

In the Matter Of:

Spray Polyurethane Foam Systems Containing Unreacted Diisocyanates

DTSC WORKSHOP

May 07, 2014

Reported By: Charlotte A. Mathias CSR No. 9792

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DEPARTMENT OF TOXIC SUBSTANCES CONTROL
WORKSHOP

SPRAY POLYURETHANE FOAM SYSTEMS
CONTAINING UNREACTED DIISOCYANATES

PRESENTER: DENNIS GUO

Wednesday, May 7, 2014

Ref No. 14665

REPORTED BY: CHARLOTTE A. MATHIAS, CSR 9792

1 BE IT REMEMBERED that on Wednesday, the 7th
2 day of May, 2014, commencing at the hour of 1:40 p.m.,
3 at the Environmental Protection Agency, 1001 I Street,
4 Sacramento, California, before me, Charlotte A.
5 Mathias, a Certified Shorthand Reporter in and for the
6 State of California, the proceedings were as follows:

7 NATHAN SCHUMACHER: Thank you again for
8 attending our workshop. We do appreciate all of your
9 time and energy to get here and join us to consider
10 these important issues.

11 I'd like to briefly reintroduce the people
12 here who will be speaking and listening to you. First
13 of all, I'm Nathan Schumacher. I'll be facilitating
14 this process. Moderator Karl Palmer, who you know from
15 the earlier session. And Dr. Dennis --

16 DENNIS GUO: Guo.

17 NATHAN SCHUMACHER: -- Guo, who will be
18 speaking about the profile, since he was one of the
19 authors of that profile. And he'll be talking at
20 length about what's in the profile. So you'll have
21 that chance to hear from us what we have in profile.

22 After that, we will have an open dialogue with
23 you. We won't necessarily answer all of your
24 questions. We won't necessarily have all the answers.
25 We would like to hear from you about a variety of

1 topics. We can go over those when we get to that
2 stage.

3 So we do have some ground rules for this whole
4 process. We do want for only one person to speak at a
5 time. We want everybody to respect each other. And we
6 don't want you to go, you know, texting or talking on
7 your cell phones. You can do that outside and come
8 back in. We won't hold it against you.

9 And then for further input, please send to
10 this web address; okay? All right.

11 So, Doctor, if would you start.

12 KARL PALMER: Just to interrupt you a little
13 briefly. Sorry, Dennis.

14 NATHAN SCHUMACHER: Go ahead.

15 KARL PALMER: I want to also just note that
16 there's a break room down the hall if anyone is
17 thirsty. There's vending machines and whatnot, and the
18 restrooms are there as well.

19 So I also want to acknowledge that we've --
20 this group has already provided a lot of input, thank
21 you, in detail, some individually and collectively.
22 And we're digesting that and looking at that, and we
23 appreciate that.

24 And Dennis is going to go briefly through the
25 key elements of the profile. And I hope that people

1 saw on the web page that we had three general areas of
2 concern, or questions prior to the description,
3 alternatives, and market information.

4 And those were just our attempt to look at
5 some logical areas of questions and issues. But we're
6 not limited to that. So, when Dennis is done, we would
7 like to get those addressed, especially if you think
8 they're relevant. But the time is otherwise yours.

9 So, Doctor Dennis Guo, who is a research
10 scientist in our program, and he was member of the
11 team, scientist, toxicologist, chemist, et cetera,
12 working on our part. Question before we start?

13 MAC SHELDON: Mac Sheldon with Demilec. And
14 the question is, will this presentation be available to
15 us?

16 KARL PALMER: Yes.

17 MAC SHELDON: When and how?

18 KARL PALMER: We can make this available in
19 the next day or so, and we can put it on our web page.

20 MAC SHELDON: Okay. And can you also make the
21 first press release presentation available to us? It's
22 not now.

23 KARL PALMER: The press release presentation?

24 MAC SHELDON: I'm sorry. The -- the media
25 release. The media event where this was introduced.

1 KARL PALMER: Sure. You're saying it's not on
2 our web page?

3 MAC SHELDON: It's not available.

4 KARL PALMER: Okay. We'll note that and it
5 should be there somewhere.

6 NATHAN SCHUMACHER: We'll check into that.
7 Just as a general ground rule, since we are recording
8 everything, if you wish to speak, please say your name
9 and affiliation. Okay.

10 DENNIS GUO: Thank you. My name is Dennis
11 Guo. I'm a research scientist here. I'm going to
12 briefly discuss and describe the priority products to
13 you, and also present our rationale why we selected
14 this product profile.

15 I'll first describe the products and then I'll
16 describe why our -- present why we chose. The products
17 we chose are spray polyurethane foam systems containing
18 unreacted diisocyanates.

19 These products may be used in insulation,
20 roofing, and filling and sealing of voids and gaps.
21 This product may or may not be put under brick 2456 and
22 2692, depending on manufacturers. Some of them don't
23 put them under this brick code.

24 There may be two component insulation systems
25 or multi-component roof systems, or one component

1 can -- you can buy from every store.

2 They may be in different containers, like
3 drums or systems and kits, in different size and shapes
4 containers you may buy from system houses or online,
5 including cans.

6 We don't intend to include cured rigid sprayed
7 polyurethane form products, because they don't have
8 much unreacted diisocyanates, nor do we include any
9 other polyurethane products that are used in various
10 concretes, and we also excluded paints, liners, for the
11 same reason. But I'm --

12 PAUL DUFFY: (Unintelligible.)

13 DENNIS GUO: Small quantities.

14 KARL PALMER: Can you give an example of that?

15 DENNIS GUO: Like say a small tube of
16 polyurethane.

17 PAUL DUFFY: Paul Duffy from Icynene.

18 DENNIS GUO: (Unintelligible) we included --

19 PAUL DUFFY: Okay. So I'm confused.

20 DENNIS GUO: I would like to point out,
21 urethane-based coatings are not excluded from roofing
22 applications and are not excluded, because we
23 specifically put the word systems. The coating for
24 roofs are part of the system based on every industry
25 website, we see including (unintelligible) and BSFF and

1 National Roofing Association, the coating -- you don't
2 put on a roof without the coating. That's why we do
3 this.

4 Our major consideration for selecting this
5 product is the fact that the exposure to diisocyanates
6 is harmful to sensitive populations in the workforce
7 and in the general public. And these are the chemicals
8 of concern: MDI, TDI and HDI.

9 We included TDI and HDI because, as we said,
10 we define systems as a roofing system to include the
11 coating. Like Henry -- Henry Company, you have a
12 product that specific contains TDI during coating.

13 Also, we noticed low levels of TDI were
14 declared in MSDS's of some SPF products.

15 STACEY-ANN TAYLOR: I'm sorry, since you
16 mentioned my company's name, I have to respond. My
17 name is Stacey-Ann Taylor. I'm from Henry Company.

18 The information that you just provided that
19 our company has a product TDI in it, where did you get
20 the information from?

21 DENNIS GUO: From online.

22 STACEY-ANN TAYLOR: From our website?

23 DENNIS GUO: Uh-huh.

24 STACEY-ANN TAYLOR: Recently?

25 DENNIS GUO: Uh-huh.

1 STACEY-ANN TAYLOR: That's all I want to know.

2 KARL PALMER: We'll stipulate that we're not
3 picking on your company.

4 STACEY-ANN TAYLOR: No, that's okay. When you
5 announce yourself, you have to expect it.

6 DENNIS GUO: Sure. That's just an example.
7 And TDI (unintelligible) MSDS's, and we really can't
8 differentiate whether it's residual or it's added, and
9 there are some information we don't know, because of
10 the confidential business information, and I know EPA
11 is collecting information and working on this too.

12 Hazards. There's little dispute that
13 diisocyanates, particularly the ones we coded, it's a
14 leading attributable cause of asthma in the workplace
15 and --

16 WILL LORENZ: My name is will Lorenz, General
17 Coatings, and I disagree with that first statement.

18 DENNIS GUO: The leading --

19 WILL LORENZ: Leading cause of asthma in the
20 workplace, absolutely. Look at the data.

21 KARL PALMER: So let's get through the
22 presentation first.

23 WILL LORENZ: All right. Thank you.

24 KARL PALMER: We'll have plenty of time to
25 circle back and discuss that.

1 DENNIS GUO: And then this chemical we are
2 sensitized and then they irritate and cause asthma.
3 And then sensitized individuals may, when they are
4 exposed again, may trigger severe asthma attacks even
5 at the low levels.

6 The second rationale for choosing this
7 product, like Bob mention that the product rapidly
8 expanding in the usage. (Unintelligible) quantity
9 product, very popular, widely recognized for energy
10 savings. If they're not used in a safe manner or
11 manufacturer recommendations are not followed, exposure
12 is a concern.

13 The department is -- we are particularly
14 concerned, small independent contractor, they're not
15 subject to OSHA oversight and DIY'ers. A lot of people
16 purchase the system online, like people -- like this
17 person, there's no protection.

18 The small contractors and the DIY'ers, some of
19 them may not be aware of the risks or not fully aware
20 of the risks. They may not take the online training or
21 to be trained by the industry, and they don't really
22 use proper personal protective equipment. They don't
23 wear respirators, and they don't use or may not use
24 engineering controls.

25 (Unintelligible) some alternatives for

1 insulation materials, and for roofing materials, there
2 are no alternatives. You don't have to have a spray
3 polyurethane roof. But we're not saying you can't have
4 those materials. But the analysis is not the subject
5 of discussion for the profile.

6 We do not have a lot of marketing information
7 based on the audience here. It's popular
8 (unintelligible) and the department, we know a few
9 companies are surprised of the materials and chemicals,
10 and many, many system houses throughout the country
11 that make or distribute those systems. We are -- we
12 don't have precise number of California-based system
13 houses. And this presentation is intended to
14 communicate and to gather information.

15 This concludes my presentation. If you -- if
16 you want to comment, just e-mail right here, and
17 somebody's monitoring this URL address. Thank you very
18 much.

19 KURT RIESENBERG: Are you going to accept
20 questions at the end?

21 DENNIS GUO: Yes.

22 KURT RIESENBERG: Kurt Riesenber, executive
23 director of Spray Polyurethane Foam Alliance.

24 In terms of the reference to the OSHA
25 regulations and the small contractors not necessarily

1 being covered by this, I'm sure you're familiar with
2 the OSHA National Emphasis Program on Isocyanates that
3 was promulgated and published in June of 2013. And the
4 uniqueness of that NEP was that it -- it removes itself
5 from the typical process of looking at only companies
6 with ten or more employees, where this NEP goes down to
7 companies with one employee.

8 So this OSHA National Emphasis Program
9 specifically on isocyanates which is your area of
10 concern here, that statement I would suggest is
11 incorrect, that the OSHA does cover all the way down to
12 the small independent contractors.

13 California OSHA was supposed to publish its
14 own National Emphasis Program on isocyanates, I
15 believe, within six months of the National Emphasis
16 announcement. I'm not sure that they have done that at
17 this point. But up and until you do, I believe that
18 you're forced to follow the national version of the
19 OSHA program.

20 So that statement, I would suggest is very
21 much incorrect.

22 DENNIS GUO: I heard that the OSHA program is
23 mandatory already?

24 KURT RIESENBERG: Yes. Since June of last
25 year.

1 NATHAN SCHUMACHER: We'll make a note of that.
2 Clarifying question?

3 MITCH FINE: It's a question regarding what
4 Dr. Guo --

5 NATHAN SCHUMACHER: Okay.

6 MITCH FINE: My name is Mitch Fine, Armstrong
7 Roofing. I thank you, Dr. Guo, for that very
8 informative presentation.

9 Specifically, I have a question regarding your
10 bullet point under hazards. You said there is, quote,
11 "little dispute that isocyanates were the leading cause
12 of occupational asthma."

13 And in your report, in the priority profile,
14 which I assume you drafted, it basically says that
15 isocyanates are the leading attributable cause of
16 work-related asthma.

17 And when I spoke to the EPA in Palm Springs at
18 our convention, they said that is, in fact, the leading
19 justification for why you're focusing on SPF. So with
20 much interest, I looked at the cites throughout this
21 document. Specifically Mapp 1998, Creely 2006, U.S.
22 EPA 2011a and b, and looked at all the secondary and
23 tertiary cites.

24 And I challenge you on that statement, Doctor.
25 It's not true. In fact, if you look at California's

1 own data culled from the CDC, you'll see that
2 isocyanates are very low on the list. And I have the
3 documentation here, but I also have the Mapp study, the
4 Creely study, the Verschoor and Verschoor 2014; I have
5 Bello and Ott, which were also cited by the U.S. EPA,
6 and none of them, not one, says what you said that it
7 says that it is.

8 And what I will maintain is that under the
9 regulation under 69501, reliable information, none of
10 your studies are valid to presume the hypothesis and
11 presumption that it's a leading cause. None.

12 So do you have any studies, other than what
13 you have done here in this report, that would justify
14 that statement under hazards?

15 DENNIS GUO: The authoritative quotes I have,
16 asthma rates --

17 UNIDENTIFIED SPEAKER: A little louder.

18 DENNIS GUO: The authoritative
19 (unintelligible) I have document asthma rates are
20 attributable to diisocyanates about 10 or 15 percent.
21 The 2013 reference I know you dispute, and the
22 inaccuracies. But if there's any inaccuracies, I think
23 the dispute is to the general that the methodology is
24 not correct. We cite the literature. We don't -- we
25 don't do our own research.

1 MITCH FINE: Mitch Fine. You're saying that
2 every single cite that you have in here, which
3 basically says that isocyanates are the leading cause
4 of occupational asthma, for example C.E. Mapp, which is
5 a 1988 study, it's a study of 162 individuals in a wood
6 factory where they sprayed polyurethane. And that
7 study, C.E. Mapp never says what you say it says. None
8 of your studies say that.

9 So what I'm saying is, it's not a general
10 statement. It's a very specific statement. Verschoor
11 you say says, Mapp you say says it, Creely. None of
12 these authors say it. So again, I challenge you on
13 that statement. It's repeated in the literature
14 multiple times, but there's no authority for that
15 statement.

16 And that is the -- that is the essence of your
17 complaint against spray foam.

18 DENNIS GUO: I'm not against spray foam.

19 KARL PALMER: Hold it. Let's just -- we're
20 not going to resolve that today. We appreciate that
21 you have identified that, and I assume you will give us
22 the specific --

23 CYNTHIA GRAHAM: Can I speak to that?

24 NATHAN SCHUMACHER: Could you wait a minute,
25 ma'am?

1 GINA SOLOMON: This is Gina Solomon, from Cal
2 EPA. Just with a clarifying question.

3 Is your concern that those studies don't
4 actually contain this statement, or is your concern
5 that those studies don't actually show that isocyanates
6 are an important cause of asthma?

7 MITCH FINE: That there's a distinction to be
8 made here in terms of does isocyanates cause asthma.
9 I'm not talking about that. I'm talking about what is
10 being proposed here, because one of the focuses on
11 isocyanates is because it's the leading attributable
12 cause to occupational asthma. That's the essence of
13 the justification.

14 And when you look at the research, and you
15 look at the studies, and you look at the secondary
16 cites, and you look at California literature, where
17 bleach is the number one cause of occupational asthma
18 in California. Do you know how many cases of MDI
19 asthma in the last ten years according to the CDC WERE
20 in California? Eight.

21 WILL LORENZ: Out of 5,000.

22 MITCH FINE: And out of those eight, none of
23 them are attributable to spray foam. So again, what
24 I'd like to see is a discussion with you, Doctor, where
25 the science drives this. And I look at this document,

1 because my livelihood is at stake here. Okay? And
2 I've looked at this, and I've spoken to Dr. Copper, he
3 said the four corners of this document are what this --
4 the DTSC has used to incriminate my product.

5 And so I'm saying, when I look at this
6 literature, it must conform to statute and regulations.
7 69501 is very, very clear as to what this scientific
8 data has it do, and it doesn't do it.

9 DENNIS GUO: I think we cited the Mapp study.

10 MITCH FINE: You did cite the Mapp study.

11 DENNIS GUO: Did we cite it wrong?

12 MITCH FINE: You did, sir. You cited every
13 study wrong.

14 DENNIS GUO: Okay. I -- well, let me --

15 MITCH FINE: There's no cite in there that's
16 correct.

17 DENNIS GUO: Let me take a look, and then
18 mark -- let me take a look at this research and then
19 get back to you.

20 MITCH FINE: Okay. I'll send you all the
21 documents.

22 KARL PALMER: This is what we need to do, is
23 get your perspective and information, and then we'll
24 evaluate all that, and whether or not today we'll agree
25 on anything --

1 MITCH FINE: I just want you to have the data.

2 DENNIS GUO: Let me tell you one thing.

3 (Unintelligible) is also the leading cause of asthma in
4 the workplace.

5 MITCH FINE: Okay. And they cited Bello and
6 Ott. Ott is an industry study, sir, that doesn't say
7 that, and Bello also doesn't say that in 2004.

8 I also have those studies. You have taken it
9 and misquoted it.

10 DENNIS GUO: But EPA can say and you can say;
11 right?

12 GROUP OF SPEAKERS: No.

13 NATHAN SCHUMACHER: We'll get back. Take some
14 time with it.

15 KARL PALMER: Don't try to argue it.

16 NATHAN SCHUMACHER: Don't argue it now. We
17 have some lady who has been waiting patiently here.

18 ANN GRIMALDI: Ann Grimaldi, for Grimaldi Law
19 Offices on behalf of three clients.

20 I'm following up -- I'd like to follow up on
21 the comment that I made at the general session
22 regarding the way that the product is described.

23 In the multiple documents that DTSC has
24 published on SPF foam systems, the product description
25 is slightly different. So even within the product

1 profile document in the introduction, there's -- the
2 specific diisocyanates are not listed in the priority
3 product identification description on page 3.

4 The diisocyanates are identified, but there's
5 no reference to unreacted diisocyanates. And in
6 addition, on that page, there's a reference to use as
7 in the creative arts, which is not identified, I think,
8 anywhere else, and it's not associated with the bricks
9 numbers that have been provided, or the exposure
10 information that is described.

11 I also note that table 1 of the product
12 profile document references adhesives, which I am
13 guessing is intended to provide a robust description of
14 the use of these products in the marketplace, but I
15 can't assume that. And so I don't know whether
16 adhesives are in or out.

17 So my point is, it's critical that there's a
18 precise and consistent description of the priority
19 product across multiple -- all the documents that the
20 department publishes. And, in fact, I didn't even know
21 that there were exclusions from the definition, which
22 is presented here today.

23 So there needs to be a real disciplined effort
24 to create a consistent, precise description, or even
25 better the identification of the ultimate source

1 document that members of the public can go to, because
2 I can understand that you might want to do a shortcut.
3 You know, you don't want to have a whole long
4 description in every single document.

5 But there has got to be at least one document
6 that is the definitive document that fully describes
7 accurately what's in or out.

8 KARL PALMER: Ann, thank you. Good point.
9 And that document ultimately would be the regulatory
10 text, which will define what we're talking about.

11 ANN GRIMALDI: So my question is are uses in
12 the creative arts in or out? I don't know.

13 DENNIS GUO: Well --

14 KARL PALMER: Go ahead.

15 DENNIS GUO: The text is when people are using
16 spray foam cans to make -- to decorate Christmas tree,
17 and then the cans and they're using those to create
18 something in the kitchen or something. So it's a
19 misuse of those products.

20 KARL PALMER: So let's not -- not -- it's not
21 our intend to cover those uses specifically in the --

22 ANN GRIMALDI: I appreciate that, but this is
23 the first time --

24 KARL PALMER: -- when I say the reg text --
25 that document was looking more broadly at a lot of

1 different uses and information. We're in the process,
2 and this is why we're here, is to narrow this down so
3 we know what is captured in this priority product
4 designation, and that will be in the text, in the
5 regulation which will define it. It will say
6 something -- it will say something along the line of,
7 "spray polyurethane foams are," and then if you're
8 familiar with reading of our regulations, we would have
9 a description, and we might have exclusions and it
10 would be very clear. That's our intent.

11 ANN GRIMALDI: So the intent right now is to
12 not include creative arts -- use in the creative arts
13 arena?

14 KARL PALMER: Let me just point out that as
15 Dennis described, our understanding is that in plays
16 and drama productions sometimes, they're making, you
17 know, making big junks of foam and then carving them
18 and making them for props. That would only be --
19 that's maybe not the intended use, but if they were
20 buying a product that was intended for one of the uses
21 we described, that product would still be covered.

22 ANN GRIMALDI: Correct.

23 KARL PALMER: It's just under potential impact
24 for misuse or alternative use of that product, which
25 would be covered.

1 ANN GRIMALDI: Understood. And also for sure,
2 you told me adhesives are not included in this product
3 category?

4 KARL PALMER: Correct.

5 ANN GRIMALDI: Okay. Thank you.

6 NATHAN SCHUMACHER: Okay. We do want to -- if
7 we can try to put some order into this and start with a
8 discussion of the description first, and then move into
9 the other topics we have had in the --

10 CYNTHIA GRAHAM: Can I respond to a comment
11 that was made earlier, please, or add to it?

12 NATHAN SCHUMACHER: Yeah.

13 CYNTHIA GRAHAM: On asthma rates. Cynthia
14 Graham from Huntsman. I'm a toxicologist, so I share
15 the scientific research and writing papers. And you
16 should always use primary references whenever you
17 reference something.

18 Every one of your references are secondary
19 references. And if you look at those references, they
20 also do not even have primary references to -- to
21 exhibit that isocyanates are the leading cause of
22 occupational asthma.

23 So I request that you go back and you find
24 primary references, which you should understand as a
25 researcher and scientist that you need these primary

1 references to make statements that you made in the
2 product profile.

3 DENNIS GUO: Which reference are you talking
4 about (unintelligible)?

5 CYNTHIA GRAHAM: Well, we have already
6 submitted comments, but it's basically all of your
7 references on asthma are all secondary references. And
8 if you read those papers, you will see that they don't
9 reference a primary reference either.

10 So you do not have any references at all
11 secondary, tertiary to the data that you are -- you are
12 creating in your document.

13 DENNIS GUO: ACC response to two papers, the
14 Jan paper and the --

15 CYNTHIA GRAHAM: Jan wasn't about occupational
16 asthma.

17 DENNIS GUO: So two papers mentioned -- okay.

18 CYNTHIA GRAHAM: No. There are many more
19 comments, not just on two papers.

20 KARL PALMER: Understood.

21 NATHAN SCHUMACHER: Okay. That's helpful.

22 Let's -- let's start with the discussion of the
23 priority product description. The description that's
24 posted here. We'll start with that and then move into
25 other topics.

1 So if you're talking about the description,
2 I'd like to hear from you now. Ma'am, is that what
3 you're doing?

4 LEE SALAMONE: Yes.

5 NATHAN SCHUMACHER: Okay. Would you like
6 this?

7 LEE SALAMONE: No, thank you. My name is Lee
8 Salamone. I'm with the American Chemical Council,
9 Center for the Polyurethane Industry, and the Spray
10 Foam Coalition.

11 My members manufacture the raw materials that
12 go into the spray foam, the spray foam itself, and then
13 we are also allied with the groups that apply the spray
14 foam.

15 I'd have to say that your -- your product
16 description is not clear, and unambiguous. The
17 products known as spray foam itself does not contain
18 unreacted diisocyanates. The product known as spray
19 foam does not contain TDI or HDI. DII is -- MDI is
20 used in multiple products, and it behaves differently
21 and is treated differently in those multiple products.

22 References in your priority product profile to
23 truck bed liners, adhesives, and other things should
24 not be discussed. They cloud the issue, and they cause
25 uncertainty in the marketplace.

1 I do hope this workshop will help clarify how
2 MDI is used in the products. We have with us in this
3 room multiple experts, manufacturers of isocyanates and
4 spray foam products who can provide you with a great
5 deal of information on when unreacted diisocyanates
6 exist in the product, and when they no longer exist in
7 the product.

8 We hope that at the end of these workshops, we
9 will have provided you with enough information that
10 you'll understand that -- that spray polyurethane foam
11 is not a good candidate for this process. It is not
12 documented to have widespread environmental or human
13 health impacts. And we are here to share our expertise
14 with all of you. And if there are any questions at all
15 that you have about unreacted MDI, this is among the
16 crowd of people who can help explain that to you.
17 Thank you.

18 KARL PALMER: Thank you.

19 NATHAN SCHUMACHER: Okay. On the description?

20 CR HERRO: Yes. And mine's a little bit more.

21 NATHAN SCHUMACHER: Your name?

22 CR HERRO: CR Herro with Meritage Homes.

23 Mine's probably a little bit more direct -- is to the
24 intended nexus of this, because as I think was alluded
25 to, cured polyurethane doesn't contain unreacted

1 diisocyanates. The process of polymerization includes
2 the use of diisocyanates as the intention to say that
3 we're going to -- we're going to restrict and try to do
4 an alternative analysis on the creation of polyurethane
5 in its entirety.

6 I mean, you know, because obviously gasoline
7 contains BTEX and yet there's an assumption that you
8 react it and the exhaust is carbon dioxide and water.

9 What is the intention of the product
10 description in its use and industry? Because in its
11 use and industry, it's got an A and B product, you
12 create a polymer, the end result is within two hours,
13 it's cured and it doesn't contain unreacted
14 diisocyanates.

15 So I'm -- I -- I'm, as a consumer of that
16 product, trying to understand what the intent is on the
17 industry that if you control the application, do you
18 not end up with a product that does not have
19 diisocyanates, what I believe is the contention of the
20 industry here, and therefore what do we do?

21 KARL PALMER: So I think part of the answer to
22 your question is in timing of the use of the product.
23 And understand that our regulation captures the person
24 who manufactures and offers that for sale in
25 California, the product we are trying to describe it.

1 It's the system that then is used to create the foam.

2 It's not the foam.

3 So if you made a foam product outside of
4 California, say a prefab wall, you know you might use
5 in a home, that would not be captured. But if you sold
6 the A and B side and the kit to make that product, that
7 would be captured.

8 CR HERRO: But just to follow up on that, and
9 I know you guys are going to go crazy.

10 Just to follow-up on that, I mean, gasoline is
11 by definition what you guys would then control, because
12 gasoline has benzene and toluene and ethylbenzene and
13 xylene, which are carcinogens, and yet, anybody can go
14 and pay \$3 and get a gallon of it and -- sorry, \$4.

15 And so, the question is -- is -- is -- as I
16 understand it, it is necessary in order to create a
17 combustion engine to take a regulated product and use
18 it properly. It's necessary to create on-site
19 polyurethane which adheres and expands. And so to
20 create an insulated home, it's necessary to take those
21 two products to the site and properly utilize them.

22 If you restrict the ability to use
23 isocyanates, you then can't make the product. If you
24 restrict the ability to use gasoline, you can't make an
25 internal combustion engine. So it's a big cart and

1 horse issue; isn't it?

2 KARL PALMER: First of all, we're not assuming
3 there's going to be a restriction on spray
4 polyurethane. We're asking the question, is there a
5 safer alternative to the diisocyanates and the process.

6 We have not determined there's going to be a
7 ban or there's going to be a restriction on sale or
8 there's going to be path A or B. We're asking that
9 question. The alternatives analysis that you might do
10 or another manufacturer might do might suggest that
11 there's no change. It might suggest that there's no
12 safer alternative.

13 And then we would ask, okay, show us what you
14 did to make that determination. Conversely, there
15 might be some alternative or some engineering control
16 that would make that product safer. And that's
17 throughout the lifespan of that product's use.

18 So I think, you know, it's dangerous to assume
19 that we know or think what the outcome is going to be.
20 We're not making that presumption. Is that --

21 CR HERRO: I guess as long as there's an
22 inherent understanding that there may be chemicals that
23 need to be properly utilized to make an inert product.
24 And that is obviously a big --

25 KARL PALMER: And that's what you -- you know,

1 we understand that chemistry of creating foam right now
2 relies on isocyanates. We understand that. But that
3 doesn't mean that there might be some research beyond
4 that that might not rely on isocyanates. There might
5 be some other --

6 CR HERRO: I don't mean to kick this -- kick
7 this dead horse, but we can say the same thing for
8 gasoline. It's like saying, we want the gasoline
9 industry to come in and demonstrate that cars cannot
10 have a motive source better than combustion, because
11 gasoline has got toxins in it. I mean, it's -- it does
12 kind of beg that very broad approach; doesn't it?

13 KARL PALMER: The approach that we are
14 implementing is a broad approach with lots of factors
15 that can be considered. We're trying to narrow this
16 down to one product and looking at it across all those
17 factors.

18 And obviously, as alluded to earlier, energy
19 use is a factor in the spec and the use of your
20 product. That would be looked at, along with any other
21 trade-offs that would diminish that.

22 So there's -- this is about decision-making
23 first on your part to do the analysis to say, is there
24 some better safer way to make this product? You know
25 your product better than we do. You have been working

1 on development of it, making your process and product
2 safer for a long time. We understand that.

3 But that's -- that's not to say that we've
4 determined that because of our concerns about worker
5 exposure, that that's okay. We're asking you to say,
6 is there an alternative that would make it safer?

7 CR HERRO: But -- but -- just -- but clearly,
8 once cured and in place, that's not the scope.

9 KARL PALMER: That's not within the scope of
10 our concern.

11 UNIDENTIFIED SPEAKER: Beautiful comment.
12 Okay.

13 NATHAN SCHUMACHER: There's a lot of
14 discussion that's good. You want to add -- this
15 gentleman wanted to go first.

16 ROBERT RAYMER: Bob Raymer with California
17 Building Industry Association. And on CR's point, and
18 what you just indicated, there's sort of a time line
19 involved here in this product. You got the
20 manufacturing, that an issue. You got worker
21 installation, that's a point of issue. Then you got
22 occupation of the home or the apartment that's been
23 built with this between the studs.

24 And one of things that's not differentiated in
25 speaking to this number one, you know, the definition

1 and clarity and ambiguity, if at all, is it's there, in
2 that right now it's unclear given the press release
3 that you're not including that built product that the
4 homeowner is living in, that the renter is living in.
5 Right now there's the impression that all of this is
6 included, and the clarification needs to be made, and
7 needs to be made loud and very soon, because right now
8 you got builders making long-term decisions on product
9 purchase. Should they just simply avoid this product
10 like the plague? I know that's not your intent here.

11 But the question here is, given the press
12 release that went out, right now somebody's living in a
13 home that's got spray foam insulation that was
14 installed two years ago, are they going to get cancer
15 or some other physiological detriment by being exposed
16 to it? Well, the answer is no. But then we look at
17 the worker's safety and that's a separate issue. But
18 there needs to be clarification here, because you're
19 going to see a staggering impact, short-term impact
20 that can't wait 14 to 18 months for the process to kind
21 of work itself out. That's our concern.

22 KARL PALMER: I understand it. I'm somewhat
23 surprised -- we -- I believe our press release said
24 that this was not a ban.

25 ROBERT RAYMER: I understand.

1 KARL PALMER: In our event, we were trying to
2 say we're not presuming there will be a ban. So -- and
3 granted, this is one of the reasons that an enabling
4 statute was crafted was that in the past, there has
5 been bans --

6 ROBERT RAYMER: Absolutely.

7 KARL PALMER: -- that led to regrettable
8 substitutes and lead to unforeseen consequences. And
9 the process we're trying to put into place is to have
10 that discussion, have that analysis before there is any
11 regulatory action by us to make a determination on the
12 restriction of sale, ban of sale, any of those
13 regulatory responses.

14 And it's incumbent upon the industry, on the
15 manufacturers, to do that analysis, to do the homework,
16 and to show their work to us and say, what you're
17 saying now, and back it up. That's the bottom line.

18 A lot of people ask me about compliance.
19 Compliance is scary for people, because if it's not
20 entirely clear what the checklist is, or where the line
21 is, it's difficult. Agreed.

22 It's difficult, because you got to look at a
23 lot of different factors, and you got to weigh
24 potential options. You do that every day in your
25 business.

1 You weigh options. So it is complicated. We
2 appreciate that our words are important and how they're
3 understood or not out there. And we appreciate that
4 insight and we take that very seriously.

5 ROBERT RAYMER: I guess in follow-up, and I
6 saw that and, of course, you did say it's not a ban.

7 If I'm going to build a home and I got
8 generally three choices right now: Blown insulation,
9 bat insulation, and spray foam. Okay. If I know that
10 a state agency, a powerful state agency is looking at a
11 subject, and while they say this is not a ban, the
12 impression is there could be potentially a ban down the
13 road, why would I choose to use that product right now?

14 Why don't I just sit back, go with a, you
15 know, Owens Corning bat insulation or go with any other
16 product, and it's -- these are decisions that have to
17 be made, but you've already made an important
18 clarification when I made my opening comment this
19 morning that this installed product between the studs
20 is not the subject of this review. It's more of a
21 worker safety or production as opposed to that product
22 that's installed doesn't have unreacted diisocyanates.

23 And so if that clarification was made, and
24 made to the public right now to help frame this for a
25 later discussion, it would be very helpful.

1 KARL PALMER: Just to clarify -- I mean, I
2 know I think in Woodland or Winters, there's a plant
3 that makes wall units that are prefabbed --

4 ROBERT RAYMER: Yeah.

5 KARL PALMER: -- with insulation in it. That
6 product would not be covered by the scope of our -- the
7 use of that product, you know, when that company, you
8 know, whoever sells them that product to make it would
9 be covered.

10 ROBERT RAYMER: Got you.

11 CR HERRO: As a home builder, there's a very
12 real engineering cost and design up front with how you
13 apply your insulation.

14 KARL PALMER: Sure.

15 CR HERRO: I have a sealed unvented attic, I'm
16 compliant with California Title 24 energy code, you
17 know, where I got my venting, where I don't got my
18 venting, how my attic catch is designed. All of that
19 goes into the design consideration of homes I will
20 build in the community for three or four years.

21 And so, to that point, just to be very clear,
22 having uncertainty as to whether or not a product may
23 not become available would change the way I would
24 initially design a home, and as I said in the original
25 meeting, obviously as a home builder, we're trying to

1 set new standards for energy efficiency, and
2 polyurethane spray foam has been one of the most
3 cost-effective ways to achieve that, and all this does
4 absolutely disrupts that process because we have
5 uncertainty as to the intent and as to whether or not
6 kind of logic and common sense will prevail in this
7 process, to be real honest, on whether or not we can go
8 forward with a really good product.

9 KARL PALMER: I appreciate that. I hear loud
10 and clear that it's important that we are clear what's
11 covered and what's not covered in our --

12 NATHAN SCHUMACHER: Yes.

13 PAUL DUFFY: Paul Duffy from Icynene. I think
14 that the definition is key. I mean, basically at this
15 point, it's analogous to saying, you know, we're
16 banning table legs made of steel with radioactive
17 isotopes. By describing the product that way, you are
18 creating the assumption that there are radioactive
19 isotopes in that steel.

20 And if, in fact, we're manufacturing products
21 and we can provide you with good science that shows
22 that there isn't a health risk, there are not unreacted
23 diisocyanates in our products, I think that should be a
24 science-based approach to getting the off-ramp that I
25 spoke of in terms of, you know, cooperating, providing

1 you the information that you need to make sound
2 decisions.

3 I mean there's a lot of, dare I say, crap on
4 the Internet, and everyone is free to make assumptions
5 and conclusions based on precious little evidence.
6 Folks are relying on you folks to screen through all of
7 that nonsense and come up with a proper scientific
8 analysis such that, you know, yeah, it might be a
9 concern. We studied it, but it's no issue.

10 We -- we -- they're actually depending on you
11 to get that right. And with misinformation that's in
12 the public domain right now, frankly, the damage that's
13 being done is you're getting it wrong and you are
14 tarnishing a lot of good, hard-working people who are
15 trying to do the right thing with a brush that frankly
16 they don't deserve.

17 That's the trouble we have here and why this
18 gets so emotional. You're -- you are basically, in
19 language, convicting us before this full analysis has
20 taken place, by the language you're using, the approach
21 that's been taken.

22 We can drill down into the specifics of how
23 the product profile is wrong and the description of
24 what our product contains is wrong, but if -- if -- if
25 this stuff is put out there incorrectly right from the

1 get-go, and it's not corrected as soon as you have the
2 information available to you, my lord, that's damaging.
3 You got to understand that.

4 NATHAN SCHUMACHER: Okay. Still want to stick
5 to the product description, if we can. Yes, sir.

6 DARRELL BOVECHOF: Darrell Bovechhof, Dow
7 Chemical. I also have concerns on how broadly the
8 category is developed and just echo a couple of
9 comments that have been made.

10 We're heard differing opinions. I heard you
11 just say adhesives are excluded. I see adhesive
12 applications included. Today was the first time I
13 heard that rigid poly cured foams are excluded. There
14 needs to be some consistently in terms of what is in
15 scope, even with when it comes to talking about spray
16 polyurethane foams, as I think we all understand it
17 here today.

18 There's various different products, when's
19 it's two-component high pressure, two-component low
20 pressure, or one-component foams, those are used very
21 differently, very different users and, therefore, have
22 different exposure potentials and risks. And those
23 really need to be considered independently. We need to
24 avoid making broad generalizations across the entire
25 chemistry platform that are going to cause the problems

1 and confusion that I think we're seeing.

2 DENNIS GUO: May I?

3 NATHAN SCHUMACHER: Yeah.

4 DENNIS GUO: We use the word "unreacted" to
5 include only product that contains unreacted. So inert
6 product, we do not intend to include.

7 The concern is aerosol and particulates that
8 causes asthma. So we never intended to include rigid
9 foams. In the profile, we did not include rigid foam
10 either.

11 NATHAN SCHUMACHER: Are we still talking about
12 definition or can we go to chemicals of concern? You
13 want to talk about definition? Who else wants to? You
14 want to talk about definition also?

15 DARRELL BOVECHOF: Of course.

16 NATHAN SCHUMACHER: Of course.

17 NICK NOLAN: Nick Nolan. Since we have been
18 talking about, and I'll hear that, you know, cured and
19 rigid products are excluded, and it's been stated that
20 MDI is a fundamental part of our SPF products, can you
21 give us, you know, in the most general terms possible
22 an example of a spray polyurethane foam that contains
23 unreacted MDI?

24 KARL PALMER: You mean once it is already
25 foam?

1 NICK NOLAN: No. Once it's already foam, we
2 already established that it does not contain unreacted.
3 MDI. And it's not foam before it -- before those
4 components react. So give me an example.

5 DENNIS GUO: Sure. I'll be glad to respond.
6 There's an industry (unintelligible) to study the issue
7 of when the foam will be free from diisocyanates or
8 minimal amount of unreacted diisocyanates. From the
9 mixing to point of mixing -- when it's uncured to the
10 point of time it's cured --

11 UNIDENTIFIED SPEAKER: It would help if people
12 could hear you.

13 DENNIS GUO: And from the point when you mix
14 the components to the time that it's cured, the
15 unreacted diisocyanates in the foam; right? You agree
16 with me.

17 NICK NOLAN: In the vast majority of the cases
18 that you used or you cited, that is most definitely not
19 a consumer product. That's something done by a
20 licensed professional contractor who is required by the
21 manufacturer, by OSHA, to have safeguards in place.

22 DENNIS GUO: Let me finish this thought. And
23 the time frame from reaction to the curing, it's a
24 subject of study for EPA. We don't have a definite
25 amount of time how long you can leave diisocyanates

1 free, since there will be a state that you have
2 unreacted diisocyanates.

3 The reason we used (unintelligible) and the
4 other products to support our justification is that
5 when you have unreacted diisocyanates, the body can't
6 really differentiate whether it's from isocyanate foam
7 or from insulation or from anywhere else.

8 So that scientific evidence applies to all
9 kinds of products. It's isocyanates.

10 NICK NOLAN: So why are we centering only on
11 spray foams, then, if this is about isocyanates?

12 KARL PALMER: We know that spray foam is a
13 source of --

14 PAUL DUFFY: As a manufacturer -- can I speak
15 to the unreacted isocyanates? Paul Duffy from Icynene
16 again.

17 A number of us in the room have done testing
18 of our products. These questions have been raised as a
19 part of the discussion that's been ongoing with the
20 federal agencies.

21 Airborne -- for high-pressure systems,
22 airborne is an issue not because MDI has a tendency to
23 emit vapors, as you kind of describe it, but because we
24 actually spray a mist and there are fine particles in
25 the air. Those issues have been studied in great

1 detail. And basically half an hour to two hours after
2 spray, that doesn't exist as an issue. But I would
3 like to speak also to the product itself when it's
4 sprayed, because folks have talked about other paths of
5 sensitization, thermal pads, and so on.

6 So we've actually got scientific research
7 where we studied surfaces, both freshly sprayed and cut
8 surfaces. Our intention was to map it out for as long
9 as it took to basically find out how long it took for
10 unreacted isocyanates to dissipate.

11 What we found in that work was we could not
12 find unreacted isocyanates five minutes after spray.
13 Five minutes. So in terms of the ongoing risk to
14 persons and so on, my colleague Mac Sheldon actually
15 has done research where they worked closely with OSHA,
16 and basically they mapped a perimeter around the spray
17 activities and tried to see how much isocyanates they
18 could find. They basically could not find it outside
19 of a five-foot perimeter.

20 We collectively as a group are out there
21 promulgating safe practices to make sure folks never
22 even get within that five-foot perimeters. We suggest
23 staying 50 feet away. Why? Because until everybody's
24 agreed on what the number is, we want to be safe. We
25 expect that if we provide this information to you and

1 work through this science, you'll at least be receptive
2 to understanding that we're not doing things that are
3 irresponsible, and that our products are, in fact,
4 safe.

5 That's where we have gotten to in terms of our
6 research and collaboration with the federal agencies,
7 and we hope we can help you to take advantage of some
8 of this.

9 KARL PALMER: So let me just -- thank you.
10 But also, I just want to point out that -- I'm
11 acknowledging what the industry has done in terms of
12 training and best practices and safety in general, but
13 fundamentally, we want that five minutes or half an
14 hour or hour where there is potential exposure, it's
15 dependent on best practices.

16 Our framework is asking the question, is there
17 inherently a way to reduce the hazard rate of the
18 material that might not require even the level of
19 effort that you're doing now because --

20 PAUL DUFFY: You've listed that we
21 contained --

22 KARL PALMER: I'm not --

23 PAUL DUFFY: -- TDI and HDI which, you know,
24 you've gone on to -- I think 75 percent plus of what
25 the product profile contains is based or pivoting on

1 the information, or the incorrect assumption we contain
2 TDI and HDI.

3 KARL PALMER: Okay. I'm just --

4 PAUL DUFFY: MDI is -- we have gone through a
5 selection process to find a safer product. We have
6 already done this as an industry to get ourselves to
7 this point. We were hopeful that this process could at
8 least recognize the work that industry has done in this
9 regard.

10 DENNIS GUO: May I respond to what you said?
11 So you are saying your product is safe for application
12 to five minutes or --

13 PAUL DUFFY: I'm --

14 DENNIS GUO: There's no risk, or --

15 PAUL DUFFY: I'm not -- I'm saying we take
16 steps to make sure that the general public and other
17 trades are kept away, and we are extremely conservative
18 in what we do, and now because we are conservative and
19 take those precautions, we're being hung at the post.

20 DENNIS GUO: The reason the EPA studied the
21 chemistries of this product; right? There's a reason
22 that --

23 PAUL DUFFY: I would think on an ongoing
24 basis, EPA is studying all products, making sure that
25 they're keeping with the latest science. This is a

1 product that's gaining more recognition --

2 KARL PALMER: I wouldn't go that far.

3 DENNIS GUO: There's a --

4 PAUL DUFFY: Maybe I'm naive.

5 DENNIS GUO: (Unintelligible) including
6 warnings and some (unintelligible) there's a risk.

7 KARL PALMER: I mean --

8 PAUL DUFFY: There's a risk with electricity.
9 Should we take electricity out of houses?

10 NATHAN SCHUMACHER: Well, I think --

11 PAUL DUFFY: It's a workplace.

12 KARL PALMER: I appreciate it.

13 NATHAN SCHUMACHER: Well, I think I would like
14 to have us move on if we can to talk about --

15 STACEY-ANN TAYLOR: I've been waiting to say
16 something about the definition.

17 NATHAN SCHUMACHER: Okay. Definition.

18 STACEY-ANN TAYLOR: My name is Stacey-Ann
19 Taylor, one again I'm from Henry Company.

20 I want to take exception to a comment you made
21 earlier regarding the definition of spray polyurethane
22 foam systems. You included coatings, and you cited
23 some examples from other companies, not Henry, that the
24 coating is, in fact, a part of the system that has to
25 be sold together or it's not a system.

1 If you go to Henry's website, and I just went
2 and double checked, so I'm not talking out of term, we
3 refer to our systems as A and B side. We do not
4 include the coating. As you know, the elastomeric
5 coating that can go over the spray foam is an option,
6 but you could also quite frankly put gravel over.
7 There are other options.

8 So I want to be very, very clear, we do not
9 call the spray polyurethane foam A and B side plus the
10 coating the system. That's not how we define it.
11 Quite frankly, I'm very surprised to hear you talk
12 about the coating as it relates. And I would double
13 check your comment regarding one of our products,
14 coating products, I guess, having TDI. And I'll go
15 back and check with my folks. Thank you.

16 KARL PALMER: Could I just add, that's
17 interesting because we don't know that much about the
18 variety of the options in roofing systems. And so
19 information would be helpful about that.

20 STACEY-ANN TAYLOR: I'll be happy to provide
21 you with that.

22 KARL PALMER: We do know some coatings are
23 called systems, they include TDI-based coatings, some
24 may not. So that would be appreciated.

25 NATHAN SCHUMACHER: If you can get that

1 information to us, we would appreciate it very much.
2 You haven't said anything.

3 RICHARD DUNCAN: I have not. I'll take an
4 opportunity.

5 NATHAN SCHUMACHER: Your name?

6 RICHARD DUNCAN: My name is Rick Duncan, and
7 I'm the technical director for the Spray Polyurethane
8 Foam Alliance. And a couple of general comments.

9 First of all, about the product definition, I
10 think it's imperative that we get the product
11 definition done accurately and as quickly as possible,
12 because according to your process, there's a
13 rule-making produce that will take place.

14 But we also, as part of this process, we have
15 to come up with alternative options, potentially. And
16 without a good product definition, it's going to make
17 it impossible for to us to come up with decent options.
18 So I think it's important we get it right, and we get
19 it right very quickly.

20 On a more specific note, just to talk about
21 polymeric coatings and how that's included in the
22 system, Ms. Taylor already sort of addressed the issue
23 is when we talk about the spray foam system, there's
24 traditionally an A and B side, the A being the MDI, the
25 B side being the polyall with many other additives

1 blended together.

2 We don't really talk about the roof system.
3 It's still fundamentally a spray foam A and B system
4 with an optional coating. The coating is there for UV
5 protection.

6 And you mentioned that they were polyurethane
7 coatings, but that's one of eight classes of coatings
8 that are potentially used on the spray polyurethane
9 roof.

10 In fact, like she said, you don't even have to
11 use coatings. You can use aggregate gravel to protect
12 the product from sunlight. So we want to get it clear
13 that polyurethane is only one of eight types of
14 coatings that could be used.

15 Also, these types of polyurethane coatings
16 that may contain TDI are not used for spray foam
17 insulation. They're not used for seals. So I think by
18 including the potential for TDI in a small group of
19 potential coatings for roofing systems is going to
20 cloud the issue. And I think it needs to be
21 immediately removed from the product definition.

22 So, I think that's really what I wanted to
23 make sure. Yes. So, yes, you have that exactly.

24 DENNIS GUO: Yes. I have the granules are
25 option. You don't put a roof without the coatings.

1 It's --

2 RICHARD DUNCAN: I think you misunderstood
3 about the granules. There's a difference between
4 granules and aggregate. Okay. Granules are used, in
5 your depiction there, for slip resistance and also to
6 provide abrasion resistance.

7 What I'm talking about is an aggregate which
8 is like gravel that goes over two or three inches thick
9 on top of the spray foam to protect it from UV. So you
10 don't even really need a coating for a spray foam roof
11 system.

12 DENNIS GUO: Well, the -- the coating -- you
13 don't put a roof without a coating; right?

14 RICHARD DUNCAN: No. I just said you can.

15 DENNIS GUO: It will expand --

16 STACEY-ANN TAYLOR: We're saying you can.

17 KARL PALMER: Some people do that?

18 STACEY-ANN TAYLOR: Yes. Yes. Yes. We're
19 not making this up.

20 MITCH FINE: I'm one of the largest
21 residential spray foam contractors in the country. And
22 we have been doing this about 35 years. And I have
23 never used a coating with TDI in it, ever. And I have
24 recoated a lot of my competitor's roofs, thousands of
25 those as well, and I have never observed a TDI coating.

1 We use an acrylic coating.

2 DENNIS GUO: Right. I understand.

3 MITCH FINE: And into that acrylic coating, we
4 put a granule.

5 DENNIS GUO: Yes. I agree. So several
6 categories of silicon, and then you don't have to use
7 TDI base.

8 MITCH FINE: We never use it.

9 DENNIS GUO: That's why we use some.

10 MITCH FINE: But I'm saying, including TDI as
11 the definition of a spray foam system, includes the A
12 and the B side of the iso mixed with the alcohol.

13 GINA SOLOMON: Just as a clarifying question.
14 Gina Solomon. So the fact that you never used a TDI in
15 your coating, does that mean that no one ever in
16 California ever uses it?

17 MITCH FINE: Well, again, in your --

18 GINA SOLOMON: I think that's our question.
19 We're not after you. We're after whoever your --

20 MITCH FINE: No. I understand. But I was
21 just giving some anecdotal information that buttressed
22 and supported what Henry says and --

23 GINA SOLOMON: What I heard --

24 RICHARD DUNCAN: Also I would like to -- oh,
25 Rick Duncan with SPFA. I would like to make one

1 additional comment about coatings. When you talk about
2 TDI-based polyurethane coatings being used for spray
3 roofing systems, they're not only used for that,
4 they're used for many other applications beyond spray
5 polyurethane foam.

6 So if you're concerned with TDI and you're
7 concerned with polyurethane coatings that contain TDI,
8 I think that's a separate issue, and it needs to be
9 brought up in a separate product priority program.

10 So that's why we're asking for TDI to be
11 removed from this -- from the scope of this program.
12 Do you understand, you know, the --

13 KARL PALMER: I understand your point.

14 GINA SOLOMON: Gina Solomon, Cal EPA. I don't
15 understand the logic, because if TDI is being used in
16 some of these coatings, why should we remove it?

17 RICHARD DUNCAN: We're saying that this should
18 be a separate program because it's not exclusive to SPF
19 systems. The only thing that's common with the product
20 definition as you have it standing today is all of
21 these materials contain NBI, and that's -- and that, I
22 think, should be the focus of what you're trying to get
23 at here. It -- none of the spray foam systems, the A
24 and B, contain TDI. None of them.

25 KARL PALMER: Let me ask a question. This is

1 Karl. When we say -- keep in mind from a regulatory
2 structure, you get captured or you don't. So in
3 Mitch's case, if you were using a roofing system that
4 didn't contain TDI and we define that as roofing
5 systems containing polyurethane with TDI, if you're not
6 using that, you're not captured.

7 MITCH FINE: Okay. Karl, the reason I'm
8 concerned about your inclusion of TDI is because if you
9 go through your PPP, you say that TDIs are carcinogens,
10 you say whatever, an asthmagen, and all these things,
11 if you look and you use that to buttress your case
12 against spray foam, when you -- if you look at just
13 specifically the accusation against spray foam in this
14 report, it boils down to a few cites and a few studies.
15 So you --

16 KARL PALMER: You made that point earlier,
17 Mitch.

18 MITCH FINE: (Unintelligible) able to say that
19 TDI is contained in some spray foams and, therefore, we
20 can capture spray foam. What I'm saying is if you
21 separate TDI out from spray foam and you're left with
22 just spray foam, I believe, Dr. Guo, you will have a
23 very, very difficult time, a heavy lift, to show that
24 spray foam causes the problems of occupational asthma.
25 There's no data. The only data you have in the entire

1 report comes from J.L. Long Middle School in Dallas,
2 Texas. This is one report. Did you read it before you
3 included it?

4 KARL PALMER: Mitch, you made that point
5 earlier.

6 MITCH FINE: I never did.

7 KARL PALMER: We got your basic point. But
8 what we were talking about just now is roofing systems.

9 MITCH FINE: But TDI is used in just fire
10 tap-on spray foam. Once TDI comes out, you have none.

11 KARL PALMER: I understand your point. I
12 don't agree, but my question back to you is, it's
13 important -- the definition is going to capture certain
14 manufactures of certain products as defined in the reg.
15 If we say spray -- if we say foam systems including TDI
16 coatings, for example, then if you made a system -- let
17 me finish. If you made that system and it included a
18 coating with a TDI base, you would be coating -- you
19 would be captured. If you didn't per that definition,
20 you would not be in the system. So if you used gravel
21 or something else, then that might be --

22 MITCH FINE: Are you saying if I use spray
23 foam with acrylic coating, I'm not included?

24 KARL PALMER: No. I'm saying as we define --
25 this is why we're here. We need to come up with the

1 language that defines what's captured. And there are
2 different elements in the broad definition that we
3 have. We understand that. We are asking you to help
4 us figure out what is in use, what's not in use, what
5 is a system.

6 And back to the earlier point is that don't be
7 confused with language about consumer products.

8 Everything sold in California essentially is a consumer
9 product. It's not -- don't think professional or home
10 use. That's not our definition. So anyway.

11 PAUL DUFFY: Paul Duffy once again.

12 NATHAN SCHUMACHER: Wait a minute. We're
13 getting into like a two-sided thing. We have a lot of
14 other people here, and some of the other people want to
15 comment and raise some questions as well.

16 So I realize, you know, you want to continue.
17 I'd like to move a little further with other people.

18 KARL PALMER: Let Paul have the last word on
19 this.

20 NATHAN SCHUMACHER: Okay. Okay.

21 PAUL DUFFY: Not to have the last word, but --

22 NATHAN SCHUMACHER: Well, the second to last
23 word.

24 PAUL DUFFY: You made the point that if you
25 don't include the coating into the spray foam then, you

1 know, the definition is what? The coating -- I think
2 somebody made the point that the coating could used
3 anywhere. Why is it associated with spray foam if, a,
4 spray foam doesn't contain TDI and HDI, the things that
5 are the most obnoxious from your reading of the
6 literature; and b, if that coating can be used
7 elsewhere, I submit to you your definition of spray
8 foam including this component is flawed, and that it
9 doesn't captured the other uses of that coating.

10 KARL PALMER: Understood.

11 PAUL DUFFY: So, therefore, wouldn't it be --
12 wouldn't it be best to define the coating narrowly
13 versus a broad brush that includes a bunch of things
14 that aren't part of the key concern?

15 KARL PALMER: I see your point. We'll leave
16 it at that. Let's go on.

17 NATHAN SCHUMACHER: Yeah. Yes, sir.

18 WILL LORENZ: Thank you. My name is Will
19 Lorenz of General Coatings. My parent company Polyco
20 Products makes TDI-based products, makes coatings for
21 flooring, makes coatings for a number of other
22 applications. We don't sell TDI-based coatings that go
23 over spray foam. We make acrylic coatings. We make
24 aliphatic coatings, aliphatic urethane coatings, and we
25 make polyurea coatings that go along with silicone

1 coatings.

2 In the State of California, the vast majority
3 of the coatings we apply over spray foam are acrylic,
4 as is many of the competitors here. It's the most
5 cost-effective because this climate is a mild climate.
6 It doesn't require that you have the high performance
7 coatings that are much more expensive.

8 My point is that you've -- you've got many
9 products listed as a product prioritization. You need
10 to simplify what is your product. Your product hinges
11 on unreacted isocyanate, but at the end of the day, you
12 picked spray foam which in its final state does not
13 contain unreacted isocyanate. And you correlate it to
14 the coatings and other things that are on top of it, in
15 the case of roofing.

16 Many other coatings can and are sold on top of
17 it. You can't then, if I put an acrylic on top of it,
18 justify why spray foam then be regulated if it
19 doesn't -- if the connection is based upon exposures of
20 isocyanates that are related to TDI exposures.

21 KARL PALMER: Understood. That's not the
22 argument we're making. One thing I would ask is I
23 would love to see information. You state in California
24 TDI coatings are generally not used.

25 GINA SOLOMON: On roofings. You said they're

1 used in other --

2 WILL LORENZ: Yes, absolutely. Sure,
3 absolutely. There's a large market for MDI and
4 TDI-based product globally. Remember, polyurethane --
5 even in your documents cites \$48 billion worth of
6 product being used worldwide for polyurethane.

7 GINA SOLOMON: What specific uses?

8 WILL LORENZ: Floor coatings.

9 GINA SOLOMON: Okay. Primarily floor
10 coatings?

11 WILL LORENZ: Yes.

12 GINA SOLOMON: Or others?

13 WILL LORENZ: Oh, well, there are many, but
14 what I would also say to you is TDI-based systems are
15 pre-polymers. We take the base isocyanates, we react
16 it with a polyall, so the free isocyanates content,
17 instead of being 29 or 32 percent, is reduced down to
18 less than a half a percent, so that it becomes a paint
19 or a varnish. I mean, those things are based upon TDI
20 and other isocyanates products out there, too.

21 Is the intent of this spray foam literature
22 discussion to encompass paints and other varnishes
23 which contain isocyanates also? I don't think so. But
24 you're ambiguous as to how you determined your product
25 profile and your product definition.

1 So you left us struggling as to what we need
2 to do for an alternative analysis, because you
3 literally named thousands of products. Thank you.

4 NATHAN SCHUMACHER: Well, is it possible for
5 us to move on to chemicals of concern? We do have a
6 list of chemicals of concern that are in the profile.
7 Did we get it wrong, or do we need to add or subtract?

8 STACEY-ANN TAYLOR: Stacey-Ann Taylor, Henry
9 Company. A quick question. So the chemicals of
10 concern, obviously, the truncated list concerning MDI,
11 TDI, HDI, was taken from the larger 1,000 whatever
12 number that you all constructed last year, and you
13 boiled it down to like 125, then you boiled it down
14 further for three products that you have chosen.

15 So in your product profile, which I have in
16 front of me, it clearly says if your product contains
17 one or more of these listed, and you include the cast
18 number, these listed chemicals, then it's captured.

19 So am I to understand that if it is not listed
20 on here, then it is not captured? That is your intent?
21 That's what it says in this profile.

22 KARL PALMER: Run that by me again?

23 STACEY-ANN TAYLOR: Am I speaking too fast? I
24 apologize. You literally, as you know, cite chemical
25 names for MDI, HDI and TDI.

1 KARL PALMER: Right.

2 STACEY-ANN TAYLOR: We took from your larger
3 chemicals of concern list put out, I think, last
4 October. In this product profile for spray foam, you
5 cite specific cast numbers --

6 KARL PALMER: Right.

7 STACEY-ANN TAYLOR: -- for these chemicals.
8 And you say, if your product contains one or more of
9 these chemicals, then it is captured basically in this
10 priority product profile. So what I'm saying -- what
11 I'm asking, am I to understand if -- if a product does
12 not contain one of these cast numbers or one of these
13 main chemicals, then it is not captured in this
14 regulation -- in this profile -- in this proposed
15 profile?

16 KARL PALMER: The priority product has to be
17 the product and a specific (unintelligible).

18 STACEY-ANN TAYLOR: Okay. Both conditions
19 have to apply --

20 KARL PALMER: Yeah.

21 STACEY-ANN TAYLOR: -- for the product? Thank
22 you. I needed that clarification. I appreciate it.

23 NATHAN SCHUMACHER: Okay. Anything else about
24 the chemicals of concern? You mean you're telling me
25 you're speechless?

1 LEE SALAMONE: I'm never speechless. Lee
2 Salamone with ACC. Not to belabor the point, although
3 I suppose I am. I would suggest that you remove all
4 the references to TDI and HDI. We have surveyed our
5 manufacturers, represent the vast majority in the
6 marketplace who do not add TDI or HDI to any of their
7 spray foam products. It would be simpler and cleaner
8 if you simply deleted all the references to TDI and HDI
9 as they should not be found in the spray foam.

10 DENNIS GUO: So your point is the coating for
11 the SPF roof system is not part of the system?

12 LEE SALAMONE: It's not part of the system. I
13 think roofing manufacturers have made it clear they're
14 not sold as part of the package.

15 DENNIS GUO: So you put the roof without the
16 coating?

17 LEE SALAMONE: No, no. You can put the roof
18 with the coating, but -- you put the roof with the
19 coating, but you can have a cake, and then you have a
20 variety of frostings to choose. You're not --

21 KARL PALMER: Can I ask this? So this is
22 maybe moving into number 3 a little bit.

23 NATHAN SCHUMACHER: That's okay.

24 KARL PALMER: In terms of how roofing systems
25 are marketed or sold, is that a -- do you buy -- is

1 it -- is there a system --

2 MITCH FINE: It's a separate product.

3 KARL PALMER: So you consider whatever coating
4 you're putting on the roof as a separate product?

5 MITCH FINE: Absolutely.

6 (Group discussion.)

7 KARL PALMER: That's what I'm trying to
8 understand.

9 NATHAN SCHUMACHER: So there's agreement?

10 MITCH FINE: And it requires equipment. I
11 can't even spray with my equipment.

12 UNIDENTIFIED SPEAKER: Lee, that picture that
13 you showed of the guy on the roof, he was not spraying
14 spray foam. That was a coating. It's a different --
15 different equipment, requires different PPE, different
16 materials. So I would -- I would perhaps not use that
17 photo again. That's not showing the proper product.

18 KARL PALMER: We're pulling the string on the
19 coatings a little bit. I'm just curious. What kind
20 of -- does that require a different kind of PPE or
21 safety or is there anything that doesn't require use of
22 PPE spray coating that you don't need to worry other
23 than gravel?

24 WILL LORENZ: Will Lorenz with General
25 Coatings. There are moisture-cured products which are

1 very low in NCO, meaning very low in the active
2 ingredient of isocyanate that you're concerned about.
3 And it's formulated that way, they're reacted that way
4 to get to that level, and such that they can then be
5 applied, and they are a moisture-cured products applied
6 by consumers, paints and coatings are, varnishes, those
7 things contain isocyanate products -- they're listed as
8 polyurethane-based products.

9 But they're not necessarily made by spray foam
10 manufacturers, and they're not necessarily applied by
11 roofing manufacturers and roofing applicators or wall
12 insulation or going into wall foams. What you have
13 done is you've opened up a very broad category of
14 polyurethane and it's a catch-all basically.

15 KARL PALMER: Ironically, before the meeting
16 started today, I looked out my window at the building
17 two doors over, there were three guys over on the top
18 of the building spraying a coating, no PPE, nothing, so
19 maybe --

20 UNIDENTIFIED SPEAKER: We don't know what kind
21 of coating that was.

22 UNIDENTIFIED SPEAKER: Or water to clean the
23 roof.

24 UNIDENTIFIED SPEAKER: They could be just
25 painting it.

1 WILL LORENZ: There's acrylic coatings which
2 are much like the base of paint. They're acrylic
3 polymers, and those things I would classify as similar
4 to paint in sense they contain titanium dioxide,
5 fillers. They're 50 percent water content and, you
6 know, the personal protective practices are the same
7 as, you know, painting exterior latex paint.

8 KARL PALMER: Okay.

9 NATHAN SCHUMACHER: The back three -- back two
10 tables in the back of the room have said very little.
11 There's a few people who have said a few things. Do
12 you guys want to add anything? I mean, hey, you said
13 something. Yes, sir.

14 JERRY METCALF: Jerry Metcalf. I'm just
15 curious. Is there an exposure limit you're working
16 with on these chemicals? Is it BEL, is it one
17 molecule? Where is the line in the sand here that you
18 consider hazardous?

19 KARL PALMER: No. We're not looking at a
20 specific regulatory standard. All of the standards,
21 however they're derived, are safety -- they're risk
22 reduction goals numbers. Again, we're looking more
23 broadly. We're asking you to look not to whether you
24 meet a threshold or not, but can you make the product
25 that is inherently safer?

1 And so we were not attempting to evaluate OSHA
2 standards or some airborne standard at all. But there
3 are exposures and there are some potential significant
4 harm, then we're asking that question. And we're not
5 presuming an answer.

6 NATHAN SCHUMACHER: I know you talked before,
7 but I want to see if I can get anybody else here. Yes,
8 sir.

9 AL KENNEDY: Al Kennedy, Premium Spray
10 Products.

11 NATHAN SCHUMACHER: I'm sorry. Could you be a
12 little louder?

13 AL KENNEDY: Al Kennedy with Premium Spray
14 Products. My question is a little bit different
15 (unintelligible) given by Mitch and several others in
16 here, and you guys up there, you know, taking it in and
17 yes, yes, and yes.

18 How and what form will we know that you've
19 received the documents from the ACC, have reviewed
20 them, and what your analysis is? Is this garbage they
21 gave us? This is good? How do we know that you're
22 actually analyzing it and what conclusion you have come
23 to? How will that be relayed back to us?

24 KARL PALMER: Okay. The long-term conclusion
25 will be when we get to the public notice for the rule

1 making, which we'll have a whole host of the documents
2 supporting our proposed language. Before then, we will
3 be continuing this discussion, evaluating what you give
4 us. We'll be formally responding to the formal letters
5 we have already received.

6 We are going to look at the profile and the
7 information and we may then add more information on the
8 website to say this is what we have learned from the
9 workshop, this is a refinement of our proposed
10 regulatory focus.

11 I don't know what that looks like. We're
12 trying to avoid giving a continuous this version, that
13 version, next version of a profile. But we've heard
14 loud and clear and we're committed to making sure we
15 don't have any errors and inaccuracies. But we're
16 also -- it will also take some time to digest all this
17 information we're getting and figuring out what the
18 next step -- how things might change or
19 (unintelligible) or not.

20 But ultimately, it will be extremely clear.
21 And before then, I'm hoping we can
22 have (unintelligible) responding to specific letters.

23 AL KENNEDY: Kind of a two-part follow-up to
24 that. I know you received and had at least a couple
25 meetings or calls. Has there been any information

1 identified yet that you feel that you should switch and
2 going back to when will we know?

3 You're basically saying to us that we will
4 know as a community when the rest of the world does.
5 Like we didn't know until the announcement was made
6 that we're on the product list. Did I hear you
7 correctly? I don't know.

8 KARL PALMER: You know, we're committed to a
9 continuous, you know, working with you continuously,
10 all of you.

11 AL KENNEDY: What does that mean? That's
12 what -- I'm trying to get -- get --

13 KARL PALMER: If we do make a change or we do
14 come to a determination that you need to know, we will
15 tell you. And we will tell everyone. It will be
16 transparent. We're not -- you know, it will take us a
17 little time to digest all this information, figure out
18 what makes sense for the next step.

19 AL KENNEDY: And if it's a negative, if it's
20 yeah, you're going to change and everybody's good and
21 we're all holding hands and singing Kumbaya. But if
22 what we submitted doesn't fit in your analysis or --

23 KARL PALMER: We'll tell you.

24 AL KENNEDY: -- reason, we will get responses
25 back saying, no, your reports from whatever they were

1 aren't applicable because of?

2 KARL PALMER: Yeah. We're going to respond to
3 the formal requests. We have gotten three major
4 letters from the industry essentially with lots of
5 input and questions and assertions, and we're going to
6 evaluate this and we will respond to all of this.

7 I don't know what the answer's going to be
8 yet, because we haven't digested it all. Part of the
9 goal we have is that at a minimum to have clarity, so
10 we all know what we're talking about and how the
11 process works.

12 I mean, we may ultimately disagree on what
13 should or shouldn't be in or out. I don't know. I'm
14 not going to presume that. But we -- that's why we're
15 having this meeting. That's why we've met with people
16 in the past, and we'll meet with other people in the
17 future.

18 NATHAN SCHUMACHER: We do have one more topic
19 and that is market, discussion of market information.

20 Do we want -- do you guys want to spend some
21 time on that, or you don't care about that? I'm
22 asking.

23 ROBERT RAYMER: Yes.

24 NATHAN SCHUMACHER: I'm sure you care that we
25 care about it. We want to hear about that.

1 ROBERT RAYMER: Yes.

2 NATHAN SCHUMACHER: All right. Well, Karl, do
3 you want to tell them what we --

4 KARL PALMER: Well, let me just preface this
5 by saying that on the science side, you know, the
6 hazard characteristics, the toxicology, those are
7 things we're used to dealing with. You know, we have
8 skill sets that can deal with that pretty well.

9 It's more difficult to us to understand how
10 things work in the market when we don't have access to
11 all of the information and don't have the experience.

12 So things like your example of that in
13 California maybe TDI-based roof sealants aren't even
14 used. That's --

15 WILL LORENZ: We call them coatings.

16 KARL PALMER: Coatings. Sorry. It's
17 important for us to understand, because it all leads to
18 exposure. So if there's no market in California for a
19 product containing that chemical, then we're not going
20 to prioritize that.

21 Similarly, when we're trying --

22 GINA SOLOMON: We need some evidence on that.

23 KARL PALMER: Yeah. And all of this has to be
24 based on reliable information. So that said, the other
25 things is that we don't -- in terms of how systems are

1 applied and this information on how you use a roof
2 system, for example, is valuable to us. And we have
3 only limited experience and exposure to that.

4 WILL LORENZ: Will Lorenz, General Coatings.
5 Don't you think that's a discussion you should have had
6 about two years ago with the industry when you had a
7 list of 150 things? I mean, we're explaining to you
8 about the products and its usage, but you've already
9 announced it's of concern.

10 I mean, you should have already known how
11 these things are used. I mean, where they're applied,
12 what the levels are? You didn't reach out to get any
13 of that information. I mean, my biggest complaint is I
14 have to read the document to get through the errors to
15 figure out what number of products are you trying to
16 regulate?

17 Whether all of these isocyanates are in or
18 out, whether you really think they're all in, spray
19 foam -- the foam itself, not the coating, or whether or
20 not they're in the exterior or the interior, or if it's
21 an adhesive. It's a mess.

22 NATHAN SCHUMACHER: Okay.

23 STACEY-ANN TAYLOR: I have one more.
24 Stacey-Ann Taylor from Henry Company. In terms of if
25 we consider supplying you with basically confidential

1 information, can you speak about the confidentiality
2 terms of the information.

3 KARL PALMER: Sure. In our regulations and in
4 our day-to-day business, we follow the state's
5 confidential business information trade secret laws,
6 and that's what we reference in our regulations. And
7 Lynn Goldman, counsel can correct me if I'm wrong. But
8 if you want to give us something and you assert it
9 should be protected, we'll evaluate that and work with
10 you and make a determination before we release
11 anything.

12 So is that a fair assessment, Lynn?

13 LYNN GOLDMAN: Yeah. We would not release any
14 of the information you submitted as CBI, but obviously
15 we are subject to the Public Records Act. So if we got
16 a request and that information fell under that, we
17 would then have to evaluate whether it met the criteria
18 to be considered CBI.

19 And if we thought it didn't, we would let you
20 know. You could give us more information to support
21 that.

22 ANN GRIMALDI: I have a question about that
23 process. Ann Grimaldi from the Grimaldi Law Offices.
24 So the -- if folks are going to be submitting
25 confidential information in this pre-regulatory

1 process, is it going to be subject to that abstention
2 requirement that's outlined in the regulations, which
3 is pretty burdensome.

4 LYNN GOLDMAN: Well, that only comes in play
5 if we have a request to release the information. So
6 it's not like we get it and we're immediately trying to
7 go through that substantiation to determine whether or
8 not it meets that. If we got a request for release of
9 that information --

10 ANN GRIMALDI: I understood it differently. I
11 thought it was upon submission, you needed to provide
12 all that substantiation information.

13 LYNN GOLDMAN: Yes. You need to provide us
14 that information, but we're not --

15 ANN GRIMALDI: Upon submission? So -- so my
16 question is, folks who are trying to support the
17 department's efforts in this regard and to provide
18 confidential information, they will have to provide all
19 that substantiation information along with the package
20 that they're deeming -- that they're claiming CBI;
21 correct?

22 LYNN GOLDMAN: Yes.

23 ANN GRIMALDI: Okay.

24 NATHAN SCHUMACHER: Okay.

25 JUSTIN KOSCHER: Justin Koscher, American

1 Chemistry Council. A question on the market
2 information in terms of how it's used and how it's
3 relevant to your analysis.

4 You asked the question that we have to
5 currently prove our product is not used here. Are you
6 concerned about a product that may be used once, twice,
7 is widely used, is used in certain applications? Can
8 you give us an idea how you will evaluate market impact
9 of that?

10 KARL PALMER: Once or twice would cross the
11 threshold probably. Back to my presentation this
12 morning, one of the factors that we're supposed to
13 consider, which are exposure and potential for exposure
14 for significant adverse impact. And if you look at all
15 the factors we're looking at, market presence is one.
16 So, you know, there's a volume issue.

17 JUSTIN KOSCHER: Do you also need to know if
18 the product is sold, who it's sold to, who uses it, and
19 would that also help you in your evaluation of whether
20 or not it rises to the level of your concern?

21 KARL PALMER: Depends on -- I mean, it would
22 be interesting to know certainly if all of the product
23 is going to, you know, large companies or what is sold
24 in a hardware store, like the one-component can system
25 which is sold to the general public.

1 Obviously, used by different people than
2 someone who is trained professional installer, for
3 example. That would be potentially relevant.

4 JUSTIN KOSCHER: Are you looking just for
5 quantity or economic impact, jobs?

6 KARL PALMER: We would love to see all of
7 that.

8 NATHAN SCHUMACHER: Any of that information is
9 helpful. Yes, in the back.

10 DAWN KOEPKE: Thank you. Dawn Koepke,
11 K-o-e-p-k-e, McHugh, Koepke and Associates. Just a
12 point of clarification on the trade secret piece.

13 I was hoping just to clarify. It's our
14 understanding that because this particular -- or any of
15 the products that have been proposed for listing aren't
16 final, if they haven't gone through the final
17 regulatory process. They are not officially products
18 of the regulations, so as such, we won't be required to
19 substantiate the regulations confidential business
20 requirements until they're finalized.

21 So just the current state trade secrets,
22 (unintelligible) protections and requirements would
23 apply until that product is finalized in this process;
24 is that right?

25 LYNN GOLDMAN: I mean, we're still -- if we

1 are requested information through DRA, we will still
2 have to evaluate whether or not it's actually CBI, so
3 we would obviously keep it confidential.

4 DAWN KOEPKE: Point of clarification. My
5 interest is just as it relates to not specifically to
6 this product, which is all industries that we have been
7 working with on the regulations have had concerns about
8 the CBI language in the regulations, and so I just want
9 to be clear that -- that there are differences that we
10 believe are -- different requirements that are a part
11 of the regulation and that are as part of just general
12 state law and CBI protections.

13 LYNN GOLDMAN: We can have that conversation
14 out of this forum.

15 NATHAN SCHUMACHER: Yeah. The lawyers might
16 want to talk some more about this. Sounds like there's
17 some confusion. Yeah.

18 GARY TALBOTT: You didn't hear from the back
19 here, in the balcony, so maybe I'll just speak anyway.
20 Gary Talbott, Five Star Performance Insulation.

21 Mention about market impact. You already
22 messed up the market for guys like myself that are
23 spray contractors by the false and inaccurate
24 statements that were made at the initial press release.

25 Every house in California that is being built

1 and has been built in the last five years has
2 polyurethane foam of one sort or another in it. What
3 was brought out in our conversation, which is a
4 positive side of what we're doing in gathering more
5 information, is the fact that you're not concerned with
6 what's in a house now, okay, that's already been
7 applied or after it's been installed. The concern
8 being it is between getting into that state, a
9 completed state, and the process to get it to there.
10 That alone, if that would be clarified, would make a
11 huge impact on our industry tomorrow.

12 Builders like Mr. Herro over here put
13 everything on the line every day --

14 CR HERRO: You're giving me a stomach ache.

15 GARY TALBOTT: -- builds his houses in the
16 most effective way he can. This is the guy. Listen to
17 him. Four years in a row, number one builder in the
18 United States. You want to tell him he can't use this
19 stuff anymore? What are you, crazy? Listen. He knows
20 what he's talking about. The guy's a chemist. The
21 guy's a chemist, for God's sake. What are you doing
22 building houses?

23 CR HERRO: Not a lot of work for chemists out
24 there.

25 GARY TALBOTT: I get passionate for what I do.

1 That's why I'm still doing what I do, because I'm
2 passionate about it. We really do help people. We
3 make life better. We're reducing energy costs.

4 But if -- consider, Karl, listen to me,
5 consider -- take some of these couple of jewels that
6 came out today, and re-evaluate and maybe put out a
7 white paper. The guys in the industry do that all the
8 time when they go, we forgot this, or we did something.
9 We're here to help you look good and produce a good
10 document we can all live with.

11 So we talked about impact on market. We're
12 hurting. We're hurting right now. I'm a survivor. I
13 survived 2007, 2008. I made it to this point in time.
14 I don't know how. I didn't have hair then either,
15 though. But it's been a tough row. It's been a tough
16 row for everybody that's been involved in it,
17 manufacturers, builders, just people that support
18 everything else. It's been a battle field.

19 And in California, it's really been bad.
20 Central Valley is still picking their stuff up off the
21 ground. But I think we really asked to put some of
22 these things together for us and come out with a real
23 clear picture about what you're really going after,
24 because what I heard I think is no problem. There
25 won't be as many, quote unquote, hidden issues. It

1 will be clear.

2 Builders can't build on something that it may
3 or may not happen. They're going -- they're looking
4 four years, five years down the road. The energy
5 commission has talked to all of us. They're begging us
6 to work with them to hit this next zero. And we can do
7 it. We're part of that team to do it.

8 But they're like pulling their hair out now,
9 because they can't do anything, and if they do anything
10 and you guys do something, all they're stuff is going
11 to be thrown out the door.

12 So maybe you can talk to your cousins over
13 there in the energy commission.

14 KARL PALMER: Well, I've talked to energy.

15 GARY TALBOTT: But they --

16 KARL PALMER: I understand there are
17 trade-offs.

18 GARY TALBOTT: Yeah, yeah. There's some dates
19 that there are some critical issues that we're going to
20 hit here. And if you make -- if we don't clarify that
21 now, it will really have a greater impact.

22 KARL PALMER: I understand your point. I also
23 want to clarify. The Energy Commission, God love them,
24 their mission is different than our mission.

25 GARY TALBOTT: Agreed.

1 KARL PALMER: And our mission is broader in
2 terms of protecting people in the environment. And the
3 -- the system, like it or not, that we're trying to put
4 in place addresses that and looks at trade-offs between
5 energy consumption and conservation and other impacts.
6 There are trade-offs.

7 And I assume you would say that there's --
8 that SPF might be -- from what I've heard after the
9 grass meeting from some folks here was that there are
10 energy -- there's such huge energy benefits,
11 conservative benefits, those would be evaluated in the
12 alternatives analysis. And with other options, is
13 there something that might minimize or reduce the
14 hazard of isocyanates. That's the question.

15 GARY TALBOTT: Well, help us stay in the
16 marketplace right now by clarifying a couple of these
17 things.

18 KARL PALMER: Okay.

19 CR HERRO: CR Herro, Meritage Homes. I think
20 one of the challenges is the position that everything
21 that you're considering is considered a consumer
22 product. Do I think you should be able to buy
23 isocyanates at the grocery store? I don't think I
24 would be comfortable with that.

25 KARL PALMER: Why?

1 CR HERRO: Because it requires responsible
2 application to ensure it has proper reaction. So when
3 I put in polyurethanes, it is with a licensed
4 contractor, who goes through SA safety training every
5 six months, that has to, you know, install with an E-30
6 rig or greater.

7 We have got scopes of work in order to assure
8 that the chemicals, just like -- you know just like any
9 other chemical that has the potential for harm gets
10 properly utilized so it is inert, just like the analogy
11 of the combustion engine, gasoline is regulated, but we
12 still allow the average consumer to utilize it in a
13 responsible manner.

14 So I do think safeguards are important, but
15 taking the position that polyurethane and its
16 precursors are a consumable product by the average
17 consumer may create a burden within this group that may
18 not be realistic given the true application. Or, you
19 know, I think that's something you should start
20 thinking about is, can you bifurcate the issue between
21 licensed and unlicensed use?

22 And I think you would find that most of the
23 people sitting at these tables be very comfortable with
24 the licensed use restriction as opposed to a ban on the
25 use of product.

1 Sorry for speaking for an industry I don't
2 work for.

3 NATHAN SCHUMACHER: Who has not said anything?
4 Go ahead, sir.

5 MAC SHELDON: I'm Mac Sheldon with Demilec.
6 We're a polyurethane B side systems house of
7 manufacturer.

8 And we've studied isocyanates, which
9 represents half our end product, extensively. The
10 disubstituion process has been known since 1937 has
11 been used in all manner of polyurethane products.
12 Isocyanate is necessary for all polyurethane. That's
13 what you're wearing, what you're sitting on, what you
14 touch every day in your cars and your seat cushions,
15 and public transportation systems, your running shoes,
16 your lycra, everything.

17 When it's reacted, it's much like chlorine and
18 sodium. Sodium is so volatile, it's not even found in
19 its pure state in nature. Chlorine, highly, highly
20 toxic. But you put them together and it's required for
21 our sustenance as a life form, as NaCl or table salt.

22 So is isocyanates created with the long chain
23 polymers into spray polyurethane foam, which is a
24 miraculous material in our daily environment.

25 So the question you said we're not pointing to

1 reacted isocyanates. Can you tell me, Doctor, when is
2 it reacted? In your mind, give me just an idea from
3 what study you have done, and I know you studied this
4 extensively, when is it considered cured or reacted?

5 DENNIS GUO: Well, the -- the proper safe
6 entry time has been studied by the industry and EPA,
7 and it's not established. Industry say five minutes.
8 I heard another version 30 minutes. But the concern
9 is --

10 MITCH FINE: I didn't say that. I said if the
11 concern was unreacted isocyanates on a surface, we have
12 measured five minutes afterwards, and we did not find
13 it. So, therefore, if the concern is we don't know
14 anything about dermal absorption, we have some data on
15 that that we can help you with.

16 We also have data on other vectors. Right? A
17 science-based approach. We can given you the answers
18 to these things. And we as an industry state publicly
19 what our reentry times are. We don't say, all done,
20 react, get in the next moment. We have taken a very
21 responsible position in terms of trying to ensure
22 public safety in terms of safe responsible use of our
23 products, and we're being vilified for that.

24 UNIDENTIFIED SPEAKER: So do I understand that
25 you really don't know?

1 DENNIS GUO: (Unintelligible) nobody knows.
2 But generally, let's say 4 hours to 24 hours.

3 MITCH FINE: Your PPP listed documents on
4 page 13 was a science study. And that study, they
5 actually have done the analysis. It's in your study.

6 KARL PALMER: So that's of concern, but what
7 we're trying to capture is the process. All right?
8 The application, when you're using. So -- so we
9 recognize this.

10 UNIDENTIFIED SPEAKER: There are -- there's
11 potential risk to people using application. There's
12 risk to living.

13 (Group discussion.)

14 KARL PALMER: But that's what we're talking
15 about. At some point, it's not a concern. We're not
16 doing a risk assessment here. Okay? It's important to
17 understand we're not doing a risk assessment. We're
18 doing hazard reduction.

19 (Group discussion.)

20 UNIDENTIFIED SPEAKER: I have a couple of
21 other questions.

22 KARL PALMER: That's a good point.

23 DENNIS GUO: May I ask?

24 MAC SHELDON: We have document after document
25 after test after research study from all over the

1 world, Australia, Canada, U.S. We got highly regarded,
2 all international organizations that test laboratories
3 that will tell us exactly when there's no more
4 unreacted isocyanates.

5 So at that point, we can make a pretty logical
6 assumption that it's cured to that point; right? When
7 there's no more unreacted. That happens within seconds
8 in most cases. A few -- a few minutes in many others,
9 and some of the single component suppliers have told us
10 there's no evidence of any unreacted diisocyanates at
11 the time of application.

12 So, did you find reference to unreacted
13 isocyanates beyond just a couple of minutes after
14 the -- after the actual spray operation?

15 DENNIS GUO: Well, I saw presentations and
16 ongoing collaboration in the industry and the federal
17 government that this has been studied and other
18 chemicals are being studied and the industry are trying
19 to train workers and trying to -- in your literature,
20 you also warn people this is a hazardous material, if
21 there's no --

22 MAC SHELDON: So they will --

23 KARL PALMER: But let's just -- we're not
24 going to argue risk management. That was --

25 MAC SHELDON: I just wondered -- wondered if

1 there was a number.

2 KARL PALMER: Let's stipulate that the
3 industry has done a lot to promote the safety of people
4 who use this product. We recognize that.

5 MAC SHELDON: So my follow-up question --

6 KARL PALMER: And the reason you've done that
7 is because there is potential for harm; correct? If
8 you don't do that, if you don't take that protective
9 measures, is that true?

10 CYNTHIA GRAHAM: Let me answer that. Can I
11 answer that? Cynthia Graham, Huntsman.

12 You have not demonstrated that there is a
13 significant hazard that -- that the MDI in spray foam
14 is a significant hazard. All of the data shows that
15 you need a very high overexposure to MDI --

16 KARL PALMER: You're talking about risk
17 assessment; right?

18 CYNTHIA GRAHAM: No. I'm talking hazard. I'm
19 talking about --

20 KARL PALMER: So you don't think the MDI
21 hazard -- that the characteristics --

22 CYNTHIA GRAHAM: You have not shown a
23 significant hazard. No, you have not. You look at the
24 data for asthma rates worldwide, you look for the
25 asthma rates in the State of California, less than

1 1.1 percent of the total asthma cases and you consider
2 that a significant hazard? I charge you have not shown
3 that it is a significant hazard.

4 KARL PALMER: We got that point.

5 PAUL DUFFY: The alternative cite -- you have
6 your list? Others have lists too. I have lists from
7 Health and Human Services. There are issues with the
8 alternatives you cite --

9 KARL PALMER: Yeah.

10 PAUL DUFFY: -- probably more significant than
11 we're talking about here.

12 KARL PALMER: And the alternatives analysis
13 would point that out; right?

14 PAUL DUFFY: You know, the point -- the point
15 I'm getting to is if -- if you have gotten the basic,
16 you know, smoking gun wrong, how do we have confidence
17 in the process?

18 KARL PALMER: Well, this is the process, and
19 we appreciate -- let me just say we're about out of
20 time. We appreciate -- I know everyone here is very
21 busy and you have other jobs to do, and we appreciate
22 that you're giving us information.

23 MITCH FINE: There's nothing more important we
24 have to do than being here. (Unintelligible). So you
25 say you appreciate our time. We're on trial here. And

1 what you have done is destroying our business. That's
2 why we're so passionate. The fact we only have three
3 hours for this inform process, I know there's Los
4 Angeles and I know there's Oakland, but it's not enough
5 time.

6 Because you've reached this point where you
7 are today without any -- any information coming from
8 the industry. SPFA received the call 24 hours before
9 this release. You have taken no input from our
10 industry, and you've put a paper out there, which
11 you've heard testimony today, is destructive. And so
12 what we're saying is, to trust you, we have to reset
13 the button and say how do we -- how do we dialogue with
14 you? We want a dialogue. We don't want to be
15 opposition. I don't want to come here and be
16 oppositional to DTSC. That's a battle we can't win.
17 We want to cooperate, but you have to -- it's your
18 responsibility to lay out a path and a forum for us to
19 do that, so we can be on the same side.

20 KARL PALMER: Agreed.

21 MITCH FINE: Give us a document that we can
22 live within, not one that destroys us.

23 KARL PALMER: Understood.

24 NATHAN SCHUMACHER: At this point, we have a
25 closing statement. I think we reached the closing

1 statement already. Karl, do you want to say anything?

2 KAREL PALMER: Yeah. I mean, this is -- we're
3 not taking this lightly. I know this is your life and
4 your business. I appreciate that. And my commitment
5 to you is we're going to take all this information and
6 look at it closely through the lens of our role
7 responsibility, our understanding. If we have
8 additional questions, we will ask. If you want to
9 have additional meetings or dialogue, we will do that.

10 But you made some very distinct points. I
11 think we captured those. We will go back and look at
12 those, evaluate them. We're going to be meeting
13 additionally with members of the industry to give us
14 more information about your processes and how it works.

15 NATHAN SCHUMACHER: People can share stuff up
16 until June 30th also.

17 KAREL PALMER: And again, we understand there's
18 a time component, a clarification, and that's
19 significant to you. And so I've heard these things
20 loud and clear. So my commitment to you is I'm going
21 to go back and talk to my management and our team,
22 evaluate what we have got, look at it through the lens
23 of our responsibility and regulation, and we'll make a
24 decision.

25 And if you have other points you don't think

1 were made or you can give us more information, we'll be
2 happy to get it. I understand your concern about not
3 be engaged earlier. I want to move forward from here
4 and see what we do to make -- do the best we can on the
5 process. And that's it.

6 NATHAN SCHUMACHER: Also we still want
7 marketing information.

8 (Whereupon, the hearing was adjourned at
9 3:37 p.m.)

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CERTIFICATE OF REPORTER

I hereby certify that the foregoing hearing was taken at the time and place herein named; and that the testimony of said hearing was reported by me, a duly Certified Shorthand Reporter and disinterested person, and was thereafter transcribed in my presence.

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

IN WITNESS WHEREOF, I have hereunto set my hand this 18th day of May, 2014.

CHARLOTTE A. MATHIAS, CSR 9792
State of California

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