

STATE OF CALIFORNIA  
ENVIRONMENTAL PROTECTION AGENCY  
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

GREEN RIBBON SCIENCE PANEL  
MEETING

CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY  
SIERRA ROOM  
1001 I STREET  
SACRAMENTO, CALIFORNIA

WEDNESDAY, OCTOBER 14, 2009

9:07 A.M.

A P P E A R A N C E SGreen Ribbon Science Panel Members

Ann Blake, PhD

Bill Carroll, PhD, Co-Chairperson

Bruce R. Cords, PhD

George Daston, PhD

Tod Delaney, PhD

Richard Denison, PhD

Arthur T. Fong, PhD

Ken Geiser, PhD, Co-Chairperson

Lauren Heine, PhD

Dale Johnson, PhD

Michael Kirschner

Richard Liroff, PhD

Timothy F. Malloy, J.D.

Scott Matthews, PhD

Roger McFadden  
Corporate Express

Kelly Moran, PhD

Oladele A. Ogunseitan, PhD, MPH

Julia Quint, PhD

Deborah Raphael, MA, Co-Chairperson

Megan R. Schwarzman, MD, MPH

Michael P. Wilson, PhD, MPH

DTSC Staff Present

Maziar Movassaghi, Director

Jeff Wong, PhD

Peggy Harris

Maya Akula

Kathryn Barwick

Yolanda Garza

Michael O'Docharty

Nancy Ostrom

Donald Owen, Jr.

Joseph Smith

Bob Boughton

Evelia Rodriguez

Also Present

Sara Hoover  
Office of Environmental Health Hazard Assessment  
OEHHA

John Ulrich  
Chemical Industry Council of California

Joseph Guth  
Science & Environmental Health Network

Dawn Sanders Koepke  
Green Chemistry Alliance

Klaus Berend, European Commission Fellow  
University of California Berkeley

Miriam Gordon  
Clean Water Action

Andrea Ventura  
Clean Water Action

I N D E X

	<u>Page</u>
1. Welcome	1
Introductions	6
Opening Remarks	9
Maziar Movassaghi, Director	9
2. Safer Alternatives Straw Proposal	12
Staff Presentations	13
Overview	13
Peggy Harris	13
Process to Identify and Prioritize Chemicals of Concern in Consumer Products	20
Donald Owen	20
Process to Evaluate Alternatives	33
Nancy Ostrom	33
Response Actions	45
Evelia Rodriguez	45
Public Comment	55
4. SB-509 Update	68
Sara Hoover, OEHHA	68
Afternoon Session	78
Questions - DTSC Staff	79
GRSP Discussion and Advice	87
Questions - DTSC Staff	237

I N D E X

	<u>Page</u>
3. Partnerships	241
Maziar Movassaghi, Director	241
Next Steps	249
Adjournment	254
Reporter's Certificate	255

P R O C E E D I N G S

1  
2 MS. BARWICK: My name is Kathy Barwick. I am a  
3 senior scientist for the Department of Toxic Substances  
4 Control. And I am staff to Dr. Jeff Wong, who is the chief  
5 scientist for DTSC. And I am staff to the Green Ribbon  
6 Science Panel. And my job this morning, besides welcoming  
7 everybody here, members of the Green Ribbon Science Panel,  
8 as well as members of the public. We are grateful to all of  
9 you for your interest and support for our green chemistry  
10 program.

11 I am going to do a very brief agenda review so  
12 that everybody knows how the day will go. And my apologies  
13 to those of you who have to turn around to see me. This is  
14 a little bit challenging this morning.

15 So, if you take a look at your agenda we're going  
16 to -- actually, I'm going to do some housekeeping things,  
17 agenda review. First, just so that you know how to find the  
18 restrooms -- it's always an important piece of information  
19 -- you go out the door, turn left, all the way to the end of  
20 that hallway. And you'll find them there when you turn to  
21 the left at the end of the hallway, they'll be right on your  
22 right there.

23 On your agenda we have decided that we would like  
24 to have the introductions of the Green Ribbon Science Panel  
25 prior to Maziar's opening remarks. So Dr. Wong will start

1 that process.

2           And then we're going to hear from Acting Director  
3 Maziar Movassaghi -- pardon me, I had practiced that and I  
4 had it right. And he's going to give you some thoughts  
5 about where we've been with the straw proposal and how we  
6 got where we are now, so that you'll have some increased  
7 understanding.

8           The rest of the first part of the morning will be  
9 given over to staff presentations. Peggy Harris and her  
10 staff working on the straw proposal.

11           And the way we've organized this, because it's a  
12 very complicated proposal, what we'd like to do and what  
13 we've planned for is a series of short presentations And  
14 members of the Green Ribbon Science Panel, you'll notice  
15 you've got some cards at your desk there.

16           And if you have questions of either a specific or  
17 broader nature about the proposal, if you would please write  
18 your questions on the card, one per card.

19           And the strategy is then that during lunchtime  
20 staff is going to organize those questions so that they can  
21 start the afternoon discussion with a brief response to some  
22 of the questions that people have about the proposal. So  
23 just one per card so that we can move the cards around and  
24 organize them per topic.

25           I'd like to point out that our staff presentations

1 include specific questions for the Green Ribbon Science  
2 Panel to consider. Those are specifically the questions  
3 that we've brought you here today to give us advice on.

4 So we'd like you to note particularly the nature  
5 of those questions, and focus some of your energies this  
6 afternoon on giving us some insights there.

7 After the morning break we will have a 45-minute  
8 public comment period. We have some public comment cards.  
9 Maya, where are you? Okay, you've seen Maya. She's got the  
10 public comment cards.

11 We're going to limit people to two minutes per  
12 person for their public comments. And we want to remind you  
13 that these comments are to be made to the Green Ribbon  
14 Science Panel Members, rather than to DTSC.

15 We do have upcoming DTSC input opportunities.  
16 Next week on October 21st there will be a public workshop  
17 here in Sacramento. And there will be other opportunities,  
18 as well, for you to provide your comments to DTSC.

19 The purpose of the public comment period this  
20 morning is so that you can provide your comments to the  
21 panel so that as they provide their advice and discussion  
22 this afternoon, that conversation will be informed by the  
23 concerns of the public.

24 So, Maya will be here all morning. And if you  
25 need to see her and get a public comment card, please do

1 that. Note also that the public comment period is before  
2 lunch. It's a pretty tight timeframe.

3           You're going to hear the presentations; there'll  
4 be a short break, 15 minutes. And we'll need to have your  
5 comment cards as soon as possible during that break, if not  
6 at the beginning, as soon as possible, so we can organize  
7 those public comments.

8           We have 45 minutes scheduled for lunch. And as  
9 another housekeeping issue, there's a cafe down on the first  
10 floor here. And, of course, there are numerous restaurants  
11 around the plaza, places where you can get a quick sandwich.

12           After lunch, DTSF Staff, Peggy's group, will  
13 provide some clarification on the questions that we received  
14 from the panel members as a result of the morning session.

15           And then we have several hours for the Green  
16 Ribbon Science Panel to discuss and advise DTSC. We've  
17 organized that into sections that parallel the presentations  
18 this morning.

19           In the afternoon we have a short presentation by  
20 Maziar on partnerships. In the context of the straw  
21 proposal he wants to hear your thoughts about how we could  
22 maximize the use of partnerships in order to implement our  
23 green chemistry program.

24           Because we thought the straw proposal was so  
25 important to provide you lots of time for discussion, we

1 don't have time on this agenda for discussion and advice on  
2 the partnerships. And I want to let you know that we plan  
3 to schedule a conference call in late November, early  
4 December that will be a public meeting for you to provide  
5 your input to Maziar on the questions that he poses during  
6 the partnership presentation.

7           We'll have a short update from Sara Hoover from  
8 the Office of Environmental Health Hazard Assessment on SB-  
9 509, toxics information clearinghouse that work on hazards.

10 And, again, we just have time for the presentation, but I  
11 do want to let you know that we are now tentatively planning  
12 another physical meeting of this group in late January where  
13 the primary discussion will be the toxics information  
14 clearinghouse. So we don't have any dates for either of  
15 those subsequent meetings, but we just wanted to let you  
16 know what the future planning was in that area.

17           So, once again, the presentations this morning,  
18 we're going to go really quickly, one after the other. And  
19 we want you to put your questions and comments -- panel  
20 members, on those cards so that we can organize our response  
21 for right after lunch.

22           Co-Chairs, did I miss anything there? Okay, good.  
23 The co-chairs will be like last time, they'll be a rotating  
24 responsibility for facilitating the meeting.

25           And I think that's it, and so I'd like to bring

1 Dr. Jeff Wong up for the brief introductions.

2 DR. WONG: Thank you, Kathy. Welcome to all of  
3 you. My job is to do the introductions, and we'll do this  
4 very expeditiously. One thing, as a piece of housekeeping,  
5 we have asked for the air conditioning to be turned up. And  
6 all of you who followed my tie rule, you're much more  
7 comfortable.

8 So, first, the chairs, we have Dr. Bill Carroll  
9 from Occidental Chemical Corporation. We have Dr. Ken  
10 Geiser, who now took off, from U Mass. And we have Debbie  
11 Raphael from the Department of the Environment for the City  
12 of San Francisco.

13 And now I would ask that maybe starting with Dele,  
14 that each of you introduce yourself and your affiliation.

15 DR. OGUNSEITAN: I'm Oladele Ogunseitan, a  
16 professor in public health at the University of California  
17 Irvine.

18 DR. QUINT: I'm Julia Quint, retired from the  
19 California Department of Public Health; former chief of  
20 HESIS in the occupational health branch.

21 DR. CORDS: Bruce Cords, Vice President of  
22 Environmental Affairs for Ecolab.

23 DR. JOHNSON: Dale Johnson; I'm on the faculty of  
24 UC Berkeley, and CEO of a biotech company, Emiliem.

25 DR. LIROFF: I'm Richard Liroff, Executive

1 Director of the Investor Environmental Health Network in  
2 Falls Church, Virginia.

3 MR. KIRSCHNER: Mike Kirschner, President of  
4 Design Chain Associates, a consultancy in San Francisco.

5 DR. DENISON: Hi. I'm Richard Denison, senior  
6 scientist with Environmental Defense Fund based in  
7 Washington, D.C.

8 MR. McFADDEN: Good morning. I'm Roger McFadden,  
9 Vice President and senior scientist for Staples.

10 DR. HEINE: Lauren Heine, senior science advisor  
11 with Clean Production Action.

12 DR. FONG: Art Fong, senior scientist for IBM  
13 Corporation.

14 DR. DELANEY: Tod Delaney, President of First  
15 Environment, an environmental consultancy specializing in  
16 LCA work.

17 DR. DASTON: George Daston, Procter and Gamble,  
18 Cincinnati, Ohio.

19 DR. MALLOY: Good morning. My name's Tim Malloy;  
20 I'm a professor at UCLA Law School, and my tie is very  
21 comfortable.

22 (Laughter.)

23 DR. BLAKE: Ann Blake, principal for Environmental  
24 and Public Health Consulting. And my tie is also extremely  
25 comfortable.

1 (Laughter.)

2 DR. WILSON: Mike Wilson. I'm a research  
3 scientist at the Center for Occupational and environmental  
4 Health in the School of Public Health at UC Berkeley.

5 DR. MORAN: I'm Kelly Moran, President of TDC  
6 Environmental, LLC.

7 DR. SCHWARZMAN: Meg Schwarzman, family physician  
8 and research scientist at UC Berkeley School of Public  
9 Health.

10 DR. MATTHEWS: I'm Scott Matthews. I'm a  
11 professor of environmental engineering and public policy at  
12 Carnegie Mellon in Pittsburgh.

13 DR. WONG: Very good. Welcome, all. All right,  
14 with that we have our staff that are here. But first I'll  
15 introduce our Director, Maziar Movassaghi, right there.

16 We have Evelia Rodriguez, Nancy Ostrom, Don Owen  
17 and Peggy Harris. They'll be the ones that are dealing with  
18 the development of the straw. And then -- yes? Oh, I  
19 forgot Bob Boughton; he's not sitting at the table and he's  
20 not wearing a tie and he's not wearing his name tag.

21 (Laughter.)

22 DR. WONG: And then over here we have our counsel,  
23 Joe Smith, who will be reminding us of many rules that we  
24 have to follow.

25 So, with that, again, welcome, to all of you. And

1 with that I'd like to again introduce Maziar Movassaghi, who  
2 will address the Green Ribbon Science Panel. Maziar,  
3 please.

4 DIRECTOR MOVASSAGHI: Thank you, Jeff. Good  
5 morning, everyone. I want to thank all of you for taking  
6 the time to travel to sunny Sacramento. For those of you  
7 who missed the storm last night, we scrubbed the air and  
8 scrubbed the water. The streets are a little messy, but it  
9 seems to be a cleaner city.

10 This is our second meeting and it is an important  
11 meeting. But before we jump into the straw proposal and  
12 regulations, I wanted to highlight some of the activities  
13 the department's been involved with beyond just implementing  
14 AB-1879 and the straw proposal.

15 For time constraints I'm not going to get into it.  
16 There's some poster boards outside, but we want to draw  
17 attention to some of the work we've done in the nanotech  
18 arena on plastic marine debris, trying to implement green  
19 chemistry principles to address those issues. And also some  
20 of the wonderful work we've done with the UC system in  
21 developing tomorrow's workforce that are going to accelerate  
22 and work on these arenas.

23 So, during breaks and lunches I would like  
24 everybody to take a chance and look at those, because those  
25 are some very good work.

1           Now, regarding the straw proposal. Let me be very  
2 clear. The straw proposal is not, let me repeat, is not the  
3 official proposal from DTSC. We've had hundreds of hours of  
4 workshops in both phase one and phase two of the Green  
5 Chemistry Initiative. We've held a number of meetings. We  
6 got a huge set of good ideas in written and oral  
7 communications. But we got very little in the form of  
8 regulation, the language of regulation, the structure of  
9 regulation.

10           And it was apparent as we were even internally  
11 going through our learning processes that it was important  
12 to try to capture all of these ideas in the regulatory  
13 structure for folks to be able to see, digest and react to.  
14 That's what we've heard again and again and again.

15           So what you see before you is a straw proposal  
16 that captures a number of different proposals and visions  
17 and ideas of how California can implement AB-1879.

18           What is California's unique contribution to this  
19 dialogue across the globe is really the attempts to try to  
20 create a robust, innovative and implementable alternative  
21 assessment model.

22           There are folks out there doing the research,  
23 creating the list of lists. Our contribution is the  
24 alternative assessment model. So, as you hear discussions  
25 today, I really would appreciate your comments to be those

1 that are constructively geared towards DTSC to allow us to  
2 focus a pathway within the regulation that gets us to this  
3 robust, innovative and implementable alternative assessment.

4           There is a chance that it might be one of the  
5 pathways that we've concluded in the straw proposal. It  
6 might be multiple pathways. But that's the real focus here,  
7 folks. It's the alternative assessment piece and one that's  
8 functional, pragmatic and implementable.

9           I also want to remind everyone that this Governor  
10 has been very clear that the Green Chemistry Initiative is  
11 to be a market-driven initiative. So therefore you see one  
12 of the principles that is included in the straw proposal, no  
13 matter which one of the pathways you see, is one where I  
14 call it somewhat like the IRS model. Where industry is  
15 going to be doing a lot of the work, and the public sector's  
16 going to come in in an auditing and enforcement function.

17           That might also inform you as you advise us about  
18 which one of the pathways or which combinations are most  
19 effective in how to create an alternative assessment model  
20 that allows for innovation in the marketplace.

21           As far as some of the next steps, this is intended  
22 to the audience out there, there is going to be a workshop  
23 next week. That's a very wonderful opportunity for us to be  
24 able to interact. But the meeting here today is really for  
25 the Green Ribbon Science Panel to advise us and have a

1 discussion about how to create this robust, innovative and  
2 pragmatic alternative assessment.

3           So I very much look forward to the discussion  
4 today. I am going to have to briefly step out this afternoon  
5 for a meeting, but I will be available and I will be here  
6 for the rest of the day. So, thank you.

7           MS. BARWICK: Thank you very much. And now we'll  
8 turn it over to Dr. Bill Carroll, one of our co-chairs, who  
9 is going to facilitate during the first part of the  
10 presentations this morning.

11           CO-CHAIRPERSON CARROLL: Good morning, everyone.  
12 And thank you, once again, for coming. I want to reinforce  
13 a couple of things. We're going to go through the  
14 presentations from staff at this time. Each presentation  
15 will be approximately 15 minutes.

16           We're going to ask that you not interrupt the  
17 staff with questions; that you use the cards for questions.

18           And I'm speaking to the panel members here. The goal here  
19 is to keep us on schedule, as we have a relatively busy day.

20           What we will do with those questions from the  
21 science panel will be to aggregate them and attempt to  
22 address them, if not specifically, in general, for a number  
23 of topics where they might be grouped together. And we will  
24 do that later on in the day.

25           So, I have one other check as far as cellphones

1 are concerned. Ask you to turn them off or put them on  
2 stun, unless you have a really boss ringtone whereupon I'd  
3 ask that you have people call you all the time.

4 (Laughter.)

5 CO-CHAIRPERSON CARROLL: So, with that said, let's  
6 go ahead. Peggy, would you like to start us off, please.

7 MS. BARWICK: We do have the webcast up now, so,  
8 everybody, you're on camera.

9 MS. HARRIS: While we're getting that up I'm going  
10 to be talking off of the flow chart that you've all  
11 received. You met the team earlier. We've all put in a lot  
12 of effort to put together this straw. Any comments that you  
13 have we don't take personally. We welcome your comments.

14 What I'm going to do is quickly walk you through  
15 an overview of the whole process that we've laid out in the  
16 straw. This will give you an opportunity then, as each  
17 person gets up, to give you a much more detailed discussion  
18 of each aspect of the straw. You'll be able to at least put  
19 it in context.

20 So if you have questions as a result of my  
21 presentation most likely they will be answered in the more  
22 detailed discussion that will follow that Don, Nancy and  
23 Evelia will be providing.

24 Within the presentations that you will see from  
25 each of the team there are a couple of questions. Those are

1 embedded in the presentation materials. So as staff are  
2 going through the presentation they will draw your attention  
3 to those questions. And then those would be the subject of  
4 at least some of your discussion this afternoon.

5 I will repeat what's been said earlier, is that in  
6 the workshop that we will be having next week we will be  
7 going through these questions and many many other questions.

8 We will be drilling down on many many aspects of the straw  
9 in the workshop next week.

10 So, to begin with the flow chart, at the beginning  
11 or top of the flow chart you see the box that we would  
12 identify and prioritize the chemicals of concern in  
13 products.

14 We have identified in the straw 11 different  
15 product categories. Nine of those product categories are  
16 those that we had identified as those we felt were most  
17 likely to present a risk to sensitive subpopulations.

18 There are two additional product categories that  
19 are chemicals, specific chemicals. And one is a list --  
20 chemicals that appear on a list of lists. Now, I will say,  
21 for those of you who are sort of following along with what  
22 we've done, we started off really with the product category,  
23 the nine categories.

24 Because we received significant stakeholder input  
25 that they really believe we should be considering chemicals,

1 not product categories, we have included those, as well.  
2 But Don will be talking much more about that in his  
3 presentation.

4           The next step in the process is we have included a  
5 series of 12 hazard traits. What we're requiring the  
6 manufacturer to do is to look at each hazard trait and  
7 identify for the chemicals or chemical ingredients in the  
8 product categories, or in the 12 categories -- 11 -- 12  
9 categories -- sorry, 11 categories -- whether or not any of  
10 those chemicals exhibit one of those hazard traits. If they  
11 do, then that would be a chemical of concern. We will be  
12 asking more questions about that in today's presentation and  
13 also in the workshop.

14           The next piece that we have is the prioritization  
15 piece. Then once you've identified the chemicals of  
16 concern, which is based on the comparison to the hazard  
17 traits, we have laid out a series of three different  
18 priorities in the straw.

19           One is based on whether or not there's a potential  
20 for a release. That would be priority one. Priority two is  
21 if, in fact, there's a potential for release, that that has  
22 been mitigated for use. And priority three is -- but there  
23 still could be a disposal concern, let me clarify --  
24 priority three is that it does exhibit a characteristic of  
25 concern, it is a chemical concern. It does exhibit a hazard

1 trait, but both the use and the disposal exposures have been  
2 mitigated. And that's what we've laid out as priority  
3 three. That takes you through the hazard traits and the  
4 prioritization.

5 We have identified one year to complete this  
6 process. Clearly, in the workshop we have next week we're  
7 going to have a discussion about those timeframes. But, for  
8 purposes of the straw, we laid out one year.

9 The next step in the process is the alternative  
10 assessment process. The first step of that process is to  
11 identify all potential alternatives. And those are  
12 functionally equivalent alternatives. And Nancy will be  
13 talking about this in more detail.

14 Then there's a comparison of the consumer product  
15 and the potential alternative, first based on the hazard  
16 categories. And then based on an identification and  
17 evaluation of potential hazards, exposure pathways and the  
18 lifecycle. So that's the third piece. And, once again,  
19 Nancy will be going into that in much more detail.

20 We have suggested in the straw that if the safer  
21 alternative is not chosen as a result of this process, that  
22 this process be repeated in a two-year cycle.

23 The other thing we have included as part of the  
24 straw is an alternative analysis report. And I'll get to  
25 that again at the close of my discussion. And Nancy will be

1 talking about that in more detail.

2           The third part of our process is the response  
3 action. So, after you have completed the alternative  
4 analysis, then based on the priority of the chemical in the  
5 product and the exposures, or if the safer alternative is  
6 chosen or is not chosen, based on the lifecycle impacts,  
7 then we have laid out a series of timeframes for the product  
8 to be banned. We've also laid out specific scenarios for  
9 when notification or labeling would be required.

10           For purposes of next week's discussion we will  
11 have really much more in-depth discussions on the specifics  
12 of the response action and their applicability. And whether  
13 or not there would be certain categories where it would be  
14 appropriate for us not to have a ban. And so those  
15 discussions will happen in much more detail next week.

16           The other thing we've built into the response  
17 action process is, if, in fact, as part of the lifecycle  
18 process there is a impact identified for other media, such  
19 as greenhouse gas, that there be a notification to the  
20 appropriate board, department or office of that.

21           The last part of what we have built into the  
22 response-action discussion is really related more to the  
23 overall content of the requirements of the straw and its  
24 variance process. We've identified a process from point A  
25 to point Z, and we recognize there will be situations where

1 what we have laid out is not appropriate for a specific  
2 case-by-case basis.

3           So what we have suggested is a variance process to  
4 allow, on a case-by-case basis, the applicant to come in to  
5 us and make their case for why the timeframes don't work,  
6 why the specific requirement doesn't work, why perhaps  
7 there's a impact for another media as a result of the  
8 selected alternatives. So we tried to lay out a process for  
9 that. There will be much more discussion about that next  
10 week, as well.

11           The last thing I guess I'd like to point out is  
12 that we have built this to be self-implementing. We believe  
13 that it is the manufacturer who knows the most about the  
14 product; they know most about the ingredients in the  
15 product; they know most about what the potential  
16 alternatives might be.

17           So we have laid this out as a self-implementing  
18 process. We tried to build in transparency. We have built  
19 in a ability for the department to do a call-in. We've  
20 built in for the department to be able to impose specific  
21 alternatives and specific responses if certain risks or  
22 exposures become -- we can become aware, and we believe it's  
23 necessary.

24           And as Maziar indicated, our intent would be then  
25 to audit throughout the process to make sure that it is

1 being complied with according to our regulations. And, as I  
2 said earlier, each of the other folks of the team, as  
3 they're going through the discussion, will be going through  
4 this is much more detail.

5 We have laid out a supply chain process as part of  
6 this, so that as the information is being transferred from  
7 the manufacturer throughout the process through the  
8 consumer, that there is a transfer of information. We will  
9 be having an in-depth discussion next week about that supply  
10 chain and who the information really needs to go to. So  
11 just because the discussion doesn't happen today, it will be  
12 happening next week. So, I'm putting in a plug for you all  
13 to participate next week.

14 So, with that, I have given you a very brief  
15 overview. We have laid out a process that from beginning to  
16 end is three years. We recognize that there may be some  
17 discussion about that next week. And we will welcome those  
18 discussions.

19 The other thing I guess I'd want to point out is  
20 there is a separate bill, which is SB-509. And while we  
21 laid out specific hazard traits as part of this, as a straw,  
22 those specific hazard traits that we have suggested will be  
23 modified or superseded as a result of full implementation of  
24 509. At least that's what we have suggested as part of the  
25 straw.

1           So, with that, I'm going to go ahead and turn it  
2 over to Don. As I said, Don will be providing much more  
3 detail on the discussions related to the identification and  
4 prioritization of chemicals of concern.

5           I just thought of one more thing I really should  
6 have said is when we, at least originally, identified these  
7 nine product categories, our intent, and it still is in the  
8 straw, and makes some sense to us, is that we would start  
9 off with a group of product categories or chemicals. And  
10 then augment this over time. But that would be done through  
11 other future rulemaking. So this was intended to be step  
12 one. And there would be subsequent steps to augment this  
13 list.

14           So, with that, I will turn this over to Don.

15           CO-CHAIRPERSON CARROLL: Thank you very much,  
16 Peggy. Don, the podium is yours.

17           MR. OWEN: Good morning, panel members, co-chairs,  
18 interested stakeholders here, and those listening on the  
19 web. My name is Donald Owen. I'm pleased to be here this  
20 morning to fill in for my colleague, Dr. Robert Brushia, who  
21 is the principal author and architect of the first part of  
22 the straw proposal. Which is the process by which we  
23 identify and prioritize chemicals of concern in consumer  
24 products.

25           Acting Director Movassaghi and Peggy have given

1 you an overview of how we got to where we are. I'm going to  
2 talk in more detail this morning about how we begin in the  
3 process; to what this straw proposal would apply; and how we  
4 use information through the initial steps. And leading to,  
5 as Dr. Wong and Acting Director Movassaghi had said, to the  
6 really innovative part of the law that we are attempting to  
7 implement, which is alternatives analysis.

8 CO-CHAIRPERSON CARROLL: Don, could I interrupt  
9 you just for a second --

10 MR. OWEN: Yes.

11 CO-CHAIRPERSON CARROLL: -- to remind the panel  
12 that you do have copies of the slides in the handout if some  
13 of these are difficult to read.

14 MR. OWEN: In your package there are copies of  
15 this slide. I believe they were in black and white to make  
16 it simpler to read. So, I'm currently on slide 4, which is  
17 the process overview. In a simplified part with more detail  
18 about the first step.

19 As Peggy said, this is a process by which those  
20 who must comply with it begin the effort, so it is self-  
21 implementing. The manufacturers, those who have the ability  
22 to design and manufacture products and thereby determine  
23 what their inputs are, control and decide and balance  
24 factors. And determine how and in what way the ingredients  
25 in chemicals they use will influence public health,

1 ecosystem health and waste streams.

2 So the first step is manufacturers determine if  
3 their product or chemical is within the scope of the straw  
4 proposal's applicability. As the Acting Director said,  
5 there are three principal ways by which a consumer product  
6 enters this process.

7 The first are the nine product categories that are  
8 listed in the regulation. The second pathway are specified  
9 chemicals, also listed, and enumerated in the regulation.  
10 And thirdly, those chemical ingredients which are identified  
11 by authoritative bodies in other nations or governments on  
12 lists of lists, for shorthand terminology that derived from  
13 the workshop. And those criteria for those other lists are  
14 specified in the regulation.

15 The second step is with existing information about  
16 the chemical hazard, or the hazard for a chemical or group  
17 of chemical ingredients in a product, the manufacturer, he  
18 uses that information about his or her product to begin the  
19 categorization step.

20 If there isn't data on one or more hazard traits,  
21 then this straw proposal would require the manufacturer  
22 generate that information, or cause it to be generated by  
23 someone else.

24 So the manufacturer then determines if the  
25 chemical fits into one of the hazards or exhibits a hazard

1 trait. And then must characterize his or her products with  
2 respect to those chemical ingredients.

3 Then the last step is the prioritization step.  
4 Peggy gave you a quick overview of what that involves. And  
5 I'm going to go into more detail about each of those.

6 Going a little bit out of order. Returning to the  
7 how do we begin, the pathway to start. I mentioned --

8 CO-CHAIRPERSON CARROLL: I'm sorry, Don, this is  
9 then slide 3, is that correct?

10 MR. OWEN: This is slide 3, one back from the  
11 previous slide. It's entitled: is product or chemical in  
12 the scope of this straw proposal.

13 The first pathway are the nine product categories.  
14 These are consumer products, excluding those that are  
15 exempt in the law, itself. Just for reference purposes  
16 those are prescription drugs subject to the FDA process;  
17 dental amalgams and other dental appliances subject to a  
18 particular provision of California law; food, which is also  
19 specified in the Food and Agriculture Code in California  
20 law; mercury lighting; and durable medical appliances, which  
21 are specific terms. Those are all categories of consumer  
22 products that are exempted in the statute, itself.

23 With that, we heard from a number of stakeholders,  
24 process through our workshops from this august panel in  
25 April of this year on how to go about devising the beginning

1 of the straw proposal.

2           The categories that were chosen for consumer  
3 products represent those which we believe have high use in  
4 California and have the potential for exposure, significant  
5 exposure to sensitive subpopulations.

6           So the first category are those products, consumer  
7 products designed for use by or for infants and children.

8           The second category is products designed for use in K-  
9 through-12 schools where children are present the majority  
10 of their workday.

11           Thirdly, products designed for application  
12 directly to or for on the human body. Fourth category are  
13 clothing, linens, textiles, things we wear. Fifth one are  
14 home furnishings, including but not limited to, mattresses,  
15 sofas, tables and other things we find in our home  
16 environment, including those where our children are when  
17 they're not at school.

18           The sixth category are cleaning products, soaps,  
19 laundry detergent, others. The seventh are those which are  
20 specifically designed to release a scent, a fragrance, a  
21 deodorizer, obviously for inhalation and other exposure  
22 pathways.

23           Eighth are those that are designed to prepare,  
24 store, or dispense food. Food packaging is not exempt in  
25 this statute. And the ninth category are any consumer

1 product which is designed to reasonably anticipated to  
2 release a chemical during its use or disposal. Some  
3 examples: automotive brake pads; tires; fireplace logs;  
4 glues; solvents, et cetera.

5 So the first nine categories are consumer product  
6 categories based on high distribution and commerce, and the  
7 potential for exposure to sensitive subpopulations.

8 As Peggy said, this is an initial start. We would  
9 envision revising the list of product categories or their  
10 scope and definition in subsequent rulemakings. We will be  
11 asking you specific questions about this entry pathway  
12 today.

13 The second pathway are those specified chemicals  
14 in the regulation. Those are the ones, if you refer to the  
15 straw proposal, that you find on page 2. Just quickly I'll  
16 read some: arsenic, cadmium, chromium, chrome VI, lead, lead  
17 compounds, mercury, uranium, bisphenol A, phthalate  
18 compounds, diacetyl, triclosan, sulfur dioxide, nitrogen  
19 dioxide, methyl isocyanate, and then some PFOAs,

20 Those are the list of specified chemicals we heard  
21 throughout the workshop process that were of high interest.

22 They are listed here as part of the straw, as one of the  
23 potential entry pathways.

24 Thirdly are the lists of lists. The law directs  
25 us to make use and reference the work of other governments,

1 nations, authoritative bodies and the scientific for  
2 purposes of implementing this law in California. In part  
3 because all of that work continues, and we need to build on  
4 the best of the knowledge around the world. And we need to  
5 move to the important piece here, which is alternatives  
6 assessment.

7 So any chemical ingredient that the manufacturer  
8 knows is present in his or her product, which may be on one  
9 of those lists of lists that are specified from page 3  
10 through about page 5 of the regulation would be captured.  
11 So those are the three points at which we begin.

12 As I said, nine categories of consumer products;  
13 16 designated or specified chemicals of concern that are  
14 named precisely in the regulation. And thirdly, any  
15 chemical which appears on a list of lists that's identified  
16 in the regulation.

17 Which turns to the first question that we will ask  
18 you to give us your advice this afternoon. What are the  
19 pros and cons for each of the three different identification  
20 pathways, either individually or collectively? How do these  
21 work? What is their scale?

22 And then if you have recommendations, what  
23 specific changes would you make and why. This is our first  
24 question. This is a very important scope question. It  
25 tells us of the rule development team; how big we are

1 beginning, what some of the challenges we will confront with  
2 this approach or multiple approaches; and what information  
3 may be available to feed through the subsequent processes  
4 which are the most important processes of the alternatives  
5 assessment leading to regulatory response.

6           The second question is a question we've heard a  
7 lot of discussion about at workshops. We are phrasing it in  
8 this rather awkward way for legal reasons. The law gives us  
9 parameters for findings we must make if we were to do such a  
10 thing. So I'll read the question and explain a little bit  
11 about what we -- some other words that might help you  
12 understand it.

13           What are the pros and cons, including a possible  
14 exemption for a chemical or chemical ingredient in a  
15 consumer product which presents first, an insignificant  
16 level of hazard or for which exposure is adequate control  
17 through product design and manufacture?

18           Another way this question could be stated is: is  
19 there a de minimis level, a trace level, a consideration for  
20 impurity for naturally occurring chemicals that may be found  
21 or present in a consumer product? And if so, how should  
22 those be handled in this straw proposal? So a fairly  
23 detailed question that has many layers of meaning.

24           As I said, the statute directs that we reference  
25 and use to the maximum extent feasible available information

1 from other nations, governments and authoritative bodies  
2 that have undertaken similar processes with respect to  
3 chemical identification, hazard and even regulatory  
4 response.

5 The statute also directs that we must do so in a  
6 way that minimizes costs and maximizes benefits to  
7 California's economy.

8 In our straw proposal we set forth a fairly broad  
9 definition for an authoritative body. One which  
10 characterizes chemicals pursuant to a process in which  
11 stakeholders are able to participate and communicate in  
12 written or oral comment; and that the authoritative body  
13 publishes its characterizations of chemicals via the web,  
14 press release, government regulation, credit report,  
15 monograph or similar publications. It's a rather large and  
16 broad definition.

17 Which leads to our third question: essentially who  
18 should be an authoritative body. But more specifically the  
19 question is phrased, and I'm going to rewrite it on the fly  
20 to make it a little more informative: What are the pros and  
21 cons of the definition of authoritative bodies? What  
22 specific changes, if any, would you advise to the  
23 department?

24 What are the pros and cons of using information or  
25 decisions from other authoritative bodies for assessing

1 hazard information; identifying prioritizing chemicals of  
2 concern; or thirdly, even triggering a regulatory response.

3 That third bullet, triggering a regulatory  
4 response relates to my colleague, Evelia Rodriguez'  
5 presentation later this morning. And is a discussion point.

6 So, when an authoritative body acts, if you could advise us  
7 on how the information they use and the decisions they reach  
8 can inform not only the beginning of our process, but the  
9 end of the process, as well. If that would be appropriate.

10 And then the final question on the authoritative  
11 bodies is: in what other ways can we use them in maximizing  
12 information and decisions they make; and maximize the  
13 benefit to California.

14 A little bit about the data requirements. Much  
15 was said throughout the earlier phases of the Green  
16 Chemistry Initiative and through our workshops about the  
17 prevalent lack of information. The companion law, Senate  
18 Bill 503, which establishes the toxics information  
19 clearinghouse, if the portal through which this information  
20 would become accessible to anybody. To a manufacturer, to  
21 someone in the supply chain, to a consumer, to government,  
22 to authoritative bodies.

23 As that's being created, though, the question is  
24 where is the data and what is it. For the purposes of  
25 application and implementation of the straw proposal, we set

1 forth a requirement that the manufacturer must, within one  
2 year of the start of the process, generate the data or  
3 collect documentation sufficient, based on information  
4 accessible elsewhere, as defined, about the chemical and  
5 chemical ingredients in their product, and the hazard traits  
6 they possess.

7           Let me be clear. This is not ingredient  
8 disclosure. A manufacturer knows what he or she, what  
9 chemicals are present in their product. It's taking that  
10 list of chemicals in the product and finding the information  
11 about what hazard traits that they possess, in order to  
12 implement the process we've set forth in the straw proposal.

13           Manufacturers, if they must generate additional  
14 data because its absent or unavailable, may rely on suitable  
15 testing methodology through peer review journals,  
16 determination made by authoritative bodies, and some of the  
17 evolving new techniques or quantitative structural activity  
18 relationship models.

19           So we define a broad approach to authoritative  
20 bodies; set forth the process requirement to generate and  
21 use information; and also to disseminate that information to  
22 the clearinghouse and the supply chain.

23           Let me talk a bit about the hazard categories.  
24 These are not a fourth bucket or way to enter, but this is  
25 the next step in the process. Once a product has been

1 captured, or a chemical that could occur as a single  
2 product, itself, or in multiple products, enters the system,  
3 we ask that the manufacturer compare the chemical  
4 ingredients in his or her product against ten hazard  
5 categories.

6 Toxicity is the first, including acute. Single  
7 exposure target organ, a lung or brain. Repeat exposure  
8 target organ and acute aquatic toxicity. We set forth  
9 serious eye damage, germ cell mutagenicity, genetic  
10 toxicity, reproductive toxicity, carcinogenicity, endocrine  
11 disruption, respiratory sensitization, skin sensitization,  
12 bioaccumulation and lastly, hazardous to the stratospheric  
13 ozone layer, as the hazard categories for which the chemical  
14 ingredient must be assessed.

15 This is derived from the globally harmonized  
16 system of classification and labeling for chemicals set  
17 forth by the UN, and implemented through the European  
18 Union's regulatory system. The values you see in the draft  
19 straw proposal are essentially those figures taken from the  
20 regulation, the European regulations, for the purposes of  
21 these hazard traits.

22 Once a manufacturer has identified those chemicals  
23 in his or her product, determined which hazard traits,  
24 categories may be present based on the regulatory values set  
25 forth in the straw proposal, he or she must prioritize for

1 the next step of action.

2 The first priority, as Peggy mentioned, is those  
3 which are anticipated to be released during use or disposal  
4 to which humans are being exposed.

5 The second priority is will be released during use  
6 -- will not be released during use, but may be released  
7 subsequent to use in disposal or recycling.

8 And thirdly, which are contained or controlled and  
9 not released during use of disposal.

10 Prioritization here is the mechanism by which  
11 different decision points and information are required in  
12 the two subsequent steps, alternatives analysis and  
13 regulatory response.

14 So it's a quick overview of where do we begin;  
15 three separate pathways. There are specific product  
16 categories which are exempt. And then we're asking you  
17 three questions about where do we begin, principally  
18 focusing on the three different pathways that start. How  
19 chemical ingredients are determinants in the sense of trace  
20 de minimis impurity naturally occurring. And the hazard  
21 categories, as we've used, from authoritative bodies. And  
22 how we might use authoritative bodies in those  
23 identification prioritization steps. And as I said, later  
24 in Evelia's presentation on regulatory response.

25 Thank you for your attention this morning.

1 Welcome your clarifying questions on the card, if you'll  
2 pass those to the co-chairs, we can begin.

3 And now I'd like to turn it over to my colleague,  
4 Nancy Ostrom.

5 CO-CHAIRPERSON CARROLL: While Nancy is coming  
6 up -- thank you, Don -- while Nancy's coming up, I would  
7 also remind the members of the public here to be filling out  
8 your requests for opportunities to comment. Simply a  
9 reminder of what Kathy had brought up to you earlier.

10 Another suggestion I would like to make to the  
11 panel is recognizing that this afternoon we're going to ask  
12 you to focus your comments on the specific questions that  
13 DTSC has asked us.

14 What you might do, just for convenience, is dog-  
15 ear the presentation where the slides are with the  
16 questions, so you could easily remind yourself, as you  
17 generate your own interventions for this afternoon.

18 Okay, Nancy, all set?

19 MS. OSTROM: Yes.

20 CO-CHAIRPERSON CARROLL: It's all yours.

21 MS. OSTROM: Okay, so alternative assessment with  
22 lifecycle thinking. I actually amended my presentation a  
23 little bit this morning, also, on the slide. So, hopefully  
24 it won't be too disorganized.

25 As Peggy pointed out in her overview, and she did

1 a really good job of providing actually a fair amount of  
2 detail for the alternatives assessment, this, in general,  
3 describes what we were trying to do with the process that we  
4 set up with the alternatives assessment.

5 The statute lays out that it needs -- the  
6 alternatives assessment is performed for the consumer  
7 products that contain the chemicals of concern. And here's  
8 my typo, high priority. It should just say prioritized  
9 chemicals of concern. At one time the prioritization system  
10 looked a little bit differently.

11 And there was a time when we thought we might use  
12 the prioritization system in the alternatives assessment.  
13 But when it changed, it didn't make a lot of sense in terms  
14 of alternatives assessment to have a different process for  
15 different priorities, the way the priorities are laid out  
16 now.

17 We looked at the way the priorities are laid out  
18 now, as Don just described. I couldn't think of any  
19 instances where the information we were getting from the  
20 alternatives assessment we wouldn't want as part of any of  
21 those priorities.

22 So, it's just -- these are identified and  
23 prioritized as chemicals of concern. So any consumer  
24 product that's laid out in the product list that Don  
25 described that contains the chemicals of concern, that have

1 been prioritized, must enter the alternatives assessment  
2 process.

3           And then the second important aspect of this is  
4 that the alternatives assessment is conducted by the  
5 manufacturer. And we did this, as Peggy pointed out, that  
6 we thought the manufacturer was in the best position to know  
7 what was in the product, or at least to get that information  
8 if they didn't know.

9           And also to best define what appropriate  
10 alternatives to the product or the chemical of concern would  
11 be when they're evaluating the alternatives.

12           So, we focused on the manufacturer. Now, that's  
13 not to say that a retailer or somebody else in the supply  
14 chain could do an alternatives assessment if they wanted to.

15           But it's not required. It's only required of the  
16 manufacturer.

17           And then the other thing we wanted to do with the  
18 alternatives assessment was to talk a little bit about  
19 transparency of the results. And we realize that in our  
20 process we don't address the CBI issues, and that 's  
21 something we will get to, and I'll talk a little more about  
22 that.

23           But the way we address the transparency issue was  
24 to have the findings sort of summarized in a report. And  
25 originally we envisioned that it would be posted to the DTSC

1 website. I think in the straw proposal it's even more vague  
2 than that. It just said posted to a website. We're not  
3 wedded to it being in any particular place. Just that some  
4 summary of the findings of the assessment is available to  
5 the public so people can understand what was considered and  
6 what was evaluated and what was rejected and why.

7           And then the other aspect of this was that if the  
8 chemical of concern is still present in the consumer  
9 product, or even in one of the alternatives, perhaps an  
10 alternative has a different chemical of concern, then the  
11 alternatives assessment continues. As long as the chemical  
12 of concern is present in one of the subject consumer  
13 products, alternatives assessment needs to continue on in an  
14 ongoing basis and sort of a regular basis.

15           So, as Peggy mentioned, we retained the step-wise  
16 proposal that we brought to you way back when we met  
17 earlier. But it looks different, so perhaps you don't  
18 recognize it.

19           So the first step is to identify potential  
20 alternatives. And here we have a definition in our proposal  
21 for what a potential alternative is. And it's primarily  
22 change in chemicals in the product. Or perhaps a change in  
23 the process for producing the product. Or a change in  
24 design. Some of those are included within our definition of  
25 what a potential alternative could be.

1           And then crucial to the identification process of  
2 the potential products are the sort of ideas of functional  
3 equivalence and the performance factors. And we've defined  
4 functional equivalency as an alternative that performs the  
5 same function and the original consumer product.

6           And the manufacturer is the one who determines  
7 this. And the manufacturer should also lay out the process  
8 we've established or come up with at this point. Ask the  
9 manufacturer to specify performance factors. And this is  
10 going to be different for different products. It's a very  
11 difficult thing to generalize for us. And that's another  
12 reason why we have the manufacturer doing this.

13           For their product, what is essential about their  
14 product in terms of its performance that makes it unique,  
15 that makes it essential, you know, and makes it a product  
16 that they produce. And those performance factors are going  
17 to be considered when they decide what the functionally  
18 equivalent alternatives are.

19           It's important, when you think about functionally  
20 equivalent alternatives, to realize that this is a floor and  
21 not a ceiling. These are -- we laid out this process to say  
22 that these are the alternatives a manufacturer must  
23 consider. Those that are functionally equivalent.

24           If there are other alternatives that they want to  
25 consider, that is fine. They can expand it beyond that.

1 But this is sort of the floor that we laid out to establish  
2 what they must do.

3 In the second part -- so, in that first part they  
4 identify alternatives. Perhaps there are alternatives that  
5 don't meet the functionally equivalent criteria, then they  
6 don't consider those. So that's one aspect of narrowing.  
7 That's the first step where we talked about how we would  
8 narrow those alternatives that go ultimately to the full-  
9 blown alternatives assessment.

10 And the next step is the comparison of the hazard  
11 categorization. And this also evolved over time as our  
12 categorization identification process evolved.

13 It became very difficult to compare across hazard  
14 categories. And I'm sure you realize why that is. That  
15 becomes apparent very quickly. So our hazard categorization  
16 has really been limited to those instances where the  
17 alternatives have the same hazard category or categories as  
18 the original product. In that instance, I admit that that's  
19 probably fairly rare.

20 But in the instance where the alternatives have  
21 the exact same hazard categories, if an alternative has any  
22 additional hazard categories -- and these are the hazard  
23 categories that we've identified that Don just talked about  
24 for the categorization, identification and prioritization  
25 process. So if any alternative has the same hazard

1 categories as the original product, and an additional one or  
2 two or more, then that alternative is eliminated because  
3 it's presumed to have additional hazard categories over the  
4 original product. And it's not going to be the preferred  
5 alternative.

6           So if -- through these two steps of narrowing the  
7 alternatives, if the alternatives are identified at that  
8 point in time, if there are more potential alternatives  
9 identified, it moves on to response action. Evelia will  
10 talk about that. There's an appropriate place in the  
11 response action section. We would ask that these findings  
12 are documented and all the bases for those decisions are  
13 laid out. That there's a report to DTSC, some notification  
14 to us.

15           And that the alternatives analysis process begins  
16 again after two years to see if there are additional  
17 alternatives which have come on the market since then. Or  
18 if there have been changes in the original product,  
19 technical specifications or the performance factors that  
20 might open up new alternatives to consider.

21           So those that do make it through go into the full-  
22 blown alternatives assessment where the hazard categories  
23 are considered. And some exposure factors are considered.  
24 And all the lifecycle factors are considered.

25           And these are some general requirements that we

1 laid out in our process for the alternatives assessment  
2 analysis. And this was our effort to sort of address the  
3 quality of the analysis. And these are fairly, you know,  
4 sort of basic acknowledged qualities that support, you know,  
5 a sound analysis and supportable conclusions. So these are  
6 laid out, this is a summary, but these are laid out in a  
7 little bit more detail in our process.

8 Now originally we mean that with this group. We  
9 discussed the model of the super guidance approach -- to the  
10 analysis and how that would work. And we spent some time  
11 looking at how that super guidance document is used and  
12 implemented and enforced. And it is a good model.

13 But unfortunately, it's specific to the CEQA law.  
14 And the CEQA guidance actually carries the weight of --  
15 they're actually considered regulations. And we actually  
16 decided not to follow that model because it would have made  
17 our regulations really really huge.

18 And so one of the things we're thinking about  
19 instead is also having guidance, but it wouldn't be -- it  
20 would be peer guidance, it wouldn't be regulatory or  
21 required. So that's something worth thinking about.

22 So in the alternatives assessment, as I said, we  
23 consider the hazard criteria values. Now here we're using  
24 the same hazard criteria that we used in the identification  
25 and prioritization phase.

1           Originally we had some different criteria. And  
2 then decided for simplicity and for straightforwardness and  
3 ease of use, but they should be the same. Date of collected  
4 pursuant to section for the chemical of concern. And then  
5 they also require that it be collected for alternatives  
6 assessment as part of the hazard categorization comparison  
7 that we talked about earlier.

8           So this information, some of that that is  
9 available, should already have been collected; and should  
10 sort of cut down on the amount of additional data collection  
11 that would be required.

12           If there are additional hazard categories -- and,  
13 again, the exposure criteria and values that we came up with  
14 are very crude. And so if there are suggestions for others,  
15 you know, as Peggy said, we're very willing to take  
16 suggestions.

17           The last -- this is probably -- okay, talk faster  
18 -- okay, let's get rid of this -- because this is Bob  
19 Boughton's section and --

20           (Laughter.)

21           MS. OSTROM: And it is the piece that has changed  
22 the least. I think it's still qualitative. We can be  
23 quantitative if you want to. The most important aspect of  
24 this is to establish the system boundaries and to establish,  
25 you know, those aspects of the lifecycle that are different

1 between the consumer product and the alternative.

2           So, for example, if you're looking at an  
3 alternative that's mainly a chemical substitution and it's  
4 not even that different, perhaps it's just a slight tweak of  
5 a chemical, and the sourcing of the chemical and any other  
6 aspect of your process remains the same, you get to hold all  
7 that stuff constant that remains the same. And only those  
8 aspects that are changed are the parts that you analyze. So  
9 that helps hold the actual full-blown analysis down, and  
10 keeps it manageable. And I'll let Bob jump up and describe  
11 anything else he wants to later.

12           The lifecycle impacts, these are the ones that  
13 were laid out in the statute. You've seen this before. The  
14 ones in the regs go on and on for a couple of pages. And I  
15 didn't want to make a slide that just described something  
16 that you've probably already read. But we're looking at,  
17 you know, all of the lifecycle impacts that we anticipate  
18 would be important to consider.

19           This is sort of the place in the process where we  
20 lay out and compare our findings based on all those impacts  
21 that we looked at, the health criteria impacts.

22           These impacts sort of divide up into those four  
23 main categories, the hazard and exposure, the eco, resource  
24 pollution impacts and economic impacts. They sort of  
25 naturally fall into those four groups.

1           And in this table I didn't lay it all out. I  
2 didn't copy the complete table. It would have been  
3 impossible to read. But anyway, all those impacts are wrote  
4 out here.

5           And the findings from the analysis. Here's where  
6 all the alternatives are compared to the original product in  
7 terms of this. And so if there are numerical figures that  
8 have been -- if some quantitative analysis has taken place,  
9 and there are numerical values for some of those impacts,  
10 those can be put in.

11           If there aren't, if it's just greater or lesser,  
12 then we have an analysis that puts in plus/minus, question  
13 marks, that type of analysis. Again, it's a more  
14 qualitative approach.

15           And then the comparison of the alternatives,  
16 comparison where the rubber meets the road here, where we  
17 compare and select the alternatives. Who decides whether or  
18 not an alternative is better or preferred, or based on this  
19 analysis, based on the findings of the analysis.

20           And in our process we have the manufacturer making  
21 that determination. Again, they're the ones who decide what  
22 factors to consider in terms of the performance of the  
23 alternatives. And so we also have them making this decision  
24 in terms of the findings of the analysis.

25           We anticipate that in some instances it will be

1 very clear. For some alternatives, they will be clearly  
2 superior in many of the impacts. And maybe some  
3 alternatives will be clearly inferior in most of the  
4 impacts. We anticipate that could occur.

5 But we actually anticipate that most of the  
6 alternatives will fall somewhere in a grey area. Some  
7 impacts are better; other impacts are worse. And so because  
8 it's a judgment call, and it seems specific to all the  
9 different processes and all the different products that we  
10 anticipate will be evaluated, we feel that it's really up to  
11 the manufacturer to make that determination and to justify  
12 it. To justify their decision based on the information that  
13 they collected and the findings that they made.

14 So we don't have a findings report. And we don't  
15 ask that the entire alternatives assessment, all the data be  
16 submitted. But we do require that it be made available upon  
17 request so DTSC -- I'm going really quickly -- have the  
18 ability to request that information.

19 We do, though, require in our process that some  
20 sort of summary of the findings be made available, that it  
21 be made publicly available; that it justify all of the  
22 determinations. And if any changes are made or any  
23 alternatives are selected, that it include some sort of  
24 implementation plan and schedule for that.

25 And, as Peggy mentioned, one year the supply chain

1 documentation. And then if no preferred alternative is  
2 selected, it's repeated in two years.

3 And here's my question. The comparison of  
4 alternatives, should we specify a preference for health and  
5 safety attributes, or other attributes? And part of this is  
6 the grey area question where a lot of impacts fall into this  
7 grey area. Should there be a rating for health and safety  
8 attributes?

9 And then the other part of this question, if it is  
10 mostly qualitative, if the analysis is mostly qualitative,  
11 can we, how do we establish a rating? We looked at lots of  
12 different sort of models for decision theory, and most of  
13 those do require some sort of rating. And so we're  
14 wondering if you have advice about if we do decide to apply  
15 a rating, how do we do that in the face of nonquantitative  
16 results.

17 And I'll end there.

18 CO-CHAIRPERSON CARROLL: Thank you very much,  
19 Nancy. Evelia, I think the floor is yours. I won't even  
20 bother to mention that we're five minutes behind schedule.  
21 That would be crass and awful of me to do that.

22 (Laughter.)

23 MS. RODRIGUEZ: Good morning, everybody. My name  
24 is Evelia Rodriguez, and I am tasked with revising and  
25 writing the regulatory response actions for this regulation.

1 AB-1879, which is the law that gave us a mandate  
2 to write these regulations, listed a range of regulatory  
3 responses. These are the nine that they provided DTSC.

4 And as we were trying to write these regulatory  
5 responses in a framework that allowed self-implementation,  
6 it became apparent that some of these just did not lend  
7 themselves to implementation. That it might be construed as  
8 a delay tactic.

9 If they couldn't get additional information, would  
10 that be enough to delay a response action or any part of the  
11 regs for another year, another five years?

12 So what we did was split it into two different  
13 categories or response actions to try to address that issue.

14 The regulatory response, which is section 20, is  
15 divided into four different subsections. One is general  
16 applicability, general requirements. The second part is  
17 criteria for the self-implementing response action. The  
18 third is the actual response actions that are self-  
19 implementing. And the fourth is the regulatory response  
20 actions that DTSC may impose or authorize a manufacturer.

21 Now, the applicability captures any consumer  
22 product that contains a priority chemical of concern. After  
23 you've come out of the alternative analysis one of the  
24 conclusions may be that the consumer product continues to be  
25 used in the marketplace. So, if you still are manufacturing

1 a product with a priority of concern, you are captured in  
2 the response actions.

3 A second scenario may be that you will be  
4 implementing an alternative, but that alternative also  
5 contains a priority chemical. Or that alternative has a  
6 significant impact. You are also captured by the response  
7 actions.

8 So the off-ramp, of the get-out-of-jail card, is a  
9 manufacturer implement a safer alternative without a  
10 priority chemical, or without significant impact.

11 Another general requirement is if you are required  
12 to implement a response action, submittal of an  
13 implementation plan. And in the regulatory language you  
14 will see all of the elements that are required as part of  
15 this plan.

16 And what I've done is split it into two parts.  
17 Kind of general information and then a more plan-specific  
18 information, more detail.

19 The first part will be sent electronically to DTSC  
20 as a notification. The entire implementation plan also  
21 needs to be put in a public webpage. And, again, we have no  
22 specifics as to how the manufacturer would go about making  
23 it accessible to the public at large.

24 Now, we're also requiring that this information  
25 about the implementation plan be added to the supply chain

1 documentation.

2 Now, if, for some reason, DTSC would like to  
3 impose a response action we have two criteria where DTSC  
4 would be obligated to act. One is the manufacturer had not  
5 taken a response action. It's pretty clear. We would come  
6 in and review what work has been accomplished, and then  
7 decide at that point what would be an appropriate response  
8 action.

9 The second one is if it comes to light that the  
10 continued availability of a consumer product poses a risk to  
11 human health and the environment, DTSC would be acting on  
12 that information.

13 Now, we've built into the language some  
14 considerations. In other words, these are issues that DTSC  
15 would have to evaluate before taking any of these actions.  
16 And one is the nature of the hazard and potential risk. The  
17 effectiveness of the response action, the consistency is a  
18 level playing field issue, and duplicative requirements that  
19 other agencies might have.

20 Now, this is the one that I anticipate the most  
21 comments on, which is the prohibitions. I want to be clear  
22 here that we are not failing a chemical. What we are doing  
23 here is restricting the use of a chemical in a product that  
24 poses a risk.

25 So, what we tried to do here is tried to spread

1 out the timeframe. And tried to address whether safer  
2 alternatives exist or they don't exist.

3 Now, I want to be clear about alternatives. You  
4 could have no alternatives. You could have no potential  
5 alternatives, and Nancy described a potential alternative as  
6 being functionally equivalent or of having an equal  
7 performance.

8 You could have an alternative that may not be  
9 safer. Now, we've defined safer in our regulations. And  
10 safer has two components. It has to reduce the risk or  
11 exposure, and it can't have significant impacts. So while  
12 you're trying to reduce hazards, you also cannot create a  
13 regret.

14 So my question is labeled 2(c), but it's my own  
15 question. And it's actually the third part of that third  
16 question that Don posed on the slide that he had. Which is  
17 what are the pros and cons of the definition of  
18 authoritative bodies for triggering regulatory response.

19 I have bifurcated the priority one into priority  
20 one with a ban. And that ban is dependent upon another  
21 authoritative body implementing a ban under their authority.

22 Now, is that appropriate? Should we call out a  
23 specific authoritative body that we want to peg this on so  
24 someone isn't looking through umpteen governmental agencies?  
25 Or so it's clear that we don't mean a regulatory agency,

1 say a city that bans a specific chemical. So this is where  
2 we need a little input from the panel.

3 Labeling. Under response actions and criteria  
4 I've kind of combined section (b) and (c). If the product  
5 that we end up with actually has attributes with significant  
6 impacts, and product is the implement potential alternative,  
7 if there's still an exposure risk we're going to require a  
8 label.

9 If there is some type of management required at  
10 the end of life, we're going to want a label to let the  
11 consumers know that it needs to be managed in an appropriate  
12 manner. Or if there's risk to workers, we'd want a label on  
13 there that explains to them that a eight-hour-a-day, five-  
14 day-a-week exposure might pose a greater risk to that  
15 individual than it would be to the normal consumer.

16 Now, if there is an end-of-life issue, we have a  
17 listing of end-of-life management options that a  
18 manufacturer would have available to decide on. And it's a  
19 way in which we make a manufacturer a little more sensitive  
20 to the externalities of disposal issues.

21 Now, there's additional notifications put into the  
22 response actions. And this is a way to let our sister  
23 agencies know if there's significant impacts when we  
24 evaluate those attributes, and how those impacts may affect  
25 their regulatory authority.

1           So, if there's end-of-life management issues, we  
2 want the Integrated Waste Board notified of it. If there's  
3 exposure risks to workers, the Department of Industrial  
4 Relations needs to get notification. Now, remember, the  
5 notification is part (a) of the implementation plan.

6           The greenhouse gas emissions or air quality is a  
7 notification to our Air Resources Board. Water quality  
8 impacts, notification to the State Water Resources Control  
9 Board. And ecotoxicity risks to the Department of Fish and  
10 Game. And just in case we miss anything, if there's an  
11 impact that needs a notification to another agency with  
12 regulatory authority over that issue, it needs to be sent to  
13 them.

14           Now, the DTSC first response actions are for  
15 additional information, restrictions on use, research and  
16 development, green chemistry funding and other response  
17 actions that relate to goals of our regulations.

18           Once you have made it through this entire process  
19 you're done. But, if for some reason, you hit a snag and  
20 there is insufficient time to gather the information for the  
21 chemicals of concern, or you need additional information to  
22 complete the alternatives assessment, or if one of these  
23 response actions does not meet the needs of the company, the  
24 manufacturer may petition the department to modify or waive  
25 provisions of the regulations, provided there's efforts to

1 comply with the requirements, and a written narrative  
2 demonstrating the good faith effort to try to meet the  
3 requirements.

4           The department must also make findings in order to  
5 allow a petition, or approve a petition. And one is that  
6 the chemical hazard is found to be either below significant  
7 risk, or below MADL, the maximum allowable daily levels. A  
8 chemical is insignificant, a consumer product is  
9 insignificant, the exposure during the use is insignificant,  
10 a consumer product is properly regulated by another  
11 governmental agency which provides the protection we are  
12 looking for.

13           Petitions must be sent by certified mail. We are  
14 going to post it for a 45-notice from the public. Make it  
15 available on our website, along with any scientific support.

16       We're going to disclose the draft for written comments and  
17 we will revise and respond to comments. Final decision will  
18 be posted on our website and published in the California  
19 Regulatory Notice.

20           And that's it for my component of it. This is my  
21 presentation.

22           CO-CHAIRPERSON CARROLL: Very good. Thank you,  
23 Evelia. And thank you all for showing your crisp and  
24 uncomplicated nature of this material.

25           On the other hand, if there are clarifying

1 questions that you would like to ask, that's what the cards  
2 are for, and I would ask that you use those. We'll collect  
3 those cards and, once again, collate them and address these  
4 questions after lunch.

5 Joe, I think that brings us to the break. I  
6 believe at this point you have something to say?

7 MR. SMITH: Yes. As I'm sure the panel members  
8 are aware, the meeting today is subject to the Bagley-Keene  
9 Open Meeting Act.

10 In the context of the meeting today what that  
11 really means is that discussion among the members of the  
12 substantive agenda items today should be limited while the  
13 panel is in session.

14 Discussions outside of the session should be  
15 limited. Try to stay away from the substantive issues.  
16 What we're trying to do is avoid a serial meeting where  
17 groups of small meetings or small discussions by the  
18 members, outside of the meeting proper, lead to, in the end,  
19 the result being a discussion amongst a quorum.

20 So, during the breaks, during lunch, any  
21 socializing tonight, please stay away from the substantive  
22 issues that you've discussed today.

23 Secondly, as was mentioned earlier, there is a  
24 public workshop process that DTSC has initiated. As  
25 individual members you are allowed to provide your

1 unsolicited comments as a part of that process.

2 In order to avoid Bagley-Keene concerns, we ask  
3 that if you are going to do that, do not cc your other panel  
4 members on your individual comments.

5 What DTSC will do, however, is if you submit a  
6 comment as a part of the public process, we will post your  
7 comment on the Green Ribbon Science Panel website, because  
8 we're sure that there are members of the public out there  
9 that would want to pay special attention to what you may  
10 have to say about the other aspects of the straw proposal  
11 that's before you today, and that, unfortunately, we're not  
12 going to have time to address as a part of this session.

13 So that's the approach we'd like to take, and  
14 that's it.

15 CO-CHAIRPERSON CARROLL: Thank you very much, Joe.  
16 Okay, one other point. We will take a break at this time.  
17 We still have 15 minutes by this clock. We will start at  
18 ten minutes to 11:00.

19 For those of you who have cards that you would  
20 like to submit, please do so, to Kathy.

21 When we come back we will start with the public  
22 comment period, which will still occupy 45 minutes. Very  
23 good. Thank you. See you in 15 minutes.

24 (Off the record at 10:32 a.m.)

25 (On the record at 10:50 a.m.)

1 CO-CHAIRPERSON CARROLL: Once again for the  
2 audience, for the Green Ribbon Science Panel, for people who  
3 have accidentally wandered into this room to get out of what  
4 used to be the rain, please take your seats.

5 (Pause.)

6 CO-CHAIRPERSON CARROLL: Kathy, the floor is  
7 yours.

8 MS. BARWICK: Yolanda?

9 MS. GARZA: Yes.

10 MS. BARWICK: I'm going to turn it over to Yolanda  
11 Garza, who is one of our public participation specialists  
12 and the project manager for the green chemistry program.

13 MS. GARZA: Thank you and good morning. This is  
14 our interval in our time for public comment. And we thank  
15 you both on the web, as well as here, for attending.

16 We can read your comments. There is still time to  
17 provide us or Maya your speaker's card. I do have a number  
18 of comments that will be read by the presenters.

19 Please note, it will be two minutes long. And we  
20 do have cards to remind you of the time interval that's  
21 passed. And that's it. And if you can please make sure to  
22 sign in, while it is optional, we would provide you  
23 information on our listserver.

24 The first speaker we have is Mr. John Ulrich with  
25 the Chemical Industry Council. Good morning.

1 MR. ULRICH: Good morning, members of the panel,  
2 Chairman Carroll, Chairman Geiser, Madam Chairman Raphael,  
3 thank you very much for this opportunity.

4 I want to commend the DTSC Staff, number one, for  
5 a very difficult task, getting this straw proposal together.

6 This is very difficult in any stretch of the imagination.

7 I had the opportunity to speak to you in April. I  
8 mentioned to you at that time that the Chem Council was very  
9 in the passage of the green chemistry legislation. We've  
10 been supportive of the Governor's Green Chemistry  
11 Initiative. We continue in that vein. And we are committed  
12 to making this a working process.

13 I would like to say, however, that this particular  
14 straw proposal in its entirety, and my comments refer to it  
15 in its entirety, is overwhelming. It's overwhelming in  
16 scope and breadth, and it's stretched throughout the product  
17 chain, and also in its cost.

18 We do not believe that this process that has been  
19 described is going to be workable. When we started the  
20 process of passing green chemistry legislation, prior to the  
21 -- pardon me, the amendment that identified the green  
22 chemistry legislation that was passed and signed into law,  
23 over five metals and two other compound classes, thalates  
24 and dibrominated fire retardants.

25 Today we have as many as 10,000 chemicals and

1 hundreds of thousands of products that are identified.  
2 We're on a two-year cycle and ultimately the end game is  
3 prohibition.

4 We don't know what we don't know, but we can be  
5 certain that as chemicals are substituted for additional  
6 compounds, we are going to find that they, too, are going to  
7 wind up being within the process.

8 We have to find a way to prioritize. We have to  
9 find a way to make this simpler. It has to be cost  
10 effective. The program that we have before you today will  
11 not incentivize innovation. It will impede innovation.

12 Thank you very much.

13 MS. GARZA: Thank you, Mr. Ulrich. Our next  
14 speaker we have is Joseph Guth. He's with the Science and  
15 Environmental Health Network.

16 MR. GUTH: Hi. I'm Joseph Guth. I'm the Legal  
17 Director of the Science and Environmental Health Network,  
18 which is an environmental health NGO.

19 I want to just make four quick points. First is I  
20 also regard this proposal as very ambitious. It's broad in  
21 scope. However, I think that's appropriate. The  
22 implementation problems are substantial, but I would urge  
23 the Green Ribbon Science Panel to focus on ways to maintain  
24 a broad scope in terms of the products and the chemicals  
25 that are involved. But consider more kinds of

1 prioritization perhaps, either in the types of chemicals or  
2 the timeframes that are required.

3 I mean I do think it's important that all this  
4 work be done on products that are existing. It hasn't been  
5 done after all these years. It needs to get done. It's  
6 going to take some time to get the products, the existing  
7 products in commerce analyzed in this way. But I think it's  
8 appropriate given some of the practical prioritization that  
9 might be needed.

10 Secondly, public availability of information and  
11 the decisions that are made is critical source of oversight.

12 And I think that the dissemination provisions are too weak,  
13 and they're subject to CVI claims. The CVI claims will  
14 defeat public availability of information. And since the  
15 department, itself, is not going to be making these  
16 decisions, it's just going to be all this information; and  
17 decisions will just get put into, you know, a drawer with  
18 very little opportunity to discipline or scrutinize the  
19 process.

20 Third, burdens of proof are not specified in the  
21 regulations. The industry needs to do the work, but exactly  
22 how they deal with uncertainty in the data is not specified.

23 We believe that manufacturers, for example, should be  
24 required to demonstrate that their chemicals are not  
25 chemicals of concern. That's the way a burden of proof is

1 articulated. So the department retains far too many burdens  
2 of proof.

3 And then my very last comment is that the data  
4 requirements are quite vague. There's a lot of discretion  
5 allowed by industry as to what data they will provide to  
6 meet, to determine whether it has the criteria met. If  
7 minimal data is provided, then the whole process is  
8 defeated. The decisions about whether a chemical is a  
9 chemical concern will be poor and so will the alternatives  
10 analysis. So we need a robust mandatory data requirement.

11 Thank you.

12 MS. GARZA: Thank you, Mr. Guth. Next up to speak  
13 is Dawn Sanders Koepke. Dawn is with the Green Chemistry  
14 Alliance.

15 MS. KOEPKE: Thank you. Thank you to DTSC for  
16 convening this meeting, and thank you for the panel members,  
17 for your participation and attention, as well.

18 The Green Chemistry Alliance has been working  
19 vigorously to try and provide feedback and proactive  
20 resolution to some of the concerns we've had with the  
21 framework and where we find ourselves now.

22 As John Ulrich had mentioned, the Green Chemistry  
23 Alliance does have serious concerns with the framework as  
24 it's laid out now. That said, we are still committed to  
25 working with DTSC on moving this process forward. It's

1 certainly in all of our best interests to make sure this is  
2 a workable process and we're committed to moving in that  
3 manner.

4           Some of the specific concerns that Green Chemistry  
5 Alliance has -- just for reference the Green Chemistry  
6 Alliance is a coalition of industry interests, associations,  
7 individual companies and the like, a number of consultants,  
8 as well. So I put that out there for consideration.

9           Some of the specific concerns and understand I  
10 have a short amount of time, we're very concerned about the  
11 scope of the program, the three-tier approach, with  
12 products, chemicals, lists of lists being the first and  
13 foremost problem we see with this. We think that it could  
14 result in the program failing under its own weight.

15           Concern over the wide variety of hazard traits.  
16 No limitation to intentional ingredients, specifically with  
17 regard to chemical ingredient definition. Concerns about  
18 that.

19           Also concerns about a lack of a de minimis  
20 concentration or some framework for evaluating risk and  
21 exposure upfront. We think that that's critical.

22           Also, no prioritization except for in the case  
23 where just defer a ban to, you know, a later timeframe.  
24 Massive product and alternative lifecycle analysis to be  
25 complete in a short timeframe.

1           But the quality and approach that there are  
2 concerns with regard to leveling the playing field in that.

3           Have a whole host of other points to raise, but hopefully  
4 some of my colleagues will do so.

5           Thank you.

6           MS. GARZA: Thank you. Next up we have Klaus  
7 Berend. Klaus is with the European Commission. He is a  
8 European Commission Fellow at UC Berkeley.

9           DR. BEREND: Yes, thank you. I also would have a  
10 lot of comments, but in the interest of time and as we were  
11 instructed by the Chairperson in the morning, to concentrate  
12 on one, I will focus on the beginning of the process. And  
13 my question is, or my comment is more on the feasibility of  
14 what is envisaged.

15           With the hazard traits that have now been proposed  
16 and the lists of lists, you look at thousands of substances  
17 of concern. And one would say if everything is a concern,  
18 nothing is of special concern. So that is something, a  
19 proper prioritization that could certainly be improved.

20           Same for the selection of the substances then in  
21 terms of the exposure. We have the three categories in the  
22 proposal, the direct exposure, the exposure at the end of  
23 the lifecycle or no exposure.

24           But then the actual obligations that flow from  
25 that, the alternatives analysis, are identical for all these

1 three priorities. So maybe that would also be a way to  
2 select chemicals for an earlier action compared to others  
3 for later action.

4 So, main comment on all of this is the  
5 feasibility, what is feasible within the given amount of  
6 time, taking into account also that for many substances the  
7 hazard information is not easily available. And many other  
8 information that is required in the alternatives analysis is  
9 also not easily available.

10 So, feasibility, that is my main comment here.  
11 Thank you.

12 MS. GARZA: Thank you. Next we have Miriam  
13 Gordon. Miriam is with Clean Water Action.

14 MS. GORDON: Thank you. I want to thank the  
15 agency for its significant effort to date. Much is good in  
16 the straw proposal, but we have several concerns.

17 In particular, as Joe mentioned, the concern about  
18 confidential business information and trade secrets.  
19 There's one provision in the straw proposal that is, I think  
20 we would like to have more clarification on how that works  
21 in reality.

22 And I think it fails to address a concern about  
23 the fact that this entire program rests on manufacturers  
24 obtaining information from the chemical source suppliers.  
25 And where there may be confidential business information and

1 trade secret claims from the suppliers of the chemicals.

2 For example, if you have a product that contains a  
3 fragrance and you're a manufacturer and you're trying to  
4 find out, to get data on that fragrance, that fragrance is a  
5 product. And the supplier, chemical manufacturer, may claim  
6 confidential business information. So there may be a hold-  
7 up in getting data at the very front end, I think.

8 Another concern is the lack of transparency and  
9 public participation in section 6. The whole process of  
10 determining whether a chemical or a product is in the scope  
11 and requires alternative assessment. There's no opportunity  
12 for the public to review and comment. There are no public  
13 participation measures articulated at all.

14 And finally, just a general concern that in this  
15 proposal, and the agency seems to lack significant approval  
16 and oversight. There's no process articulated for DTSC to  
17 determine the adequacy of the manufacturer's prioritization,  
18 and the alternatives analysis.

19 For example, just the question of determining what  
20 the product has no exposure. That will -- we think there's  
21 going to be significant disagreement between the public  
22 perspective and the industries there. And would love to see  
23 DTSC have a greater oversight in that process.

24 Thank you.

25 MS. GARZA: Thank you very much. I have now with

1 me four speaker -- or four comment cards that I will relay.

2 If I have made errors please raise your hand and feel free  
3 to come up and correct me.

4 The first one is Alelie Funcell from Renewable  
5 Energy Center. She says, "For authoritative bodies, in  
6 addition to government agencies, I would like to recommend  
7 that the department consider a third-party organization with  
8 experience in auditing and certification and testing  
9 disciplines to review the self-implementation processes of  
10 the manufacturer.

11 Third-party certification or auditing bodies to  
12 conduct review and audit by which manufacturers implement  
13 conformance processes which is a common practice. And it's  
14 a very effective practice and implemented in many  
15 industries.

16 She also gave some examples such as  
17 semiconductors, PV, solar industries in particular, medical,  
18 et cetera. So that was that comment.

19 The next one is from Randy Fischback from Dow  
20 Chemical. He says: What is the responsibility of the  
21 manufacturer to identify every alternative across the globe?

22 How would they do this? What is the liability for missing  
23 an obscure product somewhere? Has anybody estimated the  
24 cost for doing all of this testing and alternatives analysis  
25 for any one product offering, let alone dozens?

1           The next one is from Nathaniel Sponsler from Gap,  
2 Incorporated. His comment is: Larger retailers, in  
3 particular apparel retailers, offer thousands of new and  
4 unique styles of clothing each season. As such, the  
5 definition of a "product" in the regulations should allow  
6 for grouping and categorizing of similar products that share  
7 the same chemistry and manufacturing processes. Otherwise,  
8 even good faith efforts to comply will come up short.

9           And finally we have Andria Ventura with Clean  
10 Water Action: We have deep concern over issues of -- sorry,  
11 okay, come on up. I like your purple writing, though, it's  
12 very pretty. So I'll introduce Andria Ventura.

13           MS. VENTURA: Hello. I'm Andria Venture with  
14 Clean Water Action, and also a member of the Change  
15 Coalition. I just wanted to make two points.

16           One is that we do have deep concerns over the  
17 emphasis on exposure and release. We have, for a long time,  
18 been saying that we recognize that the level of exposure in  
19 the population, particularly if you're talking about  
20 vulnerable populations, maybe one way to start prioritizing  
21 chemicals there.

22           We recognize that we have to start somewhere.  
23 There are so many chemicals out there. And exposure may be a  
24 good place to start.

25           However, we do not believe that ultimately

1 exposure and the release potential of chemicals from  
2 products' use, their manufacture or their disposal should be  
3 the basis of alternate regulatory decisions. It should be  
4 based on the fundamental hazards posed by that chemical.

5 The reasons are twofold. One is that you are  
6 basically talking about, in a situation like that, is a  
7 containment strategy. And that simply has never worked.  
8 Ultimately the chemical is still out there. And it's going  
9 to, you know, raise its head at some point. Also that does  
10 not drive innovation, per se, for alternatives.

11 And related to that, my second point very quickly,  
12 it's not really clear in reading this straw proposal, to me,  
13 exactly how we're going to actually drive the development of  
14 safer alternatives. I see that we're basing a lot of  
15 regulatory decision on what's out there and what's available  
16 now.

17 And coming back in two years, we haven't found a  
18 safer alternative is not actually driving the development of  
19 something that is ultimately going to be a safer ingredient  
20 or chemical product. And so we have some concerns with  
21 that. I think that that is something that this panel can  
22 and should be wrestling with.

23 Thank you.

24 MS. GARZA: Thank you. That concludes our  
25 comments from the public. If there are any last-minute

1 comments we will entertain them.

2 At this time I turn this back over to the Chair  
3 and Kathy.

4 CO-CHAIRPERSON CARROLL: Thank you very much.  
5 Kathy.

6 MS. BARWICK: Thank you, Yolanda. And thank you,  
7 members of the public, for your thoughtful comments.

8 We have a few extra minutes before we break for  
9 lunch, and in the interest of utilizing that time  
10 effectively I've asked Sara Hoover from the Office of  
11 Environmental Health Hazard Assessment if she would be  
12 willing to give her update on SB-509 before lunch. And she  
13 graciously agreed to do that.

14 Sara, do we have your presentation here? Okay,  
15 just going to walk around the room one more time and find  
16 out. I thought I'd just ask it now.

17 CO-CHAIRPERSON CARROLL: Kathy, let me add that  
18 that this is a substitution of Sara's time from this  
19 afternoon, which we had allocated for 4:40 to 4:50. And  
20 we're bringing her forward at this time to accommodate a  
21 couple of schedules, ours and hers.

22 Sara, you're sort of on that same timeframe,  
23 correct, about ten minutes or thereabouts?

24 MS. HOOVER: Yeah.

25 CO-CHAIRPERSON CARROLL: Very good.

1 (Pause.)

2 CO-CHAIRPERSON CARROLL: While we're waiting to  
3 get the slides up, we should also mention that this topic  
4 will be the topic of discussion of the Green Ribbon Science  
5 Panel at our next physical meeting, which we project to be  
6 in the end of January.

7 MS. HOOVER: Thank you for moving me up. That's  
8 helpful for my colleague, Melanie Marty, who wanted to be  
9 here for the presentation.

10 What I'm going to do today, there's only ten  
11 minutes so I'm just going to give you a very brief update on  
12 where we are in our process.

13 And as was mentioned several times, there's going  
14 to be a full panel meeting on this topic, the topic of both  
15 our hazard trait research, as well as the work that's being  
16 done by the DTSC clearinghouse team, what they're working on  
17 in developing the structure of the clearinghouse. And we're  
18 having some collaboration, but they'll be talking about  
19 their work at a later meeting.

20 Just to introduce myself, Sara Hoover. I'm Chief  
21 of the safe alternatives assessment and biomonitoring  
22 section in OEHHA.

23 Just to remind you a little bit about the  
24 background for the context, the toxics information  
25 clearinghouse was established by SB-509 and here are some of

1 the characteristics of the clearinghouse.

2 The main issue being it's supposed to be available  
3 through a web portal. And it's supposed to be operated at  
4 the least possible cost to the state. So that's obviously a  
5 big concern in California.

6 Our particular mandate is given here. On or  
7 before January 1, 2011, OEHHA shall evaluate and specify  
8 hazard traits, environmental and toxicological end points,  
9 and any other relevant data that are to be included in the  
10 clearinghouse.

11 So what I'm going to talk about today is just our  
12 approach to meeting this mandate and some of the activities  
13 that we've been undertaking since we last talked to you in  
14 April.

15 But before I do that I just want to give you what  
16 kind of terminology we're using here. So, just for  
17 simplicity sake we're using the term hazard trait to  
18 incorporate the range of data, information relevant to human  
19 health and environmental hazards, as well as exposure  
20 potential. Which includes traditional end points, emerging  
21 end points, physical/chemical characteristics, structural  
22 features and other indicators of hazard or exposure  
23 potential.

24 So when I use, see I use some of these terms  
25 interchangeably, but the over-arching term we're going to

1 use is hazard trait.

2           So, in terms of our general approach to meeting  
3 our mandate what we're going to attempt to do is to develop  
4 a prioritized interrelated framework of hazard traits to the  
5 clearinghouse. And what do I mean by this?

6           I mean we're going to be doing some work on  
7 prioritizing hazard traits. So what are the most serious  
8 hazard traits? We're also going to be working on showing  
9 how these hazard traits interrelate. So, for example, you  
10 might have a battery of geotoxicity assays which will give  
11 you strong concern for carcinogenicity. So that's one of  
12 the things we're going to be working on incorporating.

13           Now, I'll talk later a little bit about some of  
14 our initial hazard trait research. And obviously many  
15 people, many stakeholders during the initial phases of the  
16 Green Chemistry Initiative, as well as many organizations,  
17 realize that in spite of all these extensive identification  
18 of chemicals of concern, there's still huge data gaps.

19           And one of the things that -- and so a lot of  
20 people have done work on this, and I'm going to mention that  
21 later, but that's not really going to be our focus.

22           One of our -- the main focus of our research is  
23 going to be trying to move forward the approach of using  
24 indicators in the absence of full data. And I'll talk about  
25 some workshops we're planning in that regard.

1           So, in terms of a brief overview, the last time I  
2 talked to you about the January 29, 2009 workshop that we  
3 conducted, which was a preliminary discussion on hazard  
4 traits, end points and other data. There's a report  
5 available on our website, and I'll be touching on that.

6           As I said, I'm going to talk about some initial  
7 research that we've done just with regard to hazard trait  
8 information sources. Ongoing consultations we're having  
9 with outside groups. A scientist survey we have planned.

10           I mentioned to you that we had applied for a grant  
11 from the UC Toxic Substances Research and Teaching Program  
12 with UCLA and UC Berkeley. And we did win that grant, so  
13 we're going to be implementing that with a workshop series.

14           And then, again, kind of reiterating the concept of  
15 developing the hazard trait framework.

16           So the January 29, 2009 workshop was extremely  
17 helpful. It was just an initial kind of kickoff discussion  
18 of our work. We had a great panel. Some of you were on  
19 that panel. And some discussion from the public. And this  
20 report basically summarizes some of the key input we got at  
21 that meeting.

22           Now, we got input both on our element of the  
23 clearinghouse, which is establishing the hazard traits. We  
24 also got input relevant to the DTSC clearinghouse team, in  
25 terms of setting up the structure of the clearinghouse. So

1 we provided that input to them. This just talks about how  
2 that's related to hazard traits specifically.

3           So, again, to reiterate, we were advised that we  
4 should cast a broad net for hazard traits and inputs, but  
5 also should prioritize them. And the kinds of things I  
6 listed on my earlier slide are very much in line with what  
7 stakeholders advised us to consider as being a hazard trait.

8           We were advised to look at emerging science in  
9 sensitive subpopulations, to seek approaches to address data  
10 gaps. But I want to be really clear here that there's also  
11 an evaluation of gaps that needs to be done. Not every --  
12 not all the missing information is a data gap. So that's  
13 something that also needs to be considered. And to gather  
14 up case studies to exist with our hazard trait research.

15           Now, as DTSC alluded to, there is a little bit of  
16 a time disconnect to what's been happening. So they're  
17 moving forward with trying to set up their regulatory  
18 framework. And we're doing our research kind of at the same  
19 time.

20           And so as kind of trying to help them with their  
21 process, we did some initial research just on hazard trait  
22 information sources and associated lists. So we focused on  
23 traits and inputs that have been identified both by  
24 regulatory agencies and stakeholders as being a serious  
25 concern. We did make a focus on California-specific sources

1 of information that are not always considered.

2 In general, the results that we got in our initial  
3 research on looking for information sources and lists are  
4 really similar to work that's being done by a whole host of  
5 other organizations, including UC Berkeley, CREH, Good  
6 Guide, Clean Production Action, State of Maine, et cetera.  
7 There's lots of work being done in that area. And pretty  
8 much people are working at the same kinds of sources.

9 We provided a summary of this initial research to  
10 DTSC. I really want to emphasize that that was an initial  
11 effort. And we're continuing to review and update  
12 information sources and to start researches ongoing overall.

13 So, in terms of so many ongoing consultations,  
14 we're talking to lots of different people. We've been  
15 working with UC Berkeley and UCLA. We've been meeting with  
16 Good Guide and other groups with relevant databases,  
17 including EPA. We're going to be talking to the Healthy  
18 Building Network and others. I've been involved with the  
19 Interstate Chemicals Clearinghouse; with specific contacts  
20 with the State of Maine and Washington, who are working on  
21 similar kinds of issues about looking at chemicals of  
22 concern.

23 We also had the great good fortune of being in  
24 touch with the European Commission. Klaus Berend is here on  
25 a fellowship for the first semester of this year; and we've

1 been getting a lot of valuable advice from Klaus.

2           The Green Ribbon Science Panel, as we said, we're  
3 going to be consulting with you in more detail in early  
4 2010, and other stakeholders. And I really want to invite  
5 any stakeholders, if you want to talk to us and provide your  
6 input, please feel free to contact me. I give my contact  
7 information later.

8           Now in terms of a more formal consultation, we're  
9 planning a survey of scientists. And we're planning to  
10 survey key scientists in state and federal government,  
11 industry, nongovernmental organizations. And we're going to  
12 be developing specific questions and elicit opinions on the  
13 highest priority hazard traits, end points and other data,  
14 relationships. And the scientists' opinions on  
15 scientifically valid indicators of hazard. So this is going  
16 to be one element of input to help shape our recommendations  
17 on hazard traits and use of hazard indicators.

18           In terms of the workshop series I mentioned that's  
19 been funded, we're now actively planning the series. The  
20 first workshop has been set for March 15th to 16th in  
21 Sacramento. So I invite anyone interested. And it'll be a  
22 public workshop. Please feel free to attend. It'll also be  
23 webcast.

24           The focus is going to be -- first, the keynote  
25 speakers will set the stage in terms of state of the science

1 for toxicity and hazard screening methods. But as I  
2 mentioned, our real focus is going to be on indicators. In  
3 workshop one will be looking at human health indicators.  
4 Obviously we can't look at every end point, so we've chosen  
5 some specific end points to consider.

6 And one of the goals of that workshop is we're  
7 looking at can we move forward with using human health  
8 hazard indicators. And trying to get real good advice on  
9 things that robust enough to move forward with.

10 Workshop two is in late May of 2010, which will be  
11 in Berkeley. And there we're going to switch the focus to  
12 environmental end points and exposure potential. So, again,  
13 we're going to be using these findings to help shape our  
14 recommendations.

15 So, just to reiterate here, in terms of developing  
16 hazard trait framework, our goal is a prioritized  
17 interrelated framework for the clearinghouse, with  
18 recommendations on using hazard indicators.

19 We're planning to develop a draft framework and  
20 recommendations based on our research, workshops,  
21 consultations, survey and any other input we receive.

22 And then we will be holding public workshops to  
23 seek comment on our framework and recommendations.

24 The goal is for us to complete this work by late  
25 2010.

1           Now, I can't invite you to ask questions at this  
2 time, because I've used my ten minutes. But will look  
3 forward to having a more in-depth discussion with you in  
4 early 2010.

5           CO-CHAIRPERSON CARROLL: Very good. Thank you,  
6 Sara, thank you very much. And particularly for being  
7 flexible on the timeframe.

8           Kathy, I guess the floor is yours to at least for  
9 now to ramp us up to lunch.

10          MS. BARWICK: So I just have a couple of  
11 announcements. The Green Ribbon Science Panel, you should  
12 have all received some information from Carol Riley about  
13 lunch. And that will be in room 2550. And Dr. Wong will  
14 help you find that room at lunchtime, which we will break in  
15 just a few minutes.

16          I did have a request about transportation options  
17 this afternoon to the airport. I put a piece of paper on  
18 the desk over there. If you are leaving this afternoon and  
19 need a ride to the airport, we can try to help organize  
20 that.

21          CO-CHAIRPERSON CARROLL: Kathy, I have one  
22 question while you're working there. Sara, your  
23 presentation would be available --

24          MS. HOOVER: Yes.

25          CO-CHAIRPERSON CARROLL: -- to us. And I would

1 ask that it be sent to use explicitly, please.

2 MS. HOOVER: Great.

3 MS. BARWICK: So if you are planning to go back to  
4 the Sacramento Airport this afternoon, so we can organize  
5 transportation, just put your name and maybe flight time on  
6 that piece of paper. And then we'll figure that out for  
7 you.

8 So, the GRSP is invited to room 2550. We will  
9 convene again at the end of lunch period at 12:15.

10 CO-CHAIRPERSON CARROLL: And, Joe, do you need to  
11 say grace before lunch?

12 (Laughter.)

13 MR. SMITH: No, --

14 CO-CHAIRPERSON CARROLL: All right.

15 MS. BARWICK: Joe has said what he's going to say,  
16 I think. All right, thank you, all, very much.

17 (Whereupon, at 11:24 a.m., the meeting was adjourned, to  
18 reconvene at 12:15 p.m., this same day.)

19 --o0o--

20

21

22

23



1 In some cases they were open-ended questions and our  
2 regulations don't necessarily address it. We'll try to  
3 point those out, and we invite you to provide us comment.  
4 And we invite you to participate in the workshop next week  
5 to discuss these issues in more detail.

6 MS. OSTROM: Okay, so the first question dealt  
7 with an example of the functionally equivalency. And the  
8 example is that if a manufacturer makes a glass bottle, they  
9 don't also have to consider a plastic bottle for an  
10 alternative. Or vice versa.

11 So, earlier when I was speaking of how they define  
12 functionally equivalent, that was the intention of that  
13 definition.

14 A couple of questions that sort of dealt with a  
15 similar issue. Assuming a chemical concern is a carcinogen  
16 and the functional alternative that is identified is  
17 biocumulative if the alternative chemical disqualified, or  
18 the alternative contained that chemical disqualified, no.  
19 And that's what I was saying before.

20 It was very difficult to compare different hazard  
21 categories. So we didn't do that. So the instance where  
22 the alternative would be disqualified is if the chemical of  
23 concern in the product is carcinogen, and the alternative is  
24 considered -- is a carcinogen, and the alternative is also  
25 biocumulative. It has one additional chemical or hazard

1 category. In that instance that alternative would be  
2 disqualified.

3 And a related question was comparing -- excuse me,  
4 hazard categories, considering them to be equal in comparing  
5 them for the purposes of evaluation. And, again, we're not  
6 comparing within -- among the hazard categories, only  
7 within.

8 In this question it says a proposed alternative in  
9 the same hazard category is regional and belongs in another,  
10 how do you quantitatively rate the level of hazard. We  
11 don't. And that's, you know, that's one of the kind of  
12 issues I think with doing qualitative analysis. And, again,  
13 if you have additional comments, other ways of doing that.

14 And then economic impacts to the consumer is part  
15 of the rulemaking process. We do consider economic impacts.

16 Okay, Peggy says group them. So this whole group  
17 of questions has mainly to do with transparency in the  
18 alternatives analysis process. And what the summary report  
19 looks like, how detailed it is, and how does the public or  
20 competitors or collaborators might comment.

21 And we don't really have a process laid out in our  
22 suggested process right now for comments. We do have sort  
23 of a process where the department will look at comments that  
24 come in. We have our own comments. And we can require  
25 additional analysis. We can require various activities.

1 But it does require a proactive activity on our part. So,  
2 again, if you have specific suggestions for how we would do  
3 that, again, that would be interesting.

4 I'm not supposed to solicit, sorry. Then there  
5 were a group of questions that dealt with how we compare the  
6 alternatives. Do we just add up the hazards? What steps  
7 does the manufacturer follow to determine if something is a  
8 safer alternative. And similar questions for how that  
9 works.

10 And that really leads into the question that we're  
11 posing to you for the discussion today in terms of part of  
12 the question is -- we framed it as do we prefer -- establish  
13 a preference for safety and health impacts.

14 Another way to look at that would be how, you  
15 know, we've laid out a very simplified system for rating  
16 impacts. And we admit it's very crude. So if you have  
17 suggestions for better ways of doing that, we'd like to hear  
18 that.

19 MS. RODRIGUEZ: I received just a few questions on  
20 response actions. One was what is meant by significant  
21 impact. And this question speaks to Nancy's section. If  
22 you look at the response action that she has under section  
23 17, she requires that even if you do a qualitative or  
24 quantitative, that you determine what is significant for  
25 your product.

1           So, although we haven't defined what a significant  
2 impact is, it is required in the regs that the manufacturer  
3 determine what is significant.

4           And again, I want to remind everybody that what  
5 you're comparing, though, is against a baseline of your  
6 product. So, if your alternative has a significant impact,  
7 not whether your product has a significant impact. I want  
8 to make that clear.

9           The second question is about authoritative bodies.  
10          So, if California will -- California automatically restrict  
11 BPA without evaluating alternatives, if a specific  
12 government has banned a specific chemical and specific  
13 product.

14          And the answer is not without evaluating the  
15 alternatives. You have to go through the alternative  
16 assessment in order to trigger a regulatory response. So  
17 you cannot jump to regulatory response without evaluating  
18 alternatives.

19          Third question was about additional notifications.  
20          If there is a worker exposure potential, but the worker is  
21 not in California, what do you do in those instances. And  
22 the answer is it wouldn't apply. The notification is only  
23 if there's an impact in California. So, no, you wouldn't be  
24 notifying our Air Board that there is an air impact off  
25 seas.

1           Simple question about what happens with  
2 falsification of information or noncompliance. These  
3 regulations are subject to our authority under the Health  
4 and Safety Code. And under the Health and Safety Code we  
5 have the \$25,000 a day per violation enforcement policy.

6           There are other tools in our Health and Safety  
7 Code that are not -- that do not lend themselves to green  
8 chemistry. They are specifically for hazardous waste. But  
9 that one over-arching authority is there.

10           And the last one is what is the basis -- on what  
11 basis do products containing COCs for which no alternative  
12 is identified direct to a lesser regulatory requirement.  
13 Doesn't this create a strong incentive not to identify an  
14 alternative?

15           And the answer to that is there's different tiers  
16 of alternatives. There is where there's absolutely no  
17 alternative in existence. There is a potential alternative  
18 with an impact. And then there's the safer alternative.  
19 And the word safer alternative is defined in our  
20 regulations. And that is a reduced hazard or exposure with  
21 no impacts.

22           So part of the reason that the ban schedules  
23 bifurcates the difference is to give some additional time  
24 when you can't find a safer alternatives with no impacts.

25           Now I'm going to pass this to Don.

1 MR. OWEN: I received several dozen cards.

2 (Laughter.)

3 MR. OWEN: They follow four broad categories:  
4 Definitional, jurisdictional, an explanation of the front-  
5 end process, how it works, the three entry pathways, and  
6 then a little bit more about hazard characterization.

7 Starting with the first question, who is a  
8 manufacturer? There were three that asked that question.  
9 It is defined on page 5 of our regulation. Manufacturer  
10 means any person who imports, manufactures, assembles,  
11 produces or that packages, repackages or re-labels under  
12 their own brand name, a consumer product.

13 Consumer product is defined in the statute, very  
14 broadly. With the exception of the four, five statutory  
15 exemptions, which are also consumer product categories.

16 With respect to jurisdiction, there were questions  
17 about how does this play with the safe cosmetics act, kid  
18 safe act, cars or fuels? The answer is our statute provides  
19 that we shall not overlap, duplicate, supersede other  
20 jurisdictions.

21 So since we lack an informed baseline about how  
22 consumer products that contain chemicals are regulated by  
23 everybody else in the world, we leave open for someone who  
24 believes that they are not required to comply because there  
25 is a preemption elsewhere, to tell us that.

1           With respect to the three pathways. The questions  
2 pertain to two things. How does it work? Which I'll try to  
3 explain very briefly now. And then the rest of the  
4 questions actually are restatements of our first question.  
5 And so I'll defer those to your discussion on question one.

6           Of the consumer product categories, if you  
7 manufacture a product within -- a consumer product within  
8 one of those categories, you must assess its chemical  
9 ingredients against the hazard traits that are specified in  
10 the regulation -- if, for any chemical that is present in  
11 that product.

12           On the 16 chemicals that are defined, those  
13 chemicals, as products, themselves, for sale or use in  
14 California, and any other consumer product that contains  
15 that specified chemical, must also be assessed through the  
16 rest of the process.

17           That's also true of a chemical that is identified  
18 pursuant to the list of lists. So the pure chemical, as a  
19 commodity in consumer product sale or use in California,  
20 without regard to whether it's industrial, business or home  
21 application, in itself, is a consumer product.

22           So to differentiate again, any chemical within a  
23 product that fits within the denominated consumer product  
24 category, so those first nine, intended for sale or use by  
25 children and infants, K-12 schools, linens and textiles, et

1 cetera.

2 The manufacturer must assess all of those  
3 ingredients him or herself against the specified hazard  
4 traits.

5 And finishing up, there were questions about how  
6 that works with disclosure. Our proposal, the straw  
7 proposal, does not require a manufacturer to disclose the  
8 chemical ingredient, but rather the hazard traits the one or  
9 more ingredients may possess. So you're describing the  
10 hazard categories to which the consumer product presents  
11 those hazards.

12 And our statute also answered for us the question  
13 about confidential business information. The intrinsic  
14 hazard trait of a chemical as an ingredient in consumer  
15 product is not subject to assertion of confidential business  
16 information or trade secret under this statute.

17 So the other questions that pertain to the three  
18 pathways, and whether they were too broad, vaguely defined,  
19 go to scale, scope, phasing. And I'll defer those to your  
20 discussion on question one and question two.

21 MS. HARRIS: Okay, so as I said earlier, we went  
22 through prioritize, tried to identify the needed  
23 clarification. Hopefully we've done that. We invite you to  
24 address some of these issues in the four questions.

25 And if you think there are issues outside the four

1 questions, we would definitely like to hear from you, and we  
2 would welcome you to comment to us, and not only identify  
3 the issue, but the potential recommendation.

4 We do have a workshop next week. We are accepting  
5 comments till November 4th. So I'm putting in another  
6 plug. So even though you can't get your issue raised this  
7 afternoon, you still have an opportunity and we still want  
8 to hear. Bill.

9 CO-CHAIRPERSON CARROLL: Okay, thank you very  
10 much. I guess at this point we should move to the question  
11 section. And then, Ken, I guess it's your turn.

12 CO-CHAIRPERSON GEISER: Well, thank you. At this  
13 point we move to kind of the work of the actual panel.  
14 We've had a presentation this morning -- obviously you all  
15 got here -- we've had a presentation this morning that  
16 included step-by-step going through the straw proposal that  
17 you've seen.

18 It may have many different responses to that. As  
19 we, the co-chairs, tried to think about this over the phone  
20 in our planning, and also yesterday when we met, we figured  
21 you'd have clarifying question kind of things which we hope  
22 this picked up some of those.

23 We assumed you would have big framework type  
24 questions, like does the framework make sense; does the  
25 logic of it make sense; and things like that.

1           We're actually -- hopefully that isn't the nature  
2 of what we're being asked to look at, though. We're being  
3 asked to look at the specific questions now. In order to  
4 try to get at some of those things, we're going to try to  
5 open these questions up a bit so that they pick up some of  
6 the larger framework kinds of things that you may be  
7 thinking about.

8           As we've listened to some of you in the last  
9 couple of days, you've called us and asked us questions and  
10 presented your concerns and all, we realized that some  
11 people still -- started out fairly confused by the reading  
12 of the straw proposal. We hope that that part has been  
13 taken care of.

14           There's other kinds of things like the workability  
15 of this; is this too big; and things like that. And I'm  
16 going to try to channel that into this next hour that we're  
17 going to really focus on scope. And I'll get to that in a  
18 minute.

19           But let me just say a few words about how we're  
20 going to run this. We have about an hour and 45 minutes, I  
21 think, for this first section, which is really supposed to  
22 deal with the first two questions that the panel is being  
23 asked, that were being put forward by Don this morning.

24           The one having to do with lists, which is the  
25 first one we're going to do. I'm thinking we're going to

1 use about an hour on that and sort of see where we are at  
2 that point.

3           And if we've sort of exhausted the set of ideas  
4 and comments and thoughts that the panel may have, we may  
5 move then to this question about what to do about the minor  
6 exposures of either thresholds here and things like that.  
7 But Bill and I are going to sort of try to keep it in touch  
8 with that, to figure out where we want to make that  
9 transition in this.

10           A couple of words. We had, I think, a very good  
11 and very healthy and constructive set of comments at our  
12 earlier panel meeting. As you know, people really did work  
13 hard to try to be constructive. I would urge you, even if  
14 you still have some major doubts about this that you wish  
15 you could voice, just things like -- things I heard like,  
16 are they crazy, do they actually think this would work. And  
17 other such things like that.

18           Maybe hold that kind of thinking.

19           (Laughter.)

20           CO-CHAIRPERSON GEISER: There may be another place  
21 for it. Obviously they wouldn't put it forward if they  
22 didn't think something like that.

23           But more, let's kind of get into this and see if  
24 we can offer some specific things that might help it to  
25 work; might help when our colleagues go forward, that they

1 aren't being looked at as nearly committable. And that we  
2 really can try to get this tailored down.

3 Maziar, this morning, mentioned that the straw  
4 proposal really isn't the actual regulation that's going to  
5 be put forward. It is the proposal in an interim position.

6 It is the creation of the hard-working staff here, plus  
7 listening to a lot of comments. But it is very much in  
8 formation; it's very much still undergoing development.

9 So, please, as you do this, sort of think about  
10 how to take this very big picture that includes lots of  
11 different ideas and lots of different pieces in it. And  
12 think about how can we hone this down to a very workable  
13 program that really can be put out here in the next year,  
14 that really does move forward with the spirit of the Green  
15 Chemistry Initiative.

16 Now, saying that, I think it's also important not  
17 that we don't want to lose the big vision of that  
18 initiative. And so, you know, it's one thing to try to get  
19 this thing to be very workable and very specific, but it's  
20 important to maintain that larger vision that has been put  
21 forward by the department, and I think that many of us feel  
22 pretty sympathetic with. So it's attention on how to do  
23 this. And I think that's what our task here is at the  
24 moment.

25 So my recommendation here is that we're going to

1 spend about an hour. Please use your cards, setting them up  
2 like this if you wish to speak. And I will try to keep some  
3 sense of a queue.

4 I'm going to ask you to be specific. I'm going to  
5 ask you to be brief. I'm going to ask you to be  
6 constructive. And if you're violating any of those things,  
7 I may sort of whistle or sort of try to help you by asking  
8 you do along those kind of questions. But I think that's  
9 what we're trying to get at here.

10 Any questions on the process? Tim.

11 DR. MALLOY: Thank you, Ken. I just have to say  
12 I'm a little torn here. So I understand the limitations of  
13 the one-day format. And I have great respect for the  
14 efforts that you have obviously put into this to make it a  
15 useful and kind of exercise that gets answers to questions  
16 that the staff is concerned about.

17 On the other hand I can't help but to feel that  
18 there's a value to having all of us in a room in the sense  
19 of the interactive element of it. And I just get the sense  
20 that there are many larger questions equally as important,  
21 or perhaps I think more important, than the four questions,  
22 the limited four questions.

23 I mean there is one question about response  
24 actions, I think; one question about alternatives  
25 assessment. And I feel that the format that we've got here,

1 where we're limited, essentially constrained, you know,  
2 within reason, to these four questions is over-limiting and  
3 doesn't really take advantage of having us all in this room.

4           And I certainly understand the idea that there's  
5 other opportunities next week. There's the workshop and we  
6 can submit individual comments.

7           For me, personally, you know, I came here this  
8 week. I really can't afford to take time off from other  
9 obligations to go to the workshop next week. And even if I  
10 did, there wouldn't be the same set of people here on this  
11 panel to interact with. Certainly there would be other  
12 people who would be wonderful to interact -- I'm not trying  
13 to diminish at all the value of the workshop. But I think  
14 that there's a dilution of the value of the panel by  
15 approaching it that way.

16           And I talked with Kathy about the cards,  
17 submitting the clarification questions. Frankly, I didn't  
18 really hear answers to my questions. I'm guessing a lot  
19 other people around here didn't hear answers to their  
20 questions.

21           And yet I feel, gee, I can't even address those  
22 questions. And I think some of them, for example, the whole  
23 idea of the self-implementing approach and how that's going  
24 to work; the definition of consumer product; the definition  
25 of safer alternative. I mean things that are kind of core

1 to this project.

2 I kind of feel like we're being asked to not  
3 address those in any direct way, to try and fit them into  
4 four individual questions. And I find that frustrating. On  
5 the other hand I want to be constructive and think, okay, so  
6 you have a problem with that; what do you do about it.

7 And I guess I have two things I'd like to say.  
8 One is I'd like to hear what other people, suggestions  
9 people might have about how to help you figure out how to  
10 run this part of it. And kind of, if that's an appropriate  
11 thing to do, to take some time to do that.

12 One suggestion I would have would be to put some  
13 time aside to, you know, I don't know how long that would  
14 be, where people can kind of brainstorm and identify the  
15 areas in which we think we would like to spend our time.

16 Certainly we want to answer questions that are  
17 important to the staff. On the other hand, I think there's  
18 a lot of people here with a lot of experience who may  
19 actually see things in here that are important questions  
20 that maybe the staff hasn't asked, or hasn't had time to  
21 ask, or hasn't thought about yet, so on and so forth. And I  
22 think that is one of the things that is so valuable about  
23 all the people around this table.

24 CO-CHAIRPERSON GEISER: Tim, I thank you for that.  
25 And I think you've put into words what I'm assuming other

1 people feel, as well. And so I don't want to sort of dispel  
2 the tension in that, because it's certainly what we, as the  
3 co-chairs, felt when we looked at the same dilemma that  
4 you're posing.

5           The problem here is that these folks need answers  
6 to some specific questions, and they really want us to do  
7 that. We have a very limited amount of time. And I think  
8 that what we'll see is -- there's three things that come to  
9 my mind along this line, there are three suggestions.

10           One is obviously any of us, as individuals, have a  
11 chance to present ideas, concerns and all, as individuals,  
12 to the state at any time. And so that -- that was mentioned  
13 this morning. So that's one thing that doesn't make it feel  
14 very comfortable about why did we come here then. So I  
15 understand that.

16           The second thing is, as you'll see, we're going to  
17 try to take these very specific questions -- I'm about to  
18 describe what the question is -- but I'm going to expand it  
19 a lot to get at the whole scope question, which is what I  
20 think this first area is about, what the scope is. So that  
21 we can have a real discussion about scope.

22           That may still be unsatisfactory. So, I'm going  
23 to also just suggest we create a bike rack of things, big  
24 questions that you may still want to have answered, or want  
25 to make comment about, as a member of the science panel.

1           And we're just going to say, okay, that one's  
2 there. Let's see what we can do with it toward the end of  
3 the meeting, or what we're going to do with those. So I  
4 would urge you to reference those when you make your various  
5 statements here.

6           But I think that our dilemma was if we have a very  
7 large discussion about the kind of big picture stuff at this  
8 point we would not get to answering the questions and all.  
9 So, I'm not sure that it will be totally satisfactory to  
10 your comment. But those are the ways I would suggest we  
11 move forward.

12           Anything else on the process? Richard. And then  
13 I am going to move.

14           DR. DENISON: I mean I just have to say, I am at a  
15 total loss here about this decision. Major decisions that  
16 underpin every aspect of this entire proposal have been  
17 made. And they're not in the statute. And they have been  
18 made in a manner that sets the entire proposal up that  
19 you're saying we are supposed to skip over, accept clearly  
20 as givens, and dive into the weeds.

21           And I just -- I mean none of the solutions you've  
22 talked about has a place to vet those, talk about them, and  
23 share the experiences assembled around this table, are even  
24 vaguely close to sufficing, in my view.

25           Fundamental decisions about the whole structure of

1 this thing that have not really been -- I mean, Maziar  
2 touched on a couple of them in your initial comments this  
3 morning. But beyond that they are -- I just don't see the  
4 point of getting down into the weeds before that has been  
5 talked about.

6           And I understand the time constraints, but I think  
7 no matter what perspective you bring to this, all of us have  
8 these fundamental issues that seem to have been decisions  
9 made without, you know, any discussion certainly by this  
10 panel. The entire self-implementing aspect of that, and  
11 what does that mean, you know, is a decision -- there's  
12 nothing in the statute that requires that.

13           And, Maziar gave one reason for it, but I think  
14 that's worth a lot more discussion. Is one example.

15           DR. BEREND: Your co-chairs are about to caucus.

16           (Laughter.)

17           (Pause.)

18           CO-CHAIRPERSON GEISER: All right. Thank you for  
19 your patience, and also your comments to help us frame  
20 things. I think we are sensitive to all of this. And I  
21 think we are struggling to meet the needs of the department.

22           Just the way the department has said to us, if we  
23 feel like it would be the most valuable to have a block of  
24 time here, right at the moment, to talk about the bigger  
25 things that are on your mind, we should move forward with

1 that. And we'll just try to truncate, to some degree, and  
2 squeeze some of the other questions down.

3 So, both Tim and Richard, and many others of you  
4 who wish you probably would have said some of the same  
5 things, thank you.

6 Let's take 40 minutes here and see where we are.  
7 Again, I'm trying to manage this so that we do get to these  
8 questions which they really do want answers on. But let's  
9 take 40 minutes and try to talk about the bigger things that  
10 are on your mind.

11 Let me say a word about that so that I -- try to  
12 frame this. We saw here in straw one a kind of an approach  
13 that was the department's looking at this, at that moment in  
14 time. The department's worked a lot since that on their  
15 various committees. I think there were six committees or  
16 something like that. They've worked out a lot of things.

17 And they put forward what is really a pretty  
18 different approach. It's an approach that relies on  
19 products, focusing on products; it's one that relies on a  
20 great deal of self-implementation by the firms; it shifts a  
21 lot of burden. It's very much driven by information, by  
22 information development, information transfer and all. And  
23 it relies on the department to kind of set a framework.

24 But the department stands back from it until  
25 fairly late in the game, in which case then the department

1 has various authorities which it uses.

2 Now, that's a framework that's there. And I think  
3 what we should do is have a conversation about that  
4 framework.

5 Now, there's two kinds of ways we can have this  
6 conversation. One way is just to be alarmed and concerned  
7 and trying to raise your fears and all. Another is to try  
8 to figure out a way to offer productive and constructive  
9 ideas on how to do this.

10 We are a science panel, and I would like us, urge  
11 us to try to work as closely as we can to helping the staff  
12 really come up with good solutions.

13 So, if you can, please, even though you may be  
14 driven by a great deal of concern about the unworkability or  
15 some other way you define it, try to speak to the specifics  
16 of what you think would improve it.

17 Let's have an open discussion for the next 40  
18 minutes on the bigger framework that you see here. How do  
19 you think it could work? What can make it better? How can  
20 it better, in Richard's sense, align with what he sees the  
21 statute really says has to be done? However you want to do  
22 this. But let's keep this -- let's open this up.

23 And so, George, we open with you.

24 DR. DASTON: Thank you, Ken; and thanks for  
25 indulging us. I think it's important for us around the

1 table.

2           So, you know, when I start thinking about what the  
3 spirit is, the spirit is to, you know, really come up with  
4 greener alternatives that make a difference. And I think a  
5 lot of us have been engaged in that kind of activity in one  
6 sense or another. And what we've realized in doing that is  
7 that in order to make something that's a better alternative,  
8 we're really looking at a number of different dimensions.

9           We're looking at human toxicity; we're looking at  
10 environmental toxicity; we're looking at environmental fate;  
11 we're looking at energy usage across the lifecycle of the  
12 product; we're looking at what happens in disposal and  
13 recycling. And I probably don't have all of the dimensions  
14 there.

15           Each one of those has a certain level of  
16 complexity to it that has to be assessed. And to try and  
17 have a very simple system where we just say it has this  
18 hazard, it doesn't. It has this aspect, it doesn't. And  
19 then just adding them up and picking the one with the lowest  
20 number, really, I think, completely misses the point of  
21 evaluating each of those aspects and determining for which  
22 the hazard is significant, and which the hazard is trivial.

23           And so I think that that's really the level of  
24 detail that I would like to see in this process, is to  
25 really evaluate each of those dimensions such that we do

1 come up with alternatives.

2 Now, in order to do that the right way, I think  
3 that we've got to make sure that the scope is limited to the  
4 point where it's possible. So I think that we will need to  
5 have some sort of significant prioritization process for  
6 chemicals and products that we really think are going to  
7 make a difference, the kinds of chemicals that are concerned  
8 and the kinds of products that have the largest exposures  
9 for the groups that are talked about.

10 And so I think that we would want to work on those  
11 kinds of principles, and really just get down to what we  
12 mean in terms of groups of chemicals. And I think we'll  
13 make a difference that way.

14 I'll stop there. I think those are the general  
15 points I wanted to make.

16 CO-CHAIRPERSON GEISER: So I'm hearing you say  
17 reduce the scope and be more specific about the amount of  
18 attention to these steps.

19 DR. DASTON: Yeah, I mean I think that where we've  
20 put the added emphasis is on, you know, delving into the  
21 steps. So it's not reducing the scope of the effort, it's  
22 reducing the scope of, you know, chemicals, products.

23 CO-CHAIRPERSON GEISER: Art.

24 DR. FONG: Yeah, just to follow up on what George  
25 is saying, and to touch on the very important concept of

1 feasibility, which our European colleague mentioned this  
2 morning.

3           You know, in terms of like how DTSC can get  
4 appreciation and to come up with a format or structure of  
5 doing alternative assessments, is it possible for DTSC to  
6 actually do a beta testing of an alternative assessment? So  
7 they, in fact, know what problems, potential problems might  
8 be, and the resources and the time that's involved.

9           Again, the timeframe, you know, from this morning,  
10 Peggy's presentation about one year an alternatives  
11 assessment.

12           Let me just give you an example. Dr. Lauren Heine  
13 and I are on the DPA DFE project looking at alternatives  
14 assessments for tetrabromo, a flame retardant in printed  
15 circuit boards. And we've been doing this for three years.

16           And we're nowhere near finished.

17           And within that alternative assessment there's a  
18 small component looking into combustion byproducts of --  
19 we're talking about, again, one specific flame retardant and  
20 seven viable alternatives. And this is with the cooperation  
21 of over, what, 20 or 40 industrial partners.

22           So we actually had the resources to get the kind  
23 of information, you know, the data gaps that we've talked  
24 about, which was accessible to us. Even given that, it took  
25 us -- it's been three years and it's still ongoing.

1           And within that there's a smaller component which  
2 we're interested in, combustion byproducts. We have to come  
3 up with \$75,000 to look at the combustion byproducts. And  
4 that's nowhere near enough money.

5           So, I think, you know, it's possible. Maybe DTSC  
6 can do a beta testing; select a product and a chemical and  
7 go through this process. And then we'd have a much better  
8 understanding of what's really involved. And then they can  
9 come up with a better approach and framework that the  
10 manufacturers can work with.

11           Because, you know, there's been a lot of talk  
12 about shifting burdens to manufacturers. I can tell you  
13 that looking at this straw proposal, we would have no idea  
14 how to comply.

15           So I think if DTSC has a better appreciation of  
16 what's really involved, and that will really give us the  
17 direction that we need. That gets, again, your comment  
18 about feasibility. I think it's right on target.

19           CO-CHAIRPERSON GEISER: Okay, thank you, Art.

20           DR. FONG: Thank you very much.

21           CO-CHAIRPERSON GEISER: Thank you. I hear that as  
22 part of George's, the same take your time, work out the  
23 details before you do this beta testing. Okay. Tim, and  
24 then Richard.

25           DR. MALLOY: I also want to thank you for being

1 flexible with the concerns. I want to just do two things  
2 really briefly. One, I wanted to say here's three or four  
3 issues that I think we ought to talk about in the 40  
4 minutes. And then I'm just going to talk about one of them.

5 And I'm hoping other people will talk about the others.

6 And I also wanted to thank the staff for the straw  
7 proposal. I mean my comments about wanting to talk about  
8 these other issues has nothing to do with the work you've  
9 put into this. And I appreciate what you have done.

10 So the issues, I think, that we really should be  
11 talking about is the definition of consumer product. And  
12 that has downstream effects throughout the reg. The self-  
13 implementing approach, the applicability of these regs to  
14 occupational uses of industrial, commercial and consumer  
15 products. And particularly the variance process, which I  
16 see is possibly very mischievous.

17 I want to address directly the self-implementing  
18 aspect. We talked before about it. There's a market  
19 component to it, a philosophical component that the market  
20 ought to do this. I think it also has a cost effectiveness  
21 thing, you know. Obviously with the state budget the way it  
22 is, we can't really expect DTSC to do all this. So in a way  
23 it seems like a cost effective way to get this work done.

24 My reaction to it, though, is essentially it's a  
25 general permitting scheme that we're talking about here,

1 right. So, we set up general conditions, and then the  
2 companies go out and they implement it. And they report to  
3 you, and you take action if you need to.

4 And we've seen, like stormwater general  
5 permitting, has been really problematic with enforcement and  
6 companies actually doing what they should be doing and the  
7 environmental effectiveness of that.

8 So I want to just say there's four things, I  
9 think, this straw proposal ought to look at more closely.  
10 That is the clarity and implementation through objective  
11 standards. Consistency across decisions made by companies.

12 You know, when we have the similar, roughly similar  
13 outcomes by different companies looking at similar products,  
14 it seems like not the way it's drafted right now.

15 And enforceability of some of these provisions,  
16 the vagueness of them makes, I think, enforceability quite  
17 difficult.

18 And then oversight, particularly given the budget  
19 problems in California, whether DTSC can really effectively  
20 provide oversight.

21 And my concrete suggestion that I'd like to put  
22 out on the table is -- and I think one of the commenters had  
23 mentioned this, is I think thought should be given to the  
24 use of third parties who would be involved in either  
25 performing the alternatives assessment, or certifying the

1 performance of the alternatives assessment.

2 And that these third parties ought to be subject  
3 to some type of licensing or review by the department.

4 That's one thing that ought to happen.

5 And then, of course, the department would still  
6 retain their ability to come in and revise your question and  
7 outcomes.

8 Secondly, I think there needs to be clear and  
9 specific guidance about implementing the alternatives.  
10 There was some discussion about we looked at, I think, that  
11 notion and thought that you would end up with regs that were  
12 really huge.

13 And I can understand that; nobody wants  
14 unnecessarily long or complicated regulations. But if they  
15 are regulations that provide adequate guidance and objective  
16 standards and consistency, then I think the size shouldn't  
17 matter.

18 And I think Art's notion of beta testing makes  
19 sense. And I think there ought to be some type of beta  
20 testing that then leads to the development of an applicable  
21 guidance that can assist companies in doing these things.

22 The last point I'd want to make about the self-  
23 implementing things, I think it's imperative that the notion  
24 of the value choices that are made in the tradeoff judgments  
25 should not be left to the individual judgment of individual

1 companies.

2 Those are tradeoffs being made across dimensions  
3 that are not limited to internal company concerns, but  
4 rather social, broad social concerns. And that society  
5 ought to be -- they ought to be vetted, publicly discussed.

6 And that those tradeoffs need to be integrated into the  
7 guidance so that, for example, the one question, hey, I'm  
8 going to talk about one of the questions.

9 The question about do we weight, according to  
10 health and safety concerns. My answer to that is yes. But  
11 we need more than just a general preference. We need very  
12 clear guidance about how we resolve all the various  
13 tradeoffs in performing an alternatives assessment.

14 That's really hard, I agree. But I think that's  
15 something that has to be done. We don't want it to happen  
16 on an ad hoc basis, you know, hundreds of different  
17 circumstances that nobody's really looking at in a  
18 systematic way.

19 Thank you.

20 CO-CHAIRPERSON GEISER: Thank you. Richard and  
21 then Kelly.

22 DR. DENISON: Thanks. And I also appreciate the  
23 re-orientation of the agenda here. I do want to go back and  
24 in my comments to two other things Maziar said at the  
25 outset.

1           One is that this is really all about alternatives  
2 assessment, and that that is the fundamental core  
3 contribution here. And the other is the basis for the self-  
4 implementing aspect of it and market-driven aspects. And  
5 then I want to push back gently on those.

6           I think that if you look at the statute and you  
7 look at the power that it has in potential, it's not just  
8 alternatives assessment. And, indeed, the uncharted  
9 territory that that represents is a huge challenge here, as  
10 we've already been hearing.

11           I think what is at least as important about the  
12 statute and perhaps one of the reasons why it was divided  
13 into two distinct regulatory processes is the power of the  
14 State of California identifying and prioritizing chemicals  
15 of concern. That, alone, starts the market working, if just  
16 that gets done.

17           And I would argue that to the degree we're talking  
18 about reducing the scope and so forth, that is not where you  
19 want to be reducing the scope. Where you ought to be  
20 reducing scope is in the uncharted territory of the  
21 alternatives assessment piece where I think the kinds of  
22 ideas that have been talked about, narrowing that down,  
23 getting some experience, moving forward with a much stronger  
24 role for government in that process is critical to getting  
25 that right. And if there's going to be a reduction in

1 scope, that's where it ought to happen.

2 I think the role of government in doing the  
3 identification and prioritization cannot be over-stated.  
4 And I am very concerned about the aspects of this proposal  
5 that we've put that into the hands of companies who either  
6 don't have the information necessarily, the expertise, or  
7 frankly, the objectivity.

8 And that gets me to the second point about self-  
9 implementation. I think there are two big gorillas in the  
10 room. And I certainly appreciate and agree with Maziar's  
11 statement that there is an aspect of this where  
12 manufacturers know best. In some cases and in some ways I  
13 think that's true.

14 But the two big gorillas in the room are, one,  
15 they also are the ones with the greatest vested interest in  
16 maintaining the chemical they're using. And that has to be  
17 acknowledged. And the public credibility of this whole  
18 process has to deal with tapping the expertise of  
19 manufacturers, and recognizing that they have a huge  
20 potential conflict of interest.

21 It's even enhanced a thousandfold in this  
22 regulation when you start putting in differentials between  
23 the incentive someone faces not to find an alternative  
24 because they get a lesser regulatory outcome being applied  
25 to them if they don't find an alternative.

1            Things like that, I think, have to be thought  
2 through. And the notion that this is all to be put in  
3 industry's hands to make those difficult judgments by  
4 companies who often, themselves, don't have the  
5 environmental expertise or the access to the information  
6 they need to make those decisions, I think, borders on an  
7 abrogation of responsibility, I think.

8            The last thing I would say is that there is  
9 clearly something else, I think, going on here that needs to  
10 be talked about. And that is the constraints of the State  
11 of California's budget crisis on the decisions being made  
12 here.

13           We got to get that out in the open. And I think  
14 there's a number of ways to think about dealing with it.  
15 One is to recognize that you're putting in place something  
16 that's going to have decades worth of implementation. And  
17 the budget situation is a today and now problem, but it may  
18 not be something that persists forever.

19           So, again, I think we need to think about this in  
20 the context of how do we lay out a process where we can put  
21 the building blocks in place today, to lay out a longer term  
22 vision and framework and pathway to where we want to  
23 ultimately get.

24           So we've got to deal with some of those issues  
25 upfront, and not simply assume that if the state doesn't

1 have the money to do anything right now, just clear off, put  
2 it all onto the industry.

3 CO-CHAIRPERSON GEISER: Thank you, Richard. I'm  
4 hearing people say take more time, develop this more  
5 carefully over time and all. We also have a deadline that  
6 we're trying to meet, that are statutorily there that we  
7 have to deal with.

8 So I think another way to think about this is what  
9 needs to be done between now and that deadline. What can be  
10 done after that? There's a whole phasing thing I'd like  
11 people to think about speaking to, as well.

12 Kelly and then Julia.

13 DR. MORAN: I have a lot of thoughts and comments,  
14 but I'm going to try to make a few that I think are  
15 constructive. Before I start, I do also want to compliment  
16 the team. This is a very difficult process you're trying to  
17 navigate through, particularly the lack of budget on your  
18 end. And I just really appreciate the creative thinking  
19 that's gone into approaching this.

20 One thing I want to say, there have been some  
21 comments about how the net is cast here. I think it is  
22 important to do one thing in terms of concept that is  
23 included in this draft, which is to cast the net broadly,  
24 both in terms of chemicals and products that would be looked  
25 at. The trick is how to make that do-able.

1           So I think that there is a good thought here in  
2 trying to insure that manufacturers who are selling products  
3 here in California are taking a look at their products.

4           But I think that the comments about prioritizing  
5 those products or those chemicals with the most potential  
6 for harm really getting some higher level of detail is an  
7 important suggestion for how you might move forward.

8           A few specific things. Tim mentioned the idea of  
9 certification of professionals, and I actually had that on  
10 my comment note before he made that. And I have some  
11 specific suggestions on that that I can send you offline.

12           But the idea that there would be a requirement for  
13 training and certification and that one would be putting  
14 their certification at risk if not doing this properly might  
15 be a way of helping insure the quality of these within the  
16 various limitations the department's trying to navigate  
17 through.

18           Another major theme of my thoughts are that I  
19 think that -- I understand the struggle that you're going  
20 through with the CEQA model. But I think you've drawn the  
21 line too far to putting too much detail in the regulations.

22           And I think you really should be giving some thought for  
23 how you want to structure the regulations versus guidance  
24 documents. Because of the inflexibility of regulations,  
25 they can't grow and change as quickly.

1           But also I think that if the regulations, if you  
2 can try to think a little more about how can we create  
3 standards here, and less about how to do the thing, I think  
4 that would be very helpful.

5           Because then it becomes easier to manage and  
6 enforce, and more clear. But the how-one-does thing can  
7 grow and change as we learn through the experiences from  
8 some of the examples that we're talking about.

9           So, the third one, I just think, in general, the  
10 lifecycle alternatives assessment, I've been working in this  
11 field for almost 20 years, and I thought it was too hard,  
12 too. So I just want to let you know that I think there's  
13 some need for some work there on that.

14           And, again, I'll go back to the CEQA model. I  
15 think it would be very helpful to establish a set of  
16 questions to be asked and help frame through that. How much  
17 goes in the reg, more standards; how much goes in the  
18 guidance is another piece. But I think that that's very  
19 important.

20           Then finally, as part of the standards, one of the  
21 most critical decisions here is what's significant. And  
22 this kind of leads towards one of the questions we've got  
23 later on. I do think it is the role of government to define  
24 the significance criteria. I do not think that that's the  
25 role of the individual manufacturers.

1           Because what is significant needs to be viewed in  
2 a cumulative context. And the information to make that  
3 determination of significance is often not available  
4 knowledge, or readily available to particularly small- and  
5 middle-sized manufacturers.

6           So, I would recommend that you try to deal with  
7 that struggle of identifying what is significant. And make  
8 that part of the criteria that go in the regulations. And  
9 leave some of that methodology stuff to the guidance.

10          So, I hope those comments are helpful.

11          CO-CHAIRPERSON GEISER: Julia, then Bruce.

12          DR. QUINT: Yes. I -- actually I want to comment  
13 on, you know, providing some feedback on the question,  
14 because I think it gets at some of my major issues.

15          And, you know, the question asked about the  
16 different pathways for identification. The thing that I  
17 find most troubling in reading the straw proposal is the  
18 sort of both vagueness and just everything-but-the-kitchen-  
19 sink sort of what hits me in the face in terms of  
20 identifying, both in the identification of chemicals of  
21 concern.

22          And I'll give an example. The 16 designated  
23 chemicals that are pulled out have no idea what the criteria  
24 were for putting those on. There's diacetyl. It's actually  
25 mostly of concern in food, which is exempted from the

1 regulation.

2           So it's really good to get the, you know, to  
3 accept feedback from these public workshops, but again, you  
4 know, we need to have criteria throughout here, this  
5 process, for determining how we do things.

6           I had a specific suggestion about, you know,  
7 having, I think the government should be more involved in  
8 the identification and prioritization -- prioritization,  
9 can't say that enough -- of chemicals of concern.

10           Because if we do nothing else, if we have a  
11 prioritized list of chemicals of concern, and they are --  
12 many of those chemicals are on those various lists, then I  
13 think we will have done a good thing.

14           And I would like specifically to have OEHHA  
15 involved in doing that. We have this robust group of  
16 scientists who have been doing this, and most of them have  
17 been around for 20 years, let's use them. And I think they  
18 are involved, but I'm not sure. The reg, you know, the  
19 statute, it doesn't spell out a role for them in this  
20 particular aspect of it. I would suggest that as a way to  
21 come up with something, and not have people look through 500  
22 different sources to find out if their chemical -- the  
23 chemical is in their product.

24           And OEHHA is also developing criteria. I'm very  
25 confused about the criteria. Because in one part of the

1 straw proposal it says that the criteria that OEHHA is  
2 developing will supersede the criteria in the straw  
3 proposal.

4           So I don't want companies going out using criteria  
5 that might may be superseded. And this has to do with the  
6 hazard traits. And the hazard traits give me all sorts of  
7 problems, because far too many -- all of them are equal.

8 You know, you can have an acute toxic in a product that  
9 evaporates into the air, which I would define as a release.

10 And that has equal weight, maybe, to a developmental toxic  
11 or carcinogen that doesn't, you know, readily get released,  
12 or you can't show that it gets released.

13           So I think, you know, it's very good, I think, for  
14 the DTSC to try to harmonize what we're doing here in terms  
15 of manufacturer responsibility with the GHS. Because that  
16 really -- you don't want manufacturers responding to the  
17 hazard communication standard as being revamped in terms of  
18 GHS. So that's going to be a burden on manufacturers. And  
19 then we need to be in harmony with that.

20           But basically those hazard traits have to do with  
21 identifying things about chemicals that are of main concern,  
22 with spills, transportation, those types of things. And you  
23 don't want to have somebody doing an alternatives  
24 assessment, it seems to me, based on 11 traits that are all  
25 over the map, toxicologically. And that's what I see when I

1 see this.

2           So, I think, yes, narrowing. But I think  
3 developing criteria, actually, you know, not trying to do  
4 everything at once. Because I think there are people out  
5 there doing the right thing in terms of companies. And I  
6 think this could be a disincentive to some of the, you know,  
7 things that we want to move toward.

8           I think, you know, you actually got to -- if we  
9 have things too broad or too confusing, it will actually  
10 block those.

11           CO-CHAIRPERSON GEISER: Okay, --

12           DR. QUINT: And I didn't even talk about workers,  
13 but somebody else can.

14           CO-CHAIRPERSON GEISER: Thank you. Bruce, and  
15 then Dale.

16           DR. CORDS: Mine is, I guess, back to a scope  
17 question again, or a comment. The statute starts out  
18 talking about consumer products. But then numbers 10 and 11  
19 of the 11 categories, to me that expands it to anything in  
20 commerce; be anything on a list of lists -- there's I don't  
21 know how many chemicals on here; I'm guessing somewhere  
22 between 7000 and 10,000, if you add all those lists  
23 together. Which basically puts any item of commerce in  
24 play.

25           Maybe I could use by example. For example, a

1 surgical scrub that has a skin sensitizer in it would be  
2 covered under this correct? I mean that's how I would read  
3 it now. Because it's applied to the body; it's an item of  
4 commerce.

5 But the problem with that is you're looking at  
6 something that, in terms of risk of exposure, you may get a  
7 surgical scrub three times in your lifetime, right? So how  
8 important is a skin sensitizer in a surgical scrub as  
9 opposed to a soap you use every day in your home?

10 So t's just that kind, I mean it's again, the  
11 scope seems to be way too large.

12 CO-CHAIRPERSON GEISER: Dale, please.

13 DR. JOHNSON: Well, first, on the straw proposal,  
14 we can't have this discussion without having a straw  
15 proposal. So, and typically to have this discussion, it has  
16 to be pretty complete; it's got to contain everything that's  
17 nice to have and not necessarily we have to have.

18 So, I think it's a great job to put it that way,  
19 because we can't even get to this point if we don't have a  
20 straw proposal.

21 So the question to me is how do you implement  
22 this. And what you have to look at is a practical way to  
23 get information and implement this, and probably do it over  
24 a phased type of approach.

25 So, I'm going to tell you how I would do it, just

1 as an approach. Number one, one of the most important  
2 things that you can get from this is to get complete  
3 listings of chemicals that are in the products that you're  
4 interested in.

5 So have the manufacturers put in the listings of  
6 the chemicals, without prioritizing them or anything else.  
7 So that you have a complete understanding of what you're  
8 dealing with. A database of the chemicals that are in the  
9 products that you're, you know, that the regulations deal  
10 with. So that's number one. And that's no burden on the  
11 industry, more or less.

12 The other thing is, and going back to what Bruce  
13 said and some other people, I have no idea if you did this  
14 list of lists category how many compounds you'd come up  
15 with. But what you have to do, I think, on a first phase is  
16 deal with a set of compounds that really would have the most  
17 impact on health and potentially the environment in the  
18 State of California.

19 And you may be able to get down to a list of  
20 around 50 compounds. And of those 50 compounds there will  
21 have been enough data to be able to do some kind of an  
22 assessment or regulation or whatever it has to be.

23 So, now you've narrowed it down as a way of  
24 prioritizing what that list of lists, or whatever it is.

25 Those are the ones that you start and implement in

1 phase one. Let's do something with those compounds. And  
2 then you really have to do this alternatives assessment.  
3 You really have to then start to engage the public/private  
4 partnerships in doing that.

5 And the way that you would do that is you would  
6 then prioritize that list of 50 compounds and say, okay, if  
7 these are in these products, let's get some kind of a  
8 public/private partnership to deal with compound number one.

9 Let's start with number two with another group, or  
10 something like that.

11 So you just make it very practical as to how you  
12 can gather information and then start to implement this.

13 CO-CHAIRPERSON GEISER: Thank you. And, also,  
14 really very helpful to hear something that mechanical and  
15 that specific about what ought to be done. Please continue  
16 that theme. I think Michael, and then Richard.

17 MR. KIRSCHNER: All right, thank you. Yeah, I  
18 want to start by saying I agree with Julia and Maziar that,  
19 yes, this does look like the kitchen sink. There's a lot in  
20 here. And to reiterate what everybody else says, the first  
21 thing we have to do is focus and minimize what we're doing.

22 Because, as Bruce said, this 6.1(a)(9), (10)  
23 actually, does really expand the scope. I mean just the  
24 first substance listed, arsenic. Suddenly we're dealing  
25 with every piece of electronic equipment that is wireless,

1 cellphones, this notebook, all the notebooks around here.

2           The lead, that's in every piece of electronics,  
3 every piece of aerospace equipment, every military piece of  
4 equipment. And in all kinds of other things.

5           So, we really have to think about scope. On top  
6 of that, what Richard said is very very true, about the fact  
7 that manufacturers, once you get perhaps one level down the  
8 supply chain, two levels down the supply chain, away from  
9 the chemical manufacturers, themselves, the amount of  
10 knowledge and expertise available to do this sort of thing  
11 drops off dramatically. I mean it's nonexistent in most  
12 manufacturers, period.

13           The number of consultants and service providers  
14 able to help with this sort of thing is relatively  
15 insignificant. So, from a practical matter, the first thing  
16 we do -- first thing we really need to do to be able to  
17 actually make this work, is to narrow the scope; focus the  
18 activities; and just implement it, I think, relatively  
19 slowly.

20           Get this started in almost a prototype way, like  
21 Art said. And let's do a beta and see how this works.  
22 Because we're going to need to develop a lot of expertise  
23 within industry. We're going to need to develop a lot of  
24 expertise within consultancies and service providing  
25 organizations to assist with that. Because not everybody's

1 going to be able to hire people to do it.

2 But we also have to have the process well defined,  
3 too. And that's going to take some effort, because not all  
4 the data's there, either, to do this.

5 So I think fundamentally the first step is to --  
6 we could define, I think, a kitchen-sink approach. But we  
7 have to phase the implementation. I don't have any good  
8 thoughts, yet, about how to do that. Perhaps somebody else  
9 will.

10 CO-CHAIRPERSON GEISER: Okay, Richard and then  
11 Dele.

12 DR. LIROFF: I have some general comments, and  
13 then some specific comments. And some specific suggestions.

14 In getting ready for this meeting I was trying to  
15 put my hands around this straw proposal; try to figure out  
16 what it meant. And in preparation I looked at some past  
17 examples and recent examples of alternatives assessment from  
18 -- Ken will be familiar with this -- the TURI Assessment of  
19 five different chemicals, a bunch of products, \$250,000  
20 appropriate from the Massachusetts Legislature.

21 It's very interesting to read through this brief  
22 document about how they went about doing it, and narrowed  
23 down. This is a specialized organization at the University.

24 Another one that's more recent, just within the  
25 last two weeks, Greening Consumer Electronics moving away

1 from bromine and chlorine. Apple and some other companies,  
2 the process they went through. The leadership decided we're  
3 getting away from elemental bromine and chlorine. And this  
4 describes the very very complex process they went through,  
5 the companies.

6 And I think it underscores the point that Art was  
7 making before about how complicated this can be. And so,  
8 you know, he used the word beta testing. I was going to use  
9 the word pilot test. That was the first thing that occurred  
10 to me when I saw these regulations.

11 I do appreciate the effort that went into give us  
12 everything and then we try to figure out, okay, how do we  
13 narrow it down.

14 Priority setting. Other people have spoken to  
15 priority setting. That's part of this process. You know, I  
16 was struck also by the absence of criteria in terms of  
17 setting the target chemicals. NOx and SOx, well, everybody  
18 knows they're nasty air pollutants. What's the relevance to  
19 consumer products? Maybe there is some. My lay impression  
20 is they're not all that relevant.

21 But what I was struck by was the omission of  
22 brominated flame retardants, in particular. And millions of  
23 dollars have been spent on lobbying that issue in the  
24 California Legislature. Yet it's not on the list. That  
25 strikes me as odd. And I think it speaks to the issue of,

1 you know, what criteria are being used in selecting these  
2 additional product chemicals of concern.

3 I share Richard's concern about the bias of  
4 manufacturers to defend their own products. But I'm a  
5 little bit concerned about assuming that there's government  
6 here and there are manufacturers there.

7 I mean we got the private sector, and they're the  
8 actors in the private sector, the companies that make the  
9 alternative products. We need to figure out how to, indeed,  
10 create these public/private partnerships because you got to  
11 bring the innovative information forward.

12 And I'm concerned that believing the analysis of  
13 manufacturers doesn't do it. If we can create some -- or  
14 institutions or what-have-you, whether they're California  
15 versions of the design for environment program, EPA or  
16 something like that, that's how to bring that information  
17 forward.

18 One last specific point -- well, two specific  
19 points, suggestions. One is if you have to set priorities,  
20 well, just for the heck of it, why don't you look at the  
21 chemicals that are in cord blood and amniotic fluid. I  
22 don't know what the biomonitoring in California shows. I'm  
23 not familiar with that literature.

24 But if you've got a starting place for chemicals,  
25 we know that is a vulnerable population there. There are

1 lots of vulnerable populations, that's one. There are bunch  
2 of chemicals, okay, fine, let's look at those chemicals.

3 Let's try to figure out where they come from.

4 I guess food is off, bisaturate food is off the  
5 table, so to speak. But maybe there's some other sources of  
6 those chemicals.

7 In terms of finding the chemicals in the products  
8 that may be the sources of those, you know, there's a  
9 Walmart Greenworks Process, where Walmart is creating the  
10 database. They've offered it to Kroger, to Target, to every  
11 other retailer. They're trying to roll it out worldwide to  
12 retailers.

13 If you're focusing on consumer products, that's  
14 the place to go where the manufacturers are putting their  
15 information in. Yes, there are confidentiality issues  
16 there. But you ought to try to figure out if there's some  
17 sort of strategic partnership that can be forged between  
18 DTSC and Green Works. Because Walmart's basically said,  
19 look, this is going to help all of us. And so maybe that  
20 can cut through a lot of the analysis, by letting folks  
21 know, the State of California know, exactly where the  
22 chemicals are in consumer products of concern.

23 CO-CHAIRPERSON GEISER: Thank you, Richard. I'm  
24 going to have Dele and then Mike and Megan. And then I'm  
25 going to do a time check.

1 DR. OGUNSEITAN: Thank you, I'll be brief. I  
2 remember the necessarily nebulous nature of our discussion  
3 at the April meeting. The scope was intimidating. And I  
4 see the scope proposal that represented as a way to  
5 synthesize some of the information that we gave the  
6 department at the time. And come up with somewhat narrower  
7 version of the original proposal, the initiative.

8 We did talk about four things, you know: How  
9 narrow should the list of chemicals or products be. Who  
10 does the testing. How do we interpret the results. And  
11 what do we do with the results.

12 In the straw proposal I see elements of the  
13 attempt to answer these questions. And I would rather have  
14 us spend a lot of the time answering some of the questions  
15 that the department has posed. But the big-picture  
16 questions are also very important.

17 I think it's in refining these kinds of proposals  
18 that we move forward. It's not perfect, and it's probably  
19 never going to be perfect. But I'd just rather have those  
20 answers provided.

21 Thank you.

22 CO-CHAIRPERSON GEISER: Mike.

23 DR. WILSON: Thank you, Ken. And I also want to  
24 thank the staff in thinking broadly and boldly in responding  
25 to the need for comprehensive chemicals policy in

1 California. And for putting pen to paper and sparking some  
2 discussion.

3 I have a general comment, and then two core  
4 issues. And then an over-arching suggestion.

5 My general comment is that I think that this  
6 discussion about the structural underpinnings of this  
7 process is really important. And I probably don't need to  
8 tell anyone in this room that, from our work both here and  
9 abroad, there's a lot of attention on this process and what  
10 California's going to do.

11 And it's, I think, extremely important that we do  
12 get it right. And that when it's announced it is off on the  
13 right track. And so these questions about the structure of  
14 the regulation, I think, are really important. I appreciate  
15 having this discussion. And that some of the procedural  
16 ones may be more appropriately answered individually.

17 My two core issues. One is that one of the  
18 experiences that we have from the Toxic Substances Control  
19 Act is the problem of logical paralysis that are built into  
20 the law. And how that paralyzes the process that we set  
21 out, as a society, to achieve.

22 And I see two of those in this proposal. One in  
23 the waiver process, wherein it seems to me that the fact  
24 that we have these enormous data gaps and hazard  
25 information, data gaps in lifecycle assessment and data gaps

1 in alternatives assessment, are going to make it -- lower  
2 the threshold for companies to apply for a waiver, given the  
3 enormity of the task that they're facing.

4 My sense is that what we would see if this was  
5 implemented in the short term would be a large stack of  
6 waivers arriving at DTSC's front door.

7 The second is in the area of alternatives  
8 assessment. And I think this gets, I think, to many of the  
9 speakers today's comments about self-implementation, that  
10 there's an inherent conflict where we're asking companies to  
11 identify alternatives to a substance that they've invested  
12 in, in terms of time and money. And then asking them to  
13 identify alternative to that seems inherently contradictory.

14 So then my suggestions are that, getting to what  
15 Maziar sort of charged us with, that do we have a market-  
16 based strategy here. And that, I think, has required  
17 fundamental tasks of government.

18 One is we have to insure that the market has  
19 sufficient information to operate. And the second is we  
20 have to insure that the production of goods doesn't come at  
21 the expense of public health. And these are the data gap  
22 and safety gap problems.

23 That requires transparency, mechanisms for  
24 verification, accessibility of information, its distribution  
25 to the economy, and effective oversight and enforcement.

1 And I think, as others have said, that allows third parties  
2 to step in and take some of the burden off of DTSC, and  
3 package this information in ways that's useful to all kinds  
4 of users: workers, consumers, small businesses and so forth.

5 And so what I would suggest is that at this point  
6 that we do step back to avoid implementing something that  
7 leads us into a paralysis prematurely. That we carefully  
8 scrutinize the numerous aspects of this regulation where  
9 transparency and oversight are compromised.

10 That we have to do everything we can to insure  
11 that information is driven into the market, and that it's  
12 verifiable and accountable.

13 And so then very specifically, I guess, that Don  
14 mentioned that in the very beginning, in the product scope,  
15 that where products are used in high volume in California,  
16 and also high distribution in California was another phrase  
17 he used, I don't see that in the regulation. But I think  
18 it's a useful idea, as Dale suggested.

19 And also in terms of certain narrowing the scope.

20 And then, also, in narrowing the scope, Richard Liroff  
21 mentioned California's biomonitoring program. We are, with  
22 DTSC and OEHHA, conducting a study of umbilical cord blood  
23 and substances in that, with UCSF, with the 100 participants  
24 and so forth, that is ongoing at this point. And maybe a  
25 place to begin with some of what Art's describing as beta

1 testing, or pilot testing.

2 CO-CHAIRPERSON GEISER: Thank you, Mike. Megan.

3 DR. SCHWARZMAN: So one brief specific point,  
4 because several people have brought up the issue of what is  
5 the scope of this regulation based on the lists of lists  
6 that's named here. And we can submit separately to DTSC a  
7 brief analysis that we have of overlap of what would be  
8 contained, what chemicals would be covered by the lists of  
9 lists that's in the draft regulation as it stands.

10 But I would estimate that it's somewhere around  
11 2500 chemicals, so it's not the 7000 or something, or 10,000  
12 that has been sort of thrown about a little bit.

13 So, I would echo from the broadest perspective  
14 that this alternatives assessment should not be the primary  
15 end of the creation of these regulations. And that that can  
16 be an outcome of the introduction of information into the  
17 market.

18 And that the service that the department really  
19 can provide is in this effort to identify and prioritize  
20 chemicals of concern.

21 And creating the incentive to develop safer  
22 alternatives is accomplished by providing information. And  
23 so opening up the way that this straw proposal describes the  
24 alternatives assessment process, I think it's already been  
25 mentioned that it no only is there bias toward, but is

1 actually limited to existing alternatives. And I don't  
2 think that's consistent with the goal that the department  
3 has.

4 So, I believe that the alternatives assessment  
5 process should be opened up to third-party input for third  
6 parties to come forward and advance the possibility of an  
7 existing alternative.

8 But what again is underlying all of that is the  
9 transparency of hazard information in the market. So there  
10 is the provision in this straw framework to publish hazard  
11 criteria or the hazard data in a publicly available way on  
12 an internet site. I think that's 6.7.

13 But the idea that that is unlinked from the  
14 identity of the chemical completely diminishes its power.  
15 So, I think that's an essential link to make, is the  
16 transparency of hazard information linked to the chemical  
17 that we're talking about. Otherwise that hazard information  
18 is useless.

19 So, one other specific suggestion is, that's not  
20 going to be addressed by the questions that DTSC is  
21 proposing -- is posing to us, is the issue of how do we  
22 choose to phase in data requirements. That's something that  
23 has come up. The idea that a year timeline is not workable  
24 for all of the data requirements that are in here.

25 And one thing that I would propose is looking at

1 the timeframes in which we're going to see data become  
2 available under REACH in Europe. Because there are two  
3 things that will become available in that.

4 One is data that is publicly accessible on ECHA's  
5 website. So that's information that we can tap directly  
6 into. The second is test proposals. So for any required  
7 data that does not exist, companies at that date must submit  
8 a proposal for how they're going to develop that  
9 information.

10 So that will do two things for us. Other than  
11 direct access to hazard data, it will help us understand  
12 what the data gaps are. Because that will be chemical  
13 producers who have surveyed the available information and  
14 determined that they have to perform tests to develop it,  
15 and that they don't already have it.

16 And it will also be a proposed set of tests to  
17 develop that data. And we can assess whether those  
18 proposals are good and are valuable. We don't have to adopt  
19 them wholesale. But it's a source of information that we  
20 would be foolish to not set up a mechanism for accessing.

21 One final point is just to underscore this issue  
22 that without -- of the variance clause, that without very  
23 clearly articulated bases for requesting waivers, it's sort  
24 of a get-out-of-jail-free card that I think would undermine  
25 the entire rest of the point of the regulation.

1 CO-CHAIRPERSON GEISER: Okay. I'm going to check  
2 here. You have a strong advocate here.

3 (Laughter.)

4 CO-CHAIRPERSON GEISER: Scott.

5 DR. MATTHEWS: Thank you. I'll be very brief. I  
6 do most of my work in lifecycle assessment and supply chain  
7 analysis. And so my sort of thought is almost exclusively  
8 related to that.

9 Given how complex the supply chains are, I think  
10 the notion that an average manufacturer could tell you the  
11 chemicals in their product is false.

12 And given that, I don't know how you try to work  
13 around that, if you're trying to get them to do sort of  
14 acknowledgement upfront about its existence. And then on  
15 the back end trying to sort of credibly go through all of  
16 the alternatives.

17 So my thought with that is that they certainly  
18 could try to do something like that if it was a much more  
19 narrowed definition of what a chemical in a product was.  
20 And/or if you were putting a pretty strict definition on,  
21 say, you know, from direct suppliers, chemicals received in  
22 components to direct suppliers or something like that.

23 So, just a thought on how something like that  
24 could at least happen.

25 CO-CHAIRPERSON GEISER: All right, thank you.

1 With respect for the two cards that are up, which are my co-  
2 chairs, which I feel perfectly -- okay. Is that you, Roger?

3 Okay. Roger.

4 MR. McFADDEN: Roger McFadden, Staples. Yeah.  
5 Companies have -- some companies make a few products and  
6 some companies provide hundreds of thousands of products.  
7 And so all chemicals aren't created equal. One chemical  
8 causes cancer, another chemical can cure it.

9 So, how do we go about -- and that's why we  
10 participate in this, because we see this as a great  
11 opportunity to help businesses who provide products to  
12 consumers. By the way, this has been driven by consumers in  
13 no small way, let's not forget this.

14 And many companies are positioned not as a  
15 manufacturer, but as a provider. We're asked consistently  
16 questions like what's in your products. To your point, well  
17 taken.

18 It all begins with knowing what's in the products.  
19 And if we don't have a comprehensive list somewhere of what  
20 constitutes in these products, it is very difficult for  
21 businesses to make business decisions day-in and day-out  
22 about what products we carry in our supply chain, what  
23 products we offer to consumers without knowing what's in  
24 them.

25 So, step number one should be let's get a database

1 and collect a list of the chemicals that are in the  
2 products, first.

3           Secondly, the question that consumers ask is after  
4 they ask what's in the product, they want to know, is it  
5 harmful to me. So, you see, the second step is after we  
6 collect this list of chemicals, is to then go about  
7 identifying the chemicals of concern that are in those lists  
8 pertaining to the specific products. Not necessarily that a  
9 chemical of concern in everything is bad, but at least  
10 consider the fact that it has been identified.

11           And then thirdly, the third question they ask us  
12 after we get past that one, is do you have one that's safer.

13           Do you have a product that's safer? Do you have one that  
14 you can offer me that's less impactful?

15           See, that's the progression that I would like to  
16 propose that you work in. That's the order that I would  
17 propose that you work for. Whether it be in a pilot study,  
18 which I think makes a lot of sense; us scientists are used  
19 to that. We like to throw our ideas out and have them  
20 checked out and double-checked, and triple-checked. Nothing  
21 wrong with that; that's a very responsible thing.

22           But we may be jumping ahead of the gun a little  
23 bit because I don't think we know what are in the products  
24 that are in our supply chains. I frankly do not believe  
25 that. The companies that we work with do not know. And in

1 many cases the manufacturers that supply products to us  
2 don't know.

3           And so maybe the starting point is to back up a  
4 bit and say, do we really know what are in these products.  
5 And maybe begin to move in that direction.

6           CO-CHAIRPERSON GEISER: Okay, here's my suggestion  
7 at this point. I thank you for this. We've gone a little  
8 bit over an hour. I think a lot of really really good  
9 information got out. In fact, it was interesting to hear  
10 how many of the things sort of morphed over to some of the  
11 questions that were being put forward, as well.

12           I would suggest we continue with this  
13 conversation, keep it at a good broad level like this. But  
14 let's try to also comment, at least on the first question  
15 for the next say 10 or 15 minutes. And then we'll shift and  
16 take up the second question.

17           If you continue to have points you want to make  
18 about the larger picture, bring those in. But also try to  
19 have something to say about these questions. Because I do  
20 want to satisfy the staff that it's really tried to put some  
21 questions forward that we also are trying to do this.

22           So please remember, this first question is really  
23 about scale. It's about breadth. They've given us three  
24 different ways, they call pathways, whatever you want to  
25 call, of trying to figure out what chemicals are really on

1 the table. And they are different for different reasons.  
2 And the question is, should they use all of them, should  
3 they use some of them, is this the wrong way to go. Try to  
4 keep that in your questions, too.

5 So, if that's okay with you, I'll spend another  
6 say up until 2:00, and then we'll shift over and have Bill  
7 kind of walk us -- take the same level of discussion into  
8 the question that deals with the thresholds. Yes, does that  
9 sound all right?

10 Okay, then I am going to have Debbie and Bill, and  
11 then -- so, Debbie.

12 CO-CHAIRPERSON RAPHAEL: Okay. Well, so the  
13 reason this question is up here is because DTSC Staff fully  
14 understood that scope was an issue, right. And so they made  
15 this huge, and that's what we've been hearing a lot of  
16 people reacting to.

17 And I want to challenge all of us to not stop  
18 with, yes, it's too big; but, how do we make it smaller? I  
19 mean that's really what they're hoping to get from us. How  
20 would you narrow it? Not that you need it to be narrowed.

21 And there's something that Richard Denison said  
22 that really spoke to me that gets to this, is this issue of  
23 where do we narrow the scope. And also to the point that  
24 we've been hearing about the need for pilots. When do we  
25 need pilots; when do we need beta testing?

1 I would agree with Richard Denison in that one of  
2 the -- and Mike and Megan, many other people who said that  
3 one of the most powerful things of this is this idea of  
4 information, and how do we get the information out into the  
5 marketplace so that our Governor's intent of making this  
6 market-driven actually happens.

7 And I would suggest that as we think about  
8 reducing scope we differentiate between alternatives  
9 assessment and regulatory outcome and the first ID and  
10 prioritize chemicals of concern. I think they are different  
11 and that they have different opportunities and knowledge  
12 points.

13 Every single person in this room has said  
14 alternatives assessment is really hard and really time  
15 consuming, and really expensive. And maybe we need to not  
16 make every manufacturer who may have a conflict of interest  
17 and be challenged financially, do that.

18 So, as we narrow scope I would propose that we do  
19 not narrow scope in terms of identifying and prioritizing  
20 chemicals of concern, because that's the information we need  
21 out there.

22 And to the point that, well, manufacturers don't  
23 know what's in their products, exactly. That's what we need  
24 to -- if there's one thing that we can achieve by this  
25 regulation, maybe that's it. And that where we do the pilot

1 testing and the alternatives assessment comes in a phased-in  
2 approach for alternatives assessment based on the  
3 prioritization of our chemicals of concern.

4 The regulatory outcomes, then, need to not stifle  
5 innovation. And I know that that's such a general  
6 statement, and you want to know, okay, fine, how do you have  
7 regulatory outcomes that promote innovation. And I would  
8 love some of the industry people here to comment on how we  
9 get to that, when we get to that part of it.

10 So, when I look at that question number one, and I  
11 say those nine consumer product categories, I think they're  
12 pretty strong. And I think they represent the idea of  
13 vulnerable populations. I especially like number nine, as a  
14 person who deals with waste, end-of-life issues. I think  
15 number nine is very strong, even if it broadens it. This is  
16 not where I would suggest we narrow.

17 I think the 16 designated chemicals, my suggestion  
18 for that, because the list of lists might not capture  
19 everything, then what we need to do is set criteria that are  
20 clear and transparent on how something gets on that list of  
21 chemicals.

22 Having said that, I know that gives a big universe  
23 of chemicals of concern. What we need to do then, the  
24 challenge is to look at how do we phase in the alternatives  
25 assessment part of it.

1           So that's my comment.

2           CO-CHAIRPERSON GEISER: Bill.

3           CO-CHAIRPERSON CARROLL: Thank you, Chair. And I  
4 want to speak to a couple of points. One is with respect to  
5 scope, which I take as being the core of question one. And  
6 a bit to the generalities.

7           First, with respect to scope. And just to show  
8 you that the three chairs have very independent ideas, what  
9 I'm about to say I think is just about exactly the opposite  
10 of what my esteemed co-chair just said.

11           Because I would like to speak against both the use  
12 of the lists of lists, and of the hazard categories for  
13 expanding the number of chemicals. And here's my reasoning:

14           If you look through the lists of lists what you  
15 find is that for about the first 19 categories, to me, by my  
16 reading, that's essentially what Maine used in assembling  
17 its list, which is approximately 1700 chemicals.

18           A colleague informs me that the chemicals  
19 classified by Canada's inherently toxic aquatic organisms is  
20 5200. Now you can go ahead and add the rest of these, and  
21 you can add that enormous number of chemicals to consider.

22           Now, let's be fair. Not all of those are high-  
23 volume chemicals; not all those are tremendously important.

24           But it's a huge list to winnow. So let's talk about things  
25 that might be important, goes to the hazard list.

1 I looked through the 100 largest volume chemicals  
2 that are manufacturer, 17 of which are polymers, so I took  
3 those off. Of the remaining 83, by my estimation, 44 of  
4 them would fall afoul of something on the hazard list.

5 Now this goes to some extraordinarily basic  
6 chemicals that we're talking about. And I'll give you one  
7 example. One example is sulfuric acid, which is the largest  
8 volume chemical made. And, of course, is an important part  
9 of the battery that powers your automobile.

10 So, go ahead and follow the process through, and  
11 on a logical basis you would be banning lead acid batteries  
12 for automobiles in ten years. Maybe this is a good thing.  
13 But what you don't have is you don't have a drop-in for the  
14 30 million automobiles that exist, registered in the State  
15 of California. And I'm guessing that's going to be a  
16 problem.

17 So, this is what comes to me from the perspective  
18 of scope, is that if you define something that literally is  
19 that big, and even if you say but the important part is to  
20 set priorities among something that big, I agree with that.

21 But how you squeeze it down to a number like what I think  
22 Dale suggested is on the order or 50 or so, which seems to  
23 me to be a reasonable sort of scale, at least to start with,  
24 to figure out how the process would work, to me is quite  
25 daunting.

1           So I would personally abandon the lists of lists  
2 and hazard categories as a way of generating a huge list of  
3 chemicals.

4           With that said, I also want to kind of support  
5 what George has to say. And the idea of going for a  
6 relatively limited suite of products that are particularly  
7 important and relatively limited suite of chemicals within  
8 that is probably a quite reasonable approach. And I think  
9 does address the spirit of the statute. And I'd urge us to  
10 consider that.

11           Let me jump the track to something else just for a  
12 minute. Richard, I might add that self-implementation is  
13 not seen by industry as an unmixed blessing. And the reason  
14 for that is because it looks to us, as we looked at the  
15 process, is it appears to us to be the never-ending story.  
16 Let's just follow it through.

17           Suppose you go ahead. You have the responsibility  
18 for self-implementation and you do this in good faith, and  
19 your materials, and another organization, whether it's a  
20 manufacturer or an NGO or others, submits an alternative  
21 assessment. Who wins?

22           And how does the process ever end? I'll tell you  
23 where it ends. It ends in the courts. And after it's all  
24 said and done, you will have an enormous litigation engine  
25 that results from this, primarily because there's no

1 referee.

2           So, in the end recognize that self-implementation  
3 may be seen as industry's nose under the tent. I'm not sure  
4 our nose wants to be there, under this particular tent.

5           But I would also add that if the issue is bias, I  
6 challenge you to find a process which human beings were  
7 knowledgeable that's not involve individuals' bias. Some  
8 people call it point of view. But a bias-free process  
9 simply doesn't not exist.

10           The key is to find a way of acknowledging that  
11 people have points of view, and having all the points of  
12 view out on the table, and not viewing them as inherent  
13 dishonesty in the process.

14           And, once again, I want to thank all of you for  
15 your comments, and particularly because you've helped us  
16 deal with question one. And perhaps it was one of the most  
17 important questions in addressing, also the general comments  
18 that you brought up.

19           Thank you, Chair.

20           CO-CHAIRPERSON GEISER: Let's see, Dele and then  
21 Tim.

22           DR. OGUNSEITAN: Yeah, the issues about how to  
23 narrow this fourth question on products is essentially, in  
24 my mind, equivalent to pilot testing. We're not going to do  
25 them all. We have a lot of historical evidence about where

1 products, chemicals in products have become problematic. We  
2 either regulate them out of existence or forced a search for  
3 alternatives. And in many cases the alternatives have also  
4 become problematic, and we go through the cycle over and  
5 over.

6           So, how we pick this category of products to be  
7 the best possible examples of how to implement this, I  
8 think, should be one of the guiding principles as we narrow  
9 the list down, if we want to do so.

10           One of the concerns I have with the specific list  
11 is in response to the questions that we put on postcards,  
12 there was a statement to the effect that if there is another  
13 law that governs the same product, a manufacturer can say  
14 that they should be exempt from this particular one.

15           And I see items number three, products that are  
16 designed for application directly in or to the human body.  
17 And seven, release fragrances or scents. And some other  
18 aspects that are related to what we already have with  
19 regulation of cosmetics.

20           And I'm not sure how well that has worked, and  
21 maybe we should hear whether that's working. The  
22 manufacturer can simply say, I don't want to be regulated  
23 under the Green Chemistry Initiative. I'd rather go to the  
24 cosmetics act, and then nothing really happens.

25           So that's, you know, collapsing some of this

1 probably will be a good idea.

2 CO-CHAIRPERSON GEISER: Okay, I'm going to move  
3 this to Tim. But I'm going to again throw out this little  
4 clue that I'd like people to address in some ways, and that  
5 is about phasing over time. One way to deal with the scale  
6 of this is to think about what ought to be first. I think  
7 this is where Dale was going.

8 And what are the -- done later, and as a way to  
9 deal with scale by thinking about timing. Tim, and then  
10 George.

11 DR. MALLOY: Okay. So I want to answer, get some  
12 comments on that question, and directly relating to phasing  
13 through the context of the size. I have to say, I like what  
14 you had to say, Bill, but I got to disagree with you on the  
15 notion that the way you address your concerns is by making  
16 the initial list smaller. I agree more with Debbie, and I  
17 think merging what Julia said with Debbie and some other  
18 folks is really the way to go.

19 Just a few things. So, one, I'm not a  
20 toxicologist or scientist, so I rely on other members on the  
21 panel to tell me if this is the right list. But I like the  
22 scope of the list. I think it should be broader rather than  
23 smaller.

24 And I'm not worried about how big it is when you  
25 add in what Richard said about prioritization. We've

1 drifted from the notion of prioritization. The way this  
2 straw proposal talks about prioritization, it's like we  
3 bring everything in, we do alternatives assessment on  
4 everything. And then we prioritize them for regulatory  
5 action by those three priorities. I don't think that's the  
6 way the statute's constructed.

7 I think the way the statute's constructed is you  
8 identify all these chemicals. And then based on information  
9 you prioritize them for action. And then based on your  
10 staging of the priorities, you start doing alternatives  
11 assessment and regulatory response.

12 And I think the straw or the regs, you want to get  
13 back to that approach, because that's what creates the  
14 problem here. And I totally sympathize with the folks from  
15 industry who are saying this is too big, we'll never be able  
16 to do it, certainly not in three years, so on and so forth.

17 So, I would keep it big. And I want to say a few  
18 more words about what it ought to look like. But before I  
19 get off of that point, I want to say something about why  
20 it's too small. Okay.

21 And I've said this before, and it seems like  
22 nobody wants to talk about it. But I'll say it anyway.  
23 Where is the occupational uses here? I can't get out of my  
24 head this picture I have of a worker at a chemical plant  
25 standing next to a reactor with all sorts of toxic chemicals

1 in it, and they're pouring things around. And that's not  
2 regulated at all, but if they get Windex out to clear their  
3 viewport on the reactor, that's regulated. And I just can't  
4 get that out of my head.

5 So I think that we need to be looking at more than  
6 just consumer products. Now, does that make it too big? I  
7 don't think so, because prioritization now will kind of pare  
8 that back.

9 So how would that work? Again, I'm not a  
10 scientist, so I'll leave it to you to figure out how to  
11 prioritize. Structurally I think that what we have to do is  
12 identify broad range of chemicals, and maybe that's it. And  
13 for all those chemicals there ought to be submission of use  
14 data, of hazard data. And that has to be to DTSC, and that  
15 has to be publicly available.

16 Now, I think there is an issue there with it's a  
17 badly written statute in so many ways that I couldn't get  
18 started. But one of the major problems, I think, here is  
19 the legal authority to require additional information on  
20 these chemicals.

21 Now the way this is written right now I think it  
22 might get around the legal authority by making everything a  
23 chemical of concern, and doing an alternatives assessment on  
24 it. So I won't go into the legal problems. But I think  
25 there are some real legal issues about whether you can get

1 that information under the statute, as written. And it  
2 might require some fixes.

3 But how I would structure it is identify the broad  
4 range of chemicals; the manufacturers or importers of the  
5 chemicals, not the products, are required to submit the  
6 hazard data to the department, to the clearinghouse, so on  
7 and so forth.

8 And then I think DTSC has to kind of belly up, or  
9 ante up, or come to the table, whatever euphemism you want  
10 to use, and they have to do the prioritization of the  
11 chemicals that are going to be required for alternatives  
12 assessment.

13 The statute requires the development of  
14 regulations that set out the prioritization procedures.  
15 Now, clearly, DTSC working with OEHHA before January of  
16 2011, come up with a set of standards for prioritizing, you  
17 know, perhaps the first 50 chemicals or 20 chemicals within  
18 that framework. You'll have to ask them; but I have a lot  
19 of faith in them.

20 And I think like the stuff we heard this morning,  
21 I don't know, Sara, the stuff you were saying this morning  
22 makes me think that, yeah, maybe you could, on the basis of  
23 what they're doing with the end points. And you were  
24 talking about prioritizing hazard traits and whatnot. I  
25 think that that's what these regs ought to do.

1           And the prioritization is not just a scientific  
2 enterprise, it is a value, you're making value choices. And  
3 that's something that ought to be done with the regulators  
4 very much involved, not being made independently by  
5 business. And I'll bet there's a lot of businesses out  
6 there that would agree with that. That they don't want to  
7 be the one deciding what to give priority to.

8           So I know that's not very specific in terms of the  
9 science, but I think in terms of the framework that's how I  
10 would do it. And that's why I'm not at all worried with how  
11 broad the list of initial chemicals are. I think the more  
12 information we get, the better.

13           And I will finish this by saying I am not nearly  
14 as optimistic as Mike or Meg or other folks about getting  
15 information out on the market will lead to the diffusion of  
16 safer alternatives. It sure didn't work with energy  
17 efficiency. I don't think it's going to work with  
18 chemicals, which is why I think you need to keep your feet  
19 to the first on the prioritization, so that it's not just  
20 with the chemicals and then stop.

21           The regs need to have some clear requirement for  
22 continued activity here over the decades that I think  
23 Richard was talking about.

24           Thank you.

25           CO-CHAIRPERSON GEISER: Thank you, Tim. George.

1 DR. DASTON: So, I think the point about  
2 prioritization that I would make is, the general point is,  
3 you know, there needs to be a process. And however many  
4 chemicals get included in this, I think, is a matter for  
5 discussion. But there needs to be a process as to how they  
6 are prioritized.

7 I think we've heard a lot of good suggestions here  
8 in terms of production volume, in terms of potential for  
9 exposure, in terms of real evidence of exposure. And, you  
10 know, those kinds of things can be anything from an  
11 individual who's highly exposed to, you know, the fact that  
12 a million individuals are exposed to any. And those are all  
13 kinds of policy judgments that simply need to be set out in  
14 a process for which chemicals you'd want to go through  
15 first.

16 A specific question -- a specific comment that I  
17 would make about the question that's on the board is about  
18 the list of lists. And that's a real dog's breakfast of  
19 lists. It really needs to be vetted pretty significantly.  
20 I mean there are things on there that are highly quality  
21 controlled for which the process for putting something onto  
22 those lists has been robust. And then there are other lists  
23 there that are really just lists of, gee, you know, this is  
24 an interesting list of chemicals that we ought to look at  
25 further, like the OSPAR list.

1           And, you know, as we start going through this I  
2 think that we need to start paring down, or at least  
3 qualifying what we're considering, based on what we know  
4 about the quality of those lists.

5           And then as long as I have the floor, I'll just  
6 make a response to one of the things that was said about not  
7 having an interest in alternatives. And just speaking from  
8 my own perspective, I don't believe that's true. My company  
9 doesn't sell chemicals, we sell products. We're doing  
10 substitutions wherever they make sense.

11           I wouldn't want to -- I hear what you're saying  
12 and I understand the spirit of it, but I also wouldn't want  
13 to exclude industry from this process of alternative  
14 selection.

15           CO-CHAIRPERSON GEISER: Okay, I'm going to take a  
16 little chair's prerogative here. We have two people who  
17 have not spoken at all. And if you don't mind, I'd like to  
18 take them ahead in the queue. And this would be Ann and  
19 Lauren. So, Ann.

20           DR. BLAKE: Okay, I'm going to try and pull  
21 together a couple of different things and put them all into  
22 one comment, and address specifically something that's in  
23 question one. Obeying orders, here, by the Chairs.

24           Something I -- we keep talking about  
25 prioritization, and I'd like to point out something here

1 that may help staff move forward towards what prioritization  
2 could look like.

3 I think we've got an implicit prioritization here,  
4 and Julia referred to it in these 16 designated chemicals of  
5 concern. I would be very careful about this, be very very  
6 clear and transparent about your criteria, and why they're  
7 there.

8 And then as you start articulating how those  
9 chemicals got onto that list, I think you may start getting  
10 into some criteria about what -- you've got some  
11 prioritization criteria in there that are implicit.

12 One caution would be that those include things  
13 that are otherwise exempt by the statute, so I'd be careful  
14 of that, as well. There's a pesticide in there that I  
15 personally think should be on there, but be clear what those  
16 criteria are.

17 And then I'd like to address a comment that Evelia  
18 made that you cannot take -- currently you cannot take a  
19 regulatory action without going through the alternatives  
20 assessment process. And that's a sizeable concern to me.  
21 And I think one of the ways that you could use the  
22 designated chemicals of concern list, if your criteria were  
23 clear, is to be clear about what those criteria are that  
24 would take you around; that you have sufficient data to take  
25 a regulatory action without going through that alternatives

1 assessment to take some sort of regulatory action. You're  
2 making a gesture; we can talk more offline. So that also  
3 could be the first phase of specifying what your priorities  
4 are.

5 Let's see. And I think this might also be a  
6 place, and it could be another place that this could go, but  
7 this could also be where you might specify what is adequate  
8 data to take some kind of regulatory action.

9 So those are the pieces that I wanted to bring up.

10 CO-CHAIRPERSON GEISER: Lauren.

11 DR. HEINE: Thank you, Ken. I have, I think, more  
12 of a story than anything else, that speaks to the phasing.  
13 And it's not as clear as I'd like it to be, but I think in  
14 terms of whenever I've seen industry move toward greener and  
15 greener chemicals, they often start at the first step, which  
16 is moving away from chemicals of concern. And that's phase  
17 one.

18 And I agree that having an extensive list of  
19 chemicals of concern is not a problem. The challenge is, as  
20 Roger noted, finding out what exactly is in your product in  
21 order to screen it.

22 The next step of this sort of simplistic model is  
23 once you get away from chemicals of concern, you have to  
24 define which one is better. Here's stage two. You need a  
25 lot of data. How do you know whether a sensitizer, an

1 aquatic toxin, is better. And are you comparing known  
2 concerns to unknowns.

3           And then finally, and that's where, I think, part  
4 of the alternatives assessment comes in, but one thing, I  
5 think, is sort of missing from this project is what does  
6 good look like? How do you define a greener product? I  
7 don't see a place here for products that have been through  
8 significant review programs. For example, DFE certification  
9 programs. Is there a way for products that have already  
10 been through extensive reviews and are known to contain  
11 greener formulations, can they get a bye through a process  
12 like this?

13           And the story really has to do with ongoing work  
14 with Walmart, and the information tool that they have  
15 developed, where there's a big portal where all the  
16 manufacturers can input their product formulations into this  
17 database. And it's kept secure by a third party.

18           And then the chemicals are screened against a list  
19 of lists. And they are displayed by functional use. And I  
20 think that DTSC is really building on a number of these  
21 ideas.

22           And in the display you're comparing toothpaste to  
23 toothpaste, and shampoo to shampoo. And it's very easy to  
24 see that some have chemicals of concern, and some don't.

25           And Walmart did a screen of about 15,000 products

1 and -- I'm sorry, they put a score on anything that has a  
2 chemical of concern, and it gets points. And these are  
3 negative points. Of 15,000 products. About half of them  
4 had a score of zero. The other half ranged from something  
5 like 1 to 50,000 or something like that.

6 And the question was, it's very clear, if you're a  
7 competitor, is able to produce a similar product without  
8 getting a negative score, and you can, that's going to drive  
9 -- this is all tied to purchasing. It's all tied to  
10 purchasing. There needs to be a demand for these kinds of  
11 products. So how do we tie this into retailer demand, into  
12 government purchasing demand.

13 But also the other side, the first question that  
14 most of the manufacturers ask is, okay, now I'm zero, how do  
15 I demonstrate -- how do I show my product's really good. I  
16 don't use chemicals like that. I would have to start making  
17 rubbing alcohol with methanol to get a bad score. So what  
18 do I do to show that I have a better product.

19 And I think that's something we need to think  
20 about, too. And the phases are really moving away from  
21 chemicals of concern. And then -- that's stage one.

22 Stage two, comparing alternatives. And then  
23 defining what good looks like in creating a path for  
24 products that have already achieved a high level.

25 CO-CHAIRPERSON GEISER: Thank you, Lauren. We

1 have about eight cards, and I presume hopefully many of you  
2 want to speak to this question of this list and criteria for  
3 establishing the chemicals of concern.

4 I'm going to call on Dale next. But we have had  
5 one specific question from the staff, as well. And that is  
6 can people speak to the issue of what is wrong with a list  
7 that is specific chemicals. Be clear about what you think  
8 is right or wrong about having such a list, as well.

9 So, I'm going to ask Dale to go next here.

10 DR. JOHNSON: So I will address questions one and  
11 two. I'll do two first. And I think -- and this goes back  
12 to the actual diagram, because I think probably the diagram  
13 should be changed a little bit.

14 I think rather than, first of all, identifying the  
15 product category, it's more important to identify the  
16 chemical.

17 In many respects you don't have to reduce the size  
18 of what you're doing, or narrow down in the scope of the  
19 universe of what you're doing. Because you want to keep the  
20 universe as large and overall encompassing as possible to  
21 address every type of health hazard. But that's not the way  
22 you implement it, and that's not the way you start and phase  
23 in a program.

24 I can give you an example. I've been involved in  
25 discovery and developing drugs for cancer for a number of

1 years. So cancer is the universe. But you don't go after  
2 every cancer and you don't go after every mechanism. You  
3 got to get down to what you can actually do. And that's how  
4 you actually make an advance.

5           So, in this particular case, yes, you want to be  
6 able to keep the universe there. That kind of hovers in the  
7 background of some kind of, you know, some kind of a  
8 circular diagram of something.

9           But you want to get it down to what you can  
10 actually implement in relationship to a chemical hazard.  
11 And I'll go back to what I said before, the chemical hazards  
12 in this particular case are on human health, and then some  
13 what we would say very highly prioritized hazards to the  
14 environment.

15           And some of those could be the same type of  
16 chemicals. But from an environmental standpoint in many  
17 cases it's the physical chemical properties of the  
18 chemicals, themselves. And that's why you see lists of five  
19 to 7000 chemicals.

20           So I would say, and I'll go back, there's probably  
21 -- you know, you're probably dealing with several thousands  
22 of types of chemicals. But what you're trying to do is  
23 implement something that's very concrete, can be implemented  
24 within a certain time period. And I'll just use the example  
25 of get it down to 50 of the most important things in

1 relationship to the State of California.

2           Then move those into the categories that you've  
3 already set up, those nine categories are fine. There might  
4 be something that shows up a little bit later, or something  
5 that might be missing, but move the chemicals into those  
6 categories.

7           So now you can say, okay, of those 50 categories,  
8 17 of those actually show up in kids. And they show up in  
9 kids, you know, there's biomonitoring data, in women of  
10 certain ages. So they show up in certain things. And that  
11 starts to get you an idea of maybe where you would go in the  
12 future with the next 50 lists.

13           And so I don't see anything wrong with the nine  
14 categories. But I wouldn't use that as a starting point. I  
15 would use the chemicals as a starting point, and move them  
16 into the list. And then, over time, start to develop this  
17 as to what's the next level of chemicals that actually then  
18 are most important to the State of California.

19           CO-CHAIRPERSON GEISER: Thank you. Okay, Michael,  
20 I think you're next here.

21           MR. KIRSCHNER: Okay. Actually I really like what  
22 Dale just said, that's good. That kind of kills a couple of  
23 birds with one stone, because you don't really want to  
24 reduce the length of the list. I think you want to  
25 consolidate this list, and I have this list of lists in

1 here, because you don't want every manufacturer going out to  
2 Google and trying to figure out what in the heck all these  
3 things are. They're not going to be able to do it.

4 So California does want to have some control.  
5 DTSC wants to have some control over this list of CFCs, --  
6 COCs.

7 That said, there are a couple of specifics on this  
8 list chemical -- the list for applicability. I just want to  
9 point out they are details. But nine products designated,  
10 or designed to reasonably anticipated to release chemicals  
11 during intended use.

12 So, automobile brakepads. Very interestingly, the  
13 European Union, actually the chemicals agency, in their  
14 guidance in articles in REACH says, well, brakepads are not  
15 -- wear is not considered intended release. So there's a  
16 difference of opinion here. So any sort of wear, tires, not  
17 considered intended release. So that's an interpretational  
18 difference that might raise some hackles and raise some  
19 issues.

20 And, again, what I liked about Dale's point was  
21 that, in a way, it reduces the problem of having such an  
22 incredibly long list. Paragraph 10, any product that  
23 contains any chemicals, that's the whole universe, as has  
24 been mentioned.

25 So if we can prioritize some of those chemicals,

1 take some of these categories, just to start with, yes,  
2 that's a good way to narrow the universe initially.

3           One other issue that is in here. The chemicals  
4 are on these lists for reasons. There needs to be data  
5 behind those reasons. I don't think you want the  
6 manufacturers to go out and get hazard information on those  
7 substances, because it should already be there. And that,  
8 again, I think should be maintained by the state.

9           I don't see a reason to -- section 6.6 and .7 talk  
10 about having to go out and get all this information on all  
11 the chemicals in your product. All products are chemicals.  
12 They contain them. So, 6.6(a) doesn't make an awful lot of  
13 sense.

14           And finally, just to wrap up, as was said at the  
15 last meeting, as Scott just said, we do have to be careful  
16 about products with an enormous amount of chemical  
17 substances in them, and enormous and extensive supply  
18 chains. Because there is still, despite all the regulation  
19 that has been coming at product manufacturers over the last  
20 decade, their industry has absolutely failed, in my  
21 estimation, to put together a coherent methodology and  
22 process to deliver chemical substance information down the  
23 supply chain.

24           There are a number of reasons for that, not the  
25 least of which is confidential business information through

1 the chain. But there's also, as I said before, distinct  
2 lack of knowledge through the chain in interpreting any of  
3 that sort of information and knowing what's important. As  
4 well as the technical aspect of no systematic method or  
5 systematic computerized -- based format to take this  
6 information down the chain without it being corrupted in one  
7 way or another. It just doesn't exist.

8           Certain industrial sectors have certain ways to  
9 deal with that. They have their own little forms. But  
10 every manufacturing sector has exactly this problem, or very  
11 similar problem. Particularly, again, those with longer  
12 supply chains.

13           CO-CHAIRPERSON GEISER: Okay, Michael, thank you.  
14 I'm going to turn to Kelly here. What we're trying to do  
15 is close down at 2:30, so we have about eight minutes left.  
16 I have four cards up. So if you could try to keep yourself  
17 to a very short number of minutes, it would help in trying  
18 to get everybody in before the 2:30 time.

19           Kelly.

20           DR. MORAN: I just want to respond to the question  
21 one, and make a brief comment about prioritization.

22           So, for the categories of products I want to echo  
23 what Debbie said, I think that category nine is most  
24 important because that's the ones that are most likely to  
25 create exposures to human or the environment, and therefore

1 should be the highest priority.

2           And I just want to note to staff that the phrase,  
3 designed for use in, that's used in some of those  
4 categories, has been problematic in my professional  
5 experience in other regulatory programs.

6           For example, I think that you would find that most  
7 of the products that are used in schools are not marketed or  
8 sold or labeled as being designed for use in schools.

9           In terms of the list of chemicals, I would suggest  
10 that as DTSC thinks about this, that a potential approach  
11 for reframing that would be to establish a list of either  
12 chemicals or products that DTSC thinks are the top  
13 priorities for more detailed alternatives assessment in the  
14 near future.

15           So when reading that list that was what I took it  
16 to mean, even though it was just chemicals and didn't  
17 include specific products. But I would also -- the thing I  
18 thought was the gaping hole if that were the approach you  
19 took, would be flame retardants. Because I think that  
20 there's a lot of scientific data, human health data and  
21 actually public controversy that suggests there are  
22 questions and needs for assessment of alternatives in the  
23 flame retardant area.

24           In terms of the lists, I was distraught. I'm very  
25 pleased to see that there's been some attempt to try to

1 establish a categorization scheme for aquatic life. But I  
2 was distraught that there was nothing for other types of  
3 ecosystem end points, for wildlife and plants and birds and  
4 so forth.

5           And I don't think that you're going to find a  
6 convenient list for doing that, just as there's really not a  
7 convenient list for aquatic life protection. And instead  
8 the approach that entails using toxicity end points, similar  
9 to that that you've got for the aquatic life is going to  
10 need to be the way to go in that area.

11           And just as a sub-comment to that, I didn't  
12 understand the wording on the aquatic life approach where  
13 we've got those various toxicity end points. If you were  
14 thinking that it had to be biocumulative, as well as toxic,  
15 I would strongly recommend against that. Because many  
16 environmental problems are caused by pollutants that are not  
17 biocumulative, accumulation as sort of a couple decades ago.

18           And then finally, my comment on the  
19 prioritization. I differ in approach, but I think have some  
20 of the same thoughts from what Dale and Michael were saying.  
21 I think that the way to do this isn't to try to pick a list  
22 of chemicals that are the top priorities.

23           And the reason for that is my experience with  
24 consumer products is they're very specific environmental  
25 problems, there's very specific compliance problems

1 associated with these certain chemicals and certain  
2 products.

3           Most people in this room are busily thinking about  
4 some human might be exposed to something, and it's causing  
5 some sort of harm. And I think that's a concern. But  
6 there's some really specific things that are going on with  
7 specific products. And if we try to make a list of  
8 chemicals that are the top priority, we're going to cost the  
9 state -- I mean I know from just one product and one  
10 chemical -- hundreds of millions of dollars.

11           So we really need to be structuring this so we can  
12 respond to environmental problems associated with consumer  
13 products.

14           And that's why I have a couple of thoughts in  
15 terms of approaching this in a little different way. One  
16 is --

17           CO-CHAIRPERSON GEISER: Kelly, --

18           DR. MORAN: I'll try to wrap up, yeah -- so, real  
19 quickly, the first one is just that I do think it's  
20 important that there be some establishment that everybody  
21 who's making a product with a potential chemical concern be  
22 asked to look at it at a very low level, but at least be  
23 obligated to do a look at that.

24           More importantly, I think that DTSC is going to  
25 need to do something kind of like the ARB does with consumer

1 products, and establish a list of things that are the  
2 priorities for this year. And then establish next year the  
3 priorities.

4 And so create kind of a regulatory calendar. And  
5 some of those might be chemicals and some of those might be  
6 products. And to take public input on that. And most  
7 importantly, input from your fellow Cal-EPA agencies.

8 So that would be a way to establish priorities  
9 that are actual meaningful in association to exposures and  
10 impacts. And then that would be updated every year or every  
11 couple years as a way of moving this through. So that would  
12 be a different approach to prioritization that I think would  
13 link directly to the needs of the State of California.

14 CO-CHAIRPERSON GEISER: Thank you. Michael, two  
15 minutes.

16 DR. WILSON: Okay, I'm zooming. I'm going to come  
17 to the defense of the lists of lists, as a bare minimum  
18 floor. And that that needs to be supplemented with new  
19 substances based on new science.

20 And I say that because the process -- my point  
21 here is that the process of identifying chemicals in  
22 products has a critical role in the economy.

23 And a couple of years ago -- I'll illustrate this  
24 with a brief thing, I know, I'm 90 seconds -- that was two  
25 years ago at the California Manufacturers Association. A

1 consulting firm reported on the results of a survey of 300  
2 of its client companies.

3           They found that a third of the chemicals and  
4 chemical products used at the 300 companies were improperly  
5 inventoried, were listed but not used, or were used and  
6 unaccounted for. Chemical toxicity was massively  
7 overlooked. And that combined, the 300 companies were  
8 unaware of the presence of about 55 carcinogenic chemicals.

9           And there were 200 extremely hazardous substances used in  
10 chemical products.

11           So the role of the state in giving a means for  
12 companies to identify and prioritize chemicals of concern is  
13 a disciplining process that we've seen in other statutes,  
14 the toxic use -- act in Massachusetts, that's going to get  
15 companies focused on substances in their products. And  
16 otherwise they're simply not going to do it, as we've heard  
17 today.

18           So that's my sort of general comment. And then  
19 specifically picking up on Tim Malloy's point that what  
20 we've seen, at least in the industries where I've been  
21 working, vehicle repair and press operating and so forth,  
22 that the use of consumer chemical products is primarily in  
23 those industries by professionals, by professional  
24 automotive mechanics using end-labeled consumer products.  
25 Ninety percent of sales were to professional shops. And yet

1 it was a consumer product, brake cleaners and so forth, and  
2 press cleaners and so forth.

3 So, I'm hoping that there's a way to capture  
4 products used professionally as consumer products in the  
5 State of California, for that reason.

6 CO-CHAIRPERSON GEISER: Thank you, Michael.  
7 Lauren, two minutes. Is it Lauren? Oh, Roger, I'm sorry,  
8 Roger.

9 MR. McFADDEN: Real quick. One of the reasons  
10 that it's so important to look at what's in products is what  
11 we've identified -- I mean, again, when you're managing over  
12 800,000 products that are being put into trucks with each  
13 other, the chemical interactions between those products  
14 often are overlooked.

15 We sometimes pay the price for that because we end  
16 up just happen by chance to get the wrong, you know,  
17 products together on the truck at the wrong time, we have  
18 reactions such as household ammonia and household bleach,  
19 for instance, making contact with each other. So that's  
20 something. I'm not trying to make a complex program even  
21 more complex, but that would be one thing to consider as a  
22 need.

23 The other one is the products; don't have any  
24 problem with the product list. I think you've done a great  
25 job. In fact, I should compliment the DTSC, excellent job.

1 Somebody has to start these things. You end up being the  
2 one that takes the arrow sometimes, but thank you for being  
3 courageous enough to do this.

4 More definition in the products. There's going to  
5 be some confusion about some of these product categories.  
6 Let's take fragrance as an example. A lot of fragrances are  
7 added to a lot of products that weren't intended to be a  
8 fragrance product, but are added into the product.

9 So, for instance, we would wonder would we then  
10 need to make sure that any product that had a fragrance of  
11 any amount associated with it, would that be included in  
12 this.

13 Also a lot of other things like school supplies  
14 that go into schools, crayons and pens and those type of  
15 things. Would all those be -- and I suspect they would be,  
16 just a quick -- so, again, greater definition in each of  
17 those product categories would be useful.

18 Thank you.

19 CO-CHAIRPERSON GEISER: Richard, two minutes.

20 DR. DENISON: Three quick things. One on bias in  
21 the role of companies. Just to make the record straight. I  
22 absolutely think that companies who are making these  
23 products need to be part of it. My objection was that they  
24 would be the exclusive arbiters of all of this, okay.

25 Two things. One reaction to the list of the 16.

1 It seems to me that this is an amalgam of three things. One  
2 is a bunch of chemicals that are already on the lists of  
3 lists. The first five, for example, are probably going to  
4 be on almost all of those other lists. That's redundant.

5 The second is sulfur oxide and nitrogen oxides,  
6 products of combustion, no business being here, I don't  
7 think.

8 And then the third is maybe you're trying to get  
9 at something like chemicals that are in the news, emerging  
10 contaminants that have been identified recently, not  
11 necessarily on lists yet.

12 I think that is a legitimate category to flag, but  
13 you need to be clear about what you're doing, and why those  
14 are coming out, and do follow up, for example.

15 Finally, I would really like a clear answer to the  
16 question that I think Ann posed, which is does DTSC believe  
17 that the statute prevents it from taking a regulatory action  
18 without going through an alternatives assessment. And I  
19 think you need to be very clear about that, because that's a  
20 huge concern that was raised at the last meeting; it's one  
21 that I think needs to be clarified if that is the legal  
22 opinion of DTSC or not. And maybe this isn't the  
23 appropriate time to answer it, but I would like to leave  
24 today with an answer to that question. Thanks.

25 CO-CHAIRPERSON GEISER: Thank you. Now I'm gong

1 to ask you to hold, and I'll pick this up -- or we'll pick  
2 you up as one of the first people in the next session.

3 I think we'd like to move to a break, and I think  
4 it is time for a break. I think people have worked really  
5 really hard. I want to congratulate you and thank you for  
6 all the effort. You in staff, folks at DTSC, you wanted  
7 some answers to these questions. You got answers to these  
8 questions.

9 (Laughter.)

10 CO-CHAIRPERSON GEISER: Let's take about a ten-  
11 minute break, no more than ten minutes. We'll come back  
12 into this room in ten minutes. It's a short break.  
13 Remember, if you can, don't talk about what we've just been  
14 talking about.

15 (Off the record at 1:31 p.m.)

16 (On the record at 1:43 p.m.)

17 CO-CHAIRPERSON GEISER: Two quick announcements  
18 we're going to do. And then we're going to ask if the staff  
19 would like to just respond for about ten minutes to some  
20 things that they've heard. And then we're going to move  
21 into the next phase of questions.

22 So, Kathy.

23 MS. BARWICK: There was a question about  
24 transportation to the airport soon after the meeting is  
25 over. There will be a cab at 5:00 at the 11th Street side

1 of the building. It's the employee entrance, and it's that  
2 direction. When you go down the stairs turn right and go  
3 out that.

4 I only have one person signed up for a cab, but I  
5 heard a rumor there were more. So it can hold about  
6 probably three people. So if you need to do that, that's  
7 where it will be.

8 And then we had a report from some staff here in  
9 the building that side conversations are being heard over  
10 the webcast. So, of course, side conversations are not  
11 allowed. But if you do have one, please turn the microphone  
12 off. Thank you.

13 CO-CHAIRPERSON GEISER: Thank you, Kathy, for  
14 that. All right, we do have one point of clarification from  
15 Mike Wilson on a reference that he made.

16 DR. WILSON: There was a question about the  
17 citation that I made from the 3E consulting firm about  
18 chemicals used at 300 companies being improperly inventoried  
19 and toxicity being overlooked and so forth.

20 And the question was were those findings endorsed  
21 in any way, or sanctioned by the California Manufacturers of  
22 Technology Association or the Chemical Council of  
23 California. And the answer is no. They were presented at  
24 the conference of those associations and the Industrial  
25 Environmental Association, but were not vetted or sanctioned

1 by those associations. Thank you.

2 CO-CHAIRPERSON GEISER: Thank you. All right, so  
3 I've been requested here is to provide ten minutes for the  
4 staff, themselves. They heard a lot of different things in  
5 all, and they would just like to respond to some of them.  
6 And Joe also had a legal clarification, I think, he wanted  
7 to make.

8 So, Peggy, do you want to just lead us into this.

9 MS. HARRIS: Yeah, we appreciate the input that  
10 we've received. I wished through the process, there have  
11 been many times where you've started to say something that I  
12 would have loved to have been able to follow up and get more  
13 detail as to what you were thinking.

14 So, in that regard, we would be really interested,  
15 as you've identified problems, and you'll be surprised to  
16 know that we, too, have probably thought about those  
17 problems. But to some degree we really need more input in  
18 terms of what the solution might be. So, I'm not  
19 soliciting, but we would be very interested to have more  
20 detail on your recommendation.

21 There was one area that I heard. We got lots of  
22 input on the prioritization concept, or the narrowing of the  
23 scope. It's not prioritization, but narrowing of scope.

24 One of the other things we began to hear about was  
25 more phasing in. Some of what you were talking about I

1 understand completely. Some of the phasing, like the beta  
2 tests, I would be very interested in how you would envision  
3 that to work in the regulation. We don't really have  
4 authority to require beta test in the reg. I know some  
5 states do have that. We really don't.

6 So, as you're saying that, what are you  
7 envisioning? I could see that translating to some sort of a  
8 phasing in, and what might that phasing in then begin to  
9 look like, would be something that I think we would be very  
10 interested in getting a little more clarification of.

11 And, once again, I think, as some of you were  
12 starting to comment, you were starting to get to, as what  
13 you identified your problem, you were starting to get to  
14 what the fix might be. And then you kind of got cut off  
15 because of the timeframe. I really would be interested in  
16 having more of that thought come through in terms of what  
17 you think the real fixes are, and the changes that we could  
18 make.

19 Some of you commented on things that I'm sitting  
20 here thinking, well, isn't that what we did. So clearly,  
21 we're not hearing always when you were sort of laying out  
22 some of the approaches that you think we should take. And I  
23 thought, well, didn't we take that approach. So that's an  
24 area that we would like to get, some of what you've done,  
25 verbally, would be very interesting to get in writing. Not

1 that we're soliciting.

2 One of the things I'm going to ask Joe to answer  
3 the question that Richard raised regarding the legal  
4 question of why we felt that we did not have the legal  
5 authority to require or go directly from response action  
6 from the prioritized chemical of concern.

7 And the second issue is the one of requiring  
8 chemical ingredients. I don't know if Joe is prepared to  
9 address that legal question or not.

10 But we also do not, and never have, believed we  
11 have the authority to require the ingredients in products.  
12 That's why we kind of moved away from this chemical-of-  
13 concern approach to begin with, because we didn't have the  
14 legal authority. The legislature didn't give that to us.

15 So that's why we tried to build something that did not  
16 take that approach. He's looking at me strangely, so maybe  
17 he's not.

18 Oh, the third party, yeah. The other one that  
19 Nancy reminded me that we would like to get more input on is  
20 this concept of the self-implementation. We heard that, and  
21 we also heard it in terms of a third party. I'm hoping  
22 Maziar does come back to talk about the public/private  
23 partnership, because we did think about this as being  
24 something, the support, the framework could happen as part  
25 of a public/private partnership.

1           We also envisioned having and building, in a  
2 separate reg package, a process by which we could develop  
3 something more along the lines of what -- has, where we  
4 would have a certification, you would have a verification,  
5 we would have a training. We just, given the timeframe,  
6 didn't really feel we could do that as part of this reg  
7 package. But we would be interested in hearing more about  
8 that concept, if that would meet your needs or not.

9           Anything else anybody wants to say? Okay. Joe.

10          MR. SMITH: Yes, with regard to Richard's  
11 question. We have been operating under the conclusion that  
12 the only way we can take a response action is following  
13 alternatives assessment. And we get that from section  
14 25253(b) of the Health and Safety Code.

15          If you or anyone else has any thoughts on why the  
16 statute may read another way, I'd be glad to listen to them.

17          But that's the approach we've been operating from.

18          CO-CHAIRPERSON GEISER: I'd rather -- if you could  
19 do it offline, Richard, thank you. That'd be very helpful.

20          MR. SMITH: And the other question asked?

21          MS. HARRIS: We heard several -- one of the things  
22 we should begin with was to identify chemicals -- one of the  
23 things that we heard from several people was this concept of  
24 identified chemicals, and find out what products contained  
25 what chemicals.

1           And that was the issue that we ran into when we  
2 started down the chemical pathway, is that the legislature  
3 didn't give us the authority to really require.

4           MR. SMITH: Okay. Well, that's not quite accurate  
5 there.

6           MS. HARRIS: That's fine, that's why we have legal  
7 counsel.

8           MR. SMITH: Yeah, good. I'm glad I'm of some  
9 value here.

10           (Laughter.)

11           MR. SMITH: Other than Bagley-Keene, which I don't  
12 want to diminish the importance of.

13           Okay. No, my recollection, the reason we switched  
14 was that when you look at the statute it's cast in terms of  
15 chemicals of concern in consumer products. So it authorizes  
16 us to take the alternative of approaching it from a product-  
17 based approach.

18           We have the discretion to go from the chemicals-  
19 of-concern approach, and like I think straw one was  
20 intended, was based on that approach.

21           But my understanding is that the concern that the  
22 department had was that was too broad. Chemicals of concern  
23 was too broad a category to start out with. So if we took  
24 it on a specific list of products and limited it to those  
25 chemicals of concern in those consumer products, we would be

1 consistent with the statute and be able to take a limited  
2 approach.

3 CO-CHAIRPERSON GEISER: All right. Thank you. I  
4 think what people have heard here is there's some questions  
5 that are answers to staff's questions, get other questions  
6 from them. But I'm really going to ask you to try to  
7 provide those to the staff either through a phone call or  
8 through other means. They were not solicited by the staff,  
9 but it just happens to be there.

10 So, with that, in order to stay online here we're  
11 going to move into the remaining questions that staff has  
12 directed us to. Again, try to keep your responses broad.  
13 I'm going to turn this over to Bill.

14 CO-CHAIRPERSON CARROLL: Thank you, Ken. And in  
15 keeping with the theme of snowboarding on the avalanche,  
16 we're going to move into question two. And I want to just  
17 walk through the time that we have remaining for the  
18 afternoon.

19 We're coming up on 3:00. Realistically we have  
20 for discussion of questions 2, 3, and 4 until approximately  
21 4:30. Maziar has asked for approximately 20 minutes to talk  
22 about public/private partnerships. And then we have all the  
23 sort of hiking work that has to get done. And then we're  
24 out of here at 5:00. So that's kind of the schedule that  
25 we're going to have to adhere to for this period of time.

1 I think we're all sort of hoping here at the head  
2 table that from having invested the time early in the  
3 general discussion that we could perhaps focus down more on  
4 these specific questions.

5 And I think with the exception of the alternatives  
6 assessment, which has gotten quite a bit of play, we've not  
7 really touched the other two questions, the first of which  
8 is on the board. And I'll read it for you:

9 What are the pros and cons of including a possible  
10 exemption for a chemical or chemical ingredient in a  
11 consumer product which presents an insignificant level of  
12 hazard, or for which exposure is adequately controlled  
13 through product design and manufacture.

14 And I would ask whether there are members of the  
15 group who might have comments specifically about this topic.

16 DR. DENISON: Can we clarify that question?

17 CO-CHAIRPERSON CARROLL: Certainly, Richard, go  
18 ahead. Use your microphone.

19 DR. DENISON: Exemption from what? From all  
20 aspects? From specific aspects after it's identified as a  
21 chemical of concern, or a priority, or --

22 CO-CHAIRPERSON CARROLL: Mercifully, Don, you  
23 picked up the microphone.

24 MR. OWEN: Question 2 is focused at the front-end  
25 of the process, as a chemical or chemical ingredient before

1 will be identified as a chemical of concern, or a chemical  
2 of concern in a consumer product to navigate the remaining  
3 pathway. So this would be an exclusion upfront.

4 We pose it as a question, if there were such a  
5 one, what would that look like.

6 CO-CHAIRPERSON CARROLL: Thank you, Kelly. Thank  
7 you for getting us started. Go right ahead.

8 DR. MORAN: I'll just say very quickly on this  
9 one, so that we can move quickly through. I think that if  
10 the department defines with the appropriate significance  
11 criteria, a significant/insignificant level of hazard, that  
12 this might be possible.

13 But I don't think that that should be approached  
14 by so many percent, or so many parts per million or  
15 whatever, because it seems to vary by chemical how much is  
16 important and how it's used.

17 And the second one I'm very leery of because my  
18 experience is that, for one, something may be in a product  
19 and not be all that important in terms of exposure during  
20 its lifetime. But at end of life there's a problem with  
21 managing it.

22 So I would think it would be exceptionally  
23 difficult to come up with a definition that would actually  
24 work for the question, the second question that you've got.

25 CO-CHAIRPERSON CARROLL: Thank you, Kelly. Let me

1 just review who I have at this point. Did you want to  
2 intervene?

3 DR. OGUNSEITAN: Yeah, --

4 CO-CHAIRPERSON CARROLL: Hang on a sec, so I will  
5 take you next. Then I have George, Dale, Bruce and Julia  
6 and Richard. Please go ahead.

7 DR. OGUNSEITAN: My point was about the end-of-  
8 life option in the last bullet point Kelly made. But also  
9 because during manufacturing is not included in item 9 of  
10 the fourth question, these products. We did talk about  
11 during consumer use and disposal, but not during  
12 manufacturing. Which gets to occupational issues to some  
13 extent.

14 CO-CHAIRPERSON CARROLL: All right, very good.  
15 George and then Dale, please.

16 DR. DASTON: In terms of the first, I think it's  
17 almost necessary to have some sort of de minimis level below  
18 which we wouldn't be concerned. I mean I look at the first  
19 four or five items on the list of 16, and if you have a good  
20 enough instrument you're going to find those elements  
21 everywhere. I mean they're naturally occurring elements.

22 There are de minimis levels that are used by  
23 various regulatory agencies as precedents. And rather than  
24 go through them, we can just point them out to you.

25 CO-CHAIRPERSON CARROLL: Very good, thank you.

1 Dale and then Bruce.

2 DR. JOHNSON: Yeah. I mean this is -- there  
3 obviously would be an insignificance level hazard in some of  
4 these compounds under certain uses and so forth. So there  
5 should be some kind of an exemption clause.

6 However, it would require to have some kind of  
7 regular update. So these things change over time. The  
8 product could change or whatever. So there would have to be  
9 some kind of an established update to keep that exemption  
10 alive.

11 The second part, which is kind of interesting. As  
12 I was looking through this, I was looking through some of  
13 the areas where it would be favorable for a manufacturer to  
14 create a change or a process. And, you know, because you're  
15 always looking for the business model of why you would make  
16 something green.

17 And so this is one of the points, you know, it's  
18 kind of hidden in this particular point, but it's one of  
19 those points that if it was available from an information  
20 standpoint where they could change the product, change a  
21 process of the product, it would be beneficial for them to  
22 do it. And would end up with a greener product

23 So it's just one of those few things in here that  
24 shows an inducement to that type of thing.

25 CO-CHAIRPERSON CARROLL: Thank you, Dale. Bruce,

1 and then Julia.

2 DR. CORDS: To build on what George said, just to  
3 give you an example. Say you have -- and I think an example  
4 is a good way to look at this -- is a general purpose  
5 cleaner, we probably have let's say ten ingredients in it  
6 that are in there at greater than 1 percent.

7 The people who supply us the formulator don't  
8 supply products that are 100 percent purity, right. So you  
9 could probably look at another 30 compounds that are in  
10 there at, say, greater than .1 percent.

11 And then if you put your crack analytical team to  
12 work, you could probably find another 100 that are in there  
13 at say greater than 10 parts per million. So just to re-  
14 emphasize, there has to be -- we have to come to some  
15 insignificant level.

16 CO-CHAIRPERSON CARROLL: Very good, thank you. I  
17 have on the list Julia, Richard, Art and then Meg, then  
18 Michael. Julia.

19 DR. QUINT: Yeah, I think the criteria for  
20 determining what is a hazard has to, you know, we have to be  
21 very careful about that, because there are some things that  
22 are hazards, like upstream indicators of concern like  
23 thyroid function or whatever, that haven't really made it to  
24 a list, you know, established by various government  
25 agencies. So, I think we need to think ahead and be really

1 concerned about defining that well and set criteria.

2 And then for the adequately controlled through  
3 product design and manufacture, that is a point where, you  
4 know, you could have worker exposure. And we need to be  
5 also careful about what we are calling adequately control  
6 for workers. Because the standards speak very poorly to  
7 protecting worker health at this point. OSHA standards are  
8 notoriously out of date.

9 So I think this is an opportunity for us to  
10 really, you know, do something that would be protective of  
11 workers in this regulation. So, you know, I think, by  
12 itself, I mean, you know, taken as it's written about  
13 exemptions, I totally agree with, as long as we think  
14 carefully about the criteria and what we're really endorsing  
15 in terms of the exemption.

16 CO-CHAIRPERSON CARROLL: Thank you very much.  
17 Could I ask the three of you, if you're finished with your  
18 intervention, to put your flag down, please. It's a little  
19 distracting from up here. Good. Thank you.

20 Richard.

21 DR. DENISON: The reason I asked the question  
22 about exempt from what is it does seem to be a little  
23 circular to say that you would exempt a chemical from going  
24 through the identification of being a chemical of concern a  
25 priori. That's going to require a certain amount of data.

1           So any kind of notion of creating an exemption  
2 based on hazard, it would seem to me, would have to be  
3 limited to maybe two levels of this.

4           One is very well characterized chemicals where you  
5 have, in fact, looked for a whole range of hazards for those  
6 chemicals. And maybe it's something analogous to the grass  
7 list or something like that. Or something like molasses,  
8 which is on the TOSCA inventory, by the way; as a high --  
9 chemical, too.

10           But I don't know, I interpreted this to mean  
11 something more like is there a level of that chemical in a  
12 product that would be deemed to be insignificant, given what  
13 you know about its hazard. And if that's the meaning, then  
14 I think with clear criteria, something like that might well  
15 be possible.

16           The exposure side, I am also much more wary of. I  
17 think we have a long history of missed diagnosing exposure,  
18 and making assumptions about what adequate control through  
19 product design is. Fifteen, 20 years ago no one would have  
20 ever imagined a flame retardant would have gotten out of a  
21 couch or a computer casing. And we know very differently  
22 now.

23           I think that one is extremely problematic, both  
24 because of the weak link that exposure information it  
25 represents, and the fact that that information is often not

1 standardized. There's not good test methods. It's not at a  
2 state, in the same way that hazard information is, for  
3 gaining some assurance. And it is so contact specific. One  
4 computer casing might be made in a way that is different  
5 than another. So, that one I'd be very wary of.

6 CO-CHAIRPERSON CARROLL: Thank you for that  
7 clarification, Richard. Art, I had you; do you no longer  
8 want to speak?

9 DR. FONG: Actually I do.

10 CO-CHAIRPERSON CARROLL: Oh, okay.

11 DR. FONG: Just want to emphasize the importance  
12 of harmonization with various EU directive exemptions, and  
13 the potential problem of causing compliance problems for  
14 manufacturing.

15 And I'm saying this not using that as an excuse  
16 for industry to, you know, not support green chemistry, but  
17 in fact I want to point out the fact that, you know, the  
18 implementation problems that we have. Also within the  
19 language of 1859, talks about harmonization, the importance  
20 of harmonization and the problems that it can cause if we,  
21 in fact, do not take that approach.

22 It's that, you know, we don't want to see the  
23 problems that we have with implementation be used as an  
24 excuse of various stakeholders to impede, you know,  
25 forwarding or progressing with green chemistry policies in

1 other states.

2           So, you know, this is an important issue. So I  
3 just want to emphasize what George said about harmonizing  
4 with existing directive and other regulations.

5           CO-CHAIRPERSON CARROLL: Very good, thank you,  
6 Art. Meg.

7           DR. SCHWARZMAN: I just want to express my  
8 opposition to the idea, the concept that we can adequately  
9 control any hazardous substance through what I understand to  
10 be the meaning of the design and manufacture.

11           This is for three reasons. One is the historical  
12 example of what we've learned from PCBs, which is a  
13 substance that we thought was not going to come into contact  
14 with people in any kind of normal use, and it's obviously a  
15 horrible environmental contaminant now with significant  
16 effects.

17           The second is the, you know, sort of emerging,  
18 increasing science on low-dose effects. Any saying that we  
19 can adequately control a hazard presumes that there is a  
20 safe level and a threshold of effect. And I don't think we  
21 can assume that about a lot of commonly used chemicals which  
22 may have low-dose effects.

23           And the third reason is because of cumulative  
24 exposure from multiple sources. So to decide that computer  
25 casings that are not a significant source of flame

1 retardants is sort of to ignore that computer casings, plus  
2 tvs, plus furniture, plus you know whatever the number of  
3 chemical -- of products there are that contain a chemical is  
4 very problematic.

5 CO-CHAIRPERSON CARROLL: Thank you very much.  
6 Okay. Mike.

7 DR. WILSON: On the second question, I think the  
8 exposure and potential exposure is useful in the setting of  
9 priorities for chemicals of concern that have been  
10 identified. But is inappropriate for granting exemptions  
11 for the reasons you've heard.

12 And what I'll add to that is that again what is  
13 adequate control. Does that mean putting workers in air-  
14 purifying respirators. How do we deal with very persistent,  
15 very biocumulative substances that are appearing in the far  
16 north in animals and humans.

17 And as we've heard, exposure controls are  
18 notoriously unsatisfactory. And so if we allow exemptions  
19 based on potential, or uncontrolled exposure, we then fail  
20 to motivate investment in safer alternatives.

21 CO-CHAIRPERSON CARROLL: Thank you. Mike, I have  
22 you next. Lauren, I had your flag up. Do you -- are you  
23 interested? Okay. Mike.

24 MR. KIRSCHNER: Just real quick. I'm in agreement  
25 with what Richard and Megan and Michael have said. I want

1 to emphasize the challenge presented by 6.19 saying products  
2 designed to reasonably anticipated to release any chemicals  
3 during intended use by consumers or after disposal.

4           It's that after disposal part that is the issue.  
5 That's the one that -- well, not all of us are talking  
6 about, but it certainly has been mentioned. And that's  
7 critical, because the manufacturers for most products,  
8 there's not a producer responsibility requirement that they  
9 manage the control through the disposal process. Even those  
10 that do, outsource it to somebody else.

11           And ultimately there's plenty of examples of  
12 industries and manufacturers not having control through that  
13 level. Even though you might have the best technology for  
14 managing recycling and acquisition of certain materials, or  
15 managing certain materials through that process, you can't  
16 guarantee it. So -- certainly not yet.

17           So I'm really not -- I guess I agree with the  
18 chorus that doesn't really understand how you're going to  
19 achieve adequate control of exposure. You're going to have  
20 to define that fairly concisely. And provide that  
21 manufacturers have -- demonstrate a closed loop system of  
22 control.

23           CO-CHAIRPERSON CARROLL: Thank you very much,  
24 Michael. Lauren, and then Tim.

25           DR. HEINE: Thanks. I think part of the work

1 that's being done by DTSC and OEHHA is it's not just an  
2 individual hazard, but combinations of hazards that are of  
3 concern. So that you may be able to modify, for example, an  
4 aquatic hazard with a rapid biodegradability.

5 And so I think some of that work will evolve over  
6 time. And you may be more concerned about carcinogens,  
7 particularly that are persistent, or bioaccumulating. So I  
8 think there are elements of combinations of hazards that  
9 will either augment and make a little hazard more  
10 significant, or perhaps make a moderate hazard less  
11 significant.

12 CO-CHAIRPERSON CARROLL: Thank you, Lauren. I  
13 have Tim as the only flag up left. And then as -- I'd like  
14 to summarize, and also make a comment, if I might. Tim.

15 DR. MALLOY: Thank you. The older I get the  
16 harder it is for me to remember things. So, forgive me if  
17 I'm like repeating something somebody said. I'm trying to  
18 keep track so that I'm not repetitive. But I might have  
19 missed something.

20 I guess, I hear all the concerns about how would  
21 you define it, and exposure control doesn't really work  
22 historically and so on and so forth. Although I guess I  
23 could, I'm less pessimistic about the notion that in certain  
24 circumstances you might take into account notions of  
25 exposure, I think, as a practical matter. In many instances

1 you probably will end up doing that.

2           Although the tone of the statute and even the  
3 language of the statute is directed, as Mike said, at  
4 substitution prevention rather than management, in those  
5 terms.

6           And so the problem I have with this, in addition  
7 to what everybody else has said, is number one, I don't  
8 know, maybe somebody addressed this, but it really depends  
9 on me, when you say something like this, who decides and in  
10 what context. How is it decided.

11           So if it's self-implementing and somebody just  
12 decides they're subject to an exemption, I'd say no. But if  
13 it has to go through a public process, it requires input,  
14 and there is appeal and so on and so forth, so I'm more  
15 comfortable with it in that kind of context.

16           The thing that really worries me about this is I  
17 view this -- this is like a black hole exemption, right? I  
18 mean this is the exemption that could suck the entire  
19 regulatory program right into oblivion. Because it seems to  
20 me that -- I made my own flow diagram, and being a lawyer,  
21 mine's like six pages long, and whatnot.

22           But what I get out of it when I get to the end is  
23 that when you look at the response actions there's room for  
24 exposure control in certain areas. But most of it is about  
25 substitution, and forcing people to substitution. Very

1 little exposure stuff. Mainly where there is an alternative  
2 with significant impacts, or some worker stuff and so on and  
3 so forth.

4 My reaction to this is somebody can get around any  
5 of these bans, any of these things, just by exposure  
6 control. And, to me, that seems like you're changing the  
7 whole focus of the statute by making it a statute about risk  
8 management rather than a statute about hazard reduction and  
9 prevention of toxics.

10 So, I think it's a game changer to have an  
11 exemption like this, beyond the implementation problems that  
12 we've all talked about.

13 CO-CHAIRPERSON CARROLL: Thank you, Tim. And I'll  
14 finish up on this that most of the discussion, of course,  
15 has been on the exposure side of this. But I would like to  
16 go back and reiterate the idea that was touched on at the  
17 beginning by Richard in terms of the amounts of materials  
18 that may be present and present an insignificant hazard.

19 And here's specifically an example that I want to  
20 go through. In the process of making PET, from which you're  
21 going to make soda bottles, you'll start with ethylene. You  
22 make ethylene oxide first, which is a carcinogen. Then  
23 ethylene glycol, and then the polymer, which is PET.

24 Unless there is some sort of consideration of an  
25 exemption for minimal amounts of material, you would

1 probably have -- I could not, as a scientist, tell you that  
2 there was not a single molecule of ethylene oxide that  
3 remained in that PET, even though your sense as a chemist,  
4 and your calculation, would tell you that it is  
5 extraordinarily unlikely.

6           And even if you asked for it to be detected, it  
7 may well be below detection limits, and yet you may still  
8 have a molecule or two there.

9           Now, whether that presents a significant enough  
10 hazard to the public, to wrap this around an axle about that  
11 sort of amount, I think that should be well down the list of  
12 things that you would particularly worry about. Now, there  
13 are much more important things to worry about.

14           So, I'd ask you to keep that in consideration,  
15 that there may, in fact, be a point where you have either  
16 inadvertent entrained material, either because you've used  
17 water that may have disinfection byproducts in it, to  
18 formulate a product. Or you have inadvertent lead or  
19 mercury from the environment. Or, for that matter, you have  
20 a small residual something from a reaction further on up. I  
21 think there needs to be consideration of that along the way.

22           And with that, I think we've done very  
23 expeditiously on this question. And I appreciate your  
24 remarks. They were very much to the point of it.

25           And at this point I will turn it over to my co-

1 chair.

2 CO-CHAIRPERSON RAPHAEL: Okay, so now we are --  
3 that was very good, that was very focused. And now we're  
4 going to go to question number 3, which hopefully will be  
5 equally as productive and focused.

6 This one's on authoritative bodies, and I have to  
7 say, there's a little irony with me being the co-chair on  
8 this one, as I represent an authoritative body that does ban  
9 individual chemicals at the local level.

10 So we can get into whether or not that should be  
11 viable or not.

12 Okay, so question number 3. What I'm going to do,  
13 as I read it, you remember that when Don gave this, he  
14 couched it a little bit differently in his language. And  
15 I'm going to go back to that, just so that we're all on the  
16 same page.

17 The question being what are the pros and cons of  
18 the definition of authoritative bodies. What specific  
19 changes, if any, would we advise.

20 And then, what are the pros and cons of using  
21 authoritative bodies. And what he explained here is that  
22 concept of using authoritative bodies, meaning DTSC using  
23 and adopting the decisions already made by authoritative  
24 bodies to dictate their prioritization, their identification  
25 and the regulatory response action.

1           So the idea is not to use authoritative bodies as  
2 a third party that you would ask questions of, but to  
3 utilize what they've already done.

4           So, as you can see, there are three bullets there.  
5 And there's a fourth at the bottom that says, is there  
6 another way. Can this panel think of other ways that DTSC  
7 might utilize the work of authoritative bodies. And that  
8 really gets to the intent of the legislation that said,  
9 let's not re-invent the wheel, let's look at what's already  
10 out there and bring it back to bear in California.

11           So, with that, we're going to go for about 15 or  
12 20 minutes until we start to hear a lot of redundancy. And  
13 Kelly is our starter-offer, again.

14           DR. MORAN: I'm going to be real quick, again,  
15 because my expertise is not human health, and that's where  
16 all the authoritative bodies are. So I will note that there  
17 really aren't any for ecotoxicity, wildlife toxicity.  
18 That's actually one of the issues.

19           And just put that out there for the record. So,  
20 I'm not aware of any, either. So I'm not surprised you  
21 didn't find those.

22           To address that, one of the suggestions that I  
23 have is that you look to your Cal-EPA sister agencies to  
24 identify either product chemical combinations, products or  
25 chemicals that should be getting special attention through

1 this process. And I'd suggested earlier one possible way of  
2 approaching that through a regulatory calendar.

3 But in any case, I do think you really ought to be  
4 looking to some role for the other Cal-EPA agencies in  
5 establishing chemicals that are going to be a problem.

6 And finally, I just want to overall comment that I  
7 think that it would be too expensive for California to not  
8 take advantage of the expertise of other agencies. We  
9 simply don't have the financial resources in the state to be  
10 doing individual reviews of chemicals.

11 So I think that there is an important role,  
12 overall, in this process for authoritative bodies.

13 CO-CHAIRPERSON RAPHAEL: Thank you. George.

14 DR. DASTON: I also see a significant role for  
15 authoritative bodies. And I think the concern that I have  
16 is that the definition doesn't go far enough.

17 So I believe that even in the statute, itself, its  
18 talks about authoritative bodies making decisions about  
19 chemicals for similar purposes that is being intended here.

20 Which really hasn't gotten into the definition yet.

21 And then the other aspect that I would like to  
22 have, again, in the definition, is a certain minimum level  
23 of quality of review of information. So there are some  
24 lists, or some processes of review, like IRIS or the NTP  
25 list of carcinogens, those kinds of things that undergo an

1 extremely robust review process that also includes the  
2 stakeholder input that you're interested in.

3 And then there are other lists that simply don't,  
4 and are based on preliminary information, or simply not the  
5 quality that one would want, or that would put them on a par  
6 with these other lists.

7 So, you know, to me it's a good start for a  
8 definition, but I think that you got to consider both, you  
9 know, what the lists are intended to do, and their quality  
10 of information.

11 CO-CHAIRPERSON RAPHAEL: Thank you. Meg.

12 DR. SCHWARZMAN: I wanted to suggest the first two  
13 issues that address the assessing hazard information and  
14 identifying and prioritizing chemicals of concern. And the  
15 utility of using authoritative bodies and their lists in  
16 that process.

17 Two things. I think one thing that hasn't been  
18 brought up much today is the issue of how we deal with  
19 squaring data discrepancies. And that's obviously a problem  
20 that would plague any process that tries to come up with a  
21 summary hazard assessment by putting together a lot of  
22 hazard data.

23 And that is a place where authoritative bodies, I  
24 think, are very helpful. Because they've necessarily gone  
25 through that process. And weighed the various quality of

1 information going into it.

2           Unfortunately, it tends to bias toward data-rich  
3 substances. And so I think if there's a reliance on  
4 authoritative bodies, which I think there needs to be, so I  
5 think it's necessary but not sufficient.

6           So, it's necessary because it helps with resolving  
7 data discrepancies. There needs to be a mechanism for  
8 singling out data-poor substances, which are obviously going  
9 to be missed by the reliance on authoritative bodies.

10           And also to deal with the fact that authoritative  
11 body lists are not very supple. They're slow in responding  
12 to evidence. And they're also not, themselves, immune from,  
13 you know, political processes and influence.

14           So, I think it's necessary to rely on them, and  
15 there needs to be a mechanism for including data-poor  
16 substances and also those which are sort of chemicals of  
17 emerging concern. So that was something that was addressed  
18 a little bit earlier.

19           CO-CHAIRPERSON RAPHAEL: Thank you. Julia.

20           DR. QUINT: I think they definitely should be  
21 relied on, because they're a good source of information.  
22 But I understand that IARC wouldn't be included as an  
23 authoritative body, given the current definition of  
24 authoritative bodies in the straw proposal. So that would  
25 be a problem for me. The International Agency for Research

1 on Cancer.

2           Because I don't think they publicly have input  
3 from stakeholders in the manner in which the first -- one of  
4 the two criteria that you're using here. So that's an issue  
5 I think we should look at. Establish authoritative bodies  
6 and ones that we rely on, and make sure that the definition  
7 fits.

8           Also, what do you do when authoritative bodies  
9 don't agree? They don't all agree. I mean the European  
10 Union, as much as we, you know, extol their virtues, really,  
11 for some chemicals, you know, have gone against the grain.  
12 Perchloroethylene is one of them.

13           So I think, what are we talking about, you know,  
14 is it just one authoritative body has to identify something?  
15 Or do a certain number of authoritative bodies have to  
16 agree, you know, about a substance? Because they, you know,  
17 aren't all universal.

18           And I think there's something in the straw  
19 proposal, I think it is in the situation where there's a new  
20 chemical where the person doing the assessment can rely on  
21 peer review literature and/or, it says, authoritative  
22 bodies.

23           That's a situation where there's a lot of  
24 published data out that really disagrees with authoritative  
25 bodies' assessment of chemicals, you know, actual peer

1 review, you know, information that really doesn't agree with  
2 some of the current listings and chemicals on authoritative  
3 lists.

4           So I think that's an opportunity where you'll have  
5 to have some sort of referee process to determine, you know,  
6 people get into these really arguments about pharmacokinetic  
7 data and just various iterations of why the authoritative  
8 bodies listing of a substance is inappropriate. And, you  
9 know, they have established themselves as a legitimate  
10 scientific body.

11           So I think those are the situations, and the  
12 emerging that Meg mentioned. You know, it takes a long time  
13 for something to be listed. And in the meantime we've  
14 missed a lot of things, so.

15           CO-CHAIRPERSON RAPHAEL: Thank you. Lauren.

16           DR. HEINE: A lot of the points I had thought have  
17 already been said. But I wanted to note that again the  
18 scope of what the authoritative bodies review is often very  
19 small things brought to the attention.

20           And that I would worry about things like the  
21 National Academy of Science reports not being available for  
22 use, because they're not technically an authoritative body  
23 by this definition.

24           And finally, one strategy for using work from  
25 bodies that may not be seen as quite as authoritative as

1 others, is to use them in a sort of flagging way, where you,  
2 instead of dismissing them based on very strict criteria,  
3 use them in a weight-of-evidence type approach, where you  
4 can still flag chemicals and then use some of the expertise.

5 Yes, resource intensive, but that California has to make  
6 judgments based on the kinds of reasons that these less  
7 authoritative bodies have flagged things.

8 For example, screening chemical lists. A list  
9 developed through screening instead of through extensive  
10 data-rich testing.

11 So I think that's a strategy for using the sort of  
12 next level of authoritative lists and bodies.

13 CO-CHAIRPERSON RAPHAEL: Thanks, Lauren. Before  
14 we get to the two Richards, I just want to note that one of  
15 the big ways they're proposing to use regulatory is in the  
16 regulatory response action. And so I'd really be interested  
17 in people's thoughts about, you know, banning it, therefore  
18 that speeds things up, you know.

19 There were some huge consequences to authoritative  
20 bodies, not just on the data side.

21 So, we'll go with Richard Denison first, and then  
22 Richard Liroff next.

23 DR. DENISON: I wanted to agree with what George  
24 said about sort of lending the lists of some of these lists  
25 and authoritative bodies. And it gets, in part, to the

1 purpose of the list. And sometimes that's a very context-  
2 specific purpose.

3 So looking for water contaminants, for example,  
4 may have factors that went into that determination that are  
5 different than those that would go into a more general list  
6 of carcinogens, or what-have-you.

7 So I would prefer to see a relatively tighter  
8 definition of authoritative bodies in exchange for something  
9 I'll say in one minute. But I do want to emphasize that a  
10 process like the IARC process, to me the language around  
11 stakeholder input is perhaps too limited. And IARC goes  
12 through very rigorous review processes with expert panels of  
13 external people that are assembled to do those.

14 So I think there needs to be room to allow that  
15 kind of a process of informing the decision they make,  
16 whether to list something, or how to list it, beyond just  
17 stakeholder input.

18 Having said that, there is one provision in the  
19 straw that does give me considerable pause, 6.6(c)(2). It  
20 has to do with how a manufacturer can meet a data  
21 requirement. And it says that they may rely on  
22 categorizations performed by authoritative bodies.

23 And that raised a huge flag for me, because it  
24 sounded like someone could decide not to consider an IARC  
25 carcinogen to be a carcinogen. They could make their own

1 decision by looking at other literature, or making other  
2 arguments.

3           And so I think I would, in exchange for a fairly  
4 tight definition of what is an authoritative body, I think  
5 that language would have to say they must rely. If somebody  
6 has classified -- that is an authoritative body has  
7 classified something as a carcinogen a company can't say no,  
8 it isn't.

9           CO-CHAIRPERSON RAPHAEL: Thank you. Next,  
10 Richard.

11           DR. LIROFF: I'm concerned about this definition.  
12 I agree on reliance on authoritative bodies mainly for  
13 hazard information. I don't think for triggering regulatory  
14 response action because criteria for regulatory actions will  
15 differ from jurisdiction to jurisdiction. There may be  
16 different kinds of weightings.

17           If the U.S. takes action under the Clean Air Act  
18 there's an air quality standard that's devoid of  
19 cost/benefit analysis. Most other federal environmental  
20 laws require some sort of cost calculation. So, this will  
21 differ from jurisdiction to jurisdiction.

22           The points about IARC and, yes, -- I don't have  
23 specific language for how to fill this language. I wonder  
24 about would we, indeed, throw out NAS reports, recognizing  
25 on the one hand their expert panels. But, two, there's also

1 literature which is very critical of how NAS reaches  
2 decisions because of the construction of the panels.

3           And I don't know how deeply you get into the weeds  
4 in deciding whether or not so-called authoritative bodies  
5 are kosher or not kosher in terms of how they use their  
6 experts, which experts they hire and whether or not those  
7 are adequate substitutes for some sort of more robust, more  
8 public stakeholder participation processes, such as the one  
9 we're involved in right now.

10           CO-CHAIRPERSON RAPHAEL: Thank you. Oladele.

11           DR. OGUNSEITAN: This goes to, it ties question 2  
12 to this question 3. It's about regulatory response. So if  
13 a company argues that in Europe they've been exempted  
14 because it poses an insignificant hazard in Europe, and they  
15 want to use that as a basis for applying for exemption here.

16           I think it is question of question 2.

17           The sentiment around the table that I heard is  
18 that this is probably not a good idea, although we don't  
19 know what it is they will decide.

20           But rather than accept somebody else's exemption  
21 argument, I'd say that we don't go for exemptions. But use  
22 it to prioritize -- chemicals very low on the list of  
23 regulation.

24           CO-CHAIRPERSON RAPHAEL: Okay, thank you. Bill  
25 and then Tim and then Dale.

1 CO-CHAIRPERSON CARROLL: Thank you, Chair. To me  
2 the definition is quite problematic, and even in the words,  
3 itself. Reading the definition, an authoritative body means  
4 any government agency, foreign or domestic, that meets the  
5 following requirements. And then you have some openness and  
6 transparency requirements, but no scientific requirements.

7 And so I don't -- that's a government authority to  
8 me. It's not an authoritative body. And I would argue that  
9 this might be the only time that I've heard the State of  
10 California, with all due respect to the City of Cut-N-Shoot,  
11 Texas, that the State of California would accept the action  
12 of the city council of Cut-N-Shoot, Texas without further  
13 consideration.

14 And I think you might want to look at the  
15 underlying scientific information that went into a decision  
16 made by a government authority.

17 And I like the discussion about re-defining  
18 authoritative bodies to take into account those that are, in  
19 fact, scientifically authoritative bodies, not unlike IARC  
20 or the national academies or the rest.

21 But I wish you would pull that definition apart  
22 and separate those two concepts of an authoritative body  
23 versus a government authority.

24 Thank you, Chair.

25 CO-CHAIRPERSON RAPHAEL: Okay, thanks. Tim.

1 DR. MALLOY: Thanks. So, I kind of compared the  
2 statute to the regulations. And the statute just talks  
3 about using the authoritative body, I think. I mean I did a  
4 little search on it, and maybe I spelled it wrong or  
5 something, but I think the only place it talks about using  
6 the authoritative body is to leverage information they've  
7 gotten on prioritization when the DTSC is doing  
8 prioritization.

9 So I compared that to the regs, and I found four  
10 spots where it's used. One is to obtain information and  
11 data, so the business can go to authoritative bodies for  
12 data about the chemical early in the process.

13 It can also go to authoritative body and use any  
14 test method that's been approved by them. It can also use  
15 it for a validation of a model, a QSA or model. And they  
16 also can use it for various hazard traits, to find whether  
17 something is or isn't a hazard trait.

18 So, I guess the problem I have there, and I think  
19 this kind of echoes, although maybe slightly different than  
20 what you were raising, Bill, is kind of this race to the  
21 bottom problem.

22 You know, so my school district banned, you know,  
23 they have like an IPM thing, and they talk about pesticides.

24 And they come up with some test method that they're going  
25 to use. And suddenly, under the definition, they're an

1 authoritative body.

2           So I'm worried about the flip side, not that the  
3 authoritative body will be too stringent, but they won't be  
4 stringent enough. And here they are setting test methods.

5           One could even imagine situations in which, you  
6 know, like Delaware, most corporations are incorporated in  
7 Delaware because Delaware has these fantastic standards for  
8 the companies, right, that are not very rigorous.

9           One could imagine authoritative bodies developing  
10 test methods and whatnot, maybe not on purpose, but perhaps  
11 one could, you know, so there's a way of rigging the system.  
12 You're a little worried about gaming the system.

13           So that concerns me a bit. You might want to re-  
14 think, you know, the -- I don't think there's a statutory,  
15 anything in the statute prevents you from using  
16 authoritative bodies for all these other things, just  
17 because it mentions prioritization only in the statute.

18           But I think you might want to think about perhaps  
19 having some kind of a mechanism or a default rule where the  
20 DTSC retains some authority to make a judgment about the  
21 authoritative body, or at least a determination that they've  
22 made.

23           On that other thing about response actions, the  
24 only thing I could find in the response actions was a  
25 reference to what Bill mentioned. It talks about government

1 agencies who have banned materials, not authoritative  
2 bodies.

3           So I think it's less -- your concerns are still  
4 obviously very important, but I don't think government  
5 agency is defined in the -- is it defined? So, maybe it  
6 doesn't have to be.

7           But I think it's a different kind of issue. It's  
8 a broader issue than the authoritative body issue.

9           CO-CHAIRPERSON RAPHAEL: Dale.

10          DR. JOHNSON: Yeah, I guess I didn't read into  
11 this that an authoritative body was a kind of an overriding  
12 type of thing. To me it was kind of an additional source of  
13 information, and didn't override IARC or anything else. You  
14 know, it was just another source of information.

15          Now, where the issue comes up is in the then  
16 defaulting to some kind of a regulation. And so what is  
17 obvious from any of these things, whether it's on a list or  
18 whether it's some action taken by somebody, it's the action  
19 taken on that day that's based on the literature and  
20 information before that day.

21          So anything that occurs after that has to take  
22 into consideration all the new information that shows up.  
23 And we see this constantly with every type of chemical. New  
24 information shows up; new types of assays; new end points.

25          So whatever action goes on from -- and I would

1 define this in terms of more of a regulatory action, rather  
2 than information gathering -- requires some kind of a peer  
3 review and addressing new information, as well as what  
4 happened in an authoritative body.

5 CO-CHAIRPERSON RAPHAEL: Great. Okay. You had  
6 another comment? Okay. So this is good. We've got about  
7 two more minutes, so, Richard, go ahead, you get a second --

8 DR. LIROFF: Just to elaborate on the point that  
9 Dale just made. There has to be some sort of time  
10 limitation. For example, on flame retardants, as a European  
11 authoritative body assigned to a panel decision from roughly  
12 2005, 2006, that industry cites as basically getting Deca, I  
13 think, off the hook in terms of its environmental health  
14 effects.

15 While, in fact, there's a ton of research that's  
16 been done since then, particularly in the U.S., which raises  
17 very serious questions about Deca.

18 So basically the European decision from 2006  
19 basically shouldn't be part of any decisions whatsoever that  
20 are made with respect to Deca. It's just out of date and  
21 irrelevant, though it is an authoritative body.

22 CO-CHAIRPERSON RAPHAEL: So, what I'd like to do  
23 now is we had talked about -- the co-chairs had talked about  
24 getting a response back from staff as to what you've heard.

25 And I just want to give you the opportunity in the next

1 three or four minutes.

2 We went through two of your questions, and I'm  
3 wondering if, based on what you've heard about authoritative  
4 bodies and the exemption process through exposure and  
5 hazards, if there's anything that comes to mind, or that you  
6 would like to give us feedback on.

7 MR. OWEN: With respect to authoritative body  
8 question, several of you have mentioned criteria. What is  
9 that criteria?

10 CO-CHAIRPERSON RAPHAEL: What would be acceptable  
11 criteria --

12 MR. OWEN: Correct.

13 CO-CHAIRPERSON RAPHAEL: -- to define an  
14 authoritative body? We've heard about some things that  
15 we're worried about having, like the public. Is there  
16 anything that must be included?

17 George.

18 DR. DASTON: I don't have exact wording for you,  
19 but it's really a minimum level of scientific evaluation and  
20 quality. So there's extensive scientific input and review  
21 that goes into things like IRS, things like the NTP report  
22 on carcinogens. Things like IARC classifications.

23 And we could probably go down the list and find  
24 the ones for which there is and is not that sort of input.  
25 But it really is something to the effect of strong

1 scientific input and peer review.

2 CO-CHAIRPERSON RAPHAEL: Art.

3 DR. FONG: Would it be possible for you to use the  
4 definition of criteria that OEHHA uses for prop 65 in their  
5 definition of authoritative body?

6 CO-CHAIRPERSON RAPHAEL: You don't need to answer  
7 that, but you can, if you want.

8 MR. OWEN: We've looked at it. We're not sure it  
9 quite fits. But it's an excellent suggestion and does  
10 express criteria in one way.

11 But a follow-up question to that question would be  
12 would a OEHHA's determination be authoritative with respect  
13 to particular types of decisions. Did divide a science, but  
14 I mean, should, instead of one or many agreeing, does one  
15 trump another with respect to a particular end point.

16 CO-CHAIRPERSON RAPHAEL: And this is something  
17 that's come up over and over. If authoritative bodies  
18 disagree, then what? So, if the panel has suggestions on  
19 how you might rank authoritative bodies.

20 DR. OGUNSEITAN: Yeah, I guess I'm confused about  
21 this. We're talking about two different things. Agencies  
22 with executive authorities, like governments that can make  
23 decisions, and manufacturers have to pay attention to that  
24 or they are fined. Or -- databases, national academies,  
25 that have compiled information that's useful.

1           And I think maybe it's necessary to separate these  
2 two types of authorities in a way.

3           CO-CHAIRPERSON RAPHAEL: Thank you. Okay, we're  
4 going to go Tim and Art, and then we're going to close this  
5 subject.

6           DR. MALLOY: You know on the question about the  
7 dueling authoritative bodies, I was looking at the hazard  
8 trait section of the regs. I'm not sure, I think it's got a  
9 default answer to that question. Because it seems to say,  
10 like for example, with carcinogen, it's like any chemical  
11 that's been designated as a carcinogen by any authoritative  
12 body, all right.

13           So, if you've got one authoritative body that says  
14 it's not and you got another that says it is, the one who  
15 says it is, I think, is going to win unless there's  
16 something else in those regs that changes that.

17           I haven't looked at all of them real carefully,  
18 but it looks like that's how the hazard trait part of it  
19 works.

20           So I think the real problem is where the lowest  
21 common denominator authoritative body could control  
22 something. So that would be the things like with a test  
23 method, right. You can pick any test method approved by any  
24 authoritative body. That gives you the discretion to pick  
25 one that is, well, I don't know, we all could imagine things

1 why you might want to pick one if you were trying to avoid,  
2 you know, having to do this or that.

3 But I don't know, I haven't looked at that real  
4 carefully. But I would say when you're answering -- asking  
5 that question, you want to look at for what purpose is the  
6 authoritative body being used. And then ask whether it  
7 matters if there's a conflict or not.

8 CO-CHAIRPERSON RAPHAEL: Okay, we've got -- I just  
9 want to say, we have Art, George and Bill. And if you guys  
10 -- Art, oh, you just -- okay. So you just deferred, Art, to  
11 George and Bill. You guys have one minute each. Okay, 45  
12 seconds; go for it.

13 Okay, wait, we're not going to take time on that.  
14 George, go first.

15 (Laughter.)

16 DR. DASTON: I have real problems, but this is one  
17 of the situations where I don't think you can substitute for  
18 science. I mean there may be very good reasons for  
19 authoritative bodies to diverge on an answer. And without  
20 really understanding the reasons why, I would hate to  
21 default to the lowest common denominator. It's another race  
22 to the bottom, I mean, in this whole process.

23 All the advice we've been giving today has been  
24 very consistent about increasing the level of science. And  
25 I'd hate to go back on that as a matter of principle.

1 CO-CHAIRPERSON RAPHAEL: All right, Richard.

2 DR. DENISON: For all of these recent reasons I  
3 think you don't go further than the step of identifying  
4 chemicals of concern. I would say prioritization is  
5 something that a lot of authoritative bodies, or at least on  
6 your list, have done. But they used their own criteria that  
7 might be different, et cetera.

8 And I certainly, I don't think this triggering  
9 regulatory response thing is very appropriate. If somebody  
10 banned it, it gets a faster ban than if somebody hasn't  
11 banned it. That starts getting really problematic.

12 CO-CHAIRPERSON RAPHAEL: Okay, excellent. So now  
13 we're moving on to the last question. What? Oh, Ann; 45  
14 seconds, girl, go for it.

15 DR. BLAKE: Actually I wanted to address that and  
16 say I have attempted to do this in another context, and  
17 trying to rank data sources, and it speaks to what Lauren  
18 brought up earlier about how to do that.

19 It's not something I can do in 45 seconds, so what  
20 would be an appropriate way to get information like this and  
21 other information that the panel would like to provide, too?

22 CO-CHAIRPERSON RAPHAEL: That's a great question,  
23 and we're going to hold the answer to that question until  
24 the closing. Because that is something that we're going to  
25 ask Joe to give us some feedback on. So, that's an

1 excellent question, Ann, thank you.

2 And with that I'm going to turn it over to my  
3 esteemed colleague, Ken, who will take us through the last  
4 question of the day.

5 CO-CHAIRPERSON GEISER: All right. With that we  
6 go back to the question having to do with alternatives  
7 assessment. And we actually covered a good deal of work on  
8 alternatives assessment in the period before the break.

9 Some noted that alternatives assessment is the  
10 core feature of the program. Others said they didn't  
11 believe that was appropriate, given the statutory language  
12 and all.

13 But alternatives assessment is clearly an  
14 important part of the program one way or the other. This  
15 is, as we all know, an emerging tool or technique, or  
16 whatever we want to say. And there's no authoritative body  
17 -- authoritative yet of this. So California is sort of  
18 charting ahead here in creating its own version of an  
19 alternatives assessment.

20 But this is pretty important because this is one  
21 of the gutsy expensive parts of the work that somebody, that  
22 probably industries are going to have to do. So it's  
23 important that we think about how this is really going to  
24 impact people. And how we can create a protocol or a  
25 template here that really does work.

1           Now, as you saw, we've got a logic to it at this  
2 point which goes from sort of is to pick out a range of  
3 alternatives, all that can be found, or whatever. To  
4 identify those that are functionally equivalent or have  
5 performance characteristics which are at least acceptable.

6           And then to move to looking at these hazard traits  
7 and deciding whether any of the alternatives have a hazard  
8 trait which at least is one more than the hazard trait that  
9 is characterizing the chemical of concern. And if so,  
10 deleting those, until you get down to a small number of  
11 alternatives.

12           And then doing a comparison amongst them in order  
13 to assess whether there are alternatives. In which case,  
14 there are a set of responses. Or if there is not  
15 alternatives, in which case there's another set of  
16 responses.

17           So, it's kind of a core feature in determining the  
18 direction of movement of the logic, itself.

19           So, I'd like to call you back to this, and sort of  
20 pick up the question. The question is actually, at first  
21 blush, a somewhat small question, but it actually is an  
22 important question, which opens up into the rest of it.

23           Which is: Should the comparison of alternatives  
24 specify a preference for health and safety attributes over  
25 other attributes?

1           Now, other attributes, if I understand it right  
2 here, means those attributes having to do with eco-effects,  
3 natural resource depletion, or social and economic effects  
4 on some of the other categories that are in Nancy's matrix  
5 when she lays out this matrix for comparison.

6           But I leave it open to you as to how you want to  
7 read that. But I think the question is how do we structure  
8 the alternatives assessment in a way that we're really  
9 getting out of that what we really want to get out of it.  
10 And what is the place of the health and safety, health and  
11 environmental effects part of that.

12           So, let's just throw this open and see what people  
13 have in the way of comment on this. Again, may I try to  
14 remind you -- I think people are doing well on this, but  
15 it's just always useful -- try to say not just what the  
16 problem is, or ponder some interesting intellectual question  
17 about it, but rather what's the solution. How would you do  
18 this if everybody else left this room and you were the one  
19 that had to design this, what would you do?

20           So, Lauren.

21           DR. HEINE: I think I have a question, as well,  
22 that's related to this question that hopefully has an  
23 answer, too.

24           But if I were a formulator and I had a product  
25 that contained a chemical of concern, I think I would

1 quickly substitute it with a chemical that was not a  
2 chemical of concern and skip the whole alternatives  
3 assessment process. Is that a possibility in this program?

4 You don't need to do an alternatives assessment, right, if  
5 your don't contain a chemical of concern? Even if your  
6 product falls within one of the nine classes?

7 Okay, thank you.

8 CO-CHAIRPERSON GEISER: Okay. Dele and then  
9 George.

10 DR. OGUNSEITAN: Yeah, first I think it's  
11 difficult to separate health and safety effects from all the  
12 other effects. Ultimately health is impacted.

13 But this goes also to the first question, which is  
14 the list of chemicals of concern. I assumed that we  
15 included the 16 chemicals that are also in all of the lists  
16 of lists because they are priority chemicals that affect  
17 health and safety. And so we established the criteria for  
18 including the top 16, or the top 10, as we go through this  
19 list.

20 Then obviously those are the chemicals that we  
21 want to find alternatives for. And that the alternatives  
22 will have prioritized this health and safety concern as  
23 minimum, or better than the original product.

24 So, it's implicit in how we define this top 10,  
25 top 16. If health and safety is the reason they are up

1 there beside the others, then the alternatives have to also  
2 have this concern.

3 CO-CHAIRPERSON GEISER: George.

4 DR. DASTON: I would have a real concern with  
5 doing it this way, mainly because of what we've talked about  
6 before, which is, you know, as described so far in the straw  
7 proposal.

8 We have reduced the evaluation of health and  
9 safety down to very simple yes/no binary decisions. You  
10 know, is this thing an acute toxicant by this definition.  
11 Yes, no. And if it's above 200 mg/kg it's yes. And if it's  
12 199 mg/kg it's no kind of thing.

13 And so I think that we have lost a lot of the  
14 granularity that would have made us able to make these kinds  
15 of health and safety attributes really a driver for the  
16 decision.

17 In the end, you know, I think we're talking about  
18 lots and lots of dimensions for which I would have a really  
19 hard time setting down in the abstract why one attribute  
20 should trump another one. I can imagine or I can definitely  
21 think of example after example after example where I would  
22 pull out one of the attributes, say energy reduction over  
23 the others, or biodegradability over the others, or health  
24 and safety over the others. But I would have a hard time  
25 codifying rules of that.

1 I think Tim said this morning that in many ways,  
2 as we start to evaluate alternatives that offer positives  
3 and negatives in each of the several dimensions of health,  
4 safety, energy, etc., that it almost becomes more of a  
5 societal decision, a policy decision.

6 And so I think that what you'd want to do in this  
7 case is leave yourself with as much flexibility as you could  
8 to, you know, drive these alternative decisions in a way  
9 that allows you to take the most significant driver of a  
10 benefit for the alternative, regardless of which of the  
11 dimensions it may be, and to have that decision be based on  
12 as many different opinions, considered opinions, as you can  
13 have.

14 CO-CHAIRPERSON GEISER: Kelly, and then Richard.

15 DR. MORAN: When I first saw this question I  
16 thought well, I'm human, I'd like to be protected more. And  
17 that was my first reaction. And then I thought about it a  
18 little more, and said, no, this would be a really bad idea.

19 And so I think that -- I'm a big fan of trying to  
20 minimize the environmental footprint of projects. And going  
21 back to the CEQA analogy here, I think the goal of this  
22 process is to minimize the overall environmental impacts.  
23 We want to have the smallest number of significant impacts.

24 And I've been working on pesticides for a long  
25 time. And one of the things I've seen happen in the recent

1 process that really focused on human health impacts of  
2 pesticides, there were a number of changes, regulatory  
3 changes, that were looking at human health impacts, and  
4 impacts to the ecosystem, ecosystem impacts were really not  
5 well considered in those processes.

6 And as a result we're seeing a number of  
7 regrettable substitutions coming on the market. And I think  
8 it would behoove us to observe and learn from that previous  
9 experience. And thereby, be seeking, as our goal, the  
10 overall reduction in environmental impacts. So we would  
11 want as few significant environmental impacts as possible;  
12 and as few major environmental impacts as possible. And I  
13 would recommend that you go that way.

14 CO-CHAIRPERSON GEISER: Thank you, Kelly, for  
15 raising this regrettable substitution idea. I mean that is,  
16 I think, the thing that haunts us about, and why  
17 alternatives assessment becomes important.

18 Richard, and then Scott.

19 DR. LIROFF: Maybe we should take our clue from  
20 the 12 principles of green chemistry. I haven't memorized  
21 them, but as I recall they focus on material use, they focus  
22 on energy use, they focus on a whole bunch of things in  
23 addition to say, human health and the like.

24 And I agree with George, that you need some sort  
25 of value proposition here where you take into account the

1 proportionality of these diverse impacts.

2           If this is a green chemistry program, and it's  
3 going to be true to the 12 principles of green chemistry,  
4 then indeed all those principles ought to be taken into  
5 account. And it truly is a value judgment.

6           CO-CHAIRPERSON GEISER: Scott, then Richard.

7           DR. MATTHEWS: Yeah, I would actually go back and  
8 agree with sort of the context of the point that Dele had  
9 started with about health and safety being sort of a  
10 noticeable focus given what is written in the straw  
11 proposal.

12           If you look at the first nine in the applicability  
13 list, it seems clear that most of them are motivated via  
14 health and safety issues. Given that they're talking about  
15 children, and products for infants, and schools and  
16 cleansing products where you have human exposure.

17           In going back and looking at sort of the original  
18 mandate, it's a bit more vague, just talking about effects  
19 on sensitive subpopulations with infants and children, which  
20 wouldn't preclude other environmental issues.

21           So I would say that, yeah, I wouldn't suggest  
22 putting the preference over health and safety as a result of  
23 a listing of the eight or nine first ones, certainly is  
24 motivated by the sensitive subpopulations, but I don't think  
25 you were pushed to do that just exclusively for health and

1 safety.

2 CO-CHAIRPERSON GEISER: Richard and then Debbie.

3 DR. DENISON: Fundamentally a value judgment and  
4 not a scientific judgment. So the Green Ribbon Science  
5 Panel may have limited utility here, frankly.

6 I think this is the great unresolved issue of  
7 those who note alternatives assessment that has never really  
8 been defined. And as a skeptic, to be honest about how this  
9 actually is ever going to work, this is one of the two  
10 cruxes of the matter. What is safer? What is greener?

11 The other is who decides. And to me the concern I  
12 have in this straw proposal is if this is, in fact, a value  
13 judgment, not a scientific judgment, it necessarily demands  
14 a societally accountable process for making the decision.

15 And so this gets back to my concern about this  
16 being a self-implementing process that -- that is not a  
17 societally accountable process.

18 So if you're going to try to resolve this issue,  
19 it's not just science, it's got to be done through a process  
20 that provides for broad societal input in making those  
21 decisions.

22 CO-CHAIRPERSON GEISER: Debbie, and Tod.

23 CO-CHAIRPERSON RAPHAEL: So I come about this with  
24 a little different end point. I would say the answer would  
25 be yes, that we should emphasize health and safety over

1 other attributes. And I would add to health and safety some  
2 environmental criteria in terms of persistence and bio-  
3 accumulation.

4 The reason being that when I've done alternatives  
5 assessments and looked at lifecycle effect, what I've found  
6 is that energy dwarfs everything. And so as, at some point,  
7 and I know you guys, this isn't specifically the question,  
8 but it gets to Ken's point about how this simple question  
9 expands very quickly, how you weight different factors.

10 And when you look at, in my experience, looking at  
11 LCAs, I find that the toxicity elements, like on those bar  
12 graphs, are minuscule. And the energy and the water is so  
13 big, that it all becomes a resource conservation issue.

14 And the opportunity with 1879 that I see is to  
15 open that process and that thinking up. And to give  
16 importance to those toxicity elements that are ignored in  
17 traditional LCA processes.

18 And so I would suggest that we do emphasize these,  
19 because that is, indeed, the goal of 1879. And that, if, in  
20 doing an alternatives assessment, it looks like we're having  
21 a problem with energy consequences, or water consequences,  
22 that that becomes a message to the manufacturing process  
23 that we need some help in that area. But that doesn't  
24 necessarily negate that as the alternative at the other end  
25 of it.

1           So, now I've lost my train of thought. But that's  
2 my point for now.

3           CO-CHAIRPERSON GEISER: Tod, then Ann.

4           DR. DELANEY: Thank you, Chair. I would agree  
5 with what the last speaker was saying to quite some extent.  
6 But there's a number of things, when you look at especially  
7 page 30 and 31, with regards to the straw poll, that are  
8 looked at and considered to be part of, or needed to be part  
9 of the lifecycle assessment, going through the alternatives.

10           And especially the whole section dealing with  
11 economic side of things is not something that suits well in  
12 a lifecycle assessment program trying to do it. It takes a  
13 completely different skill set. It takes completely  
14 different datasets.

15           And quite frankly, for an alternatives analysis I  
16 think it would be the manufacturer that would be looking at  
17 that in terms of what they want to pay in terms of a cost to  
18 do something.

19           But it isn't something that should go into an  
20 alternatives assessment to determine whether one chemical is  
21 better than another. And it's -- from that standpoint.

22           I'm also looking at, in terms of a number, the  
23 things that are in here that -- for us, and I do a lot of  
24 lifecycle work, that, you know, you have to prioritize those  
25 things that you're really looking to do. And since this

1 really is going towards the health and safety side of  
2 things, yes, there are other issues that we need to look at,  
3 but we don't need to do that through a full LCA.

4           You can do that through a modified one where if  
5 the chemical that you're replacing with another chemical has  
6 about the same attributes with regards to energy and other  
7 things, you don't need to go through that analysis. So that  
8 you preserve the lifecycle analysis for those things that  
9 you really are trying to get out, and get out of it. Which  
10 are the health and safety and the other things that you were  
11 mentioning that are, at the present time, generally  
12 overlooked.

13           Thank you.

14           CO-CHAIRPERSON GEISER: Ann.

15           DR. BLAKE: I'm having a problem of absorbing  
16 other people's comments and seeing if I can actually add  
17 something to it.

18           When I think, with all due respect to Debbie  
19 saying that toxicity issues are not adequately addressed, I  
20 think we do need to think about health and safety weighting  
21 depending on the likely lifecycle impact of a product and a  
22 chemical at a particular point.

23           So, is there a place where health and safety is  
24 going to be important in this particular use of a product or  
25 a chemical. And so we need to think about the alternatives

1 assessment within the lifecycle piece.

2           And I think that's a little bit of what Tod was  
3 trying to say, is this an appropriate, you know, where is it  
4 likely to have, trying to do this without introducing the  
5 word exposure, but where is a big exposure to environmental  
6 or health and safety, or a subpopulation, a worker, a  
7 community, where is that likely exposure to happen. And  
8 then, you know, how do you weight this particular use on  
9 health and safety. Or is it an energy impact or an  
10 environmental impact. That didn't come out very well, but  
11 anyway, we'll try to --

12           CO-CHAIRPERSON GEISER: I'm sorry, Ann, could you  
13 say the statement --

14           DR. BLAKE: The statement --

15           (Parties speaking simultaneously.)

16           DR. BLAKE: I think the way we need to do this is  
17 think about the answer to this question about whether we  
18 weight health and safety more or not depends on where in the  
19 lifecycle we're concerned about exposure and to whom.

20           CO-CHAIRPERSON GEISER: All right. Debbie, round  
21 two.

22           CO-CHAIRPERSON RAPHAEL: So the end point of my  
23 point was that given that we are going to emphasize health  
24 and safety and some of these environmental things, not every  
25 hazard characteristic of those 11, however, to me seemed

1 equal weighting.

2           And so, again, if I was going to do an  
3 alternatives assessment and I was the one to do it. I would  
4 de-emphasize skin, eye and respiratory, and emphasize the  
5 other ones. So there is some natural weighting that I can  
6 see within those hazard characteristics within an  
7 alternatives assessment.

8           CO-CHAIRPERSON GEISER: Tim. And then maybe me.

9           DR. MALLOY: This is the problem with scientists,  
10 right. So it is so frustrating to me. Some of my best  
11 friends do alternatives assessment, and whenever you get --  
12 this is like Richard's point, whenever you get them to the  
13 point past that chart where they do the pluses and the  
14 checks or the colors or whatever, and you say, okay, so how  
15 do you decide.

16           And then they look at you and they say, oh, well,  
17 you'd have -- that's a hard question, that's complicated,  
18 that's a hard question.

19           (Laughter.)

20           DR. MALLOY: Or it depends. So you have to decide  
21 this. And it was nice of you to quote me, thank you. I  
22 think it is, it is, there's a value choice, right. And I  
23 agree with Richard's points about there needs to be a  
24 process that involves public and stakeholder input and all  
25 those things.

1           But the question is how do you do that in an  
2 efficient way that can be implemented into mainstream  
3 regulation and so on and so forth.

4           And, you know, I would like to talk offline at  
5 some point with you, because there's a number of models out  
6 there where tough decisions like this are made through a  
7 variety of decision processes.

8           You've picked one that it is self-implementing at  
9 this point. And I think there's all sorts of problems with  
10 it when you get here. One -- earlier today I said, gee, you  
11 know, if you're going to go self-implementing you need to  
12 have close oversight and a set of guidance that can be  
13 implemented and so on and so forth. And I still believe  
14 that's true if you go self-implementing.

15           So to answer it within that framework, I'll give  
16 you some principles, but I can't obviously give you how it  
17 would work.

18           But my thinking about it, as a lawyer, I would  
19 say, well, you know, you ought to have -- there ought to be  
20 clear, specific guidance. There's a problem in California  
21 because there's this notion of underground regulation  
22 through guidance documents. So you say we're going to put  
23 something in guidance, but it won't be a regulation. It's  
24 really hard, I think, to actually do that.

25           And I think it's better to have it in regulation

1 where it's been vetted through the public process and, you  
2 know, we get the litigation out of the way upfront, if it  
3 happens.

4           But I think in regulation you should have a  
5 default set of heuristic decision rules that make these  
6 value choices across and within these impact categories.  
7 Your point about, you know, eye sensitivity -- maybe you  
8 didn't say this, but eye sensitivity doesn't bother you  
9 quite so much as, you know, toxicity. I'd probably agree  
10 with that, right.

11           So, you generate some heuristics that  
12 operationalize that. I don't know exactly how to do it.  
13 There's people who are more decision theory people who could  
14 help develop something like that.

15           But we use these types of rules all the time,  
16 everything -- you know, you can go on Consumer Reports has a  
17 heuristic decisionmaking tool for picking, you know, your  
18 DVD player. All right.

19           But it's scientifically based and you identify  
20 what your preferences are, and which ones are most important  
21 to you, you can plug in the amp. And so, obviously it's  
22 more complicated than that, but you develop a default set of  
23 decision rules that are heuristic in nature. And that would  
24 work in the default situation.

25           And then if there's something different about a

1 particular situation, then that one would get individual  
2 attention. So I think that's one way of developing it.

3 And it could be that the self-implementing thing  
4 uses the default set of rules. And then if it's an unusual  
5 case, then there is, you know, direct agency involvement in  
6 that. That's one way to approach it. It may not be the  
7 best way.

8 But I guess what I'm saying is what's in the -- I  
9 wouldn't even know how to answer this question based on  
10 what's in these regulations because a preference over what,  
11 there's actually not a way of deciding this without a  
12 preference, let alone having a preference.

13 So I think before you can decide what kind of --  
14 if you're going to have a preference, you have to see what  
15 the baseline decision criteria would be. Because if there,  
16 it may be that -- I don't know.

17 But that's my -- for me this is a process  
18 question. And I would use a default set of decision rules,  
19 so on and so forth.

20 CO-CHAIRPERSON GEISER: Thank you. Richard, to  
21 you first.

22 DR. DENISON: Well, I just want to point out one  
23 other place where there's an enormous hidden judgment being  
24 made, which is -- and I'm not sure how it's supposed to play  
25 out. But there's all these places where you can put a

1 question mark in, because the data aren't sufficient. And  
2 then how is that weighted against all the other things for  
3 which you have information?

4 That, you know, what do you do with data gaps, or  
5 assessment information gaps is sort of bad to hear without  
6 being answered. And I'm not saying there's an easy answer  
7 to that, but I wanted to flag it as another implicit value  
8 judgment that has to be made.

9 CO-CHAIRPERSON GEISER: Let me say a word or two  
10 about it, myself. And then we'll turn to Dale here.

11 This is a very complicated thing, but it's close  
12 to my heart because in a way, doing toxic use reduction for  
13 the last 20 years with some 500 years in -- 500 firms in  
14 Massachusetts -- 500 years --

15 (Laughter.)

16 CO-CHAIRPERSON GEISER: I'm starting to see myself  
17 as really old. But there's a part of the required amending  
18 the TUR law which requires TUR -- and Richard noted the  
19 analysis we did, but the actual alternatives assessment  
20 history goes way back into the experience we've had with  
21 these 500 firms basically trying to help them do TUR  
22 planning.

23 And part of TUR planning always had an  
24 alternatives assessment of some kind associated with it,  
25 because you were looking at what chemical you were trying to

1 move away from, and you'd looked at the various things that  
2 we specified things in the plans as to what firms had to do  
3 in order to be able to really do this.

4           And the experience has been mixed. One of the  
5 really biggest things that came out of that experience was  
6 asking firms to really look at their substance and then look  
7 at the alternatives proved to be dramatic. Whether there  
8 was a regulatory driver or not.

9           It had effects, it had effects in deepening the  
10 understanding of the management in the firms about the  
11 chemicals they were using. It had effects on opening up  
12 people's minds to the idea that there could be alternatives  
13 that opened up the opportunity for competitor vendors to  
14 come in and offer things and talk about things in a  
15 dialogue. It opened up opportunities to un-freeze the  
16 internal parts of the corporation in a way that allowed it  
17 to begin to innovate in an interesting way.

18           And then, of course, it also opened up  
19 opportunities for the regulative activity. Another thing it  
20 opened up, big thing for all us who are interested in  
21 pollution prevention and all, to come running in with out  
22 technical assistance folks and laboratories and everything  
23 else to have that happen.

24           But if we hadn't required in some way an  
25 assessment of looking at the alternatives in a reasonable

1 way, we would have ended up in still that black-and-white  
2 idea, you're either using it or you're not using it. You're  
3 either permitting it, or you're banning it.

4 And the experience that I think we were very  
5 concerned about, and the thing that drove us 25 years ago  
6 away from this model in Massachusetts, was we just felt that  
7 this ban without attention to what was replacing it was not  
8 an effective instrument for guaranteeing a future that would  
9 be not regrettable.

10 And now I've backed off a little bit in some  
11 areas, because colleagues, mostly in the NGO community, have  
12 come at me when I've really pushed this alternatives  
13 assessment thing, and said, well, aren't there some  
14 chemicals that are just so bad that it really doesn't matter  
15 what replaces them. You just want to get rid of them. And  
16 there is a part to that.

17 What I have felt, and I know this came from  
18 learning in this meeting some number of months ago for me,  
19 was understanding that it might be possible to really think  
20 of alternatives assessment at different levels, depending on  
21 what you were actually faced with.

22 And that there may be things where you do a brief  
23 alternatives assessment of some kind, where the conditions  
24 of the substance you're trying to get rid of is so obvious,  
25 and the alternatives most likely would be better. Or it's

1 so simple to think about the alternatives. Or there are so  
2 many products on the market.

3 And I think, Evelia, you were kind of going at  
4 this, I think, when you were talking about the way you were  
5 thinking about it from a regulatory side. And I thought  
6 that was very interesting.

7 So that there might be just given certain things  
8 where you have an alternatives review, you just review it.  
9 And if there are alternatives you move to them. And that's  
10 it.

11 There's another way you might do something more  
12 rigorous given that you're really trying to deal in a more  
13 complex area where the alternatives aren't so obvious and  
14 things like that. And then you might do something, which is  
15 an alternatives assessment or something like that.

16 And it's only when those things begin to tell you  
17 the complexities that you move to a true alternatives  
18 analysis which required a whole --  
19 (Building energy power failure.)

20 DR. MORAN: I've got it on, but I don't know if  
21 it's working. It is? It's working? All right. I'll talk  
22 loudly. Planning Commission Chair, I can yell.

23 What I just wanted to say was Ken mentioned  
24 something really important that actually goes to one of the  
25 early questions you asked us, which is how can we establish

1 priorities to respond to this request.

2           And he said something that I was trying to say  
3 that I said not so well, which is that one way of  
4 establishing priorities or to make the work less difficult  
5 is to take that CEQA analogy of the very simple screening  
6 level review, the tiered levels of review.

7           So I just want to point out that when you go back  
8 and review the comments, that you take this thought from  
9 last time that Ken expressed, and consider that as yet  
10 another layering of how the prioritization might work.

11           CO-CHAIRPERSON GEISER: Michael.

12           DR. WILSON: Yeah, you had brought this up at our  
13 last meeting. It was well received. But the panel -- in  
14 other words, your review, alternative review assessment and  
15 analysis.

16           And that, my concern has been that the  
17 alternatives analysis will serve as a choke point for  
18 implementation of the regulation, as it's currently drafted.

19           And that as a consequence of that, it will then, as I said  
20 earlier, trigger a wave of requests for waivers and  
21 exemptions because of just the weight of trying to meet that  
22 standard.

23           And so, I guess I'm -- I have a question for you,  
24 Ken, and then I -- but the point is I think this tiered  
25 alternatives assessment is a smart approach. And I think

1 probably many substances will fall into a lesser -- a lower  
2 tier, a review or an assessment, versus a full-blown  
3 analysis.

4           And so my question, Ken, is relative to what we  
5 see in the straw proposal, what does the alternatives  
6 assessment look like under the Toxics Use Reduction Act,  
7 which sounds has been fairly successful. In terms of its  
8 complexity.

9           CO-CHAIRPERSON GEISER: Well, I'll just say a  
10 word, because I think we want to focus on what we can do  
11 here, but --

12           DR. WILSON: Yeah.

13           CO-CHAIRPERSON GEISER: -- I mean it is a bi-  
14 annual process, which we've learned works for about six,  
15 maybe eight years, and then stops working. After a certain  
16 point there's no new information. So you're just going over  
17 the same thing all over again.

18           But the process is that the firms had to look at a  
19 range of alternatives that are available. Had to assess  
20 them for technical, environmental and cost factors. And  
21 then had to determine whether they were an appropriate  
22 option to move forward.

23           Now, there's no regulatory driver there in  
24 Massachusetts, where there is here. So it is differentiated  
25 from here.

1           But they can choose to find alternatives that's  
2 completely better in many ways, and not adopt it, where I  
3 think here there's something different. So the differences  
4 are stronger.

5           Okay, so, Bill I think is the only one with a card  
6 up. Bill.

7           CO-CHAIRPERSON CARROLL: Thank you, Chair. And I  
8 would hope this comment would build a little bit on the  
9 recent discussion about tiering an alternatives assessment,  
10 which is, I guess, a little bit off the topic of the exact  
11 question, but I think is germane.

12           One of the other things that I would hope would  
13 come from the implementation of this, regardless of who's  
14 responsible for the doing of the alternatives assessment, or  
15 how those are judged, is that we find a way of determining  
16 what is the significant difference between one thing and  
17 another thing.

18           That it would seem to me an easy way to get this  
19 totally wrapped around itself if you were worried about a  
20 series of half-percent differences.

21           On the other hand, what you would really hope for,  
22 and I do think the tiered alternatives assessment kind of  
23 gets at this, is to look for the things where there are  
24 large differences, where you can, in fact, make a  
25 significant difference and some clear decisions.

1           Now, I'm not telling you that everything in the  
2 world will be a clear decision. But it would certainly be  
3 an easier way of getting into this if you focused on the  
4 things that showed up as making the biggest difference  
5 earliest, if you were able to do that. And not get down to  
6 the point of attempting to remake someone's industry on the  
7 basis of very fine differences, one to the next.

8           Because let's be fair, the data that feeds any of  
9 these alternatives assessment is going to have experimental  
10 error associated with it. And you are going to discover  
11 that many of these things are close differences aren't that  
12 -- not differences at all, when you really consider them.

13 Thank you, Chair.

14           CO-CHAIRPERSON GEISER: I think we're pretty much  
15 closing in on this, and trying to wrap up. I guess there's  
16 no further cards, so I want to thank you for your input on  
17 this subject, as well.

18           I'll turn it over to you, Peggy, or whatever. At  
19 the end, if you want to make any comment to this? Nancy?  
20 And then I'm going to turn it back to Debbie and we will  
21 move on with Maziar.

22           MS. HARRIS: Thanks. I have made some -- I'm  
23 gradually losing my voice -- I've made some notes. Richard,  
24 you mentioned the 12 principles of green chemistry. At one  
25 time we thought of using those as some of the criteria for

1 evaluating alternatives assessment. Is there any idea in  
2 your suggesting that along those lines, or did you just -- I  
3 mean, in what context did you intend for us to use the 12  
4 principles?

5 CO-CHAIRPERSON GEISER: Richard, you can answer  
6 that.

7 DR. LIROFF: Yeah, first of all, the point I was  
8 trying to make was kind of echoing what I thought George was  
9 saying, that -- and if I'm misrepresenting what you're  
10 saying, George, speak up.

11 But I thought you were suggesting that there are a  
12 lot of values built into this process, that it's really kind  
13 of a soft rather than a hard process. That there needs to  
14 be some degree of proportionality.

15 And what I was trying to suggest by referencing  
16 the 12 principles of green chemistry is that the 12  
17 principles of green chemistry don't focus exclusively on  
18 health and safety.

19 MS. HARRIS: Right, introduce some other --

20 DR. LIROFF: The 12 principles of green chemistry  
21 don't say health and safety is paramount. They say, I  
22 forget all of them, others know them better than I. But  
23 there's a whole bunch of stuff in there about materials  
24 usage, about energy usage and that kind of stuff.

25 So you don't get the priorities out of the 12

1 principals of green chemistry, you can be true to them by  
2 lending some weight, whatever it is, if there's some  
3 disproportionate energy impact, or extracting materials  
4 impact, or whatever. That was the point I was trying to  
5 make.

6 MS. HARRIS: Okay, thanks. I understand now. And  
7 then, Ann, you talked about some weighting where you said  
8 that the health and safety factors, the weighting of that  
9 needs to be considered in the context of where in the  
10 lifecycle it occurs.

11 So my question related to that has to do with do  
12 you think we can do weighting when we're not being very  
13 qualitative in our an analysis -- not being very  
14 quantitative in our analysis. Can weighting work in those  
15 instances?

16 DR. BLAKE: I think it can. I'd have to think  
17 about that more. I think I'd reference what Tim was trying  
18 to say about decisionmaking. Say that in certain contexts.

19 So whether it's like -- I'll use an example. We did an  
20 evaluation for the City of San Francisco on garment cleaning  
21 technologies. And there were a lot of data gaps there. And  
22 we know it's a big part of that in dealing with the  
23 decisionmaking.

24 But some of the things appears to be more -- some  
25 of the weights went higher than we might have expected in

1 the context of aquatic toxicity. It went high. Worker  
2 exposure went high.

3 That may not be the case in another subset of  
4 chemicals or technologies that we're looking at.

5 MS. HARRIS: I understand.

6 DR. BLAKE: So you could potentially weight it  
7 qualitatively saying if there's likely to be worker  
8 exposure, if there's likely to be environmental releases at  
9 end of life, electronics for example, waste of electronics,  
10 I think there are some things that you could try to weight.

11 MS. HARRIS: Okay.

12 DR. BLAKE: Even with a qualitative. Make sense?

13 MS. HARRIS: It does make sense. So, thank you.

14 CO-CHAIRPERSON GEISER: Okay, turn it over to  
15 Debbie.

16 CO-CHAIRPERSON RAPHAEL: Great. Is this on? I  
17 cannot tell. Oh, it is, okay. Strange.

18 All right, so we're here essentially closing this  
19 chapter of the meeting, which is kind of amazing. I mean  
20 now we're -- you've given your input. We're going to talk  
21 about -- after Maziar is finished with his, we're going to  
22 talk about how do we continue to give our input to staff  
23 when we're not all face to face.

24 We heard at the very beginning opening comments  
25 from the Director that DTSC can't do this alone. Private

1 sector maybe can't do this alone. And what we're really  
2 looking at is the potential for partnerships.

3 And so what we're going to do now is hear from the  
4 Director about his thoughts. He's been giving a lot of  
5 thought to this issue. And he will make a presentation to  
6 us. Because of the time limits, our purpose as the Green  
7 Ribbon Science Panel, is to simply take this in and start to  
8 think about it.

9 And there will be an opportunity to weigh in on  
10 it; it just won't happen today. So everybody can just sit  
11 back and relax, and hear what's next.

12 DIRECTOR MOVASSAGHI: Well, before I begin my  
13 presentation I'd like to say that I am so pleased and  
14 heartened to hear the issues that you all were struggling  
15 with were pretty much exactly the same issues that we have  
16 been struggling with.

17 So it gave me some confidence that maybe they  
18 haven't gotten it exactly right coming out of that with a  
19 broad straw proposal, but we were at least struggling with  
20 the pertinent questions and not distracted by tangential  
21 issues.

22 And one final comment, unless we have to be very  
23 clear, in California we've had a history of regrettable  
24 substitutions, and the program, the Green Chemistry  
25 Initiative, must tackle that issue.

1           We have other programs that are lists, whether  
2 they're here, whether it's at the federal level,  
3 international level, lists exists and lists solicit  
4 behaviors that we're all familiar with. But regrettable  
5 substitutions have not been addressed.

6           As environmental regulator stewards of the  
7 environment, we have no tools to deal with regrettable  
8 substitutions. So it has to be a very important focus for  
9 the department.

10          Let me get to the discussion about public/private  
11 partnerships. I heard a lot of you actually during your  
12 talks mention the possibility or the need for third-party  
13 verifiers or certifiers.

14          We have a long history of actually successful  
15 environmental programs where public/private partnerships  
16 have done much to inform regulators and the public  
17 decisionmaking in the value judgments that we talked about,  
18 and actually creating programs.

19          In my memo I outlined the CCAR, the California  
20 climate air registry model. That's a wonderful model where  
21 it's a public/private partnership, got its leg from  
22 government. It was a chance for industry to join, to  
23 identify some best practices and have some information that  
24 then came back to the state and got us to AB-32, the scoping  
25 plan and greenhouse gases.

1 I can also think of another great example, the  
2 U.S. Green Building Council. And actually, as folks were  
3 talking about the phasing or the tiered alternatives  
4 assessment, the U.S. Green Building Council is the entity  
5 that creates the LEED certification. They're the entity  
6 that creates the certifiers; they're the entity that comes  
7 up with the three different levels, this building being LEED  
8 platinum or silver, whatever it is, but there's also a LEED  
9 gold.

10 And as someone who was involved with development  
11 and worked for a private finance company, it was amazing to  
12 see private money come in and talk about wanting to build  
13 LEED buildings without any regulatory underpinning.

14 The U.S. Green Building Council and the LEED  
15 structure has no regulations underneath it because it's been  
16 a successful model.

17 I also heard many of you also mention that we  
18 might need to look at industry sector specific issues that  
19 inform either the values in alternatives assessment or the  
20 type of research that needs to be done. Or maybe even the  
21 pooling of research to close the information gap.

22 So I just wanted to be very -- I wanted to achieve  
23 two goals. One was to let you all know, because you all are  
24 members of distinguished institutions, I also know you  
25 probably get invited to wonderful conferences and you get to

1 meet with very interesting people, to let them know that  
2 California is very open, and very much looking to establish  
3 these types of public/private partnerships.

4 I also know that whatever shape these partnerships  
5 are, whether they're third-party certifiers, verifiers,  
6 whether they're industry coalition-based folks who develop  
7 some sort of value judgment attributes that credibility is  
8 the paramount issue.

9 Whatever it is that these partnerships are to do,  
10 if they are not credible their output cannot be digested by  
11 public agencies and put to use.

12 So, as you think of examples I would very much  
13 like to hear from you, or read from you if you're going to  
14 write this in writing, about what are some successful  
15 models. Like I mentioned the U.S. Green Building standards;  
16 I'm very familiar with that. But there must be others out  
17 there.

18 I know we've talked about the DFE model, the  
19 design for environment. You have the ISO models that they  
20 do certain things. Under -- you know, UL is another  
21 example. But that's a small pool, and I think you all might  
22 know of other pools.

23 Like I was really interested in one that Richard  
24 brought up about the IT folks voluntarily looking at, you  
25 know, flame retardants. You know, how did the funding

1 start? Who are the members, you know? If we can get into  
2 some of the mechanics.

3 If California can develop a library of this is how  
4 these different organizations are structured; these are the  
5 funding sources; these are maybe some samples of bylaws,  
6 constitutions or whatever it is, that we will be ready  
7 partners, as opposed to, you know, latecomers to the prom  
8 dance. So the idea is for us to build that knowledge.

9 And lastly, a lot of folks mentioned the supply  
10 chain problems. Where you have had a successful public/  
11 private partnerships folks have already developed databases  
12 that go up and down the supply chain from manufacturers all  
13 the way to the end product, where they know what's in their  
14 products and they know what hazard traits are out there.

15 I can't tell you what it is because, you know, I  
16 haven't seen this full database, so I don't know how much  
17 credibility it has. But it can be developed fully outside  
18 of regulation. And that's what I really want to close today  
19 with. This is to the panel and to the members of the  
20 public.

21 We have to remember that AB-1879 and the  
22 regulatory aspect is one of six components of the California  
23 Green Chemistry Initiative, an important one. And I really  
24 appreciate the input you provided us. But it is not the  
25 only mechanism that allows us to move forward. And we want

1 a proactive, innovative approach.

2 I know Tim raised the issues of underground regs,  
3 but I heard folks use the word phasing, flexibility, beta  
4 testing. Regulations are hard, regulations are costly,  
5 transaction costs are high. Guidances might not be the  
6 optimal way, but this state and this department is committed  
7 to transparency.

8 And I think there's ways that we can develop  
9 guidance in these public/private partnerships; test them  
10 out; see what their flexibilities are. And when we work out  
11 the kinks, to bring them in into the regulatory process.

12 So, I'd like to hear from you all. I welcome you,  
13 in writing, in person, if you want to jot it on a note.  
14 Contacts, you know, this is a person who's involved with  
15 designing X, Y and Z. That's the kind of information we're  
16 looking for.

17 So, thank you very much. And, again, I really  
18 appreciate you all taking time from your busy schedules,  
19 flying from across the country, from across the world for  
20 some of you, and sharing your expertise with us.

21 And this is only our second meeting. And we have  
22 some kinks to work out. And we will be able to work them  
23 out and make these meetings even more efficient.

24 So, thank you.

25 CO-CHAIRPERSON RAPHAEL: So, one of the -- oh,

1 there we go. Joe, all right. So, one of the questions,  
2 there was some confusion that we've had, as panel members,  
3 as how to best interact with you, as staff. And are there  
4 legal barriers, are there not legal barriers.

5 And so we've asked our esteemed attorney expert to  
6 guide us, give us some guidance on how communication flow  
7 can handle between Green Ribbon Science Panel Members and  
8 DTSC Staff.

9 MR. SMITH: Okay. Communications can go two ways.  
10 It is on, yeah. Is that better? Is that better?

11 (Laughter.)

12 MR. SMITH: Okay, communications can go two ways.  
13 Is that better? Okay. Communications can go two ways,  
14 from DTSC Staff out to individual members, provided it's not  
15 going to a quorum of those members. And we've had dialogue  
16 in the past in that way.

17 Communications can also flow down from individual  
18 members of the panel to individual members of DTSC, provided  
19 that there is not the sharing of that information among a  
20 quorum of the panel.

21 So, when I asked you not to copy on individual  
22 communications to the staff, other members of the panel, the  
23 purpose is to avoid inadvertently reaching that quorum  
24 threshold that triggers the public notice, public meeting  
25 requirement. So we can continue to do that in the same way

1 we've been doing it in the past.

2 We have a process that Kathy regulates, that we  
3 insure when the communications go either from staff to an  
4 individual member, to two or three, or vice versa, that we  
5 track those contacts so we can insure that, over the course  
6 of time, we are not inadvertently, through a serial type of  
7 conversations among twosies and threesies, et cetera,  
8 reaching that quorum limit that would trigger the public  
9 meeting requirements. So we can continue to do it in that  
10 manner.

11 Anybody have any questions about that?

12 CO-CHAIRPERSON RAPHAEL: So if we have a question  
13 of -- let's say we're still confused about something, you  
14 know, could be. And we would like to get clarification.  
15 Kathy, do you want us to ask the questions to you? Or do we  
16 -- can we just email Don and say what was meant by this?

17 MR. SMITH: It can go either way. We're set up to  
18 handle either communication link.

19 MS. BARWICK: I don't want to -- so if you go  
20 through me I will get it -- so I don't want to be a choke  
21 point on this. So, if you go through me I will, indeed,  
22 forward your information to Don.

23 But if you go directly to Don, he will provide to  
24 me a short report shortly thereafter. And I put it into my  
25 little Excel spreadsheet. So it can go either way.

1 CO-CHAIRPERSON RAPHAEL: Staff, do you have a  
2 request of the type of communication you'd like? Is there  
3 anything you're worried about in terms of us asking of  
4 things?

5 MS. HARRIS: No, but I think that based on some of  
6 the comments and suggestions that we've heard today, we do  
7 want to make contact with many of you to get follow-up on  
8 some of the suggestions that were sort of alluded to, but  
9 not discussed in any detail. So, we will follow up.

10 MR. SMITH: Any other questions?

11 CO-CHAIRPERSON RAPHAEL: Okay. So, with that,  
12 wow, could it be -- no other cards are up. It means that  
13 this is the end of this meeting.

14 One of the things before we close, we're going to  
15 talk about next steps. So, next meetings, next conference  
16 calls. And, Kathy, will you just tell us what's in the  
17 pipeline, even if we don't have specific dates on that.

18 MS. BARWICK: The podium is for people not of my  
19 height. So, as I mentioned earlier this morning, we are  
20 planning to follow through on the partnerships discussion by  
21 scheduling a conference call probably in late November or  
22 early December.

23 Now, remember that this conference call will be a  
24 public meeting of the Green Ribbon Science Panel. So, I  
25 must ask you all, maybe more forcefully than I did last

1 time, to be thinking about the location from which you may  
2 call in, because we must public notice that. It will have  
3 to be open to the public.

4 So that's the kind of information that we need to  
5 get to logistically pull this together for a conference  
6 call. And the conference call will, of course, include  
7 opportunities for the public to comment, as well.

8 So, looking at that the feedback can come in the  
9 form of the individual comments to staff, but we'd also like  
10 to have a discussion on that specific topic.

11 The next time we propose to meet physically will  
12 be in late January. And we want to talk with you about the  
13 toxics information clearinghouse. And that's about as much  
14 information as I have on that at this time. But there's a  
15 lot of work that we've been doing and so it'll be an  
16 opportunity for them to provide more information, get new  
17 advice on what they're doing, as well as a part of that that  
18 comes to us, as well.

19 And so as you know, the court reporter -- we will  
20 be posting the notes, the transcript within?

21 THE REPORTER: A week.

22 MS. BARWICK: Within a week. And as we did last  
23 time, I believe the webcast takes a little bit longer to get  
24 together, it has to be edited. And it will be posted, as  
25 well.

1 Did I miss anything?

2 CO-CHAIRPERSON RAPHAEL: Ken has a question.

3 MS. BARWICK: Okay.

4 CO-CHAIRPERSON GEISER: Kathy, I just -- remind us  
5 again what a public place for the phone call is. A private  
6 office is not, but an office that is in a public place -- I  
7 mean, just give me that clarity.

8 MS. BARWICK: A private office, I'm going to look  
9 at Joe, can be a place that you can call from as long as we  
10 can publicly notice it and you provide access to the public  
11 should they wish to attend from that location.

12 It can be Starbucks, but it doesn't have to be.  
13 Potentially for people from southern California and the Bay  
14 Area, we can potentially organize places in our regional  
15 office to propose to people if they want to go to those  
16 locations. That's something that we would certainly be  
17 interested in doing if it makes life easier for all of you.

18 This is on the possible technology that is, as well.

19 CO-CHAIRPERSON RAPHAEL: Great. Any other  
20 questions? Okay, I'll hand it back then.

21 I just want to thank everyone again for making the  
22 trip up to Sacramento. I don't know how many of you  
23 traveled yesterday, but it was pretty exciting. I had a  
24 total knuckle drive, white-knuckle drive.

25 So, thank you for your time. And I really am very

1 appreciative of the intellectual capacity that is around  
2 this horseshoe, the whole full circle. And that you all --

3 (Laughter.)

4 CO-CHAIRPERSON RAPHAEL: I know -- it's late.  
5 Leaving the Chairs out of it, exactly. And I do know the  
6 challenge it took to read that 50-page document. So, it  
7 took a lot of all of our collective time to come prepared to  
8 comment. And I want to thank you for that.

9 As well as thanking staff, because clearly it took  
10 a tremendous amount of work to come up with those 50 pages.

11 And it was incredibly thoughtful and creatively done. And  
12 so I applaud you on that.

13 And with that, the final words for this evening.

14 CO-CHAIRPERSON GEISER: Just a word of thank you  
15 to Kathy and --

16 CO-CHAIRPERSON RAPHAEL: Yeah.

17 CO-CHAIRPERSON GEISER: -- Yolanda and others for  
18 the meeting --

19 (Applause.)

20 CO-CHAIRPERSON RAPHAEL: Great. And with that, --  
21 yes. It's good, I'll give it to you.

22 DIRECTOR MOVASSAGHI: Sorry. Thank you. I know  
23 scheduling can be very hard, but we've all got Blackberrys  
24 or equivalents of. Can we at least tentatively see if we  
25 can identify a couple of dates in late January for our

1 meeting? Since we've got most of you here.

2           So, I'm thinking, are there any preferences for  
3 either January 20th, 21st versus January 27, 28? The 20th  
4 is a Wednesday; 21st is a Thursday. The 27th is a  
5 Wednesday, 28th is a Thursday. Are there any particular  
6 preferences?

7           I'm hoping that we were far out enough that you  
8 actually don't have much on your calendar that week. And if  
9 you do, welcome to my problem.

10           (Parties speaking simultaneously.)

11           DIRECTOR MOVASSAGHI: Sara, what was the date for  
12 your January workshop? Was it the 29th?

13           MS. HOOVER: No. For January? No, it's March.

14           DIRECTOR MOVASSAGHI: March.

15           MS. HOOVER: Yeah, we -- that was our last year's  
16 workshop in January. And we actually also have some rooms  
17 that we were holding for our March workshop that earlier,  
18 you know. So January for us, January, I think, is open.  
19 I'm just checking, as well.

20           DIRECTOR MOVASSAGHI: Good. Okay, so I'm hearing  
21 preferences for Thursdays. So I'm thinking Thursday the  
22 21st or Thursday the 28th. Any particular preference?  
23 28th, I'm hearing 28th. Going once, going twice --

24           All right, so if you could, I ask that you all  
25 tentatively block January 28th. We will confirm when we

1 talk with some of the rest of the members, as well.

2 So, thank you.

3 In addition to Kathy, Michael O'Docharty, you  
4 know, Peggy, Don, Evelia, I also want to thank the crew of  
5 DGS for, you know, doing all the recordings. A lot of the  
6 other folks at DTSC, my guys and gals, thank you very very  
7 much. Jeff, also.

8 And I really want to thank the co-chairs. They  
9 tried to do a lot, and I really appreciate them taking the  
10 time and working with us. Your input was very valuable.  
11 So, thank you to the co-chairs and the members of the panel.

12 (Applause.)

13 (Whereupon, at 4:44 p.m., the meeting was adjourned.)

14 --o0o--

15

16

17

18

19

20

21

22

23

24

25

## CERTIFICATE OF REPORTER

I, PETER PETTY, an Electronic Reporter, 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 it was thereafter transcribed 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 21st day of October, 2009.

\_\_\_\_\_  
PETER PETTY, Official Reporter  
AAERT Cert CER\*\*D-493

CERTIFICATE OF TRANSCRIBER

I certify that the foregoing is a correct transcript, to the best of my ability, from the electronic sound recording of the proceedings in the above-entitled matter.

\_\_\_\_\_  
Margo D. Hewitt  
AAERT Cert CET\*\*00480

\_\_\_\_\_  
October 21, 2009