL Thank you. Okay, Richard.

23           PANEL MEMBER DENISON: Thanks. I think I lean  
24 toward Option 4B. I think the way that I think about this  
25 is all of this is going to be applied to product

1 manufacturers not chemical or substance manufacturers. So I  
2 think it is important to -- I view this option really as a  
3 middle ground between on one hand having a blanket or a de  
4 minimis approach that applies to any ingredient and on the  
5 other hand having no such de minimis.

6           The reason I think this is justified and the way I  
7 think of this option, I got wrapped around the double  
8 negatives here too a little bit. But I see paragraph two  
9 and its sub-bullets essentially as defining what we mean by  
10 unintentional. So this is essentially saying, you know, the  
11 dimensions of how you might think about what is intended and  
12 not.

13           But I think it is very reasonable to expect that  
14 the manufacturer of a product should, if they don't already  
15 they should have a handle on everything that they are  
16 putting in their product intentionally, that is there for a  
17 reason.

18           It is least reasonable or practical to expect that  
19 they could necessarily have a handle on all the things that  
20 come along for a ride that they don't want in their product  
21 but are there for other reasons. They are residuals, they  
22 are contaminants, et cetera. And so I think this provides a  
23 reasonable way out for those substances that does represent  
24 a middle ground.

25           I just want to flag one other thing. It's a

1 phrase in paragraph two. "The Priority Chemical does not  
2 contribute functionally or performance-wise." We had some  
3 discussion in our calls about a case such as, and the  
4 example I used there was somebody is putting deca-brominated  
5 diphenyl ether into their product and they are intentionally  
6 doing that. But it has a contaminant, if you will, that is  
7 another -- octa-BDE, for example. That is not their intent  
8 but it comes along for the ride. Well that octa- is  
9 actually imparting flame retardancy to the product so it  
10 actually is functioning.

11           And I think we need to think through those  
12 examples where the contaminant or the residual or the  
13 byproduct is functionally active as intended for the primary  
14 ingredient. And that's why that language I think made it  
15 into here. Thanks.

16           CO-CHAIR CARROLL: All right, very good. I have  
17 Rich, Julia and Ken.

18           PANEL MEMBER LIROFF: Just a very strong  
19 endorsement of 4B for the reasons that Kelly and Michael  
20 described about the affirmative duty of the manufacturer to  
21 know what's in the supply chain. What's there and to work  
22 hard to get rid of it.

23           CO-CHAIR CARROLL: Very good, thank you. Julia.

24           PANEL MEMBER QUINT: I endorse 4B as well. The  
25 only thing is I don't see any language here about the, you

1 know, the PC not causing harm, either environmentally or to  
2 health. You know, I think it is reasonable to say that if  
3 it can't be reasonably removed I think that's appropriate.

4 But I think we also should -- and maybe it's  
5 inherent in here or just, you know, not overtly stated. But  
6 the real thing we are trying to get here is that anything in  
7 the product doesn't contribute to harming health or the  
8 environment. So if it can't be removed and it does cause  
9 harm then I think we have to think about that a little  
10 differently.

11 And I am concerned about monomers, residual  
12 monomers, because there are a number of them that cause  
13 asthma and allergic contact dermatitis and things like that  
14 because, you know, it is not intentional that they are  
15 unreactive but they do cause health problems. So I would  
16 like to make sure that that is addressed.

17 CO-CHAIR CARROLL: Thank you. Ken.

18 CO-CHAIR GEISER: I also find 4B closer to what I  
19 would think too and it does have to do for the same reasons  
20 that others are mentioning, which is the different treatment  
21 given whether a substance has been reasonably entered into a  
22 product or a component of a product or whether it is  
23 unintentionally there.

24 But I guess what I want to do is just be  
25 sympathetic to how difficult the way our economy is today to

1 try to ascertain often how chemicals in, particularly  
2 assembled products and particularly assembled products that  
3 are assembled offshore through a set of different tiers of a  
4 supply chain.

5 I just came from -- several of us came from the  
6 Green Chemistry in Commerce Council meeting that is taking  
7 place this week as well. And one of the things we focus on  
8 there is just the challenge of really trying to follow or to  
9 ascertain the chemical ingredients in a product given a  
10 series of different suppliers in the supply chain that vary  
11 over time and that have their own kind of reasons for  
12 changing what they do at any moment of the supply chain and  
13 how hard it is to ascertain that. So I think that this --

14 Well, let me say one other piece to this, which  
15 picks up the recycled content as well. You know, recycling,  
16 people -- in both of these cases we have a simplistic idea  
17 of this which is, well, you know, it's a good idea to use  
18 recycled content or it's a good idea that suppliers or  
19 manufacturers should know what is in their supply chain.  
20 But actually doing it can be really, really difficult and  
21 very, very expensive.

22 And that's not -- that cost we are going to have  
23 to learn how to bear that cost and learn how to deal with  
24 this. Because if we are truly going to try to promote  
25 recycling we have got to deal with this problem which is, it

1 is really, really hard to track. The recycling industry is  
2 so badly managed and so -- and so unregulated and so  
3 unreported that we really -- it is very difficult for  
4 anybody if you are really going to try to do it.

5 So when we say well, we need to leave some kind of  
6 soft way here for us to continue to support recycled content  
7 but still deal with the chemical composition I think that is  
8 something that we need to respect a great deal.

9 So my point would be I think we need to -- if we  
10 are going to move on 4B we have really got to be clearer  
11 about what we mean by the last section, which is this duty  
12 to reasonably investigate. We have got to understand what  
13 that really means. So anyway, that's my point.

14 CO-CHAIR CARROLL: Okay, I have Tim, Dale and then  
15 Mike, you want back in here again, is that correct?

16 PANEL MEMBER KIRSCHNER: (Nodded.)

17 CO-CHAIR CARROLL: Okay. And Richard.

18 PANEL MEMBER MALLOY: Thank you. I have just a  
19 couple of comments about 4A and 4B and I have -- you said we  
20 could have, add another option right, Odette, so I had like  
21 a 4C I think it would be.

22 First, I guess I am thinking about this in the  
23 context of the broader regulation. So it strikes me that  
24 the notion that a manufacturer should figure out what's in  
25 the product, both at below de minimis levels and above de

1 minimis levels seems to me that that should be a requirement  
2 of the regulation quite apart to whether there is a de  
3 minimis level exemption or not.

4           So, you know, the discussion, the duty of  
5 reasonable investigation under 4B. I guess I am having  
6 trouble understanding why there wouldn't be a duty of  
7 reasonable investigation, period, to identify what is in  
8 your product and at what levels and all the things that you  
9 would go into bordering 4A and 4B. Those ought to be I  
10 think picked up kind of separately.

11           And then with respect to the question of  
12 intentionally-added or not intentionally-added, however you  
13 define it. What I am having trouble with is kind of the  
14 underlying policy for having a de minimis exemption to begin  
15 with.

16           So it struck me from our prior conversations that  
17 one part of it was an administrative, kind of business,  
18 slash-business notion that, you know, there's resource  
19 constraints, technical constraints on both the agency and  
20 businesses. And there ought to be a level at which to  
21 simplify the process we developed this de minimis. And tied  
22 in with that is the notion that the de minimis level ought  
23 to be set, however, at a level that is sufficiently  
24 protective. So you have those two notions.

25           To me it seems like intentionally-added, not

1 intentionally-added, it makes no difference, that those  
2 concerns are both there. So it doesn't seem to me that they  
3 present principled reasons for treating intentionally-added  
4 and not intentionally present materials.

5           Then you're left with, I think, what is the third  
6 policy for treating them somewhat differently, which would  
7 be with the intentionally-added ones we ought to have people  
8 doing alternatives assessment, whereas for unintentionally,  
9 not. And there I am still at a loss as to why that should  
10 be the case. That it seems to me that if we want to drive  
11 adoption of green chemistry we'd want people to do it no  
12 matter why the material happens to be in their product.

13           So if I am at a de minimis level and I  
14 purposefully put that in, I am at a de minimis level and I  
15 haven't purposely put that in. In the one case that company  
16 would be doing an alternatives assessment, I think, and the  
17 one that didn't intentionally put it in would not be doing  
18 an alternatives assessment. Is that how that would -- I'm  
19 thinking that that's how that would work. Yeah? So it  
20 strikes me as, why does that make sense?

21           So when you think about it in the broader context,  
22 I think, maybe kind of a middle ground here would be to  
23 perhaps say look, if you are going to have a de minimis  
24 provision it's in the context of a product for which there  
25 are a set of manufacturers who are doing an alternatives

1 assessment, I think, right? The ones that are above the de  
2 minimis level. Because that was the first question I asked  
3 was, how would this function?

4 In which case it seems to me that even people who  
5 are able to take advantage of a de minimis exemption,  
6 whether they are intentional or non-intentional, they ought  
7 to have an obligation to consider the outcomes of the  
8 alternatives assessment done by those who didn't have the  
9 benefit of the exemption. And to the extent -- so suppose,  
10 you know, there is a new process developed or a substitute  
11 chemical that can be put in.

12 And that would be workable with respect to, you  
13 know, all parties who create that product, you know,  
14 including those who are at de minimis levels. It seems to  
15 me that if that were the case then they also should have to  
16 adopt this alternative, right? Because the problem we had  
17 about the administrative costs of doing the alternatives, I  
18 mean, those don't exist anymore.

19 So I guess I can't understand kind of the  
20 principle reason for treating intentionally/non-  
21 intentionally-added chemicals differently for purposes of an  
22 exemption but it does make me think that the exemption  
23 should be more limited. So I would have a 4C, and maybe  
24 this isn't where it would actually fit but 4C would be that  
25 the exemption would apply, regardless of whether it was

1 intentionally-added or non-intentionally-added.

2 But it would be a limited exemption, which would  
3 mean you don't have to perform an alternatives assessment  
4 but you have to consider the alternatives assessment  
5 performed by other folks within that industry sector for  
6 that product. And then perhaps perform some type of a  
7 truncated assessment as to whether those alternatives that  
8 have been identified are appropriate for your particular  
9 product.

10 Now if you did that, that gets you around this  
11 problem of, if you had that provision in your exemption it  
12 gets you around this potential problem that you can impose  
13 regulatory requirements on anyone if they haven't done an  
14 alternatives assessment. So what you have for de minimis,  
15 folks, is a different kind of alternatives assessment. It  
16 would be this truncated kind of review and respond  
17 alternatives assessment. In which case now, you know, I  
18 think that what that does is that makes sure that there is a  
19 transfer of the work that is done by the rest of the people  
20 who produce the product but that have the levels of the  
21 chemicals above the de minimis levels.

22 CO-CHAIR CARROLL: Thank you, Tim. I have Dale,  
23 Mike Kirschner and Richard.

24 PANEL MEMBER JOHNSON: So the 4A kind of defines  
25 or gets to the question of whether it's known that it's in

1 the product or not. And 4B doesn't really get to that point  
2 but then that last bullet point kind of gets into this  
3 investigation part of it, which is a little -- it's not  
4 really defined that well.

5           So I kind of agree with Tim that there is probably  
6 a 4C type of approach. What I think you have to do is  
7 define, you know, get to a clear understanding of what known  
8 or unknown is. And if it's in a product and it's known,  
9 whether it's unintentional or it's intentional, if it's  
10 known that it's in there and it is at a certain level then I  
11 think you have to deal with that, with that particular  
12 level. So I think I would take a couple of things out of 4A  
13 and 4B and then do this 4C thing that Tim was talking about.

14           CO-CHAIR CARROLL: Thank you, Dale. Mike.

15           PANEL MEMBER KIRSCHNER: Thanks, Bill. I just  
16 want to address something Ken said. Sensitivity to the  
17 manufacturers' plight. I agree, I understand it completely.

18           I help manufacturers deal with this problem all the time.

19           And it is an enormous challenge to go back  
20 upstream and ask your suppliers, does this thing you are  
21 selling me have this stuff in it or not? And the amount of  
22 "I don't know" you get back is still very high. So as you  
23 add chemicals to that list of things that manufacturers have  
24 to ask, it increases the importance of qualifying that  
25 supply chain, of validating and verifying that that supply

1 chain that you have selected, that you have built, actually  
2 has the wherewithal, the knowledge to answer that question.

3           So I don't think any manufacturing industry,  
4 article manufacturing -- we'll use the term articles because  
5 I think it does define quite well the assembled product  
6 space that has this particular problem. None of them do  
7 this very well because this is a relatively recent challenge  
8 and one that we need to get better at.

9           Because if industry doesn't they won't be able to  
10 comply with laws like this. And we are just seeing more and  
11 more laws like this -- that are not exactly like this of  
12 course but that restrict materials and do all kinds of  
13 things to them. So knowledge of product composition is just  
14 increasingly important and manufacturers of all stripes need  
15 to understand that. And as industries I would hope need to  
16 do something about it. So this is just another clarion call  
17 for that sort of knowledge.

18           CO-CHAIR CARROLL: Thank you, Mike. Richard and  
19 then I may have a comment.

20           PANEL MEMBER DENISON: Thanks. First I do think  
21 in the same was as the last time. Further presentation of  
22 this needs to have the caveat at the front that it doesn't  
23 presume a blanket or non-blanket exemption. For example, I  
24 think it is very important that -- the only way I support 4B  
25 as written is if that de minimis level is set based on a

1 risk-based approach. So there has to be that element in  
2 there for me.

3 I think the -- you know, that the last couple of  
4 comments, I think the issue here is where should the  
5 expectation lie in terms of what the manufacturer of the  
6 product ought to know or not know and what is reasonable to  
7 expect for them to know or not know.

8 I like some aspects of 4A and we had a good  
9 discussion on this, Bill, in our call about where should the  
10 expectation be. And 4A does have the concept that if it is  
11 an ingredient then it is known, there should be a presumption  
12 that it's known. And if the manufacturer doesn't know it is  
13 an ingredient, that's a problem.

14 And I think the same spirit is behind 4B. With  
15 the additional element that it tries to define, use this  
16 concept of intentional/unintentional, so in many ways these  
17 are getting at the same thing.

18 I think the criterion for me, Tim, that drives  
19 this is not any of the ones that you mentioned but it is  
20 this concept of what level of knowledge ought to apply. And  
21 I think for some of us we are comfortable saying that the  
22 level of knowledge ought to be higher for intentional than  
23 unintentional, that that's a way to think about it. Another  
24 way to define it is this sort of empirical approach in 4A to  
25 define known and unknown.

1           But that to me is the reason for making the  
2 distinction here. Otherwise I agree with you, there  
3 wouldn't be a rationale.

4           CO-CHAIR CARROLL: Thank you, Richard. I wanted  
5 to make a couple of comments here. Sometimes you get to a  
6 point in a meeting where a friend of mine says that, we have  
7 reached the point in the meeting where everything has been  
8 said but not everyone has said it yet. (Laughter).

9           And we are perhaps not quite at that point and I  
10 didn't want to drag us further down the garden path because  
11 many of the things I would want to say in this context I  
12 said in our call so they are in the record and don't need to  
13 re-plow that territory.

14           But I do think that there is a parameter here that  
15 we haven't talked much about and it sort of goes to Ken's  
16 discussion with respect to recycling. Having spent five  
17 years running a recycling business, being at the back end of  
18 the product chain and recognizing that you are the receptor  
19 for every stupid thing that everyone upstream of you decides  
20 to do. That there is in fact no way that you can possibly  
21 plan for all the stupid things that people can do in the  
22 chain ahead of you if you are a recycler. And over a beer I  
23 can tell you a number of stories that would -- well, they  
24 would either curl your hair or make it fall out; you can  
25 decide which one happened to me. (Laughter).

1           But I do think there is a concept here that is  
2 useful and we spent a lot of time on intentional and  
3 unintentional. And as I said on the call, I have a hard  
4 time judging intent and we could have more discussion about  
5 that. But there is another parameter here I think we ought  
6 to consider and that is perhaps regular and exceptional.

7           So buried within these concepts of the variability  
8 of natural products or within the intentional and  
9 unintentional, and for that matter even within the  
10 recycling, there are the things that you can know about  
11 because they are regular parts of your supply and then there  
12 are the black swans.

13           Then there is the day that the guy used a bale of  
14 old newspapers to soak up the chemical of concern and threw  
15 it in the recycling bin and it wound up in your pulp. There  
16 is the time when the guy who is mining your gypsum for the  
17 wallboard, hits a vein that has more lead in it than he  
18 ought to have, even if you have some statistics on what the  
19 amount of lead in your gypsum is over the course of time.

20           And so I think we kind of need to be able to  
21 factor that in as well, the exceptional versus the regular  
22 and treat the two of them somewhat differently. And I have  
23 some other thoughts on this but we are getting, we are  
24 getting close on time. I did want to get at least that  
25 thought on the table.

1           Let's see, do we have -- Bob, you wanted in here  
2 and then I'd like to move us on, please.

3           PANEL MEMBER PEOPLES: Yeah. The one thing as I  
4 listened to all of this, and I thought you were going to say  
5 it because you touched upon things we haven't touched upon.

6           But then one that occurred to me based on practical  
7 experience also is the issue of process changes.

8           So I don't know if we have accounted for that in  
9 any fashion terms of going forward because people, there are  
10 unintentional changes that do occur. But quite often as you  
11 go back up the supply chain, you know, your suppliers will  
12 make changes to their process for any number of reasons,  
13 which can have unintended consequences. And maybe you could  
14 call those exceptions, Bill, in the definition that you just  
15 described. Again I don't have an answer for you but this  
16 may be something that, you know, we need to take into  
17 consideration.

18           CO-CHAIR CARROLL: Well Bob, you know from your  
19 industrial experience that the plant never changes anything.  
20 (Laughter).

21           PANEL MEMBER PEOPLES: That's right. Once you put  
22 it on the rails it doesn't change, right?

23           CO-CHAIR CARROLL: That was always the experience  
24 that I had.

25           PANEL MEMBER PEOPLES: Right.

1 CO-CHAIR CARROLL: Okay, let's move on. We have  
2 Parameter five here, the Exemption Process. I would ask you  
3 to spend a little bit of time on this. We are coming down  
4 close to about the end of the time that I wanted to allocate  
5 to this but I wanted to give you an opportunity.

6 If you haven't covered the points earlier to  
7 please take the opportunity to do so. And George, I see you  
8 reaching for your flag. Dale, is yours up explicitly or  
9 still -- okay. George, go ahead.

10 PANEL MEMBER DASTON: I wanted to comment on this  
11 but before that I wanted to ask you. Are we going to circle  
12 back and talk about the whole subject?

13 CO-CHAIR CARROLL: If we can, if we can. I'd like  
14 to have an opportunity to at least spend a few minutes on  
15 that if we could.

16 PANEL MEMBER DASTON: One of the things that Megan  
17 said at the beginning of this was, you know, we spend so  
18 much time in the weeds on this that, you know at this point  
19 I am not really sure what we were at with de minimis, which  
20 is the lead in for my comment here on the options for number  
21 5, which is -- you know, the whole thing around de minimis  
22 was not to be, you know, particularly rigorous, it was to  
23 provide some practicality for the system.

24 And so -- and I think that we have talked a lot  
25 about ways to do that, to make it practical. And one of the

1 things about practicality and manageability of a system is  
2 if we do have these de minimis levels, whether they are  
3 fixed or floating, whether they are intentional or  
4 unintentional, all of the things that we have talked about.

5           You do these things so that there is a level below  
6 which there is not continuing regulatory concern. And if we  
7 go through all of that trouble and then go through these  
8 options that require manufacturers to provide comment and  
9 input on every chemical for every product regardless of what  
10 level it is, we have readily defeated the purpose of having  
11 a de minimis level.

12           Particularly in these days when for many of the  
13 things that we can measure they are going to be at  
14 immeasurable and vanishingly small levels. This would be  
15 essentially a blanket reporting requirement on every product  
16 regardless of how little of a chemical of concern it  
17 contained.

18           CO-CHAIR CARROLL: Thank you, George. I have  
19 Kelly and Tim. And I would also like to remind you that as  
20 we go on I do want to spend a little bit of time. If you  
21 want to make some integrative remarks go ahead and do that  
22 and I am also going to have one other charge for you at the  
23 end of this. Go ahead, Kelly.

24           PANEL MEMBER MORAN: Very briefly. I agree with  
25 George. I think that there is the need to make things

1 simpler here. I'll point out that in the Department's  
2 interest it is going to be very hard to track who needs to  
3 be part of the program and who doesn't if manufacturers  
4 don't send at least a note saying, hey, we are below the de  
5 minimis threshold and we'll stay that way, to the  
6 Department. So I am not clear that is actually more  
7 burdensome, that might actually be less burdensome. So in  
8 that sense I tend towards 5C, at least the first couple of  
9 bullet points.

10 CO-CHAIR CARROLL: Thank you. Tim and then  
11 Richard.

12 PANEL MEMBER MALLOY: Thank you. I tend towards  
13 5C. When I was in practice, when I was in practice a lot of  
14 the work that we did was helping people identify exemptions  
15 that they fell into under the hazardous waste regs and the  
16 Clean Air Act and whatnot. And one of the things you often  
17 ran into is that manufacturing processes and production  
18 processes are very dynamic and that the people who do the  
19 production are often not well-linked with the folks who are  
20 aware of the thresholds and the exemptions.

21 So I think there is a real concern about not  
22 having an ongoing oversight of the exemption. So my  
23 friendly amendment to 5C would be to be explicit about these  
24 de minimis exemptions as being conditional exemptions and  
25 that they should be conditioned.

1           In addition to the first three bullet items there  
2 should be an ongoing testing and analysis to make sure that  
3 you continue to meet the de minimis level and there ought to  
4 be reporting on a regular basis to that effect and  
5 certification to that effect. The point here is that this  
6 exemption is to drop you out of a really significant  
7 obligation, which is to do an alternatives assessment and  
8 you want to be sure that that's going to continue on.

9           The last thing that I'll just add in is that a  
10 number of these other points here had a notion or a concept  
11 in them that there ought to be a showing that something  
12 could not be removed or reasonably removed or whatever.

13           I just want to go back to this notion that there  
14 ought to be continuing regulatory authority under response  
15 actions even for de minimis. And I think you can overcome  
16 this alternatives assessment problem in two ways. One is,  
17 and I'll just reiterate what I said before. Is I think  
18 there ought to be a truncated or streamlined alternatives  
19 assessment obligation to consider the alternatives  
20 assessment done by other folks who make the product but  
21 didn't have the de minimis exemption.

22           But I also think we should recognize that if we  
23 say to somebody, oh and by the way make sure that this small  
24 de minimis amount couldn't reasonably be removed, that's a  
25 form of alternatives assessment. That is asking somebody to

1 look at a process change or whatever. That is a truncated  
2 alternatives assessment. I think it triggers the regulatory  
3 authority of the agency even though it is not what we might  
4 think of as a full-blown alternatives assessment. Thanks.

5 CO-CHAIR CARROLL: Thank you, Tim. I have Richard  
6 -- and Kelly, yours is up as well, correct?

7 PANEL MEMBER MORAN: No.

8 CO-CHAIR CARROLL: Okay.

9 PANEL MEMBER DENISON: Option 5C is the one I  
10 would prefer with a caveat that I'll mention in a minute.  
11 TSCA, the Toxic Substances Control Act, has two types of  
12 exemptions. One of them is self-implementing. The  
13 manufacturer decides that they qualify and there is no  
14 notification required of EPA, et cetera. The other is one  
15 that -- there are actually three. No notification at all,  
16 another one just requires a notification and a third one  
17 requires notification and approval.

18 Having studied TSCA for a long time, the lack of  
19 transparency and accountability in that, especially in that  
20 first option is just incredible. There is absolutely no  
21 way for anyone to have any confidence in that system because  
22 they don't know what the universe is because there is not  
23 even a system for capturing how many of these exemptions  
24 exist because there is not even a requirement to notify. So  
25 I think we need a system that provides that transparency and

1 accountability if there is going to be confidence in the  
2 manufacturers' decisions and the basis for them here.

3 I do have a problem in Option 5C in the third  
4 bullet, however. I mean, again, my view is that the de  
5 minimis level ought to be set on the basis of some  
6 consideration of risk. But then to say, not only do you  
7 have to meet the de minimis but you have to prove no threat  
8 or no potential threat I think is just, it's circular and  
9 goes kind of, it undoes the whole point of this. So I would  
10 strike that second half of the third bullet.

11 CO-CHAIR CARROLL: Thank you. That's the last  
12 flag that I see. Are there other individual remarks that  
13 you would like to make at this point? I don't see any. I'd  
14 like to make one more then if I could. And this is sort of  
15 integrative.

16 To me the concept of having this de minimis  
17 provision is to help us focus on the things that are most  
18 important and to not wind up wrapped around the axle of  
19 things that are less important. I recognize that in saying  
20 that there's a whole lot of detail that goes into deciding  
21 what is more important and what is less important.

22 But I think that is really the challenge of  
23 writing a good de minimis provision. And you can either  
24 write this in at the time a chemical comes on to the list or  
25 you can deal with people lined up down the block asking for

1 specific exemptions and do it on an ad hoc basis afterwards.

2 But one way or another the practical nature of  
3 many of the things that we are talking about is going to  
4 require that you decide what you are going to worry about  
5 and what you are not going to worry about in order to  
6 accomplish the greatest good that you can from this, from  
7 this regulation. And so that's kind of my over-arching  
8 advice to the Department is as you implement this in all its  
9 detail remember that that's really what the whole point of  
10 de minimis is, is to help you focus on what is important.

11 I would urge all of you, if you have integrative  
12 comments or other specific comments to take the time to sit  
13 down and write them down and send them to the Department.  
14 This is not your only opportunity. I would ask you to do it  
15 as individuals. But if there are thoughts that you have  
16 after having heard the full discussion to say, here is  
17 something else that was triggered that I would like you to  
18 consider. Odette, you would be willing to receive those?

19 CHIEF DEPUTY DIRECTOR MADRIAGO: Definitely, they  
20 would be very helpful.

21 CO-CHAIR CARROLL: So I want to offer you, offer  
22 you that opportunity.

23 All right. Well that brings us to about 4:30 and  
24 I promised you the opportunity to have tomorrow's operations  
25 teed up as well and I think we probably ought to move to

1 that.

2 CHIEF DEPUTY DIRECTOR MADRIAGO: Okay.

3 CO-CHAIR CARROLL: Talk a little bit about --  
4 remember, incidently. This was the easy one. (Laughter).  
5 Tomorrow gets to be perhaps a little bit more challenging.  
6 Odette, you want to take it from here?

7 CHIEF DEPUTY DIRECTOR MADRIAGO: Yes, I will.  
8 Thanks, Bill. Kathy is handing out to you this chart which  
9 actually you already have but in black and white as  
10 Attachment 1 from tomorrow's document that we are going to  
11 be going over that presents possible different options and I  
12 am sure you all will have more for chemical and product  
13 prioritization.

14 First of all I would like to start by saying that  
15 your Chairs and I all plead with you to please take some  
16 time tonight if you have not already done so to study this  
17 document. Now most of this is attachments so the reading  
18 part is not that long. But it is complicated, as those of  
19 you who participated on or listened to the -- are you  
20 missing some?

21 PANEL MEMBER PEOPLES: I'm not sure what you're  
22 talking about.

23 CHIEF DEPUTY DIRECTOR MADRIAGO: Oh, I'm sorry, I  
24 apologize. On the left side in the back. At the top it  
25 will say Topic 1 and Topic 2.

1           Now one of the things that was -- well, one of the  
2 concerns that we heard consistently in the discussions with  
3 both Subcommittee 1 and Subcommittee 2 is the need to be  
4 able to consider products and chemicals concurrently and the  
5 interactions. And that you couldn't just view them without  
6 consideration of the other.

7           This question has been asked of DTSC before and it  
8 is a very valid question. We have always, you know, in the  
9 back of our minds it has always been that as were looking at  
10 chemicals we would be considering the products they were in.

11          As we were looking at products we would be considering the  
12 chemicals that are in.

13          But it was suggested that I try to do a flow chart  
14 to try to show some of this. So I don't know how much this  
15 helps all of you but this is the concept that I had. So  
16 starting at the top. You know, our starting universe really  
17 is chemicals that exhibit one or more of the hazard traits  
18 that will be identified by OEHHA. That's the starting  
19 universe.

20          So the first step that we have generally talked  
21 about and we will talk about the steps more tomorrow. But  
22 what is shown in this flow chart -- and again this it not a  
23 DTSC recommendation, this is just showing how this might all  
24 interact and flow.

25          So your first screen is to identify chemicals of

1 concern. This could be -- one of the things that you will  
2 see tomorrow is, you know, there's a number of people who  
3 have suggested that chemicals of concern be derived from  
4 chemicals that are already listed by a number of other  
5 authoritative bodies. And there is in your attachment for  
6 tomorrow a suggested list provided by one of the  
7 subcommittee members of authoritative bodies.

8           The other way is, you know, instead of or in  
9 addition to using existing lists is to look at a subset of  
10 hazard traits to come up with chemicals of concern. So we  
11 will talk tomorrow about how we come up with this larger  
12 list of chemicals of concern. That's our very first screen.

13           So then one way to look at this is after you have  
14 got that you need to go from this large list -- assuming we  
15 are going to have two chemicals lists, which again we'll  
16 talk about tomorrow but I heard from a lot of people that  
17 there was benefit to having that, I'll just tell you that up  
18 front. So how do we go from this larger, initial list to  
19 screen down to the smaller list of priority chemicals that  
20 we will then use to focus on products?

21           So one way to think about it is that we have got,  
22 you know, three primary, simultaneous screens. There are  
23 obviously nuances to all of these.

24           So you want to consider, what are chemicals of  
25 concern for sensitive receptors. And I have defined

1 sensitive receptor down below along the suggestion from, you  
2 know, a couple of subcommittee members. So we are really  
3 talking about sensitive subpopulations, sensitive  
4 environmental habitats and sensitive species. For example,  
5 suggestion.

6 So what are chemicals that we are particularly  
7 concerned about for these sensitive receptors? What  
8 chemicals have been found through biomonitoring or  
9 environmental monitoring to be present in sensitive  
10 receptors? And then thirdly, what chemicals are found in  
11 products used by or with likely exposures to sensitive  
12 receptors?

13 Now as you can see, what is shown in this diagram  
14 can certainly be changed but it is showing that these three  
15 screens are really focusing on sensitive receptors. And the  
16 reason I decided to focused in on that here is there were an  
17 awful lot of people in these subcommittees that were  
18 emphasizing that we focus in on the sensitive receptors. So  
19 just one option based upon what we heard.

20 So using these three screens, this would give us  
21 an initial kind of target list of chemicals of concern to do  
22 further evaluation as candidates for the smaller, focused,  
23 priority chemicals list. And doing that we would, you know,  
24 one approach might be to say okay, well let's first start  
25 with chemicals of concern that fall into two or all three of

1 the buckets above, the chemicals that are a problem for  
2 sensitive subpopulations, the chemicals found in them and  
3 the chemicals found in products used by them. So we might  
4 say, well -- and this is just an option, you know, we are  
5 not passing judgment here. But one way to look at it is,  
6 the first ones we are going to look at are chemicals that  
7 meet three or two of those buckets.

8           So then -- that's your preliminary screening. And  
9 then we are going to apply the prioritization criteria and  
10 the decision-making process that we will discuss tomorrow in  
11 some detail. That double asterisk there by prioritization  
12 criteria, just so none of you think your favorite criteria  
13 have been forgotten, down below in this footnote I tried to  
14 list a lot of the ones that we heard a lot about in the  
15 subcommittees.

16           So we would use that, we would come up with  
17 priority chemicals. So now we are going to really focus in  
18 on products. We have already thought about products when we  
19 are looking at chemicals because, you know, the basic thing  
20 is if you have got a chemical that is not used in a product  
21 on the market in California why look at it.

22           Or if you have got a chemical and the only  
23 products it is used in are products that people in general  
24 or which for there is credible evidence, and we can talk  
25 about that more tomorrow, say, you know, it's not really

1 used in products for where there is likely exposures to  
2 sensitive subpopulations or populations in general. So we  
3 have already considered products as we are identifying and  
4 prioritizing chemicals.

5 But now we are going to focus in on products for  
6 the purpose of identifying those products that we are  
7 ultimately going to require an alternatives assessment for  
8 and then regulatory responses.

9 So we start by looking at consumer products that  
10 contain a priority chemical. And here again you could use  
11 the concept of initially applying three simultaneous screens  
12 very similar to the chemical screens. So we have got  
13 products containing priority chemicals that are of specific  
14 concern for sensitive receptors, products containing  
15 priority chemicals that are found in sensitive receptors and  
16 then products used by or with likely exposures to sensitive  
17 receptors.

18 And you could probably do a lot of tweaking and  
19 you may want to talk tomorrow about how to tweak this but  
20 this is just kind of a general concept. And so you use  
21 those as the initial screen. Again you have a target list  
22 of products you do further evaluation on using the  
23 prioritization criteria and decision-making process that we  
24 are going to be talking about tomorrow. And then what you  
25 come out with is the list of priority products that goes on

1 to the alternatives assessment process.

2 Now I am going to be going over this again in our  
3 presentation tomorrow because under the Bagley-Keene rules,  
4 since in our public notice we didn't mention that we were  
5 going to be saying anything about chemical and product  
6 prioritization today, there might have been people who  
7 wanted to hear that who didn't come today but will be here  
8 tomorrow so I will need to repeat this.

9 But I at least wanted to start your thinking on it  
10 and again really urge you to please, you know, read this  
11 paper because it is a complicated subject, as those of you  
12 who participated or listened in on the Subcommittee 1 and 2  
13 know. And there's a lot of different options and iterations  
14 and I'm sure you will have thoughts about ways to vary or  
15 add on to what has been presented. So I am going to turn it  
16 back over to you, Bill.

17 CO-CHAIR CARROLL: Very good, thank you, Odette.  
18 Are there questions? Ken.

19 CO-CHAIR GEISER: Let's see if there's questions  
20 first.

21 CO-CHAIR CARROLL: All right. No? Absolute  
22 clarity.

23 CHIEF DEPUTY DIRECTOR MADRIAGO: Either that or  
24 they are totally baffled, they're worn out.

25 CO-CHAIR CARROLL: Would you like the floor?

1 CO-CHAIR GEISER: Yes, let me say something. I've  
2 sort of sat here this afternoon and listened to the  
3 conversation and trying to think about why I was having  
4 trouble with the conversation. And it certainly wasn't  
5 because of the quality of the conversation, this was a great  
6 conversation. I thought it was very deep, people worked  
7 hard and I really liked the level at which people were  
8 trying to deal with it.

9 But for me what I think we were talking about.  
10 And the reason I want to say this, I want to say something  
11 about what I would like the spirit tomorrow to be about.  
12 And that is, basically what the law does for us is it  
13 creates a treatment on a universe of elements or incidents  
14 called chemicals and products.

15 And what we were doing today was looking at one of  
16 the boundaries on this universe, whether you are in or out.

17 And de minimis was a kind of an icon of that, of that  
18 guarded boundary and we were kind of looking at it. In some  
19 ways, you know, we were I think all in our minds were  
20 knowing that if you are in it is going to cost somebody  
21 money and if you are out it is not going to cost somebody  
22 money. So there is an economic reason for people to be  
23 worried about whether their product or their chemical is in  
24 or out.

25 And then there is the other end of that which is

1 sort of like, well, you don't want dangerous things to fall  
2 out and therefore you have got to make sure the boundary  
3 isn't something that is going to be gained by people trying  
4 very hard to manipulate that boundary. So for us I think  
5 the sense of the conversation was kind of, a bit kind of  
6 negative in the sense of how do you make sure that the right  
7 chemicals and the right dangerous products are really inside  
8 and not let things fall out.

9 But the spirit of this law is, even in its  
10 clumsiness, in my mind the spirit of the law is till trying  
11 to get people up to or get firms and products and all up to  
12 alternatives assessment and up to places where we can really  
13 promote innovation; we can really promote the search for  
14 safer chemicals, safer production systems, whatever it might  
15 be.

16 So for what stays in this universe it would be  
17 nice if when we look at things tomorrow we are not just  
18 trying again to figure out how can things get out but rather  
19 how can things actually get, how can things stay in, in a  
20 way that it moves what we might call hazardous chemicals to  
21 a point where people start to think about, well, how could  
22 you do this differently? What other chemical could you use?

23 And it moves us toward products where manufacturers start  
24 to think like, gosh, I have got to do some kind of an  
25 alternatives assessment that may show me that there is a

1 better way to do this, a safer chemical, a safer system or  
2 whatever.

3 In other words, let's not just deal with this as  
4 again tomorrow in a kind of -- how can, how do people get  
5 out of the system but rather how do people stay in, such  
6 that they really are getting what the program is really  
7 trying to help us to do. So it's just my plea as we think  
8 about it tonight.

9 And I might suggest that when one thinks about it  
10 in a kind of more creative mode a little alcohol helps along  
11 that line. (Laughter). So as you think about it later as  
12 you are moving away from the table for dinner, what  
13 hopefully will be a very nice dinner, that you think about  
14 it in the spirit of keeping things in, keeping things here  
15 because we really want to try to make safer chemicals and  
16 safer products in California. So that's my plea for the  
17 evening.

18 CO-CHAIR CARROLL: That was not an attempt at  
19 promotion of the California wine industry, was it, Ken?

20 CO-CHAIR GEISER: You can drink whatever you want.

21 CO-CHAIR CARROLL: Odette, did you want to add  
22 something here?

23 CHIEF DEPUTY DIRECTOR MADRIAGO: I think Kathy  
24 probably has some closing words for us. And for those of  
25 you who have not given Kathy your dinner money please do so

1 before exiting so we have that little task all taken care  
2 of.

3 MS. BARWICK: And before you all leave I'll remind  
4 you again about our open meetings law. Tonight's dinner is  
5 a social event and we hope you enjoy yourselves.

6 I am going to ask Dr. Carroll to adjourn the  
7 meeting and then I will say one more word about the dinner  
8 logistics.

9 CO-CHAIR CARROLL: All right. Without objection  
10 we will adjourn the meeting. Do I hear any objection?

11 (No response)

12 CO-CHAIR CARROLL: Without objection the meeting  
13 is adjourned.

14 (Whereupon, the Green Ribbon Science Panel Meeting was  
15 adjourned at 4:48 p.m., to reconvene at 9:00  
16 a.m., Friday, May 6, 2011, at this same  
17 location.)

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## CERTIFICATE OF REPORTER

I, RAMONA COTA, a Certified Electronic Reporter and Transcriber, do hereby certify that I am a disinterested person herein; that I recorded the foregoing California Department of Toxic Substances Control Green Ribbon Science Panel Meeting; that I thereafter transcribed it into typewriting.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 26th day of May, 2011.

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RAMONA COTA, CERT\*478