

<p style="text-align: center;">Page 1</p> <p>1 NATIONAL INSTITUTE OF 2 ENVIRONMENTAL HEALTH SCIENCES 3 4 NATIONAL CENTER FOR TOXICOGENOMICS 5 6 WORKING GROUP 7 8 9 NTP Public Meeting Report On 10 Carcinogens (RoC) Review Process 11 12 13 January 27, 2004 14 15 16 17 National Library of Medicine 18 Lister Hill Center Auditorium Building 19 Bethesda, Maryland 20 21 22 23 24 25</p>	<p style="text-align: center;">Page 3</p> <p>1 put forward and whether the process actually 2 addresses exactly what you'd like to see it 3 addressed. So today we're going to be 4 discussing some of the very modest technical 5 changes we've made in the preparation of 6 background documents for the Report on 7 Carcinogens and the review process itself. 8 Dr. Jameson is going to do a presentation 9 for that in a little while. Prior to Dr. 10 Jameson's presentation Dr. Goldstein will 11 remind us of a previous review we had on the 12 Report on Carcinogens process and some of 13 the recommendations that were made at that 14 previous review and his opinion about whether 15 we've addressed some of those recommendations 16 or not, and I look forward to that 17 presentation. I have a couple of 18 housekeeping comments for you this morning 19 that I'm required to tell you by the 20 National..., by the Hill Center. No food or 21 beverages are allowed in the auditorium, so 22 those of you who have coffee with you 23 quickly run out before the beverage police 24 show up. No smoking is allowed anywhere in 25 the building. That's true of the entire NIH</p>
<p style="text-align: center;">Page 2</p> <p>1 NATIONAL TOXICOLOGY PROGRAM 2 REPORT ON CARCINOGENS PUBLIC MEETING 3 January 27, 2004 4 DR. PORTIER: Good morning, 5 and welcome to the National Institutes of 6 Health. I am Chris Portier, I am the 7 Associate Director of the National Toxicology 8 Program and I want to welcome you here today 9 for the NTP public meeting on the Report on 10 Carcinogens, peer review process here at 11 Lister Hill Center Auditorium. It's my 12 great pleasure to have you here today to 13 discuss the process we are going to be 14 use..., using for the 12th Report on 15 Carcinogens, we are currently finishing up 16 the 11th and we're looking forward to 17 beginning our work on the 12th. It's always 18 good when you have a important document that 19 you're putting forth and a lot of public 20 interest and stakeholder concern about how 21 the process of that, that document is 22 prepared. It's always good at the beginning 23 to look at your process, think about it and 24 carefully assess whether it still meets the 25 needs for which the document was originally</p>	<p style="text-align: center;">Page 4</p> <p>1 Campus and all of the buildings in the NIH 2 Campus. There are conference microphones at 3 each seat, if you'd like to speak and you're 4 recognized by the chair then I hope that you 5 will press your button properly and a little 6 red light should show up at the top of the 7 microphone, Lynn, if you could press yours, 8 everybody can see what it looks like..., 9 there you go. When you're done speaking, 10 press the button again and it will go off. 11 If you don't press it we will hear all your 12 rude comments in the background. If you have 13 any presentation material, if you..., you, 14 you're planning on putting something up, I 15 would appreciate to make sure that you've 16 touched base with Dr. Wolfe, Dr. Wolfe, if 17 you'd stand right here, and she has copies 18 of that so that we can think about them and 19 look at them at a later date after your 20 presentation and if possible get them handed 21 out to everyone who is present. Finally, 22 there are public phones in this building 23 near the lobby, there are restrooms near the 24 lobby, all of that is right where you came 25 in.</p>

<p style="text-align: center;">Page 5</p> <p>1 This morning in, to help guide us 2 through this review and to interact with any 3 of the public commentators, we've assembled a 4 panel made up of some of our federal 5 partners, some members past and present of 6 the NTP's Board of Scientific Counselors. 7 They're here to enter into the dialogue with 8 you, to discuss some of the issues you're, 9 you're bringing forth and to provide us with 10 the Report at the end of the meeting as to 11 what they saw and what they might think we 12 should do with some of the information that 13 was presented to us. Chairing the meeting 14 for us this morning is Dr. Lynn Goldman, 15 Lynn used to be a member of the NTP Board 16 of Scientific Counselors, she has done a 17 number of interesting jobs over the year, 18 over the years, most notably Assistant 19 Administrator of EPA for Pesticides and Toxic 20 substances, was that it, assistant 21 administrator? 22 DR. GOLDMAN: The official 23 title is Assistant Administrator for Toxic 24 Substances. 25 DR. PORTIER: Assistant</p>	<p style="text-align: center;">Page 7</p> <p>1 Public Health at the University of Alabama 2 in Birmingham. Elizabeth is also a member of 3 the NTP Board of Scientific Counselors. She 4 sits on the Report on Carcinogens 5 subcommittee as does Dr. Carpenter, both of 6 them are here to address some of your 7 concerns and give us some advice, and again 8 we're very happy to have Dr. Delzell here, 9 here as well. Finally, we have Dr. Rafael 10 Moure-Eraso, who is a former member of the 11 NTP Board of Scientific Counselors, he sat 12 on the Report on Carcinogens subcommittee as 13 well. He's currently the professor and 14 chairman of the Department of Work 15 Environment at the University of 16 Massachusetts in Lowell, Massachusetts. 17 Rafael in recent months has been one of the 18 few board members who has criticized us in 19 public about the Report on Carcinogens 20 process, looking at some of our criteria and 21 some of the questions he has about how to 22 use that criteria and we look forward to his 23 discussion and comment as well. Sitting 24 next to Dr. Moure-Eraso, I'm going to go 25 back to my list so I get it correct here</p>
<p style="text-align: center;">Page 6</p> <p>1 Administrator for Toxic Substances. Now Lynn 2 is at the Johns Hopkins Bloomberg School of 3 Public Health in Baltimore, Maryland and 4 she'll be chairing and we're quite happy to 5 have her chairing the meeting this morning. 6 She's done a number of interesting pieces 7 of, interesting articles on the evaluation of 8 evidence for a variety of toxic endpoints, 9 looking at strength of that evidence and how 10 you use that to make decisions about public 11 health risks, and I think we're quite 12 pleased and privileged to have her here with 13 us today. Aiding Lynn in the, on the panel 14 today will be, I'm going to go back and go 15 through my list in order, Hillary Carpenter, 16 from the Minnesota Department of Health. 17 Hillary is a current member of the NTP Board 18 of Scientific Counselors and again he..., 19 we're very happy to have Hillary here today 20 as well. He brings to us a very pragmatic 21 State Public Health Official point of view 22 in looking at this type of information and 23 trying to make public health decisions on 24 it. Elizabeth Delzell is here from the 25 Department of Epidemiology, the School of</p>	<p style="text-align: center;">Page 8</p> <p>1 from the CDC NIOSH in Cincinnati, Ohio. Mark 2 is the official NTP li... liaison from the 3 NI...from NIOSH, the National Institute of 4 Occupational Safety and Health. He's followed 5 the NTP through a number of years, I believe 6 he sits on the RG2 subcommittee which is the 7 subcommittee of the NTP's executive committee 8 that is part of the ROC process. Joining 9 Mark eventually will be Bill Allaben from 10 the FDA's National Center for Toxicological 11 Research in Jefferson, Arkansas. Bill also 12 has been, is the official NTP representative 13 from the Food and Drug Administration and I 14 believe he also sits on RG2 and has looked 15 at the, the Report on Carcinogens process 16 and voted on it through the years. 17 I'd like to thank a number of people 18 for putting forth the effort to make this 19 public meeting possible and through years of 20 effort making the Report on Carcinogens 21 possible. Bill Jameson and his staff at the 22 NTP have very expertly handled, not only 23 this meeting, but the entire Report on 24 Carcinogens process for a number of years. 25 Bill, where are you? There he is. And if you</p>

<p style="text-align: center;">Page 9</p> <p>1 have any questions or comments afterwards, 2 Bill will be available for discussion and 3 listening to some of your points. Mary Wolfe 4 and her staff in the NTP Office of 5 Scientific... of... NTP liaison office and 6 scientific review office also helped to put 7 this public meeting together. If there are 8 any reporters in the room who would like to 9 have followup questions, I simply ask that 10 you make sure that you touch base with Dr. 11 Wolfe or a member of her staff before 12 meeting with our staff so that we can keep 13 track of who has met with whom and what 14 discussions went on. Again, also if you have 15 any documents or written comments that you'd 16 like to give the program, please make sure 17 Dr. Wolfe or a member of her staff gets 18 them. Finally I'd like to thank one mem... 19 one member of the audience who's come quite 20 a distance, Dr. Ki-Hwa Yang from the Korean 21 National Toxicology Program is here, they are 22 trying to develop their own program in Korea 23 and he's very interested in our public 24 process of debate and discussion of NTP 25 processes and documents. He's here not only</p>	<p style="text-align: center;">Page 11</p> <p>1 snowstorm, but, you know, snow like this can 2 bring the Washington area absolutely to a 3 halt and I hope that you had good travel and 4 that, that you've been able to, to get 5 around here. A couple of things, points 6 that I want to make before going into our 7 agenda, Dr. Portier already mentioned the 8 importance of speaking into the mic, turning 9 on your mic's. That's because this meeting 10 is being recorded, both the presentations 11 and, and the discussions and comments around 12 it and, and so then also if you do enter 13 into the discussion to give your name and so 14 that, that would help the people who are 15 transcribing or at least even listening to 16 the, listening to the tape for preparing the 17 minutes. Also that, since we are a small 18 audience and this is a rather large room, 19 those of you who are seated out in the, in 20 the remote areas of this auditorium, you're 21 more than welcome to move forward. You 22 might have an easier time seeing the slides, 23 hearing the presentations, hearing the 24 discussion and um... honestly nobody up here 25 is going to bite your head off or anything</p>
<p style="text-align: center;">Page 10</p> <p>1 for this meeting, but on Thursday, we are 2 having another public meeting to look at the 3 future direction of the National Toxicology 4 Program and evaluate.... and begin the, a 5 year long, year long process of developing 6 a road map to achieve a different vision and 7 a different direction, or an improved 8 direction for the NTP. I'd like to invite 9 all of you to that public meeting as well 10 and I'm sure we have an announcement 11 somewhere that we can give you of, on the 12 logistics for that meeting. With that I want 13 to thank you all for being here... being here 14 and I'll turn it over now to Dr. Goldman who 15 will chair this meeting from this point 16 onward.</p> <p>17 DR. GOLDMAN: Good morning, 18 and welcome, I'm going to do something I've 19 always wanted to do and call this meeting to 20 order. It's really a pleasure to have the 21 opportunity to chair this meeting today, I 22 know that many of you have come here from 23 long distances and braving our little 24 snowstorm here, which probably from, for 25 other locales doesn't look like much of a</p>	<p style="text-align: center;">Page 12</p> <p>1 like that. This process is a very, very 2 important process, it's a part of the Report 3 on Carcinogens. I had an opportunity in 4 participating in one back when I was a 5 member of the Board of Scientific Counselors 6 in the last go round of this and I can tell 7 you that the comments that are made and the 8 discussions here really make a difference in 9 terms of improving the process for the 10 Report on Carcinogens and, and in fact the 11 Report of Carcinogens has very rapidly been 12 evolving in its procedures over the last 13 decade. I understand that most of that 14 evolution has had to do with the very rapid 15 change in the kind of scientific evidence 16 that's available to the, to the reviewers, 17 and that that has created changes that have 18 allowed the incorporation and the 19 consideration of, of newer scientific 20 evidence. And at the same time I think that 21 nobody involved in the process from, from 22 what I can tell believes that, you know, 23 that they have a perfect process that will 24 never change, there's a real willingness to 25 listen, there's real willingness to change</p>

<p style="text-align: center;">Page 13</p> <p>1 and so I just.... I think that that's an 2 important thing for everybody to understand 3 in terms of a tone for the day. Also that 4 there aren't very many of you here, we are 5 hoping that unlike some of these meetings 6 that we'll be able to have a little bit of 7 exchange back and forth, that it won't just 8 be a matter of, you know, one way street 9 communications, listening, but that if there 10 are things that members from the Board of 11 Scientific Counselors or others of you wanted 12 to elaborate on, draw out, have some further 13 discussion on from the presentations that 14 we're here and ready to do that. Since 15 there are not very many people here, I'd 16 like to start by very briefly going around 17 the room, Dr. Portier introduced the people 18 in the front of the room, but it's just, if 19 you could quickly go around and give us your 20 name, who you're with, that might be a nice 21 way to start the day given that there are so 22 few of us. So why don't we go ahead and get 23 started and, actually we'll start in the 24 very back and work our way forward, the 25 folks who were finding their way through the</p>	<p style="text-align: center;">Page 15</p> <p>1 MS. LUDMER: I'm Jenny 2 Ludmer, I'm here from Aspen Systems 3 Corporation. 4 MS. BECK: Nancy Beck from 5 the Office of Management and Budget. 6 DR. WOLFE: Mary Wolfe from 7 the National Toxicology Program, National 8 Institute of Environmental Health Sciences. 9 MR. NIDEL: Chris Nidel from 10 Baron and Budd. 11 MR. YANG : My name is Ki-Hwa 12 Yang from South Korea, I am working for the 13 National Institute of Toxicological Research 14 and I'm the head of the National 15 Toxicological Program in Korea. 16 MR. KELLY: I'm Bill Kelly 17 with the Center for Regulatory Effectiveness. 18 MS. LE HURAY: Thank you, 19 I'm Ann Le Huray from the American Chemistry 20 Council and I'm sad to report that Rick 21 Becker is stuck in his neighborhood and 22 won't be able to be here and he was going 23 to present the ACC's comments and I don't 24 have his slides, so we can figure out what 25 to do there.</p>
<p style="text-align: center;">Page 14</p> <p>1 building with me this morning... 2 COURT REPORTER: You spe... 3 referring to us? 4 DR. GOLDMAN: That's you... 5 you are...Yes, sir, are there any rows 6 behind you? 7 COURT REPORTER: No, ma'am, 8 there are not. My name is Todd Strader and 9 this is Sean Burns and we are the court 10 reporters who are preparing the transcript of 11 your meeting today. 12 MR. SCOTT: I'm Dean Scott, 13 I'm a reporter with BNA's daily environment 14 report. 15 MS. SHOEMAN: Loretta 16 Shoeman, OSHA, and I'll be moving up soon. 17 MR. SMITH: Darrell Smith, 18 Vice President of Government Environmental 19 Affairs for the Industrial Minerals 20 Association. 21 MR. KELSE: John Kelse , 22 Industrial hygienist, RT Vanderbilt Company. 23 DR. ROTH: Adam Roth 24 representing Brush Wellman, a producer of 25 beryllium and beryllium compounds.</p>	<p style="text-align: center;">Page 16</p> <p>1 DR. PICCIRILLO : Vince 2 Piccirillo representing the Naphthalene Panel 3 of the American Chemistry Council. 4 MR. BABBAGE : Michael Babbage 5 from the Consumer Products Safety Commission. 6 DR. GOLDSTEIN: Bernie 7 Goldstein, Graduate School of Public Health, 8 University of Pittsburgh. 9 DR. PORTIER: Chris Portier, 10 NIEHS/NTP 11 MS. THAYER: Kris Thayer 12 NTP/NIEHS. 13 MS. FELTER: Susan Felter, 14 Procter & Gamble. 15 MS. FISHER: Joan Fisher, 16 Procter & Gamble. 17 DR. JAMESON: Bill Jameson, 18 NIEHS/NTP. 19 DR. BUCHER: John Bucher, 20 NIEHS/NTP. 21 DR. GOLDMAN: And there's one 22 last person, if you push the button on your 23 mic and we're just introducing ourselves. 24 MS. HURT: Valerie Hurt, 25 Office of General Counsel.</p>

<p style="text-align: center;">Page 17</p> <p>1 DR. GOLDMAN: Okay, well, 2 without further ado then, let's get started 3 and we're going to begin, as I said before, 4 this is a... part of a continuum of these 5 kinds of processes and we're fortunate that 6 today Dr. Bernard Goldstein from Rutgers 7 University is able to come... not Rutgers 8 anymore, this is wrong on the agenda, 9 University of Pittsburgh, School of Public 10 Health is going to be able to review the 11 last of these meetings and, and what 12 transpired there.</p> <p>13 DR. GOLDSTEIN: I don't want 14 to say the last meeting was contentious, but 15 I had to leave to go to a different 16 university afterwards. The, I hope you all 17 can hear me, and this is okay for the 18 recorder. The, the last meeting was an 19 example I think of openness and of a, just a 20 fair exchange of views. Lynn Goldman 21 started it off very well by saying two 22 things: one is that the process... any 23 process can be improved and certainly a 24 process as complex as the one of reporting 25 on carcinogens can be improved, and secondly</p>	<p style="text-align: center;">Page 19</p> <p>1 is one that I think has to be considered to 2 be a setting for all the activities of the 3 National Toxicology Program. I purposely 4 picked the IARC one to make it clear that 5 we're not talking just about NTP, we're 6 talking about anything that uses weight of 7 evidence where you have a continuum of the 8 evidence and there is a continuum. We start 9 at the bottom with compounds which we're 10 reasonably certain do not cause cancer, your 11 stuff goes to the top with compounds which 12 we know and all agree upon cause cancer and 13 then the amount of the evidence for every 14 one of the others falls somewhere in a 15 continuum, and what, in essence the 16 regulatory process has to do is draw a line 17 through that continuum, NTP has to draw a 18 line through the continuum. Whenever you 19 draw that line there are going to be 20 chemicals that are just above or just below. 21 So whatever the default assumptions are, 22 there are going to be chemicals for which 23 the evidence is sufficiently controversial, 24 and controversial's too strong a term, for 25 which the evidence reasonable scientists will</p>
<p style="text-align: center;">Page 18</p> <p>1 that the NTP clearly felt that it had to 2 respond to stakeholders, had to work with 3 stakeholders in order to do its job and I 4 think that's, that's a good way of setting a 5 process up. A couple of things came out that 6 were pretty clear, but sometimes were fuzzy, 7 and I don't know if there's a better way 8 of...turn some of the lights off, I'm not 9 sure how well this can be seen anybody 10 see a plug anywhere?</p> <p>11 There's a control panel, is it there? 12 SPEAKER: Oh, God, now we're 13 completely in the dark.</p> <p>14 DR. GOLDSTEIN: But there, 15 there were three sort of central issues 16 which I think everybody agreed to, but they, 17 they weren't always very clear in, in what 18 people were saying. First, it's, it's very 19 clear that, that some but not all chemicals 20 cause cancer. If all chemicals caused 21 cancer there wouldn't be a need to single 22 out those, but that's, that's really sort of 23 inherent in this. The second point is a 24 point that has to do with the weight of 25 evidence and that weight of evidence issue</p>	<p style="text-align: center;">Page 20</p> <p>1 differ slightly as to how they interpret the 2 evidence, and inevitably there are going to 3 be compounds like that. We are never going 4 to be able to put all the compounds in boxes 5 because we're dealing with the continuum and 6 these lines are, if you will, artificial. 7 So keeping that line and keeping wherever we 8 hid that, wherever we put that line, 9 reasonably consistently is a very important 10 part of what the National Toxicology Program 11 does for us. Now we have to understand that 12 reasonable scientists will differ and there 13 will always be controversy and there will 14 always be, particularly with compounds like 15 carcinogens, sufficient economic interest, 16 sufficient political interest, sufficient 17 public interest that there will be people 18 who will be in making the big point about 19 the fact that you, if you only interpreted 20 this a little differently, it would be, now 21 be above the line instead of below the line. 22 There will never be a situation that I can 23 imagine in which every compound will have 24 complete agreement by every member of any 25 scientific peer group such as the Board of</p>

<p style="text-align: center;">Page 21</p> <p>1 Scientific Counselors, and that's built into 2 the system. The third point having to do 3 that, that's central that sometimes I don't 4 think is arguable but we sometimes lose 5 sight of it, everybody seems to say, and 6 that it's clear that we're talking primarily 7 about, about science, obviously there's more 8 than science in where you draw those lines, 9 but once you've drawn the lines, the 10 identification process is a scientific one. 11 Well, the key points that were 12 made, and I just pulled a few of them out 13 of the long series of presentations, is that 14 really everybody's in favor of compiling and 15 publishing a list of carcinogens, nobody came 16 in and said you shouldn't do it. You just 17 have to understand that, that by and large 18 the comments were appropriately focused on 19 process. Now, some were not, some basically 20 came in and said if only we had interpreted 21 this chemical this way it would have been 22 different. But by and large people were 23 focused on how do we change the process, 24 which is really what NTP is asking about. 25 What's their process like, not what's a</p>	<p style="text-align: center;">Page 23</p> <p>1 assumptions, what do you accept, what don't 2 you accept, in essence where do you draw 3 those lines, that had to do, in the case of 4 NTP between known and/or reasonably 5 anticipated. There was obviously a lot of 6 concern about, from the industry about the 7 public would overreact, there would be 8 unnecessary costs. There were some industry 9 representatives who basically said that 10 unless there was a unanimous vote, nothing 11 should be called a carcinogen, be called a 12 known carcinogen or even a reasonably 13 anticipated to be, because it had such a 14 tremendous impact on cost. There were others 15 who said that really this is a regulatory 16 decision because it has impact on OSHA's 17 right to, on, on OSHA's right to, OSHA's 18 worker language... basically you 19 automatically stick a compound into a 20 different card, category so OSHA regulates, 21 EPA has a right to know, you automatically 22 put it into a different right to know 23 category, so there are regulatory impacts and 24 because of these regulatory impacts there 25 ought to be a much more of a regulatory</p>
<p style="text-align: center;">Page 22</p> <p>1 specific chemical that should have been done 2 differently. I imagine some people here 3 talked about that, but again I think you 4 make your point much better if you say that 5 this is an example of where the process 6 could be changed rather than you should have 7 interpreted my chemical differently. So by 8 and large that was adhered to, and there 9 were no recommendations in this very long 10 document and major presentations to basically 11 say that NIEHS should run this or that the 12 NTP organizational structure should be 13 different. There were a number of people 14 from environmental groups which made comments 15 that basically said we object turning over 16 this process to the National Academy of 17 Sciences or EPA or FDA, but nowhere in the 18 record that I saw or in any of the 19 presentations was anyone who suggested that 20 we ought to do so. So there was sort of a, 21 perhaps a feeling among the environmental 22 groups that maybe the suggestion was out 23 there, but the suggestion was not really 24 made at the time of the meeting. There were 25 obviously a lot of arguments about default</p>	<p style="text-align: center;">Page 24</p> <p>1 approach to the document. Any comments that 2 come in should be responded to by the A, by 3 the NTP in writing rather than just simply 4 taking note of.... all back and forth 5 approaches are to occur as if this was a 6 regulatory document. Not everybody... in fact 7 it was probably a minority of people who 8 were in favor of that, but generally that 9 was an approach taken by a number of the 10 industry representatives. Again, not all, 11 that this ought to be much more of a 12 document that has the give and take that we 13 associate with an EPA regulatory document, 14 where the process is everything. Lynn Goldman 15 made a very good point about the, the fact 16 that, that in regulatory agencies sometimes 17 process is more important than substance, but 18 then when we look at carcinogens, we really 19 want to focus on substance, not process, and 20 Lynn, I think I'm quoting you correctly, I 21 think, in, in that. The public interest 22 groups wanted the burden of proof to be on 23 disproving carcinogenesis. The idea was 24 that, that, that the cancer causing chemical 25 is something that is such a tremendous</p>

<p style="text-align: center;">Page 25</p> <p>1 burden to the public that in fact there 2 ought to be a burden of proof, the default 3 assumptions ought to be changed and such 4 that we lean over backwards to say, yes, 5 something is a carcinogen until proven 6 otherwise, and there have been a number of 7 comments about the NTP process since then in 8 the form of the, of the precautionary 9 principle. Now there are a lot of process 10 issues, and what's...</p> <p>11 SPEAKER: I'm sorry, I stepped 12 on the...</p> <p>13 DR. GOLDSTEIN: ...the 14 concerns about the process had to do with 15 everything from there being not enough time 16 for full presentations to the Board of 17 Scientific Counselors to not enough compound 18 specific knowledge, to lack of acknowledgment 19 of submissions to lack of specific response 20 to submissions, to better publicity and, and 21 better organization. There's a whole series 22 of different issues to which I would suggest 23 that NTP has at least partially responded to 24 just about all of them. There is an 25 increased time for presentation to the Board</p>	<p style="text-align: center;">Page 27</p> <p>1 Scientific Counselors voted on the document, 2 while the members of the Board of Scientific 3 Counsel were there said, no, we don't vote 4 on a document, the document is just one 5 piece of the information, we might disagree 6 in fact with part of that document, we're 7 voting on this, you know, on this reasonably 8 anticipated is it, doesn't, which category 9 does it fit in and so that document should 10 not be considered to be a document in which 11 we unanimously approve. We're not approving a 12 document, we're voting for a category and 13 that distinction is a very important 14 distinction and needs to be better publicized 15 among others because otherwise the feeling is 16 that they've approved the document, they've 17 approved everything in the document when in 18 fact that's not the way the process works. 19 So these are a number of the, of the issues 20 and what I would consider to be key, key 21 points but which perhaps the most important 22 ones that don't really fit under the process 23 so much but fit under communication are 24 these. There's a real concern about public 25 misunderstanding. One of the more moving</p>
<p style="text-align: center;">Page 26</p> <p>1 of Scientific Counselors, the compound 2 specific expertise that NTP has in a sense 3 consulted with in developing the documents is 4 now, is now sitting at the table, the 5 submissions are at least being acknowledged 6 and, but there is still not this specific 7 response to the submissions, there is still 8 not a , if you will a, we've seen this, 9 we've read it, here's what we've done about 10 it, here's where we think you're wrong, 11 here's where we think you're right, that 12 would transform this into a regulatory 13 process, and that remains as it was before. 14 My feeling is, you know, my bias is to say 15 that that's appropriate. The better 16 publicized and more accessible to the public, 17 NTP has responded by having meeting, this 18 meeting in Washington during an ice storm to 19 make sure everybody gets to it, thank you 20 very much, but there is clearly an approach 21 to, to make this more publicized. And some 22 of the publicity issues have to do with a 23 better understanding of the process. There 24 was a real feeling at the last meeting by a 25 number of the attendees that the Board of</p>	<p style="text-align: center;">Page 28</p> <p>1 presentations was by Susan Dickinson from the 2 Why Me organization, which is an organization 3 of women who are concerned about breast 4 cancer who basically said that Tamoxifen, 5 when declared carcinogen by NTP, or 6 considered to be in, in that process, that 7 women who would have benefitted from 8 Tamoxifen stopped taking the Tamoxifen. There 9 was a physician here to testify from the 10 drug company folks who were making it, 11 basically testified that his estimate was 12 that 50,000 women who would have benefitted, 13 of the 50,000, I think he said 30 to 50,000 14 stopped taking it, I don't know if those 15 numbers are right, but clearly we are 16 dealing with a situation in which there's at 17 least a potential for, for public health 18 benefit, and there's all these dose and dose 19 rate issues. One of the speakers brought 20 some sand, a man representing the solar 21 industry, brought some beach sand, he said 22 clearly you don't mean that, well, clearly 23 people don't mean that. Those dose and dose 24 rate issues are issues that perhaps don't 25 get communicated very well, but still silica</p>

<p style="text-align: center;">Page 29</p> <p>1 is a carcinogen under the wrong 2 circumstances, if you will, so that that 3 issue of communication's important. The 4 chemical form. Again, silica is a part of 5 that, nickel was brought up, there are other 6 chemicals, chromium, which is an essential 7 nutrient in one valence and a carcinogen in 8 another, is another issue that needs to be 9 talked about, and the issue of a known human 10 carcinogen, if we're serious about 11 mechanistic information allowing one to say 12 that this is a known human carcinogen, even 13 though the epidemiological data isn't quite 14 clear cut, you've got a problem with the 15 word known. I think we in science understand 16 what we mean to say when we say it's a 17 known human carcinogen and we're bringing it 18 from reasonably anticipated to known because 19 of this mechanistic data, but again, 20 public..., being able to clearly communicate 21 that is, is difficult. 22 Now I've got some recommendations 23 that I've been told appropriately I should 24 make as a member of the public, so I'm going 25 to hold off making some of the</p>	<p style="text-align: center;">Page 31</p> <p>1 present, would you like to present that 2 after Dr. Jameson gives his review, we'd 3 appreciate that and then second, just take a 4 moment here if people have any questions 5 about that present... about what you just 6 saw and heard. Okay, thank you. Or comments, 7 sure. 8 DR. MOURE-ERASO: Thank you, 9 Dr. Goldstein, for a very interesting 10 presentation. I really appreciate your 11 perspective and I have two comments that, 12 that, that I would like to, to, to present. 13 The first one is I would like to reinforce 14 your, your view that I don't think there is 15 a substitution to the NTP as the agency that 16 should be conducting this process. I 17 believe that any other approach, especially 18 ad hoc approaches would, the National Academy 19 of Sciences or, or, or similar agencies 20 would be that, a ad hoc situation, what we 21 have with the NTP is a long history and a 22 long institutional memory of how to do this 23 and how to.... under the different problems 24 that we are facing and, and is the agency 25 that I believe is the most adequate agency</p>
<p style="text-align: center;">Page 30</p> <p>1 recommendations that I actually made in the 2 previous document that I'm going to stand 3 on, but let me just say that I generally 4 have been very, very positively impressed by 5 how NTP has responded in thinking through 6 the issues that people brought to them and 7 in making changes. Now, they have not made a 8 change which I would view should we put them 9 into the process of being a regulatory 10 agency and I think that they're absolutely 11 right about that. But that is an issue that 12 I'm sure will continue to be brought up and 13 will continue to be reviewed by NTP as to 14 how much they need to be responsive on a 15 blow by blow basis, much like a regulatory 16 agency, that being the central part of, of 17 where the, where I see a difference of 18 opinion among the, the people who we saw the 19 last time. So good luck on this 20 presentation, and I hope it works out as 21 well this time as it did last time. 22 DR. GOLDMAN: Dr. Goldstein, 23 before you sit down, first I, I assume that 24 you have an early flight today so if, if you 25 have new material that you'd like to</p>	<p style="text-align: center;">Page 32</p> <p>1 to, to conduct this process and I want to 2 make it clear that it's something that we 3 should cherish and maintain and, and I don't 4 think that, that the, the comments and 5 criticisms that sometimes people present in 6 the process as mine, for example, are not 7 meant to undermine or attack the mission of 8 the agency that I consider that is 9 irreplaceable and, and, and that has done an 10 excellent job. The other comment that I 11 have is that you, you mentioned your, your 12 concerns out of the 99 last session like 13 this on the fact that some... the, the 14 public health value of some substances that 15 because they are listed in some form as a 16 carcinogen are going to remove that 17 substances from circulation in society and 18 those substances sometimes could have 19 obviously very good public health effects. 20 However, I think that, that, that we could 21 never forget that the most important function 22 is, is not how some substances listed have 23 some, might have some good effects in one 24 form or another that doesn't consist cancer, 25 but that the principal function is the</p>

<p style="text-align: center;">Page 33</p> <p>1 public health effect of listing the substance 2 and the public health effect of protection 3 that happened in society with a substance 4 that's specifically identified and put it in 5 the list. You started by saying that it's 6 important to have list... I fully agree with 7 you, it's important to have list, so, so 8 that public health function I think is, is 9 starting out really important, so thank you 10 very much.</p> <p>11 DR. GOLDMAN: Okay, all right, 12 thank you, thank you, there's one more 13 comment.</p> <p>14 MS. FELTER: Susan Felter. 15 It's a question. Are transcripts available on 16 NTP's website or anywhere else from that 17 1999 meeting?</p> <p>18 DR. GOLDMAN: The question is 19 whether there's a full transcript available 20 from the 1999 meeting. I think that what's, 21 what we have are the, we have minutes that 22 were posted, but Bill?</p> <p>23 DR. JAMESON: Yes, the, the 24 transcript from the, from the 1999 meeting 25 actually are on, on our website. If you go</p>	<p style="text-align: center;">Page 35</p> <p>1 repaired, prepared in response to the Public 2 Health Service Act that was passed in 1978 3 and that Act stipulates that the Secretary 4 of Health and Human Services shall publish 5 an annual report that lists all substances 6 which are either known to be human 7 carcinogens or reasonably anticipated to be 8 human carcinogens and to which a significant 9 number of persons residing in the United 10 States are exposed. This law was amended in 11 1993 to, to make it a biannual report. 12 Mainly because of the time involved in 13 putting it together, we, we had a very 14 difficult time getting the report together on 15 a, in a one year period. What I put up 16 here and actually this is some material that 17 was, that's provided to you in your packets 18 or, or out front is, is the criteria and I, 19 I specifically made a slide of the criteria 20 as it's published on the web page so that 21 everybody can see what the, what the basis 22 is of listing materials either as known or 23 reasonably anticipated human carcinogens. 24 Very briefly, I don't want to read all of 25 the criteria, but very briefly, okay, for a</p>
<p style="text-align: center;">Page 34</p> <p>1 to our website and go to the part where we 2 discuss the 1999 meeting, the, the transcript 3 is there.</p> <p>4 DR. GOLDMAN: Excellent, 5 okay, Bill, why don't you come forward now 6 and Bill is going to give us an overview of 7 the history and review process for the 8 Report on Carcinogens.</p> <p>9 DR. JAMESON: Well, thank you 10 and good morning, I would like to also 11 welcome everybody here and, and thank you 12 for braving the elements to come in and 13 participate in this meeting. I'd like to 14 thank Dr. Goldstein for his presentation, I 15 think he, he presented a very clear and 16 concise summation of what was discussed at 17 the meeting and what I plan to do here is 18 to go through the, the proposed process and 19 identify where we have made some changes or 20 revised our process in response to the 1999 21 meeting. Kind of repeating some of the 22 things that Dr. Goldstein has talked about 23 in his presentation.</p> <p>24 First of all, just as a kind of an 25 introduction, the Report on Carcinogens is</p>	<p style="text-align: center;">Page 36</p> <p>1 known human carcinogen there must be 2 sufficient evidence from studies in humans 3 which indicate a causal relationship between 4 exposure and, and human cancer. For the 5 reasonably anticipated category, it can be 6 limited evidence in, in, from studies in 7 humans. But there are other situations where 8 confounding could not be completely 9 eliminated from, from the evidence or there 10 is sufficient evidence from studies in 11 animals... in laboratory animals where an 12 increased incidence of malignant or a 13 combination of malignant and benign tumors 14 are, are induced by exposure to the 15 particular material, or there is less than 16 sufficient evidence of carcinogenicity in 17 humans or laboratory animals, but the 18 nomination or the material belongs to a well 19 defined structurally related class of 20 substances whose members are listed in 21 previous Reports on Carcinogens as either 22 known or reasonably anticipated carcinogens. 23 And the paragraph in the box, if you will, 24 that conclusions regarding carcinogenicity in 25 humans and experimental animals are based on</p>

<p style="text-align: center;">Page 37</p> <p>1 scientific judgment with consideration given 2 to all relevant information, and this is an 3 important point because when the criteria was 4 revised in 1996 the inclusion of 5 consideration of all relevant information 6 meant that, that mechanistic information was 7 a, was an integral part of the review for 8 listing something in the Report on 9 Carcinogens. At the time that we were 10 putting together the 9th, excuse me, Report 11 on Carcinogens there was a number of 12 comments that were coming in that people 13 were confused by what exactly did we mean by 14 human studies. And so we published a 15 clarification in the Federal Register, which 16 is, which is shown, shown here and basically 17 what it, what it indicated was that some 18 question had arisen about what we meant by 19 human studies to be listed as a, as a known 20 human carcinogen, and that the known human 21 carcinogen requires, I want to read this to 22 make sure I don't make a mistake, the known 23 human carcinogen category requires evidence 24 from studies in humans, this can include 25 traditional cancer epidemiology studies, data</p>	<p style="text-align: center;">Page 39</p> <p>1 forum. So what I'd like to do is to really 2 address what changes or modifications we've 3 made to the process since 1999 in the 4 following slide. 5 First, I want to discuss the 6 nominations. As, as in the past we always 7 solicit nominations from the outside, we go 8 out with announcements in, on our NTP list 9 server, we take advantage of Federal Register 10 notices when we're announcing new nominations 11 to ask people if they have other nominations 12 that they want us to consider to please 13 submit them to the NTP for consideration for 14 listing or de-listing from the Report on 15 Carcinogens. At the time of the 1999 16 meeting, the evaluations of the nominations 17 for formal review, at the time I took 18 advantage of, of the RG1, the NIEHS review 19 committee to help me identify the nominations 20 and make sure that, that there was 21 sufficient preliminary information for a 22 nomination before we proceeded with getting 23 approval to review a nomination for listing 24 in the report. Well, one of the 25 modifications are... that we are making for</p>
<p style="text-align: center;">Page 38</p> <p>1 from clin..., clin..., excuse me, clinical 2 studies and/or data derived from the study 3 of tissues from humans exposed to the 4 substance in question and useful for the 5 evaluating whether relevant cancer 6 mechanism....mechanisms is operating in 7 people. So we just wanted to clarify what 8 was meant by human studies. 9 In this slide I, I put up the review 10 processes, we discussed it at the 1999 11 meeting and I wanted to use this as a basis 12 to say most of the comments and issues that 13 were brought up dealt with the nomination 14 and the preparation of the background 15 document which is essentially this part of 16 the process before it goes on to the 17 scientific review by the three review 18 committees, which include the NIEHS review 19 committee or what we refer to as the RG1, 20 the interagency working group, which is made 21 of representatives from the NTP executive 22 committee or the RG2 and the NTP Board of 23 Scientific Counselors ROC subcommittee which 24 we refer to as our external peer review 25 meeting, which is, which is held in a public</p>	<p style="text-align: center;">Page 40</p> <p>1 all future Report on Carcinogens, and Chris 2 Portier was, was, pushed that we, we make 3 this a separate operation. We've established 4 an NIEHS nomination committee, which is 5 independent of the RG1. This NIEHS nomination 6 committee is made up of NIEHS staff 7 scientists who get together and review the 8 list of nominations that my staff have been 9 able to pull together from solicited 10 nominations from outside or from nominations 11 that, that we've been able to identify by 12 our perusal of the, of the literature or the 13 publication of other documents such as IARC 14 or EPA identification of, of potential 15 carcinogens for listing in the Report on 16 Carcinogens. This NIEHS review committee 17 looks at all the preliminary information we 18 are able to gather or have been, or was 19 submitted with the nomination and they say 20 in their opinion there is sufficient 21 information for us to pursue a formal review 22 of the nomination. Once we, we go through 23 that exercise, first we go to, to Dr. 24 Portier as Director of the Environmental Tox 25 program and, and get his approval and then</p>

<p style="text-align: center;">Page 41</p> <p>1 we go on to the director of NTP who 2 ultimately has to give us his okay that we 3 can proceed with a formal review of the 4 nominations. Once we get the okay, the 5 approval from the Director, we go out with a 6 Federal Register announcement with our intent 7 to review a particular nomination and we 8 solicit public, public comments on the 9 nomination and we specifically ask at this 10 time for, for any people who have an 11 interest in, in the particular material we're 12 looking at to identify issues that we need 13 to address in the course of our review of 14 the nomination. This was one of the issues 15 as Dr. Goldstein indicated that at the 1999 16 meeting that, that people indicated that, 17 that issues surrounding the nomination needed 18 to be identified. And we go out with our 19 Federal Register notice announcing that we 20 intend to review these materials for possible 21 listing or de-listing from the Report, and 22 we solicit anyone with any information to 23 please identify the issues that they feel 24 are important for us to consider in the, in 25 the course of our review.</p>	<p style="text-align: center;">Page 43</p> <p>1 some of the comments that were made in the 2 1999 meeting we have increased our effort to 3 try to identify outside experts that would 4 be willing to help us in the preparation of 5 these background documents. And, and to, to 6 try to elaborate on this, I've broken it 7 down as how, how we have revised the process 8 that we've gone through the, the nominations 9 for the different editions of the Report on 10 Carcinogens. For the 10th Report on 11 Carcinogens, some of the background documents 12 were drafted or reviewed by, by nomination 13 specific experts. As we initiated our work 14 on the... on the 10th back in 1990...1999, 15 I'm sorry, 1998 and 1999, we made a 16 concerted effort to try to identify experts 17 that, that had some experience in, with a 18 particular nomination and solicit their help 19 in either preparing different sections of the 20 background document or at least reviewing a 21 background document and giving us their 22 comments as to the adequacy of the, of the 23 information contained in the background 24 document and the issues identified in the 25 document. The way we identify these experts</p>
<p style="text-align: center;">Page 42</p> <p>1 As with all public comments that, 2 that we receive concerning the solicitation 3 of information, the comments we receive on 4 a, on or for a nomination are placed on the 5 web and become part of the public record. In 6 addition as par... as part of the review 7 process all the review committees also get 8 the, any public comments that we've received 9 in the course of their review, included in 10 the package are the public comments we 11 received in response to comment for a 12 particular nomination. Another area where we 13 have made a number of changes for the, for 14 the process is in the preparation and 15 distribution of the background documents that 16 we prepare for each of the nominations. 17 Briefly when we say that the background 18 documents are prepared with the, with the 19 support of a, of a contractor that we have 20 for the RoC process or for the RoC group and 21 taking the recommendations that were 22 identified or acting on some of the 23 recommendations that were, were, were made at 24 the last meeting, the 1999 meeting, excuse 25 me... I'm sorry.... based on some of the,</p>	<p style="text-align: center;">Page 44</p> <p>1 is basically is to do as thorough a 2 literature search as we can on the substance 3 and identify people who have published 4 extensively on the material in the literature 5 and go to these individuals and ask them if 6 they'd be willing to help us. 7 So the background document is 8 prepared and for the 10th Report on 9 Carcinogens and again in, this is in 10 response to some of the comments that were 11 made in the 1999 meeting. The background 12 documents are revised, were revised after the 13 RG1 and then also revised after the RG2 14 meeting so that, basically the comment was 15 that, that by doing this, providing the 16 public comments to the RG1 they could look 17 at the public comments, look at the 18 background documents and comment on the 19 document and, and make recommendations for 20 revisions if necessary and the same for RG2. 21 So in response to that comment that's why we 22 did this particular process for the 10th 23 Report. 24 After the RG2 had completed their 25 review of, of the nomination and made their</p>

<p style="text-align: center;">Page 45</p> <p>1 recommendation, then the background document 2 became the document of record and was put, 3 made available to the public. Either we 4 may, we put out a Federal Register 5 announcement indicating that the documents 6 were available and if anybody wanted to get 7 a copy to, we'd be happy to send one to 8 them, and then we also put them up on the 9 web site, excuse me... and made them 10 available to the public and this was at 11 least 60 days before the Board of Scientific 12 Counselors, the RoC subcommittee met to 13 review the nominations giving, giving people 14 time to, to look at the background document 15 before the public meeting and giving them 16 the opportunity to come to the public 17 meeting knowledgeable of what was in the 18 background document and being able to make 19 their comments at that time. 20 For the 11th Report on 21 Carcinogens...oh, by the way, the 10th Report, 22 the 10th edition of the Report on 23 Carcinogens was published in, in 2002. For 24 the 11th report, we, we, before we started 25 our reviews, we stepped back and, and looked</p>	<p style="text-align: center;">Page 47</p> <p>1 have more consistency... we allow the, the 2 reviewers of a nomination to have the same 3 document to review and to make their 4 recommendations, so all three reco..., all 5 three scientific review groups have the same 6 document of record to look at and to apply 7 the criteria and make their recommendation. 8 For the 11th Report on Carcinogens the 9 background documents or records were made 10 available on the NTP website either right 11 after the RG1 review, 9 of the 13 background 12 documents were up on the web right after RG1 13 review or 4 of the 13 were up on the web 14 after the RG2 review, after the second 15 review, but all of the background documents 16 for the 11th Report on Carcinogens were up on 17 the web and people notified of their 18 availability at least 90 days before the, 19 the public meeting of the RoC subcommittee. 20 For future RoC nominations, what we 21 plan to do is to continue to prepare the 22 background documents with the assistance of 23 nomination specific experts. We again will 24 try to identify individuals who'll help us 25 prepare or at least review the background</p>
<p style="text-align: center;">Page 46</p> <p>1 at how things were working and actually it 2 was at the insistence of Dr. Portier that he 3 felt that we needed to make the background 4 document available to the public earlier in 5 the process than waiting until the RG2 had 6 completed it. So, for the 11th Report on 7 Carcinogens most of the background documents 8 were drafted and/or reviewed by nomination 9 specific experts. I think we, we prepared 10 13 background documents for the nominations 11 under consideration for the 11th and, and all 12 but two had input from outside expert 13 consultants, two we, we just could not 14 identify anybody to help, help with those 15 two background documents. For the 11th 16 report, once the RG1 had reviewed the 17 background document and, and said that the 18 background document was acceptable for 19 reviewing the nomination, applying the 20 criteria and making a recommendation, then we 21 identified that or I identified that as a 22 document of record and it is at that point 23 that we try to make it avail..., we tried to 24 make it available to the public as soon 25 after that as possible. By doing that, we</p>	<p style="text-align: center;">Page 48</p> <p>1 good thorough document. The RG1 again will, 2 will be asked to look at the background 3 document and to give us their opinion as to 4 the adequacy of the document for reviewing a 5 nomination, applying the criteria and making 6 a nomination... or making a recommendation, 7 excuse me. Once the RG1 has, has looked at 8 the background document and, and said yes, 9 we will accept this document for our review 10 of the nomination, what we will now do is we 11 will take the background document and publish 12 it on the NTP website and it will be on the 13 NTP website for at least 45 days before any 14 review of a nomination takes place. So 15 before the RG1 review takes place, the 16 background document will be available on the 17 web, are made available for people to see 18 and, and if they care to make, make any 19 comments, we'd, we'd be more than happy to 20 receive them. 21 Moving on to the actual review 22 process, the review process itself is other 23 than, than the availability of the background 24 document and, and the RG1's involvement in 25 looking at the background document and making</p>

<p style="text-align: center;">Page 49</p> <p>1 an acc... I'm sorry, accepting the background 2 document for the review of the nomination, 3 the review processes continue, will continue 4 to remain pretty much the same. The first 5 review is by the NIEHS review committee, the 6 RG1, they will review the background document 7 and make their independent recommendation 8 for, for listing or, or not listing or de- 9 listing depending on what the nomination was 10 for. After the RG1 review it'll go on to the 11 RG2, the Executive Committee interagency 12 working group, they will be given the same 13 document of record and they will review the 14 nomination, apply the criteria and make their 15 recommendation. Following the, the RG2 16 review as, as has been the process in the 17 past, we will send out a Federal Register 18 Notice announcing the public meeting of the 19 Board of Scientific Counselors RoC 20 subcommittee. In that announcement we will, 21 we will invite individuals to come attend 22 the meeting and if you care to make a public 23 comment, to please come to the meeting and, 24 and address the, the nomination to the 25 committee. In response to some of the</p>	<p style="text-align: center;">Page 51</p> <p>1 the nomination and we include in the Federal 2 Register all the recommendations that have 3 been made by the three scientific review 4 groups. We include what the recommendation 5 was and what the vote for, for the 6 recommendation was. Following receipt of the, 7 of the public comments from the final 8 Federal Register Notice, we take all the 9 recommendations to our NTP Executive 10 Committee. Our NTP Executive Committee looks, 11 reviews the nominations, discusses the, the 12 recommendations that have been made by the 13 three scientific review committees and then 14 make their own recommendation to the Director 15 for listing, not listing or de-listing 16 depending on what the nomination was. 17 Following that review, all of the 18 information, all three review committees' 19 recommendations, all the public comments that 20 we've received, the recommendation of the NTP 21 Executive Committee itself, all this 22 information is pulled together and we bring 23 it to the Director of the NIEHS/NTP for his 24 consideration and his final recommendation as 25 to what should be included in the report</p>
<p style="text-align: center;">Page 50</p> <p>1 comments that were made at the 1999 meeting 2 and as Dr. Goldstein indicated, we have 3 increased the time allotted for people to 4 make their comment to the Board. Initially, 5 initially it was people were limited to five 6 minutes, we've expanded that to seven minutes 7 and at the discretion of the chairman can be 8 expanded to up to ten minutes depending on 9 how many people we have commenting on a 10 particular nomination. So we've expanded the, 11 the amount of time that people can, can 12 address the, the Board during a public 13 meeting. Again the Board subcommittee listens 14 to the public comments, any written public 15 comments that we receive in response to this 16 particular Federal Register Notice, that 17 information is also provided to the Board of 18 Scientific Counselors and, and published on 19 the NTP website and is made part of the 20 public record and the board reviews the 21 nomination and makes their recommendation. 22 Following that recommendation, we go out with 23 our third and final Federal Register Notice 24 concerning this particular set of nominations 25 where we solicit final public comment on, on</p>	<p style="text-align: center;">Page 52</p> <p>1 and, and in what category. After the 2 Director of NIEHS/NTP makes, makes his final 3 determination then the, the, the draft of 4 the final edi.... of that edition of the 5 Report on Carcinogens is, is completed and 6 forwarded on to the Secretary's office and 7 the Secretary's office takes the, the reports 8 with the recommendations for, for the 9 listings, reviews the document. The process 10 is, a lot of times is the Secretary's office 11 will come back to us with questions for 12 clarification or whatever and then once the 13 Secretary is, is satisfied with the document 14 it's, becomes the final document and is 15 forwarded on to, to Congress. And, and when 16 the Secretary forwards the report on to 17 Congress is our definition of when the 18 report is published. Requirement is, like I 19 said, every two years, the 11th report I 20 forgot to mention that we just completed all 21 our reviews. The 11th report is scheduled to 22 be published this year in 2004 and we're 23 currently going to start working on the 12th 24 report, which would be due in 2006. 25 Just to follow up, in our response</p>

<p style="text-align: center;">Page 53</p> <p>1 to the, to the 1999 meeting that was 2 published on the web there were several 3 issues that were identified as under 4 consideration and I just wanted to very 5 briefly go over these and, and bring you up 6 to date on the status of them. The first 7 one was to create separate groupings within 8 the Report on Carcinogens according to 9 intended use. This was a recommendation that 10 had been made by, by a number of individuals 11 and we addressed that, we, we actually, when 12 we were preparing the 9th Report on 13 Carcinogens, we, we addressed having the 14 categories separated for intended use, but 15 after looking at the report, getting input 16 from, from our NTP Executive Committee, from 17 the Board of Scientific Counselors and also 18 from the Secretary's office, it was decided 19 that the current format of the Report on 20 Carcinogens where we just listed the material 21 in the two categories is, is the most 22 appropriate, and, and so we will continue to 23 do that for, for all future reports for the 24 time being. The other two were, were issues 25 that, that Dr. Goldstein emphasized in his</p>	<p style="text-align: center;">Page 55</p> <p>1 consul... in consultation with their 2 physician do their own assessment as to the 3 benefit of taking or not taking the 4 material. So we do work with our regulatory 5 agencies to try to address these two issues 6 and we will continue to do so in the future, 7 and that's it from me, and I'd be glad to 8 try to respond to any questions. 9 DR. GOLDMAN: Yeah, Bill, I'm 10 going to go ahead and lead off with a couple 11 of questions. First I wanted to make more 12 of a comment that I hope just makes it very 13 clear to the people in the audience exactly 14 where today's meeting fits in with various 15 Reports on Carcinogens, because I think it's 16 always important when people are coming in 17 and, and, and in participating for them to 18 know what they can actually affect and what 19 they can't affect, and my understanding, and 20 correct me if I'm wrong, is that the 11th 21 Report on Carcinogens which is due to come 22 out this year is basically in its final 23 stages of having recommendations brought 24 forward to the Secretary for the Secretary's 25 decision, and that this meeting cannot affect</p>
<p style="text-align: center;">Page 54</p> <p>1 talk, one was to ask applicable regulatory 2 agencies to consider communicating 3 information about possible regulatory 4 implications of listing and de-listing and 5 the other one was to work with regulatory 6 agencies to identify additional venues and 7 strategies for targeting communications about 8 policy with broad group of stakeholders. We 9 continue to work with the regulatory agency 10 representatives within the Executive 11 Committee and on our review committees to, 12 to pursue this. There have been some, some 13 examples where when we listed materials, we 14 have joint statements by both the NTP and 15 the regulatory agency about a particular 16 listing. For example, the Tamoxifen as, as 17 Dr. Goldstein brought up. When, when 18 Tamoxifen was listed in the 9th Report on 19 Carcinogens, when the report was released, a 20 statement, a joint statement was released by 21 NTP and FDA and then NCI about Tamoxifen 22 and, and while it has been shown to be a 23 human carcinogen, it also has very beneficial 24 uses for the treatment of ca.. of breast 25 cancer and that individuals should in</p>	<p style="text-align: center;">Page 56</p> <p>1 that process, because that process is nearly 2 completed. However, that the 12th Report on 3 Carcinogens has not yet gone into the 4 scientific review process and that in fact 5 this meeting can affect the review process 6 for the 12th report, is that correct? 7 DR. JAMESON: That's correct. 8 DR. GOLDMAN: So, just so that 9 people understand, you know, that... I mean 10 if you have a need or wish to have an 11 effect on the process for the 11th Report, 12 there probably are ways to do that and... 13 but not this particular meeting, is not a 14 way to do that, and could you be precise 15 about where that 11th report is at this 16 phase, has it gone through the Executive 17 Committee, is it with the Director of the 18 NIEHS? 19 DR. JAMESON: The... as it 20 stands right now the, the, the... when we, 21 when we, let me back up just for the point 22 of clarification, when we review nominations 23 for the, for a particular edition of the 24 report, for the 11th report, we usually break 25 the nominations into, review half of them or</p>

<p style="text-align: center;">Page 57</p> <p>1 a portion of them one year and then the 2 second half the second year. We've completed 3 review of all the nominations for both the 4 first half and the second half and the 5 second half... we, we are taking those to 6 the Executive Committee in February and, and 7 then hopefully very shortly thereafter we'll 8 have all the information we need and can 9 present it to the, to the Director. 10 DR. GOLDMAN: Okay... 11 DR. JAMESON: At that time, 12 right, shortly after that. 13 DR. GOLDMAN: ...so that's 14 kinda where it is just so that people know 15 that some of it has gone to the Executive 16 Committee, some of it's going to go to the 17 Executive Committee and is on its way to the 18 NIEHS Director, and so in terms of the 12th 19 report though, that it's going to be... this 20 isn't, you know, very much, very timely... 21 DR. JAMESON: Right. 22 DR. GOLDMAN: ...and, and can, 23 and can have an effect. The, the other thing 24 that I wanted to, to raise really is just as 25 a point of clarification...</p>	<p style="text-align: center;">Page 59</p> <p>1 want to give you a little bit about my 2 philosophy on this and where we're leading 3 the program on this, but also some 4 additional clarification. First of all, the 5 45 days is a target, it's not an absolute. 6 But Bill said at least 45 days, well, that's 7 our target, I want to make that very clear. 8 We're going to try to achieve a 45 day lead 9 time, but since the RG1 meetings are not 10 regularly announced, they're not public 11 meetings anyway, we're, we're... it could be 12 well in excess of that or it could be 13 potentially slightly less, but that is our 14 target for that. The second issue is the, 15 the question of the acceptability of a 16 document and what we're trying to do here 17 with the process. If RG1 looks over a 18 document and concludes it's inadequate for 19 the review, that can happen two different 20 ways, one is that the NIEHS nomination 21 committee made a mistake and RG1 is in 22 disagreement with them that there's enough 23 information here to do a... to list a 24 compound. That would not disqualify the 25 background document and we may well continue</p>
<p style="text-align: center;">Page 58</p> <p>1 DR. JAMESON: Mm-hmm. 2 (Indicating affirmatively.) 3 DR. GOLDMAN: You said that 4 prior to beginning the scientific review 5 process that the RG1 looks at the background 6 document to see if it is suitable for the 7 scientific review process, and if it is 8 suitable then it will be placed on the web 9 for 45 days before that process begins. 10 What if it isn't suitable, what is the 11 process that you use? 12 DR. JAMESON: Well, if, if 13 we bring it to the, to the RG1 and they 14 look at the document and they tell us it 15 doesn't contain sufficient information for us 16 to apply the criteria, it doesn't contain... 17 We c..., we cannot apply the criteria because 18 it's lacking in information in either the, 19 the animal section or the human section or 20 something, then we would have to go back, 21 address their concerns, work on it again 22 and, and revise it and bring it back. 23 DR. GOLDMAN: Okay. Dr. 24 Portier? 25 DR. PORTIER: Yeah, Lynn, I</p>	<p style="text-align: center;">Page 60</p> <p>1 hopefully if all the review committees were 2 doing the same thing they'd all say 3 insufficient evidence to list, don't put it 4 on the list. If on the other hand they find 5 factual problems with the document, factual 6 errors of interpreta.... of, of presentation 7 because hopefully our experts are not 8 interpreting the material for us, they are 9 presenting the material to us, then in fact 10 that would go back for clarification and 11 correction. One thing Bill also forgot to 12 mention is that once the document becomes 13 the document of record the NTP does not 14 intend to change that document, but the 15 document will build, as we receive public 16 comments on the document, they will be 17 appended and noted that they are appended to 18 the document for any future review groups. 19 The issue here is that I feel fairly 20 strongly that it's not up to the program to 21 interpret the public comments that are coming 22 to us as part of these, this review process. 23 We have three very competent review groups 24 that provide us with advice on this issue, 25 we leave it up to them to interpret the, the</p>

<p style="text-align: center;">Page 61</p> <p>1 to the background document that we have 2 here. So they get appended and they get 3 noted and we do our best to try to bring 4 them to the attention of our review groups 5 as they begin this review process. Again 6 the philosophy is, the program is not 7 responding to these public comments, nor do 8 we actually own the background document, 9 it's, it's something to facilitate the 10 discussion and facilitate the review and we 11 want it to be as scientifically correct as 12 possible. 13 DR. GOLDMAN: The, the last 14 question that I wanted to, to put to you 15 before opening it up for more questions and 16 discussion is the role as you see it of the 17 NTP Executive Committee in this, and I'm, I, 18 I'm realizing from the written comments that 19 there are comments about this, but I think 20 that it might be important for you to 21 explain what role, what function that step 22 has and how that's different than the RG1 23 and 2 processes and Chris, maybe you would 24 like to respond to that? 25 DR. PORTIER: Yes, I will.</p>	<p style="text-align: center;">Page 63</p> <p>1 sought as well. The Executive Committee may 2 or may not vote on a particular nomination 3 as to whether or not the Director should 4 choose one decision or another. All of the 5 discussions that go on at the Executive 6 Committee are privileged, they are federal 7 agencies talking to federal agencies so I'm 8 not going to get into a lot of detail about 9 how that process works and what their actual 10 role might be because it changes depending 11 upon the agent we're looking at, and what 12 our concerns may or may not be on that 13 agent, does that help, Lynn? 14 DR. GOLDMAN: Yeah, and I 15 can... I can make, you know, a brief 16 comment, I chaired that committee for a 17 while, and I'm not with the federal 18 government and I never signed a statement 19 saying I wouldn't talk about what happened 20 there, and it, it was not a technical review 21 process in the way that the RG processes 22 were. It was on a different level, it, I 23 think, was useful to Dr. Olden to hear from 24 the leadership of the other agencies what 25 they thought, because it's a lot of weight</p>
<p style="text-align: center;">Page 62</p> <p>1 I, I guess I should have brought slides of 2 what is the NTP to lead us into this. The 3 National Toxicology Program is not one 4 agency, it is not just NIEHS's own little 5 project, it's a multi-agency federal program, 6 three agencies form the core, they're all 7 within HHS, the Directors of those three 8 agenc..., agencies sit on the Executive 9 Committee of the National Toxicology Program, 10 that is NIEHS, FDA and CDC NIOSH, their 11 heads or their designates sit on the 12 Executive Committee. The Executive Committee 13 is also making a recommendation to the 14 Secretary through the Director of NIEHS about 15 the listings in the Report on Carcinogens, 16 so their opinion is very important to the 17 final recommendations that go forth from the 18 Director of NIEHS to the Secretary of Health 19 and Human Services. Other members of the 20 Executive Committee are not necessarily part 21 of HHS, but again represent some very 22 important federal partners as part of the 23 NTP and contribute substantially to our 24 process and our evaluations and all aspects 25 of the program, and so their opinion is</p>	<p style="text-align: center;">Page 64</p> <p>1 on his shoulders to make the recommendation 2 to the Secretary, it helped to bring out 3 into the open, if there were any possible 4 disagreements or issues to have that out in 5 the open as opposed to people, you know, 6 individually going to the Secretary and 7 expressing their views. It's a healthy 8 process to have those different views aired 9 around the table instead of handled that 10 way. And it did help to surface things like 11 the Tamoxifen kind of concern that, gee, if 12 this is listed it might help to have a 13 statement from the FDA about what it means 14 and to try to head off inappropriate 15 responses by the users of the product down 16 the line that they would overreact possibly 17 to the listing, so I, I, I, I felt that it 18 played a useful role, but I think that it 19 could probably be a little bit more clearly 20 explained what that role is having seen, you 21 know, some of the comments and that's why I 22 wanted to kind of bring that out. Opening 23 the mic's here for other questions or 24 comments for Bill Jameson about the process 25 and how it's changed and what might be</p>

<p style="text-align: center;">Page 65</p> <p>1 contributed here today. 2 SPEAKER: Focusing just a 3 couple of questions following up what Dr. 4 Goldman asked. The, if, if the background 5 document is accepted by RG1 as the, as the 6 document of record, does that mean that the 7 word draft shouldn't be on the cover? 'Cause 8 sometimes they say draft and then they're 9 not revised. 10 DR. JAMESON: Right, that, 11 that's correct, there are, we have some, 12 some... we need to clean up our website, 13 there are some there that still have draft 14 on it that, that should be final, thank you. 15 DR. GOLDMAN: And just a 16 reminder to identify yourselves if you have 17 questions or comments. 18 MS. LE HURAY: Okay. Well, 19 I'm Ann Le Huray with the American Chemistry 20 Council, and following on that, I guess that 21 I don't understand two things about that 22 process with the document of record, or 23 three things actually. One is why would it 24 be inconsistent with making of the document 25 of record to have a round of public review</p>	<p style="text-align: center;">Page 67</p> <p>1 that way, it's the Executive Committee that's 2 their higher level people and agencies. 3 MS. LE HURAY: But, but the 4 Board of Scientific Counselors subcommittee, 5 they, they bring their own thoughts about 6 what is or isn't scientifically important 7 about a nomination to the review and if they 8 disagree or have issues with the way 9 something is presented in the background 10 document, that's never appended anywhere, 11 that's never recorded anywhere, so that 12 can... that just becomes an ephemeral and 13 even if it's the basis of their decision 14 that's just an ephemeral point, so... 15 DR. GOLDMAN: Well, I think, I 16 think we can take most of that kind of as a 17 comment, I think that, you know, those are 18 points well taken. Dr. Jameson, are there 19 points of clarification that you want to 20 make? 21 DR. JAMESON: Just to, to 22 address your last point about if... if 23 review committee looks at a background 24 document and fear..., and feels that the 25 background document is not... doesn't contain</p>
<p style="text-align: center;">Page 66</p> <p>1 final. I don't understand why that would be 2 inconsistent with the process. Second is if 3 there are in fact, you know, if you don't 4 have a round of public review and it comes 5 out with errors in it and then you say, you 6 know...and subsequent you build on it by 7 attaching public comments to it, how, how is 8 that consistent with the Data Quality Act, 9 you know, you're putting out information 10 there that is incorrect, and even though 11 you're putting in public comments that may 12 have corrections, that, that's different than 13 having a document with NTP's name on it that 14 contains incorrect information, and thirdly 15 by calling it the document of record that 16 implies that reviewers after the RG1, for 17 example, RG2 and the BSC subcommittee will 18 be using that document as... to form the 19 basis of their decisions, but what if... 20 perhaps RG2 wouldn't, because as Dr. Goldman 21 says perhaps it's not as technical a review, 22 but what if the.... 23 DR. GOLDMAN: I meant the 24 executive com... not the RG2. The RG2 is 25 technical. I'm sorry if I, if you heard me</p>	<p style="text-align: center;">Page 68</p> <p>1 to, something added to the, to the document, 2 we have, we have allowed for that, in fact 3 there, there have been background documents 4 that we reviewed for the 11th report and I 5 should have mentioned that in my presentation 6 and I apologize. If, if a review committee, 7 the RG1, the RG2 or the board gets a, a 8 background document and reviews, reviews a 9 background document and they feel it is 10 inadequate because it didn't contain enough 11 information in a particular area, if they 12 felt that we...a particular paper was not 13 included that should have been included, 14 whatever...we give, we give the, each of 15 the, each of the review committees the 16 opportunity to, to write a commentary about 17 the background document, and that commentary 18 then becomes part, part of the record for, 19 for the nomination. And in fact the RG2 did 20 that for our review of Cobalt Sulfate. They 21 felt that, that the information in the 22 background document on, on production and use 23 of Cobalt Sulfate was insufficient and 24 unclear and they felt strong enough about 25 that that they, they prepared an addendum or</p>

<p style="text-align: center;">Page 69</p> <p>1 a commentary to, to the background document 2 and that became part of the public record. 3 So as the, as the document goes through the 4 review committees, if the review committees 5 have a serious concern about the, the, the, 6 the background document, they feel something 7 is left out or, or should have been included 8 or added, then, then that can be appended to 9 the document as a commentary from that 10 particular review group. 11 DR. GOLDMAN: Were there any 12 other... wait, I think there was one more 13 comment from the audience and then, before 14 we go to the... I'd like to take the 15 comments from the, from the audience first. 16 MR. KELLY: Bill Kelly with 17 the Center for Regulatory Effectiveness. It 18 occurred to me on my way to the meeting just 19 today that although we submitted detailed 20 written comments on the process there was a 21 significant issue that we had totally 22 overlooked and that hasn't been spoken about 23 today. And it may have to do with just the 24 way that the procedures are written up that 25 talks continually about a background</p>	<p style="text-align: center;">Page 71</p> <p>1 just in the way things are worded just in 2 that first paragraph of the listings. One 3 example that comes to mind is alcoholic 4 beverages and I'm not sure whether that is 5 one of the ones that got changed slightly 6 from what was in the background document, 7 but that's a good example. Exactly how that 8 was phrased in terms of the quantity that 9 might be known to induce cancer was an 10 important issue and there were some 11 subtleties in the wording of that particular 12 listing in the RoC. So that, that issue of 13 when do we see the language of the listing 14 and when do we get a chance to comment on 15 that has not specifically been addressed, 16 perhaps you could comment on that. 17 DR. JAMESON: Well, maybe we 18 could.... maybe that's something we, we need 19 to address in the future, we'll see. I'd 20 like to see what we get from the rest of 21 the meeting and, and identify these issues. 22 DR. GOLDMAN: Chris? 23 DR. PORTIER: It, it does 24 point... I, I think it's a suggestion worth 25 considering and we will, we will give it</p>
<p style="text-align: center;">Page 70</p> <p>1 document, previously addressed background 2 document, but I know on a number of 3 occasions the way the actual listing is 4 written and put in the Report on Carcinogens 5 does not... is not necessarily the same as 6 what's in the background document. I know a 7 number of chemicals for which the actual 8 listing language has changed after the entire 9 review process was finished and so the 10 question is when does the public learn what 11 the listing is actually going to say and 12 should it not have an opportunity to comment 13 on that actual listing language, or should 14 the background document in effect say, this 15 is what we're proposing as the actual 16 listing language and then again that raises 17 the issue of well, if this is the final 18 document of record, what does that mean with 19 regard to the listing language, does that 20 mean it can't be changed after that or, or 21 what? But there is this difference between 22 background document and the listing language 23 that goes in the final RoC and the public's 24 opportunity to comment on that. Sometimes it 25 can be very important, there are subtleties</p>	<p style="text-align: center;">Page 72</p> <p>1 our, our best consideration. I did want to 2 point out one thing though. The, the 3 historical background documents did in fact 4 come into the review process with a flavor 5 in them of where this review was going. So 6 there was some suggestion as you read the 7 documents that this probably should be 8 reasonably anticipated or this probably 9 should be a known human carcinogen. Part of 10 this splitting I'm having between RG1 and 11 the development of the, of the nominations 12 in this independent background document 13 production is in fact to cause that 14 separation. So whereas historically there 15 might have been some indication of the, in 16 the background document as to what would go 17 into the final RoC document, that is not 18 required nor is it suggested nor should it 19 actually scientifically be there. The 20 background document should be facts, 21 statements about the evidence that's, that's 22 there, but no objective evaluation of whether 23 it should be listed or not. And since the 24 final listing in the RoC is a discussion of 25 the final opinion of the Secretary as to</p>

<p style="text-align: center;">Page 73</p> <p>1 whether it should be listed or not, it's, 2 it's not necessarily something that would be 3 reflected in the background documents 4 anymore.</p> <p>5 DR. GOLDMAN: Okay, so that's 6 food for thought.</p> <p>7 DR. MOURE-ERASO: Now as 8 having been part of the process, I, I think 9 that I did find especially with the advent 10 of the Internet and the web sites that a 11 very rich way of understanding how were the 12 reactions of the, of the Board of Scientific 13 Counselors to the decisions of the RG1 and 14 RG2 appear in the discussions that are 15 printed in the, in the minutes of the 16 meeting of...so, so there is a record of the 17 reasons why there might be sometimes a 18 divergency of, of, of, of recommendations, 19 and as you said in your, in your... is like 20 there are three separate recommendations with 21 the reasons that are given in detail in the 22 minutes of the discussions. So, for anybody 23 that want to know the process by which the 24 final decision came, you can see that it 25 might be that the RG1, RG2 and the Board of</p>	<p style="text-align: center;">Page 75</p> <p>1 the RG1 completes its review and makes its 2 recommendation there is a summary of the 3 recommendation that is prepared, which 4 includes the vote for, of the rec..., of the 5 recommendation and that information is 6 published on the web as soon as it's 7 available, it becomes part of the public 8 record and, and forwarded on to the, to the, 9 to the next review committee so that they 10 have that information. And, and the same is 11 true for the RG2, as soon as they finish 12 theirs and, and make their recommendation, a 13 summary of their review and recommendation is 14 prepared, placed on the web and, and 15 forwarded on as part of the package to the 16 RoC subcommittee, as are all the public 17 comments we've received all along this 18 process. I mean, we.. when we put out a 19 Federal Register Notice and, and say we, 20 we're soliciting public comment and, and we 21 ask that you get your comments in in 60 22 days, we put a deadline on there only that 23 we can guarantee, that if you get us 24 information within, by that 60 days, say for 25 example, we can guarantee that we will get</p>
<p style="text-align: center;">Page 74</p> <p>1 Scientific Counselors' recommendations are 2 different and, and, and the reasons why 3 could be getting out of the minutes of the 4 meetings.</p> <p>5 MS. FELTER: Susan Felter. 6 I have a, a clarifying question. Is it 7 possible to put the slide back up for one 8 second?</p> <p>9 DR. JAMESON: This one? 10 MS. FELTER: Right. In, on 11 the right hand column it says that these are 12 three independent recommendations, and my 13 question is whether the commentaries that are 14 provided by the RG1, you know, appears to be 15 sequential. If those are written up and 16 appended to the document, are those available 17 to the RG2 before they start their review so 18 that in fact and, and those together then 19 are all available to the Board of 20 Scientific... so, so that is in fact a 21 sequential.</p> <p>22 DR. JAMESON: Yes, as, as, 23 as we proceed through the process... 24 MS. FELTER: Okay. 25 DR. JAMESON: ...when, when</p>	<p style="text-align: center;">Page 76</p> <p>1 that information in the package to the next 2 review group or to whatever the next step in 3 the review process is. That does not mean 4 that after 60 days we will not accept 5 comments, that is not the case. We will 6 accept comments on, on what we're doing at 7 any time. We're very, very happy to receive 8 comments, but we put a deadline only so that 9 we can guarantee you that if we get it by 10 that time we can include it in the package 11 with the next proc... with the next step in 12 the process.</p> <p>13 DR. GOLDMAN: Okay, yes. 14 DR. ALLABEN: I'd like to 15 make one comment. Having been involved with 16 the RG2 and the Executive Committee and, and 17 been around long enough to evaluate documents 18 that sort of evolved as they went through 19 the review groups and changed to the 20 Executive Committee and then also seen where 21 they've been stagnant, it's sort of you're 22 damned if you do and you're damned if you 23 don't, but I think that when the document 24 changed over time and then it got to the 25 Executive Committee meeting, often they would</p>

<p style="text-align: center;">Page 77</p> <p>1 look back at RG1 and RG2 and try to 2 determine why they voted in a particular 3 way, and it could be confusing because they 4 wouldn't understand that, that RG1 and RG2 5 didn't have a particular set of information. 6 And if it was just sort of melded into the 7 document it would be less clear. But by 8 having the same document, for example, the 9 Executive Committee can look back and see 10 what document RG1 and RG2 looked like, 11 looked at, then they can also see how 12 additional information was added and impacted 13 the subsequent decisions, and so I think the 14 present format is probably the best at this 15 time.</p> <p>16 DR. GOLDMAN: Okay, well, yes. 17 Chris.</p> <p>18 DR. PORTIER: I just want to 19 reenforce what Mark pointed out, and that's 20 one of my concerns and the Director of 21 NIEHS's concerns as well and now with the 22 process we're trying to put into place here, 23 the Director will be able to sit down, 24 evaluate the evidence, understand hopefully 25 everyone's point of view and how they</p>	<p style="text-align: center;">Page 79</p> <p>1 possible. I'm going to now take the 2 prerogative of the chair, break the order of 3 the speaker's list just a little bit because 4 I know that Dr. Goldstein has a plane to 5 catch and the weather is pretty dicey out 6 there, so Bernie, if you want to come 7 forward and give your, your comments.</p> <p>8 DR. GOLDSTEIN: Thank you, 9 Lynn, I really appreciate that. The, it's 10 particularly important on a day when the 11 planes are down and delayed but you never 12 know. You heard Bill Jameson and the very 13 last point he made about changes talked 14 about working with regulatory agencies to 15 help get the message. I think more has to 16 be done there. What I am particularly 17 concerned about is the fact that as Rafael 18 Moure-Eraso just told us, you've got a 19 public health decision here, there's a, if 20 you're listing something as something that 21 causes cancer you've got to really act on 22 it. At the same token, we've heard, I think 23 very compelling information from industry 24 sources about certain things that get listed, 25 appropriately so in my view, as carcinogens</p>
<p style="text-align: center;">Page 78</p> <p>1 received, how they got to that point of view 2 and make a decision that's informed rather 3 than potentially hidden in some oth...in some 4 way. We're trying to make it as open and as 5 clear to the point of the Director can 6 actually see the evidence in front of him 7 about what the scientific review was like, 8 who said what, why, and make a, hopefully an 9 informed scientific decision from that 10 process. And to comment on the independent 11 review groups obviously, that was your 12 question about the word independent, in this 13 case the word independent simply implies that 14 they're different people on the different 15 groups. They are not necessarily independent 16 since obviously the decision of one is 17 portrayed to the other.</p> <p>18 DR. GOLDMAN: Thank you for 19 that and thank you, thank you, Bill, for 20 that presentation. I think that it's clear 21 that there is a lot of openness to change 22 here, that things have changed and are 23 continuing to change in the approach that 24 has been taken to make sure that people can 25 have as much access to the process as</p>	<p style="text-align: center;">Page 80</p> <p>1 having second order and third order effects. 2 Sometimes the effects are on the industry of 3 welding, sometimes they're on public health 4 as perhaps the Tamoxifen example, there are 5 others. And it seems to me that the 6 criticism is really not appropriate toward 7 the NIEHS who had a hazard identification 8 process. It's really appropriate toward the 9 regulatory agencies themselves. This process, 10 relatively uniquely I'm told, for all the 11 processes worldwide, has the regulatory 12 agency sitting in on at the very beginning 13 and they are there throughout. And there's 14 absolutely no reason that they should not be 15 able to decide in advance what they will do 16 preliminarily at least about the decision. So 17 what I would suggest as a very formal part 18 of the process would be something in which 19 every one of the regulatory agencies would 20 be required to provide, I gave it an 21 abbreviation and a name because after all 22 this is the way we work. I gave it a three 23 letter abbreviation because four letter 24 abbreviations don't work well in Washington 25 in my experience, but basically it's, it's</p>

<p style="text-align: center;">Page 81</p> <p>1 the regulatory agencies who are involved in 2 the NTP process, they ought to say what they 3 plan to do about it. And they ought to be 4 working at an issue as soon as something 5 gets put on the nomination list. And they 6 ought to release this all at the RoC listing 7 or de-listing or in the situation of 8 something like Tamoxifen we ought to release 9 it not then which is what happened at that 10 point, but when the Board, when this thing 11 gets to be public which is long before it 12 formally does come out through the Secretary. 13 And they ought to basically be able to say 14 what they think is important. And, you 15 know, I'm not talking about something that's 16 binding, I'm talking about a non-binding 17 preliminary intent of an agency to review 18 data, to gather data, to begin its 19 regulatory process or say in the case of 20 Tamoxifen, as the Consumer Product Safety 21 Commission is saying basically, not part of 22 our mission. Now a lot of these things can 23 be looked at from the point of view of an 24 agency that needs to basically be responsive 25 including what its time frames are going to</p>	<p style="text-align: center;">Page 83</p> <p>1 to point out that they are I think still in 2 the process of gathering information about 3 drugs that get into, that humans use and 4 it's free to get into the worst kind, what 5 does that do? So there's a reason for them 6 to add perhaps Tamoxifen to that list, at 7 least to look at it. Again, notify the 8 public as to what they plan to do and when 9 they should plan to do it, and we're talking 10 about, I'm talking about something that if 11 it goes more than one paragraph, it's 12 probably going too long. We're really just 13 talking about a short informational package 14 of what the agency intends to do about this, 15 and I see no reason that that can't come out 16 just as part of the, of, of the record at 17 the same time everything else as we raised. 18 I, I'd point out to you that a lot of the 19 comments that are made here, particularly 20 from folks from industry, really ought to be 21 made to the regulatory people, they're the 22 people who are accustomed to responding to 23 it, they understand the process better, 24 what's going to come out of it. It's not 25 the kind of thing that you really, really</p>
<p style="text-align: center;">Page 82</p> <p>1 be. In other words tell the public flat out 2 what you expect to be, to be done here, it 3 gives you an opportunity to make a public 4 health statement if need be. Don't worry 5 about whatever the compound is, it may have 6 some benefits or that this is related 7 specifically to a particular situation. The, 8 the bias I'm coming from, just so that 9 everybody knows what the biases are, is I 10 performed research and development at EPA lo 11 these many years ago and always in a 12 regulatory agency there is a problem of 13 getting the scientific information from the 14 scientists involved in the agency who are 15 very often involved in these processes and 16 the folks who do the regulation. Well, 17 let's force that issue, let's make sure 18 there is a rapid response, let's make sure 19 that every time one of these decisions are 20 made, the agencies involved that have been 21 involved from the get go are able to say, 22 what is it they plan to do about it. Now 23 the plan, as I say, may be just simply, 24 simply a matter of saying that they're going 25 to gather information, could be on Tamoxifen</p>	<p style="text-align: center;">Page 84</p> <p>1 want your, your scientists to be responding 2 to, you really want your regulators to be 3 responding to it, and sometimes the important 4 thing to you is that they respond early. And 5 again the attempt here is to just simply put 6 on record to every regulatory agency that's 7 part of this process from the very 8 beginning, that they will have to respond 9 and if they're going to respond it's in the 10 public benefit, the industries' benefit that 11 they respond more rapidly rather than slowly. 12 That's my suggestion. 13 DR. GOLDMAN: All right. Let 14 me see if any others have questions or 15 comments. Yes, Mark. 16 DR. ALLABEN: NIOSH is not a 17 regulatory agency but I always think in 18 terms of how we might answer this question 19 and how would you think that these agencies 20 would give you something beside a boiler 21 plate answer for every listing, in other 22 words, if we looked at this and knew that 23 when something was listed as a known or 24 reasonably anticipated, we would say, in 25 those particular cases we do this, this is</p>

<p style="text-align: center;">Page 85</p> <p>1 on carcinogens. What would you expect you 2 might get beyond that? 3 DR. GOLDSTEIN: Well, we were 4 saying like Nickel Steel, the industry, 5 basically stainless steel is saying that they 6 are going to be hurt by this issue of people 7 not buying stainless steel because they think 8 that it's a carcinogen, I'm not sure that 9 that's correct but it's just what they 10 report. But I think if, if you really are 11 going to find Nickel as a problem then one 12 of the Nickel Steel issues has to do with 13 people working Nickel Steel, working in 14 stainless steel, grinding it or otherwise and 15 if NIOSH wants to say or OSHA wants to say 16 that in 90 days we're going to gather 17 information as to whether there is exposure 18 during the grinding or other processing of 19 Nickel Steel, you are basically committing 20 yourself to do something within sometime. Now 21 it's a non-binding commitment but it is 22 something which you've probably looked at and 23 you've said, well, gee, they're now saying 24 Nickel is a carcinogen, Nickel Steel, I 25 wonder if there's any exposure to people who</p>	<p style="text-align: center;">Page 87</p> <p>1 they, they thought that through, it probably 2 would be a good thing if they would. I just 3 had a trivial suggestion which is that you 4 would call it an advanced notice instead of 5 a preliminary notice. I, I think in some 6 ways it's a good idea, I'm confused about 7 what the timing should be though, Bernie, I 8 mean, I think it could be, because just at 9 the point of, you know, many things that are 10 nominated and considered then end up not 11 being listed. So, it could create confusion 12 if the agencies were to publish some notice, 13 that then would not come to fruition because 14 it didn't end up being listed, so, but, so 15 that would need to be kind of worked 16 through, but I don't think it's a bad idea. 17 DR. GOLDSTEIN: Maybe the 18 agency should have an idea though like if it 19 is listed as a known we'll do this, if it's 20 not listed we'll do that, I mean it's 21 just... 22 DR. GOLDMAN: Some policies 23 would be great, that's, it's really, that's 24 really a good point, and it does create a 25 lot of uncertainty for the community, the</p>
<p style="text-align: center;">Page 86</p> <p>1 work in this, the people who repair it, 2 people who are tearing down old buildings 3 with Nickel Steel sink, sinks, and so we're 4 going to look at this and we expect in 90 5 days to have that information to understand 6 whether or not it's a major risk. Now that's 7 the kind of thing that I think can be done, 8 should be done. 9 DR. GOLDMAN: That's a 10 brilliant idea actually, that maybe if the 11 agencies came up with boiler plate language 12 for that, then they might actually have some 13 policies that would be clear, that wouldn't 14 be a bad thing. So maybe that would be 15 better, actually, but that has nothing to do 16 with, of course, what the National Toxicology 17 Program would do, but it.. you know, it's 18 not a new idea either, remembering the old 19 OSHA carcinogen policy and what Eulah Bingham 20 did years back, you know, it doesn't hurt to 21 have some idea of what you're going to do if 22 something's listed. I, I don't think that 23 the agencies have that kind of policy, most 24 of them, that, you know, that oh, god, if 25 there's a new listing and it's under my</p>	<p style="text-align: center;">Page 88</p> <p>1 fact that there, there aren't those 2 guidelines that are in place. Any other 3 comments or questions for Dr. Goldstein 4 before he runs to the airport? Yes. 5 MS. LE HURAY: Just two 6 things naturally, this is Ann Le Huray 7 again, one is just to point out it's not 8 NTP's fault that there's a number of 9 regulatory triggers that are just 10 automatically triggered, written into the 11 regulation, one being an OSHA trigger if you 12 have a finding of carcinogenicity and the 13 other being of course the Prop 65 in 14 California trigger because NTP is recognized 15 as an authoritative body, and the, and the 16 second I just would like to say about... 17 that it's not the kind of thing that, I 18 think you're quite right that you don't want 19 to have your scientists necessarily making 20 policy decisions, but the chemical industry 21 being a science based industry, we would 22 like to have our scientists engaged as well 23 and that's, that's part of... you know, some 24 of the root of the frustration at least of, 25 of industry comments about getting engagement</p>

<p style="text-align: center;">Page 89</p> <p>1 because we think we have pretty good 2 scientists and you know, well, we think that 3 they know quite a bit about the materials 4 that are being listed, so one of the 5 frustrations is that our scientists would 6 like to be involved and, and engaged in the 7 process as well, so. 8 DR. GOLDMAN: I'm going to 9 take one last comment here and then move on. 10 DR. CARPENTER: As a 11 scientist who works in an agency that deals 12 heavily in policy, I have some reservations 13 about what you've presented. I think NTP, as 14 I perceive this process is, is that it is a 15 scientific process, that all attempts are 16 made to keep it free from policy until the 17 very end of the process and I think that's 18 actually a good move, again speaking 19 scientifically, because you really don't want 20 policy to drive your science until the 21 appropriate time. And I wonder whether policy 22 implications being taken into account by a 23 group of scientists considering what should 24 be a scientific document, scientific decision 25 is, is a correct move.</p>	<p style="text-align: center;">Page 91</p> <p>1 DR. GOLDMAN: Okay, thank you 2 very much. Next up on the list is Donald 3 Smith from the UVIR Research Institute. My 4 understanding is that he was not going to be 5 able to make it today. Is that correct? And 6 I, I have before me a written version of his 7 testimony which I suppose I could just read 8 it into the record, see if I can, if I can 9 find it, and you'll have to use your 10 imagination and pretend that I'm Donald L. 11 Smith. I'm not even sure I can remember what 12 he looks like. I think we have seen him here 13 before. Good morning, my name is Donald L. 14 Smith and I am the Director of Research at 15 the UVIR Research Institute in Tucson, 16 Arizona, an organization studying the 17 biological effects of ultraviolet visible and 18 infrared electromagnetic radiation. It is my 19 opinion that the primary weakness of the 20 Report on Carcinogens is that it errs 21 fundamentally when (a) it relies upon the 22 outmoded and scientifically unsupportable 23 Linear Non-Threshold Haz..., LNT, hazard 24 assessment method, which assumes that because 25 an agent, substance or mixture, ASM, is</p>
<p style="text-align: center;">Page 90</p> <p>1 DR. GOLDSTEIN: I agree with 2 you completely and I'm sorry if I, if my 3 presentation was too quick to make that 4 point. No, I think that elsewhere within 5 the agency there ought to be people being 6 told by their scientists that this is coming 7 forward to a decision, it could be a known, 8 it could be a reasonably anticipated. We 9 need to prepare what ought to be done, but 10 that's your job, the regulators, to decide 11 what it is that you think we ought to be 12 saying about this if it turns out to be 13 known, about what we plan to do. 14 DR. GOLDMAN: You were not 15 suggesting that the risk assessors would do 16 this? 17 DR. GOLDSTEIN: No, I don't, I 18 don't suggest this to the NTP that the risk 19 assessors do this, what I'm suggesting is 20 that when this gets published each of the 21 agencies that should've known about this from 22 the beginning because they've been sitting at 23 the table basically have their regulators 24 come out and say here's what we intend to 25 do.</p>	<p style="text-align: center;">Page 92</p> <p>1 hazardous at a specific dose, it is 2 hazardous at any other dose, for evaluating 3 potential listings; (b) it fails to mention 4 the beneficial effects of an agent, substance 5 or mixture, ASM, when that ASM has both 6 beneficial and harmful effects and this 7 failure is especially misleading and 8 potentially damaging to the American public 9 when the ASM, like for example, ultraviolet 10 radiation is essential for survival of life 11 on earth. It is wholly irresponsible for any 12 federal scientific body, NTP, and quasi- 13 health agency, NIEHS to omit from a 14 document, the RoC, purporting to assess the 15 harmful effect or effects of an ASM on the 16 human body, a detailed discussion of the 17 beneficial effect or effects of the ASM on 18 the human body when the ASM is known to have 19 both harmful and beneficial effects. Thus if 20 the RoC is to warn the American public 21 accurately about the health implications of 22 an ASM that has both beneficial and harmful 23 effects like ultraviolet radiation, it must 24 be sure not only to warn them about the 25 harmful effects of the ASM, but also to</p>

<p style="text-align: center;">Page 93</p> <p>1 the ASM. To do otherwise renders the RoC 2 incomplete and misleading because it will not 3 equally and fairly present both sides of the 4 risks involved to the American public. And 5 that is the, the end of, of Donald L. 6 Smith's comments, and those will be, have 7 now been read into the record. Why don't we 8 move to the next, the next commentor if 9 that's okay with everyone, who is Timothy 10 French from the Engine Manufacturers 11 Association. Are you here? Okay, not being 12 present, I'm going to move forward. If 13 people arrive late we will fit them in at 14 the end, and so next is William Kelly from 15 the Center for Regulatory Effectiveness, 16 speaker #4. 17 MR. KELLY: Do you want me 18 to come up there or speak from.... 19 DR. GOLDMAN: I think it 20 would be probably easier, but if you'd 21 rather speak from back there, it's fine but. 22 Why don't you, why don't you come forward, I 23 think it might be easier for those of us up 24 here certainly to see you. 25 MR. KELLY: So I'm speaking</p>	<p style="text-align: center;">Page 95</p> <p>1 I would call the point of no return farther 2 forward in the process, whereas previously 3 the RG1 was the one to determine the 4 sufficiency of the nomination, we now have a 5 new group before the RG1 making the basic, 6 preparing the nomination background and 7 submitting it to the Director for approval 8 and then the review process begins. In view 9 of this, I feel even more strongly that once 10 a nomination is submitted and is intended to 11 be submitted to the nomination review 12 committee, that is when there should be a 13 public notice and an invitation for public 14 comment to the nomination review committee. 15 And the purpose of this is not to, to argue 16 about whether a listing is appropriate or 17 not, it's just to make sure that the 18 nomination review committee is really, has 19 available all the significant information it 20 needs and this is particularly important with 21 what I would call mixed exposures or non 22 homogeneous exposures. There are a lot of 23 exposures in the areas of worker exposure 24 and things like industrial minerals and 25 metals where you don't have a synthetic</p>
<p style="text-align: center;">Page 94</p> <p>1 to your faces, not to your backs. 2 DR. GOLDMAN: Exactly. 3 MR. KELLY: I'm not sure 4 whose this is, but... We submitted detailed 5 written comments which are available outside, 6 I noticed there are some, there were some 7 formatting problems in posting them 8 electronically, so I have better copies if 9 anybody wants, wants one. Really the only 10 change was made in them was the number of 11 some of the recommendations at the end. And 12 I see that one of our, our major 13 recommendations, I believe has been taken 14 care of now and that was the recommendation 15 to be sure to, to set a definite time for 16 the release of the background document and 17 I'm, I'm very pleased to hear that 18 commitment is being made to release that 19 before the RG...RG1, with a fairly specific 20 time frame before the RG1. We think that the 21 nomination review committee is a, is a very 22 good idea and I guess the, the main 23 remaining recommendation we have centers 24 around that. With the institution of that 25 new committee, it in effect moves the, what</p>	<p style="text-align: center;">Page 96</p> <p>1 chemical that's a very clearly defined 2 substance. In fact, in the case of say an 3 industrial mineral, the, the actual exposure 4 may differ from one mine to another quite 5 dramatically as we, we've seen in some of 6 the reviews. In other cases where you have 7 worker exposure, the types of exposure, 8 different types of facilities may be 9 different, that workers may be exposed to, 10 to co-carcinogens, or different sub.... 11 substances, some of them also potential 12 carcinogens along with the substance under 13 review, and the nom... the people on the 14 nomination review committee aren't 15 necessarily going to be aware of those very 16 site specific types of issues or mineral or 17 compound specific issues. And the nomination 18 review committee of course can review the 19 available peer review literature, but as 20 people may have noticed, it, in the issue, 21 with regard to the issues of exposure and 22 how the substance is actually defined, those 23 two parts of the background document are not 24 dependent on peer reviewed literature. The 25 committees are free to consider other sources</p>

<p style="text-align: center;">Page 97</p> <p>1 of information. So I think it would be very 2 valuable to let the public and stakeholders 3 know when a nomination is going to be under 4 consideration and wheth..., when the nom..., 5 it is going to go to the nomination review 6 committee so that they can suggest points 7 that need to be considered, provide 8 information particularly on, on these kinds 9 of issues of what exactly are the physical 10 chemical characteristics of a compound, what 11 the exposures are, not quantitatively so much 12 as qualitatively and how they might differ 13 from, from site to site. And also to 14 recommend at that time people who might be 15 spe..., very knowledgeable on these types of 16 issues and those might be, they're not 17 necessarily published authors, but they might 18 be, for example, health and safe... safety 19 experts at a particular company or even a 20 mine operator who, or a mineralogist who is 21 familiar with that particular type of 22 compound at a particular mine or a 23 particular facility, but has not necessarily 24 published a paper on it. Okay, so that's, 25 that's the next major recommendation that we</p>	<p style="text-align: center;">Page 99</p> <p>1 confidential we have gotten some reports on, 2 on how they're conducted. Those...the 3 Executive Committee does not necessarily get 4 into the details of a particular proposed 5 listing the way the other review committees 6 do. They will look at, you know, what has 7 happened in the review process, did RG1 and 8 RG2 differ from, in their votes from each 9 other, and did they differ from the RoC 10 subcommittee and what are we going to do 11 about that, or what are we going to do about 12 the Tamoxifen issue, but they don't get into 13 the science so much. So the question and I'm 14 not.. we have proposed that they actually be 15 removed from the review process, or as has 16 been suggested today perhaps their role 17 should just be clarified more, but I would 18 suggest, certainly they have a place in the 19 process. I mean they're participating 20 agencies, it's an NTP listing, it's not an 21 NIEHS listing. Dr. Olden is Director of the 22 NTP which means he works with all of these 23 other agencies, he's not the guy who runs 24 these other agencies and that will be true 25 of any subsequent Director also of course.</p>
<p style="text-align: center;">Page 98</p> <p>1 had after releasing the background document 2 before RG1. Of course we've recommended that 3 since this is now an evolving process with 4 there really being not just a background 5 document, but a bet..., what I would call a 6 background document package, as it moves 7 forward through the process, each committee 8 adds comments and recommendations to become 9 part of the package, that information be 10 posted as it, as it develops and before each 11 review committee meeting so that people have 12 a chance to see it and if they, they notice 13 anything that's really off in there they 14 have a chance to comment to the next 15 committee. Now what..., probably the most 16 radical suggestion we made which has been 17 referred here today, not necessarily 18 attributed to us, is, is the role, has to do 19 with the role of the NTP Executive 20 Committee. We actually... we made the point 21 that, that that is often viewed and in fact 22 is more properly characterized as a policy 23 level type of committee rather than a 24 scientific review committee. As I understand 25 it, even though those meetings are</p>	<p style="text-align: center;">Page 100</p> <p>1 So there's a place for it, the Executive 2 Committee, but I think it would be more 3 constructive for the process if instead of 4 having the Executive Committee actually vote 5 on a recommendation, which I think they have 6 mostly in the past, though I have no way of 7 really verifying that, that the better way 8 to do it would be to let each of the 9 agencies as an agency submit comments to the 10 Directors and of course they would go 11 through the head of the agency or whoever 12 was on the NTP Executive Committee before 13 they got to the Director I assume and they'd 14 be signed off on. But then the agency would 15 be freer to have, you know, their best 16 scientists, their most qualified scientists, 17 particularly with regard to a particular 18 proposed listing, take a look at what had 19 been done with that listing and, and submit 20 really scientific comments to the Director 21 and the Secretary. There have been other 22 issues raised today which I think will come 23 up in the discussion, so I'm going to cut it 24 short and not comment on those yet. I 25 may.... well, you can count on me to jump in</p>

<p style="text-align: center;">Page 101</p> <p>1 as they come up in the, during the rest of 2 the discussion. So that's all I have for now 3 other than what's in the written comments we 4 submitted.</p> <p>5 DR. GOLDMAN: Thank you very 6 much for that. Are there questions that 7 people have, or points where you would like 8 to receive clarification? Mark?</p> <p>9 DR. TORAASON: Yeah. Playing 10 a role in the Executive Committee not as a, 11 as a member but as a, sort of a briefer for 12 our Director I would argue that I think that 13 at times the Executive Committee can be more 14 technical than it's being placed here. What, 15 what does not take place at the Executive 16 Committee from my perspective is a rehashing 17 of issues where there's a great deal of 18 agreement. It's only in particular cases 19 where there's a contention over an issue and 20 in these cases the Executive Committee will 21 evaluate it. So I think that their vote is 22 important and they do play an impact and in 23 a sense... I can't speak for all the 24 agencies that are involved... that the 25 Director doesn't go... our Director doesn't</p>	<p style="text-align: center;">Page 103</p> <p>1 the process of nomination that anybody that 2 consider that something should be nominated 3 should be free to present it and then within 4 the NTP, the gathering of information occur 5 and the decision is made if it, it is there 6 something, if there is enough material to do 7 it. But, I, I, I would like to, to, I 8 wonder if you are suggesting that a 9 nomination be made more formal and that the 10 people that nominate present evidence?</p> <p>11 MR. KELLY: My understanding 12 of the process as it's written up right now 13 is that, is that the nomination review 14 committee is free to supplement what was 15 submitted by the.. along with the original 16 nomination. The point I'm making is that I 17 think it's important for the public and 18 stakeholders to know when a nomination has 19 been submitted and when there is going to be 20 work done by the nomination review committee 21 in making a recommendation on the sufficiency 22 of the nomination and gathering further 23 information. And it's the gathering further 24 information part that I was particularly 25 interested in. I..., once they make that</p>
<p style="text-align: center;">Page 102</p> <p>1 go to the Executive Committee meeting without 2 a thorough review of all the material and a 3 brief on that material, so it's just that if 4 there's nothing in contention then it's 5 not...</p> <p>6 DR. GOLDMAN: Yeah. 7 DR. TORAASON: ...brought up 8 and discussed again.</p> <p>9 DR. GOLDMAN: Thanks for that 10 clarification. Are there questions or..... 11 yes, Dr. Moure.</p> <p>12 DR. MOURE-ERASO: On the issue 13 of, of the nomination committee that you 14 were, you were discussing in there. The way 15 I read it you are saying that or imply that 16 the party that nominates a chemical from the 17 NTP to be considered presents evidence or 18 presents the literature of the, of the, of 19 the chemical while you are making the 20 nomination. My understanding, and I wish if 21 that NTP people should comment on this is 22 that, the responsibility of gathering the 23 information for the nomination is the 24 NTP....., I mean they, they have, my 25 understanding is that they have facilitated</p>	<p style="text-align: center;">Page 104</p> <p>1 recommendation and the Director approves it, 2 the process is set in place that you have to 3 go through almost a two year review process 4 and it's a shame to see that happen if the 5 nomination has not been based on complete 6 data or on data which is somehow flawed. So 7 I would argue that it's important for people 8 to know the nomination is about to be 9 considered and to get to the nomination 10 review committee all available information. 11 I think it's especially important and to 12 suggest individual experts that that 13 committee should consult for further 14 information, particularly on issues they 15 regard as especially significant. Does 16 that...</p> <p>17 DR. MOURE-ERASO: Yeah, I 18 understand better what you're saying. 19 SPEAKER: I must be missing 20 something, Bill, how is what you described 21 different than what he is requesting? I 22 mean you, you, you said you are going to 23 solicit comment before the review begins, 24 aren't you? 25 DR. ALLABEN: Yeah, we, we</p>

<p style="text-align: center;">Page 105</p> <p>1 for a nomination begins, but I think what 2 Mr. Kelly is suggesting is before we even 3 identify the nomination, before the 4 nomination committee sees what is being 5 proposed for possible nominations for listing 6 that there be a public notification of what 7 we're even thinking about considering and 8 getting some input on that, is that...</p> <p>9 MR. KELLY: Well, there are 10 really two distinct parts to the process 11 now, that the review process does not begin 12 until the nomination which has been approved 13 for sufficiency goes to RG1, and the public 14 announcement is not made currently until just 15 before the RG1 meeting. What I'm suggesting 16 is that the public announcement process needs 17 to be moved farther back to the point where 18 prior to consideration of the nomination by 19 the nomination review committee so that they 20 are sure that they have all the important 21 information on that substance or exposure. 22 Does that, does that help, Mark?</p> <p>23 DR. GOLDMAN: Chris, did you 24 want to chime in, I think I understand what 25 you're saying, I actually...</p>	<p style="text-align: center;">Page 107</p> <p>1 evidence points in a, in a particular 2 direction or not. I will also point out that 3 in the review process that Bill outlined, 4 once the Director has selected a list of 5 compounds that we can reasonably review in a 6 two year period in the NTP for the Report on 7 Carcinogens, you have the opportunity to 8 comment on those nominated chemicals and 9 clarify the record of the science on those 10 chemicals which we do encourage you to do, 11 and you have the opportunity at that point 12 to suggest experts who we might include in 13 the overall evalu... preparation of the 14 background documents because at that point we 15 have not started the background documents. So 16 there is an opportunity to do effectively 17 the same thing you're asking for after the 18 choice has been made that these are the 19 things we will review.</p> <p>20 MR. KELLY: I would like to 21 see specifically stated in the procedures 22 that before the RG1 review, the invitation 23 for public comment will include the 24 invitation for recommendations on experts who 25 should be included in the preparation of the</p>
<p style="text-align: center;">Page 106</p> <p>1 DR. PORTIER: I, I 2 understand. I understand what you're saying 3 and I want to make a few things clear. 4 Number 1 is that the policy of the National 5 Toxicology Program is that just because a 6 chemical enters the review process does not 7 mean in any way, shape or form it is suspect 8 as a carcinogen; that is not the intent of 9 our process in advance. Obviously we spend 10 time and effort up front looking at what's 11 available to us, we balance a lot of issues 12 in the nom..., in evaluating what the 13 nomination committee gives us in terms of 14 resources we have available to include in 15 our overall review and a number of things. 16 And so it's not simply a science issue per 17 se up front. But I do want to make it 18 clear, you're presuming in some sense we're 19 reviewing this in the nomination committee 20 with the intent of deciding whether it has 21 enough evidence to actually make the listing, 22 that's not the intent. The intent of the 23 nomination committee is to decide whether or 24 not there is enough evidence to review, not 25 enough.. not the question of whether that</p>	<p style="text-align: center;">Page 108</p> <p>1 background document. I believe that's not 2 stated explicitly in the procedures right 3 now. And I understand your point of view, I 4 am sticking with my point of view that it, 5 it would be valuable for the nomination 6 review committee to, to have a chance to 7 review all the best available information 8 before they make a decision on whether to go 9 forward with the nomination, and as I said I 10 understand your point of view also, that 11 that's not a, it's not a review decision, so 12 there we leave it, it's a suggestion.</p> <p>13 DR. GOLDMAN: I have a 14 question for you. You suggested in your, in 15 your statement that it would be good to 16 expand the core of knowledgeable experts to 17 include people who are not scientists and 18 don't have any scientific information to 19 contribute about the carcinogenicity of the 20 chemicals like mine operators and you listed 21 some others and... I was very surprised at 22 that suggestion and, and I wanted to 23 understand what it is that you felt that 24 those folks could contribute to this kind of 25 process in terms of trying to sort through</p>

<p style="text-align: center;">Page 109</p> <p>1 evidence about carcinogenicity? 2 MR. KELLY: Well, I'm not 3 sure I meant to suggest they weren't 4 scientists. I mean some of them might be, 5 might be... 6 DR. GOLDMAN: You said they 7 might not have published... 8 MR. KELLY: ...be a min..., be 9 a mineralogist, for example. 10 DR. GOLDMAN: Uh-huh. 11 (Indicating affirmatively.) 12 MR. KELLY: I don't know 13 whether you'd consider that a scientist or 14 not, but say somebody who runs a mine and 15 analyzes samples from the mine or whatever 16 would be in a position to say what are the 17 actual exposures at that particular mine and 18 the same would be true for say a production 19 facility... 20 DR. GOLDMAN: Is what you're 21 getting at... 22 MR. KELLY: Those are the 23 technical, technical people but not 24 necessarily scientists in the sense of being 25 toxicologists or epidemiologists or</p>	<p style="text-align: center;">Page 111</p> <p>1 DR. GOLDMAN: The question of 2 what is Vermiculite. 3 MR. KELLY: What is 4 Vermiculite, does it have asbestos in it or 5 not and you're going to need people to 6 present technical information from the Libby 7 facilities itself, you know, presumably there 8 is exposure information that has not 9 necessarily been gathered by toxicologists or 10 epidemiologists or pathologists or, or 11 other... 12 DR. GOLDMAN: Okay, that helps 13 me understand. 14 MR. KELLY: ...health sci..., 15 health scientists... 16 DR. GOLDMAN: That helps me 17 understand what you meant. 18 MR. KELLY: ...that will 19 help, help understand what exactly is the 20 substance to which these people are exposed. 21 DR. GOLDMAN: Thank you very 22 much. Okay, well, I've let us go past our 23 time for the break and....Oh, one more 24 comment, sorry. 25 DR. DELZELL: I believe you</p>
<p style="text-align: center;">Page 110</p> <p>1 pathologists. 2 DR. GOLDMAN: So is what 3 you're getting at is just physically what or 4 chemically what's the actual identity of the 5 agent? Is that the issue you're trying to 6 get at, is there a scientific issue in there 7 about, you know, mineralogy or chemistry of 8 the agent? 9 MR. KELLY: Yes, we're 10 talking, we're talking... 11 DR. GOLDMAN: Is that what... 12 MR. KELLY: ...about the 13 properties... 14 DR. GOLDMAN: 'Cause I just 15 didn't... 16 MR. KELLY: ...properties of 17 the exposure, whether it's a single exposure, 18 whether it's a mixed exposure, what exactly 19 it, it looks like. Some, particularly 20 industrial minerals exist in a, quite a 21 variety of forms depending on the particular 22 mineral deposit. Some of you may be familiar 23 with the, the whole controversy having to do 24 with, I forget the, the Vermiculite 25 controversy and whether...</p>	<p style="text-align: center;">Page 112</p> <p>1 mentioned that the, the language of the 2 solicitation for public comments that's made 3 after the nomination is, is not clear. Can 4 you be more specific about that? 5 MR. KELLY: You might be 6 referring to the comment I almost directed 7 directly to Chris that the, the currently 8 the solici.. solicitations for public comment 9 do not ask the public to suggest compound 10 specific experts who could contribute to 11 preparation of the background document and I 12 suggested that that be specifically included 13 in the notices and in the procedures. Is 14 that what you're referring to? 15 DR. DELZELL: Yes. 16 MR. KELLY: Did, am I clear 17 about that? 18 DR. DELZELL: Yes. 19 MR. KELLY: Okay. Dr. 20 Toraason, I got the feeling I did not 21 satisfy... 22 DR. TORAASON: No, I 23 understand it now. As we went around and 24 around there, we talked about it. 25 DR. GOLDMAN: He understands.</p>

<p style="text-align: center;">Page 113</p> <p>1 DR. TORAASON: Yeah, I 2 understand. 3 DR. GOLDMAN: Understand 4 the...yeah, that's important, thank you so 5 much. Okay, as I said before, I was starting 6 to say we did go right through the break and 7 what I want to propose is that we would 8 continue in this manner until noon and break 9 at noon, for a brief lunch. Is that okay or 10 do we need to adhere to the 12:15 break 11 time? Mary, just pipe up if...it's, that's 12 okay, is that okay with people in the 13 audience that instead of at 12:15 we would 14 take our lunch break at 12, so that I'm, I'm 15 basically cutting out the little morning 16 break, but trusting that you can come in and 17 out. So why don't we go ahead and keep 18 moving on? Is James McGraw here? 19 MS. LE HURAY: No. 20 DR. GOLDMAN: No, I'd 21 heard...yeah, I thought he wasn't going to 22 be able to make it, but we do have a letter 23 from him and I.. and Richard Becker I take 24 it is still digging... 25 MS. LE HURAY: Through the</p>	<p style="text-align: center;">Page 115</p> <p>1 let's go ahead then and... 2 DR. PORTIER: Clearly we can 3 wait 'til after lunch for your presentation 4 and you can contact him and... 5 DR. GOLDMAN: And... 6 DR. PORTIER: ...discuss the 7 issue... 8 DR. GOLDMAN: Also I have a 9 re... 10 DR. PORTIER: ...we can decide 11 after lunch. 12 DR. GOLDMAN: I also have a 13 request from one of the later speakers to go 14 before lunch, if.... is that.. would that be 15 okay for you to stay through lunch and... 16 MS. LE HURAY: Sure, that'd 17 be fine. 18 DR. GOLDMAN: ...do it after 19 lunch? Is that all right? Okay, why don't, 20 why don't we go ahead then? Jennifer Sass 21 had requested to try to go before lunch 22 because of a scheduling conflict. So we will 23 then accommodate that and.... I'd like to 24 see Rick here so let's call him. 25 MS. SASS: Is it okay if I</p>
<p style="text-align: center;">Page 114</p> <p>1 me his slides. 2 DR. GOLDMAN: Or is he going 3 to continue to try to soldier on and get 4 here, they might dig him out if he wants to 5 go later. I could move on to the next 6 speaker. 7 MS. LE HURAY: I, I could 8 either give his presentation, or if you're 9 going to continue tomorrow, he doesn't think 10 he'll be able to get out today. 11 DR. GOLDMAN: We may be 12 concluding today, so it could be that the 13 best thing then would be to go ahead and let 14 you keep your place in line here and, but 15 they may be plowing the area out. If, if... 16 MS. LE HURAY: Well, I know 17 there was some areas, and I'm not sure where 18 Rick lives, but for example they closed 19 Georgetown Pike this morning because of ice. 20 DR. GOLDMAN: Yeah. 21 MS. LE HURAY: So if he 22 lived out that way it's more, more than a 23 plowing problem, it's ice on the road, so... 24 DR. GOLDMAN: Okay. I know. 25 I drove here, I know about the ice, okay,</p>	<p style="text-align: center;">Page 116</p> <p>1 give my comments from here? 2 DR. GOLDMAN: I think it may 3 be difficult, if you, if you do need to 4 speak from back there, there is a mic on the 5 pole, you could use that mic I think or sit 6 down at your chair, but then we won't be 7 able to see you, so it would be better if 8 you're speaking into a mic and we are 9 recording so we want to make sure that... 10 MS. SASS: Is this on? I'm 11 Jennifer Sass with the Natural Resources 12 Defense Council. These are short comments and 13 I've also handed a few copies in some 14 written comments... some written copies. I 15 have only two points and I, I don't think 16 they're, they're actually very radical at 17 all, so I'm sure that when you hear them 18 you'll really be excited about making these 19 minor changes. I'm also volunteering, I, I 20 train guide dogs, this one's in training, so 21 I hope she doesn't get out of hand. The 22 first is the criteria I think need an 23 explicit description of how mechanistic data 24 can be used to upgrade an agent. The NTP 25 criteria for listing agents in the Report on</p>

<p style="text-align: center;">Page 117</p> <p>1 Carcinogens as quote, known to be human 2 carcinogen, unquote, requires sufficient 3 evidence of carcinogenicity from studies in 4 humans, which indicate a causal relationship 5 between exposure to the agent, substance or 6 mixture and human cancer, that's the criteria 7 as it's listed. The criteria also allow for 8 conclusions of carcinogenicity to be based on 9 scientific judgment with consideration of all 10 relevant information, this is also written. 11 This relevant information may include 12 mechanism of action information. The 13 criteria, the criteria describe how 14 mechanistic data may be used to de-list or 15 downgrade an agent that causes cancer in 16 animals. The criteria state, quote, for 17 example, there may be a substance for which 18 there's evidence of carcinogenicity in 19 laboratory animals, but there are compelling 20 data indicating that the agent acts through 21 mechanisms which do not operate in humans 22 and would therefore not reasonably be 23 anticipated to cause cancer in humans, that's 24 the language of the example that's given. 25 However, it is an obvious, obvious absence</p>	<p style="text-align: center;">Page 119</p> <p>1 clarification should be part of the criteria 2 as opposed to listed below and even this 3 clarification though, we don't think is 4 sufficient, for example Vinyl Chloride is a 5 known human carcinogen, but Vinyl Bromide and 6 Vinyl Fluoride also produce tumors in 7 experimental animals and the same types of 8 DNA adducts in exposed animals and the same 9 metabolites by rodent and human liver 10 microsomes. All of this information 11 indicates that these Vinyl halides act by a 12 common mechanism and should be regarded as 13 human carcinogens. I think that the NTP 14 does take this kind of thing into account, I 15 just think that this spe..., the language 16 should be explicit and it should be included 17 in the criteria. It would be misleading for 18 a worker to believe that his or her cancer 19 risk is reduced when working with Vinyl 20 Bromide for instance versus Vinyl Chloride. 21 The NTP RoC needs to maximize the 22 appropriate use of this mechanistic data to 23 properly inform the public of cancer hazards 24 that they may encounter in environments and 25 work places by including specific and</p>
<p style="text-align: center;">Page 118</p> <p>1 that the criteria lack an explicit 2 description of how mechanistic data can be 3 used to upgrade an agent. Especially to the 4 known human carcinogen category. So, we think 5 that it's essential to have explicit criteria 6 laid out that would allow the use of 7 mechanistic data to list or upgrade an agent 8 to known human carcinogen where it's 9 appropriate. I know that the NTP considers 10 this, but I think it should be part of the 11 language and not just a, a negative example. 12 My second point is that the NTP Report on 13 Carcinogen needs to maximize the appropriate 14 use of mechanistic data to properly inform 15 the public of cancer hazards that they may 16 encounter in the environment or the 17 workplace. After presenting the criteria, the 18 report provides a definition of human studies 19 as traditional cancer epidemiology, data from 20 clinical studies and/or data derived from the 21 study of tissues of humans exposed to the 22 substance in questions and useful for 23 evaluating whether a relevant cancer 24 mechanism is operating in hum.... in people, 25 that's the language that's used. This</p>	<p style="text-align: center;">Page 120</p> <p>1 explicit language in the criteria, thank you. 2 DR. GOLDMAN: Any questions 3 for Dr. Sass? Comments? 4 DR. MOURE-ERASO: I 5 appreciate your comments Dr. Sass, I think 6 it's a, it's a topic very near to my heart 7 because I was involved in these decisions 8 and, and I would like simply to add that, 9 that the first part of your, of your 10 comments that, that you say, that an example 11 is, is, is put on the current comments on 12 the criteria that of how mechanisms of 13 actions could be used to change a nomination 14 or, or a, or a decision of being a known 15 human carcinogen to being a reasonably 16 expected to be a human carcinogen. Actually 17 the, the, the cases of Vinyl Chloride, Vinyl 18 Bromide and Vinyl Fluoride is probably the 19 counter example that is the opposite in 20 which mechanism data was considered in the 21 discussions of the bureau of scientific, of 22 the, of the Board of Scientific Counselors 23 to, to change the nomination for reasonably 24 expected to be a carcinogen to a known 25 carcinogen, and actually the decision of the</p>

<p style="text-align: center;">Page 121</p> <p>1 Board of Scientific Counselors was 2 specifically that based on the similarities 3 of action between Vinyl Chloride and Vinyl 4 Bromide and Vinyl Fluoride; so there is a 5 particular example of what you are saying in 6 the first paragraph. 7 MS. SASS: Right, thank you. 8 Yeah, that, that is true of course and what 9 I'm hoping is that tho..., that kind of 10 language and some language that captures 11 those kinds of uses can be put into the 12 criteria more explicitly. 13 DR. GOLDMAN: Okay, don't 14 everybody stampede toward the door, but I've 15 had another request for somebody to be moved 16 up in the order and which we're going to go 17 ahead and accommodate, another flight that 18 somebody has to catch, and so speaker number 19 8, Dr. Roth. 20 DR. ROTH: Thank you for 21 accommodating me, I, I don't know if the 22 flight's going to take off after hearing 23 that Old Georgetown Road was closed, but... 24 I have been involved with beryllium for over 25 25 years as a U.S. government agency</p>	<p style="text-align: center;">Page 123</p> <p>1 comments, (4) They did not give the public 2 sufficient time to address the Board of 3 Scientific Counselors, (5) And they did not 4 permit dialogue or questions and answers 5 between the public and the Board of 6 Scientific Counselors, and finally they did 7 not provide a response to comments that were 8 submitted and some of these were pretty 9 technical comments that would have made a 10 substantial difference in the Board's 11 decision about the carcinogenicity of 12 beryllium. To give you some specifics about 13 the process, the public was not given an 14 adequate opportunity to present their 15 comments to the NTP. One deficiency was the 16 scheduling of nine chemicals to be reviewed 17 by the Board of Scientific Counselors during 18 a two day period. During public comments on 19 the beryllium nomination, members remarked at 20 several points as to the need to conclude 21 consideration of beryllium and move on to 22 the remaining chemicals because of the press 23 of time. Another deficiency was the 24 limitations on the interaction between public 25 commentors and the Board of Scientific</p>
<p style="text-align: center;">Page 122</p> <p>1 official reviewing the beryllium epidemiology 2 data, as it was at the time. As a 3 researcher I've published quite a lot on the 4 epidemiology of beryllium. I was a 5 commentator to a number of different panels 6 and committees such as this for OSHA, EPA, 7 NIOSH and then I served on numerous panels, 8 agency panels to deal with beryllium. My 9 full comments on the beryllium hearings, the 10 NTP beryllium hearings are, was submitted to 11 you and they're available outside as well. I 12 would just like to summarize some of these 13 comments here in about five or ten minutes. 14 The comments are divided into two portions, 15 the first of which is the process, and the 16 second I'd like to give you a little bit of 17 the technical substance. The major problems 18 that we've had with the process section of 19 the beryllium hearings with NTP are (1) NTP 20 did not prepare an adequate background 21 document, (2) They did not provide the 22 public time to review the background 23 document, (3) They did not give the Board of 24 Scientific Counselors sufficient time to 25 review the background document and the public</p>	<p style="text-align: center;">Page 124</p> <p>1 Counselors in discussing the adequacy of the 2 two key studies. Indeed at various points 3 some members of the Board of Scientific 4 Counselors agonized as to whether they should 5 even be discussing the comments from the 6 public or answering questions as opposed to 7 merely listening, listing the comments. Next 8 the composition of the Board of Scientific 9 Counselors was another deficiency; only seven 10 of the twelve Board members were present for 11 the deliberation, five of the members did 12 not hear the public comments including some 13 principal reviewers. In fact, the key with 14 beryllium epidemiology is the epidemiology 15 and there was only one epidemiologist present 16 at the time. Another deficiency was selecting 17 as one of the three primary reviewers a 18 member who had co-authored at least two 19 papers and was apparently working on a third 20 paper with Dr. Ward. That was one of the 21 key epidemiologists. This person's work was 22 at the crux of the board's decision to 23 support a cancer classification change for 24 beryllium. Persons should not be chosen as 25 primary reviewers on proposed nomination for</p>

<p style="text-align: center;">Page 125</p> <p>1 a change in cancer classification if they 2 have been professionally close or personally 3 linked to an author of the primary studies 4 used to support the change. Those summarize 5 some of the problems with the process. NTP's 6 criteria for listing states: conclusions 7 regarding carcinogenicity in humans or 8 experimental animals are based on scientific 9 judgment with consideration given to all 10 relevant information. In several respects, 11 relevant information concerning beryllium was 12 excluded from consideration by NTP. And there 13 were two instances of this. One was a Ph.D. 14 thesis whose document was available online 15 and they refused to consider it because it 16 was just a Ph.D. thesis and another of which 17 was a paper that I had published with Levy 18 and Roth. The, an early draft of the paper 19 was submitted to the committee, they refused 20 to look at it because it wasn't yet peer 21 reviewed, but it was peer reviewed and 22 published two months before the background 23 document came out. So that data were 24 available. And the data in the paper were 25 key because they addressed just the issues</p>	<p style="text-align: center;">Page 127</p> <p>1 States. Of these, five showed no statistical 2 association between lung cancer and, and 3 exposure to beryllium whatsoever, none 4 whatsoever. In fact some of these five 5 studies had a negative association, that is 6 to say for the beryllium workers the levels 7 of lung cancer were lower than the 8 population in general, the U.S. population in 9 general and far lower than the relevant city 10 rates; in other words it was just the 11 opposite way. There were only two plants 12 that showed any association and the relative 13 risks for these plants were extremely low, 14 they were like 1.2, 1.3. Adjusting for 15 smoking even in the papers upon which the 16 Board of Governors relied upon, which showed 17 that one of these plants, all the 18 association was associated with smoking, it 19 had nothing to do with beryllium exposures. 20 So six out of the seven plants showed 21 nothing. The last plant adjusting for city 22 rates instead of the U.S. rates also showed 23 that there was no association. If you looked 24 at all the data collectively, that is to say 25 from all seven plants instead of cherry</p>
<p style="text-align: center;">Page 126</p> <p>1 that were raised at the meeting, and the key 2 issues was, smoking was one of them and our 3 paper had shown that adjusting for smoking 4 alone would have changed all the 5 statistically significant associations with 6 beryllium and lung cancer would have been 7 attributed to smoking alone, so smoking was 8 a critical issue. Another critical issue in 9 the paper was whether or not to compare the 10 lung cancer rates of beryllium workers 11 compared to the U.S. as a whole or to 12 compare it for the relevant rates to the 13 city in which the plants were located and in 14 which most of the beryllium workers worked. 15 Adjusting for city rates instead of using 16 national rates, which include rural areas 17 where lung cancer rates are much lower, 18 would have also changed the association from 19 beryllium and lung cancer from being positive 20 to being negative, no association whatsoever. 21 To put the, all the beryllium data into 22 perspective is that all these papers, ours 23 as well as all the others, looked at seven 24 beryllium plants in the United States, the, 25 all the production facilities in the United</p>	<p style="text-align: center;">Page 128</p> <p>1 picking plants that would have also shown no 2 association whatsoever. Despite this, 3 beryllium's designation was changed from 4 being a probable risk association with lung 5 cancer to almost a certainty. I believe that 6 this experience reveals that NTP's processes 7 are severely deficient as are its criteria 8 as applied in practice. NTP should revise 9 its process and its practices in applying 10 its criteria. Reconsideration of beryllium 11 and beryllium compounds will be a good place 12 for NTP to start in applying improved 13 processes and procedures. Now the 14 documentation for everything that I've told 15 you was contained in the footnotes to my, to 16 my comments, so if you have any detailed 17 questions you could refer to those. Those 18 are my comments. 19 DR. GOLDMAN: Thank you very 20 much. Questions? Yes. 21 DR. ALLABEN: Looking at, at 22 your written comments, would you say that 23 you have several problems with the review 24 process, they're all specific toward 25 beryllium. Would you say that these were</p>

<p style="text-align: center;">Page 129</p> <p>1 endemic to the entire process, or that 2 beryllium just got a short shrift here? 3 DR. ROTH: I would, well, 4 the fact that there were... I, I only 5 attended the beryllium hearings, okay, so I 6 couldn't tell you about the others. But I 7 saw with the short time period they were 8 covering nine pollutants in a very short 9 period of time, and for the other chemicals 10 I know that there weren't any, there, there 11 was maybe one epidemiologist and I'm sure 12 that with the other chemicals epidemiology 13 was also of concern, so even though I didn't 14 attend the other sessions I would assume 15 that it was also endemic to the other 16 chemicals as well. 17 DR. GOLDMAN: Can I just ask 18 a question just for clarification? I'm 19 thinking back, I'm trying to remember, which 20 Report on Carcinogens contained this listing 21 change? 22 DR. ROTH: Is it the 10th 23 report? 24 DR. GOLDMAN: It was in the 25 10th, so it was the last...</p>	<p style="text-align: center;">Page 131</p> <p>1 trying to get back to that and, and... 2 DR. ROTH: Right. 3 DR. GOLDMAN: ...what, in the 4 bigger picture just looking back from that, 5 your experience obviously with the compound, 6 but what you've learned from that and what 7 you would like to communicate to us about 8 what you think needs to change. 9 DR. ROTH: Right, I have a 10 great deal of difficulty just in doing my 11 job and working with the technical portion 12 of things, process is generally way beyond 13 me, but it seems to me that there are things 14 that you could do, number 1, if you don't 15 have an adequate number of epidemiologists on 16 staff, which is, and the issue is 17 epidemiology, then you shouldn't approve 18 anything until you know you have an adequate 19 number of epidemiologists on staff, and the 20 other things are pretty well laid out. For 21 example, there maybe should be very, there 22 should be specifics up until what point do 23 you accept published papers, like here our 24 paper was published in the peer reviewed 25 scientific literature two months in advance</p>
<p style="text-align: center;">Page 130</p> <p>1 DR. ROTH: Right. 2 DR. GOLDMAN: ... the last one 3 and as...and I know that you commented the 4 last meeting so you've obviously observed 5 some of the changes that have occurred in 6 the process and I was wondering compared to 7 then and versus now where you see the 8 changes having been made and more broadly 9 what you think are the most important areas 10 that need to be addressed. Because, I mean 11 some of these things like bringing in more 12 experts, they have made that as a change, I 13 think there probably would be more 14 epidemiologists today and so forth, but maybe 15 some of these there haven't and... 16 DR. ROTH: Right. Well, 17 again, are you talking about process or are 18 you... 19 DR. GOLDMAN: The process, 20 yes... 21 DR. ROTH: Okay. 22 DR. GOLDMAN: ...in terms of 23 the subject matter of our meeting... 24 DR. ROTH: Right. 25 DR. GOLDMAN: ... today, I'm</p>	<p style="text-align: center;">Page 132</p> <p>1 before the document came out and it seems to 2 me that you should try to take advantage of 3 all this latest information. And you know, 4 the other things that I addressed I think 5 it's fairly obvious what the next step 6 should be, you know, if, there should be an 7 opportunity for commenters to hear the 8 criticisms of their work, or you know, where 9 it's accepted and not accepted. So the 10 process should make sense. 11 DR. GOLDMAN: And your paper, 12 is that the Levy and Roth 2002, is that the 13 one... 14 DR. ROTH: Right... 15 DR. GOLDMAN: ...that you're 16 referring to? 17 DR. ROTH: ...right, and it's 18 published in Inhalation Toxicology. 19 DR. GOLDMAN: In Inhalation 20 Toxicology. Okay, thanks. Any other questions 21 or comments before we... oh wait.. go 22 ahead....you first and then. 23 DR. MOURE-ERASO: I would 24 like to first make the comment that I, I, I 25 am amazed of the lengths that you have gone</p>

<p style="text-align: center;">Page 133</p> <p>1 to continue trying to save the good name of 2 beryllium through the years. I have been 3 following your presentations and it seems 4 that has been a tremendous effort that has 5 been put. One question that I have on the 6 specifics that you recommend is you, you are 7 saying that if a reviewer on the Board of 8 Scientific Counselors has been involved in 9 producing a scientific study that somehow 10 relate to the issue that that person 11 shouldn't be allowed to, to be a reviewer? 12 DR. ROTH: That, that 13 individual was pretty much an advocate that 14 beryllium is a carcinogen, you know, he had 15 an axe to grind before he came and they 16 didn't even pay attention to our paper 17 whatsoever. 18 DR. MOURE-ERASO: Yeah. I, I 19 disagree with you very, very strongly. I 20 don't, I think that we aren't talking about 21 having axes to grind, probably there would 22 be other persons here that have axes to 23 grind, I, I, I disagree with your 24 characterization of the person that you 25 pointed out here.</p>	<p style="text-align: center;">Page 135</p> <p>1 think that is not useful.... if you can make 2 some recommendations specifically some 3 procedures that would be helpful... 4 DR. ROTH: Right. 5 DR. MOURE-ERASO: ...but you 6 know, I don't think...I don't think that you 7 are going to have a second bite at the 8 apple... 9 DR. ROTH: Right. 10 DR. MOURE-ERASO: ...to try to 11 declassify beryllium... 12 DR. ROTH: Right. 13 DR. MOURE-ERASO: ... in this 14 forum. 15 DR. ROTH: Right, well, I 16 think at a minimum, at a minimum they should 17 be reading and paying attention to and 18 giving credibility to the published papers in 19 the open scientific literature. 20 DR. GOLDMAN: Point well 21 taken, and, and I think your point about 22 mak...you know, having a clear idea of a cut 23 off for when papers will not, can no longer 24 be brought into the process is an excellent 25 point obviously, logically.</p>
<p style="text-align: center;">Page 134</p> <p>1 DR. ROTH: Right. At a 2 minimum the individual should have looked at 3 the latest scientific research which was a 4 published paper and not only was it just a 5 general scientific paper, but the issues that 6 were discussed at the meeting was whether or 7 not there were other confounders that could 8 have explained the elevated levels of 9 beryllium lung cancer. And the issues were 10 smoking, whether or not...what rate should be 11 used as a referent population and whether or 12 not all seven plants should be considered as 13 opposed to one or two plants, these were... 14 DR. MOURE-ERASO: Yeah, I, I 15 heard, I heard... 16 DR. ROTH: These were the 17 precise...so the paper was extremely 18 relevant, it addressed... 19 DR. MOURE ERASO: But you 20 know, the objective of, of our exercise here 21 is to discuss how could, how could we 22 improve the process, I don't think that we 23 want to re-litigate all the aspects that you 24 have repeated over and over in every forum 25 or the beryllium industry has, I think... I</p>	<p style="text-align: center;">Page 136</p> <p>1 DR. ROTH: Mm-hmm. 2 (Indicating affirmatively.) 3 DR. GOLDMAN: Every day 4 there's a new paper and you have to have 5 some way to stop the flow in so that you 6 can analyze what's there and that just needs 7 to be clear. I thought that was a good 8 point. Let's now move on. Amy, I'm...we 9 have to...you know, we only...oh, Bill had 10 his hand up, I'm so sorry, Bill, it's hard, 11 my eyes in the back of my head are covered 12 by my hair. 13 MR. KELLY: I'm sorry, I'll 14 try to be very brief. This again goes back 15 to the issue of making sure that the 16 nomination is correctly described from the 17 outset. What, it, perhaps my recollection is 18 faulty, but wasn't there with beryllium an 19 issue of worker exposure coincidentally to 20 Sulfuric Acid mist and did not, did that 21 have a bearing on the carcinogenicity issue? 22 DR. ROTH: Right, that, that 23 was another issue that I didn't raise but 24 the one plant that had the highest levels, 25 relative risk of about 1.4 the.. that used</p>

<p style="text-align: center;">Page 137</p> <p>1 Sulfuric Acid and it was listed the, there 2 are individuals that thought that that could 3 be the association, that could be the, the 4 confounding factor, that could be another 5 confounding factor, so you're right, Sulfuric 6 Acid was another issue. 7 DR. GOLDMAN: But that sounds 8 to me like an issue for the epidemiology 9 review in terms of if there's confounding... 10 DR. ROTH: You're right. 11 DR. GOLDMAN: ...and not in, 12 and not so much an issue of the nomination 13 to me but... 14 DR. ROTH: Right, but it's, 15 it's a technical issue. 16 DR. GOLDMAN: It's a 17 technical issue. Why don't we go ahead now, 18 I'm seeing here the numbers of speakers that 19 are left are dwindling down and we've got 20 two more on the list. Are there others that 21 I'm not aware of who are here to speak 22 because when I just again kind of, it's noon 23 and I said we'd break for lunch now, but I'm 24 tempted to say we could move forward with 25 the last two presentations and then break</p>	<p style="text-align: center;">Page 139</p> <p>1 I want to make sure that.... 2 DR. GOLDMAN: Because I'm 3 afraid that we will lose our audience. 4 DR. PORTIER: I, I want to 5 make sure we, it's clear we have plenty of 6 time, we'd like to come back after lunch in 7 case there are people who show up. I, I 8 don't want to rush this at all. 9 DR. GOLDMAN: Do you want to 10 go ahead and give your comments now and then 11 perhaps we can have both comments before 12 lunch, take our break, come back and make 13 sure that we've discussed and summarized. 14 DR. PORTIER: And I would 15 appreciate a five minute break right now, 16 yes. 17 DR. GOLDMAN: Well, Chris, if 18 we're going to take a break now since it's 19 noon why don't we just break for lunch then? 20 I mean, it's... that's my sense, is that 21 okay? Yeah, why don't we just take a lunch 22 break and what time do you want to come 23 back? 24 SPEAKER: You're the Chair. 25 DR. GOLDMAN: Say at, how</p>
<p style="text-align: center;">Page 138</p> <p>1 for the day. Now if people would find that 2 to be an appealing alternative, I don't 3 think that the lunch options around here are 4 necessarily the greatest, but I want to 5 check in also with our last two presenters 6 and, and if any of you were counting on the 7 lunch as well for some reason, you don't 8 have to say what it was... Amy, what, what's 9 your pleasure? 10 SPEAKER: I think we should 11 go ahead and... 12 DR. GOLDMAN: Go ahead? 13 SPEAKER: Yes. 14 DR. GOLDMAN : Let's forge 15 forward then and let Ann, you want to, you 16 want to have a...let's give people a 10 17 minute break, 10, 15 minute break. Chris? 18 DR. PORTIER: I would feel a 19 lot more comfortable if we came back after 20 lunch and just summed up and continued. I 21 don't want to feel like we are rushing 22 through these public comments. There is no 23 reason for rush, we can do your comments 24 before lunch. There's good reasons to do 25 them before lunch 'cause many may not come</p>	<p style="text-align: center;">Page 140</p> <p>1 long does it take to get lunch here? 2 DR. WOLFE: The, the lunch 3 options are basically to go across the 4 street to the Natcher building, there are 5 just, there's very limited food downstairs 6 because they're renovating the cafeteria. But 7 right across the street in the Natcher they 8 have like a full surface cafeteria with 9 sandwiches and salad and some hot things, so 10 it's just right across the street. 11 DR. GOLDMAN: So why don't we 12 say that we'll be back here by say 1 13 o'clock? That's a bit of a walk, and people 14 have to bundle up to go back and forth so I 15 apologize to you, Ann. 16 MS. LE HURAY: If I could 17 just do one thing before lunch, I'd like to 18 answer Dr. Toraason's question that you asked 19 about the, Dr. Roth about beryllium, because 20 if we look at NTP's comments in 1999 at a 21 similar meeting I think we had something 22 like 9 or 10 one pages from different 23 chemicals or substance groups describing 24 their experience with the, with the 25 process... the Report on Carcinogens process.</p>

<p style="text-align: center;">Page 141</p> <p>1 And then of course we had Dr. Roth on 2 beryllium and then Dr. Piccirillo will be 3 giving an example from the 11th Report on 4 Carcinogens, you know, to answer any issues 5 you, people had, and that kind of, Dr. Roth 6 doesn't have an overview of all the 7 different people that had been involved. Thank 8 you. 9 (WHEREUPON, a lunch recess was taken.) 10 DR. GOLDMAN: Okay, I can't 11 think of anything I really wanted to do. 12 All right, we have a couple more 13 presentations from members of the public and 14 starting with the American Chemistry Council. 15 This time I will, I'll actually let you go. 16 MS. LE HURAY: Sorry? 17 DR. GOLDMAN: This time I'll 18 actually let you go. 19 MS. LE HURAY: All right, so 20 everybody has to pretend that I'm Rick 21 Becker, and like I said, through the miracle 22 of modern technology Rick was able to e-mail 23 me his slides. We also have written comments 24 that are also not here today, but I've been 25 assured by NTP that they will be made part</p>	<p style="text-align: center;">Page 143</p> <p>1 about listing, listing, listing, but of 2 course if you look at NTP's website it's 3 always listing/de-listing and there have been 4 several cases of substances that have been 5 de-listed and I think that the processes 6 that are thought of should include talks 7 about how do we de-list when it's 8 appropriate. So I apologize for having to 9 pull these apart. On scientific quality just 10 to, to look at the...by the way, copies of 11 these slides are available on the table 12 outside and I appreciate greatly the staff 13 here helping me to get the Internet 14 downloaded to make the copies. But the 15 found..., the foundation of the Report on 16 Carcinogens listings and de-listing should 17 always be based on quality of science. You 18 know, as I had said in one of the comments 19 that I made, the chemical industry is a 20 science based industry and we employ 21 scientists, we consult with scientists and we 22 have a strong...have a foundational 23 philosophy that regulations and any kind of 24 decisions that affect our industry should be 25 based on science. And we're more than</p>
<p style="text-align: center;">Page 142</p> <p>1 of the record and up on the website and that 2 kind of availability. But if anybody wants 3 to see a copy of our comments you can 4 certainly get in touch with Rick or myself 5 or anybody at the NTP and we will be happy 6 to give you comments, they might even be 7 posted on our public website, I'm not sure 8 about that. So essentially, the ACC comments, 9 American Chemistry Counsel subcommittee, the 10 bulk of the chemical industry in the United 11 States has... would like to recommend several 12 improvements to the process and to the 13 criteria used in the Report on Carcinogens, 14 and one way of strengthening the scientific 15 quality is through strengthening the process. 16 I believe that that should be obvious. The 17 second is enhancing the public participation 18 processes in the development of the Report 19 on Carcinogens listing, and thirdly, we have 20 some recommendations on the clarification of 21 what the criteria should be for listing and 22 de-listing chemicals as Carcinogens. 23 I'm just going to go ahead, go on 24 and do a sidebar to say that in the 25 discussion this morning we've been talking</p>	<p style="text-align: center;">Page 144</p> <p>1 willing at the, and I think that's been 2 shown through time, if the science is...so 3 indicates, to take appropriate actions even 4 if it, you know, impacts on our industry and 5 I think that that's been shown most recently 6 in the whole P-Tox developments where 3M 7 voluntarily suggested removing them from the 8 marketplace. So anyhow, because the basis of 9 the RoC should be quality of science. It 10 should constitute comprehensive and thorough 11 reviews and interpretations of the best 12 available science. It should, scientific 13 experts, those with specific knowledge of the 14 issues involved should be involved in the 15 process. The process, whatever parts of the 16 process should be conducted in a manner that 17 fosters a dialogue, and the decision making 18 should be transparent and that goes hand in 19 hand of course with the concept of fostering 20 the dialogue. It means having open meetings, 21 stakeholder involvement, meaningful 22 opportunities for input and for scientific 23 interaction. Any changes then to the Report 24 on Carcinogens that NTP contemplates should 25 be focused on ensuring that these changes,</p>

<p style="text-align: center;">Page 145</p> <p>1 opportunities for input are enhanced. And of 2 course, I mentioned earlier too in one of my 3 comments that we have two new, relatively 4 new directives that need to be thought about 5 in the entire change process and that is 6 what impact does data quality have to have 7 on whatever goes on in the Report on 8 Carcinogens and secondly, you know, how, how 9 does the peer review requirements recently to 10 come out promulgated by the Office of 11 Management and Budget, how is that 12 incorporated in this process? 13 Just to go on a little bit, but 14 really I would like to see enhanced 15 processes that include the public and 16 stakeholder participation, enhanced 17 opportunities and not just writing comments 18 that for all appearances go into the void 19 and we don't ever know if there's been a 20 response to the comments, but actually having 21 it as more of an interactive process. 22 That's what it's all about. 23 So how do we propose to do that? 24 We, at ACC a number of people were called 25 together and we looked at the process as it</p>	<p style="text-align: center;">Page 147</p> <p>1 evaluates the same chemicals to...for their 2 reproductive and...for their reproductive 3 and... 4 DR. GOLDMAN: Developmental. 5 MS. LE HURAY: 6 ...developmental, thank you, for toxicity, 7 and looks at that in specific. So that 8 process has been much more open and that is 9 part of our recommendation. In our written 10 comments we get into a detailed proposal, 11 not necessarily the final thing, but a 12 detailed proposal of how the CERHR process 13 as it currently exists might be adapted to 14 the Report on Carcinogens process. Just for 15 those who might not be aware, off of NTP's 16 website there is a flow chart for the CERHR 17 process, which shows right from the very 18 beginning an open nomination process, anybody 19 can nominate for listing, and in the case of 20 RoC for de-listing. The nominations are 21 reviewed by NTP who brings some of them 22 forward, this recommended, recommendations, 23 lots of opportunities in the beginning for 24 NTP to consider all the various important 25 aspects about whether there's data available,</p>
<p style="text-align: center;">Page 146</p> <p>1 was before 1999. When we looked at the 2 enhancements to the process that were made 3 as a result of the meeting held five years 4 ago, when we looked at the further 5 enhancements that you had proposed in the 6 Federal Register Notice and we thought, our 7 basic problem is not going to be fixed; in 8 our view, the basic problem was the, was the 9 process which supported this dialogue. By 10 just nibbling around the edges, and we would 11 urge NTP to think about doing a sweeping 12 change to the current Report on Carcinogens 13 listing process, and we would promote as a 14 model for that change something that NTP has 15 done and has done very well, that is science 16 based, that allows the opportunity for 17 scientists who know the substances that 18 they're considering very well to be involved 19 from the very beginning in what has been a 20 very open and transparent process and that 21 is something like we know it's not an exact 22 duplicate, there would have to be some 23 modification, but something like NTP, CERHR, 24 that's the Center for Evaluation of Risk to 25 Human Reproduction, which essentially</p>	<p style="text-align: center;">Page 148</p> <p>1 whether it's timely, whatever it is that 2 needs to be done to take the process 3 forward, but there's public comment very 4 early on, and including the ability to 5 nominate who serves on these, what they call 6 in the CERHR process the expert panels. Now 7 as I understand the process the expert 8 panel, as Dr. Roth was mentioning earlier, 9 would not include somebody who has 10 necessarily a direct stake because of their 11 own research or because they were involved 12 in legislating a particular, or writing 13 regulation for a particular chemical or they 14 were directly involved as you know industry, 15 people whose portfolio included that 16 chemical, but they need to have the right 17 area of expertise and the right set of 18 expertise to consider the data for that 19 particular chemical or set of chemicals, and 20 as a result of being involved in the 21 nomination process and also, now perhaps it's 22 been different at other CERHR meetings 23 although I don't think it's been vastly 24 different, because certainly those of us who 25 have been involved and talked amongst</p>

<p style="text-align: center;">Page 149</p> <p>1 who've had what they might consider 2 unfavorable outcome as well as those of us 3 who've had experience with favorable outcomes 4 agree that the process is essentially a fair 5 process, that you can go in and talk and 6 present your point of view and at the end of 7 the day reach some sort of strong, 8 scientifically acceptable and valid 9 conclusion. So we told you what the CERHR 10 was. Our written comments, the ACC's 11 written comments, this is kind of a flow 12 chart that we made thinking about how to 13 change the RoC, adapt from the CERHR 14 processes into the RoC, we're not sure of 15 all of the legislative requirements for the 16 involvement of say the executive committee 17 and all the different government agencies, 18 you know, so around the edges and those kind 19 of requirements we may not have considered 20 everything. But we tried to incorporate 21 some of the regulatory requirements as we 22 understand them that are incumbent on the 23 RoC to include such as the interagency 24 involvement with being a more open and 25 interactive, transparent process, so in our</p>	<p style="text-align: center;">Page 151</p> <p>1 Rick did, but I'll try to answer any 2 questions that you have of me. 3 DR. GOLDMAN: This was very 4 quick, thank you very much. I do want to 5 ask you a question, at the beginning you 6 listed a number of points some of which you 7 didn't go into in as much detail and I 8 think, and there might be some shorthand 9 here, but I want to make sure I understand 10 them. Your slide that said scientific 11 quality, the third bullet point you mention 12 that NTP's efforts to revise the RoC process 13 will be advanced by activities to address 14 data quality and peer review directives of 15 OMB. I don't know if you can expand on 16 that, either here or, you know, when... 17 perhaps it's expanded on in the written 18 testimony, but I would just like to 19 understand what is meant by that? 20 MS. LE HURAY: Well, it's 21 ACC's belief and, that NTP's activities and, 22 and work product, shall we say, such as 23 Report on Carcinogens, the background 24 document for the Report on Carcinogens as 25 well as other materials like the CERHR</p>
<p style="text-align: center;">Page 150</p> <p>1 figure and we also have some detailed 2 writing about it. And then finally getting 3 on to the second point, and I only have one 4 slide about ACC's recommendation for the 5 criteria for listing and de-listing and we 6 could certainly say a number of things about 7 the criteria used by IARC or by EPA, but 8 just focusing on the criteria that NTP uses, 9 we feel like there's the distinction between 10 known human carcinogen and reasonably 11 anticipated has been blurred to the point 12 where the public can't really distinguish the 13 differences. And so we would suggest some 14 changes that we've discussed in more detail 15 in our written comments that would clarify 16 the distinction between known human 17 carcinogen, which would of course involve as 18 well epidemiological evidence that, of in 19 fact human carcinogenicity and making a 20 distinction between that and reasonably 21 anticipated. And then we also would agree 22 with some of the other commenters previously 23 today that the mechanistic information should 24 be included as a guide to your listing and 25 delisting criteria, so thank you very much.</p>	<p style="text-align: center;">Page 152</p> <p>1 monographs and the technical reports, the 2 ACC, maybe not the technical reports, I'd 3 have to look at that, believe that these are 4 subject to the Data Quality Act and 5 therefore it's incumbent on NTP in the 6 process to ensure for the three principles 7 in the Data Quality Act which are utility, 8 transparency and quality and there's specific 9 definitions in the DQA of what each of those 10 items entail, but for example, to take an 11 example of utility, if you are talking about 12 chemical A and you use information about 13 chemical B to make a decision about chemical 14 A, you have to show why that is useful, that 15 information about chemical B is useful in 16 reaching a decision about chemical A. And 17 they have...so, so then on peer review 18 tho..., those, those people in the room who 19 have dealt with the American Chemistry 20 Council know that we strongly believe and 21 promote peer review as a way to ensure that 22 the best quality science is produced by any 23 kind of process, whether it be published in 24 a peer reviewed journal or published by 25 government agency or science that we in fact</p>

<p style="text-align: center;">Page 153</p> <p>1 through the long range research initiative. 2 There's a strong peer review element in 3 that. 4 DR. GOLDMAN: Are OMB's peer 5 review directives in draft or final at this 6 stage? Are OMB's peer review directives 7 draft or final comments to this audience or 8 is this more a comment that you're making to 9 OMB? 10 MS. LE HURAY: Well, I think 11 it, I think it's a two part, okay, because I 12 think that while the draft peer review, 13 you're correct that they are currently 14 drafts, however, and I am not an expert on 15 either of these, I'm just giving you my 16 understanding of them, and my understanding 17 is that it does apply to the executive 18 branch and that OMB did issue a directive to 19 the executive branch that the peer review 20 directive was to be adopted. Now I could 21 be mistaken about that, but... 22 MS. BECK: I can clarify 23 that. This is Nancy Beck from OMB. We 24 released a draft bulletin on peer review and 25 we've received lots of comments from the</p>	<p style="text-align: center;">Page 155</p> <p>1 criteria as we understand it being developed 2 so, so I don't think that there's anything 3 additional proposed to, to meet it. 4 DR. GOLDMAN: Dr. Portier has 5 a question and then I'll there are 6 some other questions up here. 7 DR. PORTIER: Yeah, there was 8 one additional step in your proposal for the 9 modification of SEER and I did want to ask a 10 little bit about that. 11 MS. LE HURAY: Okay. 12 DR. PORTIER: In the SEER 13 process the expert panel report is submitted 14 for public comment and given the public 15 comments on the SEER panel report and the 16 report itself, the NTP does a final 17 monograph, which is not sent out for public 18 comment or peer review prior to the release 19 of our public monograph, whereas here you 20 have in the RoC process, I believe you put 21 that in there. NTP draft monograph. 22 MS. LE HURAY: Right, and 23 that, that's one of the exclusive changes 24 that we would recommend go through the 25 CERHR, as a matter of fact, that lies within</p>
<p style="text-align: center;">Page 154</p> <p>1 process of going through those comments 2 before there'll be any final bulletin, so 3 right now it's just a draft. 4 MS. LE HURAY: Well, thank 5 you very much because I wasn't sure, but in 6 any case, we, you know, eventually presumably 7 there will be a peer review requirement and, 8 and it's better to think about how to 9 incorporate that now than to wait until 10 after it's implemented and then have to go 11 back and make changes. 12 DR. GOLDMAN: So then, one 13 last question then, so the proposed outline 14 of a process that you presented in your last 15 slide, is that to address all of these 16 points or...? 17 MS. LE HURAY: Well, it, it, 18 I would have to look at the, at the written 19 comments, but I know that in the discussions 20 that we had, my understanding of the process 21 that was proposed, it was proposed that the, 22 what the equivalent in the CERH process was 23 called the expert panel review, that that 24 would qualify as a peer review step as in, 25 you know, and fit within the peer review</p>	<p style="text-align: center;">Page 156</p> <p>1 there, as well as for the RoC. That there 2 be a draft and final monograph, to allow an 3 additional opportunity to comment because, 4 you know, we just love writing comments. 5 DR. PORTIER: We appreciate 6 the comments actually. Again, it's something 7 we will consider and, and look at very 8 carefully, it's a, it's an interesting 9 proposal. There are some slight differences 10 between the SEER process and the RoC process 11 in that the SEER process is an NTP 12 initiative, it's our choice to do this, it's 13 something we thought was important as a 14 public health initiative as compared to the 15 RoC which is a statut..., statutory 16 requirement that the Secretary has assigned 17 to us, so it's a slightly different process 18 in that the Secretary makes the final 19 decision, not us in the RoC. Just to note 20 that slight technical difference. 21 DR. GOLDMAN: I think if you 22 could...oh go ahead. 23 MS. LE HURAY: That's all 24 right. I was just going to say I think we 25 appreciate that although we didn't understand</p>

<p style="text-align: center;">Page 157</p> <p>1 all the implications of that, but, you know, 2 I mean the good news from our perspective 3 was that, you know, industry overall has had 4 a positive reaction to the CERHR process and 5 while we were trying to, you know, see, 6 well, what additional changes were, you know, 7 what was the effect of these changes that 8 you proposed in your Federal Register Notice, 9 what would be the effects of all these? 10 Well, this answers a lot of what industry's 11 problems have been historically with the 12 Report on Carcinogens, because even 13 implementing some of the changes that are 14 suggested in the, in the Federal Register 15 Notice, I think that everybody recognizes 16 that industry's basic problem is I, things 17 that I had mentioned a little earlier is 18 that we're a science based industry, we deal 19 with science and we would like to be able to 20 talk about the science and not have it so... 21 and not, not have our interaction be 22 relegated to the regulatory stage. Dr. 23 Goldstein's comments were I thought very 24 good, but I think that he needed to, to, to 25 refine it perhaps to understanding that our</p>	<p style="text-align: center;">Page 159</p> <p>1 Scientific Counselors step, at least not one 2 that I'm familiar with and so we would 3 suggest that they would be replaced by this 4 expert panel. Now perhaps... 5 DR. CARPENTER: Which would be 6 chemical specific, each, each... 7 MS. LE HURAY: They would be 8 chemical specific. Well, I think in our 9 written comments, if I'm remembering 10 correctly, that what we suggest is that 11 perhaps there could be like a core group of 12 some sort of core committee that, that could 13 be like a Board of Scientific Counselors 14 committee, but that you would explicitly 15 bring in some additional people who are 16 explicitly have expertise in the issues that 17 are important to that particular chemical or 18 set of chemicals. Now in the CERHR process 19 it has, I think we've been through about, 20 what, five or six cycles since the process 21 was re-instituted at the CERHR and there's 22 been one Board who've covered a number of 23 related chemicals, so there's one that was 24 just about a year ago, February of last 25 year, only covered two, but they were two</p>
<p style="text-align: center;">Page 158</p> <p>1 the, the data that are out there and the 2 processes that our chemicals, the health 3 effects of our chemicals, than anybody else 4 does, and, and we just think our input is 5 very valuable and it's very frustrating when 6 it doesn't appear as though anybody's 7 listening, so. 8 DR. GOLDMAN: Well, that's 9 what we're here to do now. I think a number 10 of questions from the panel, and I'm going 11 to go ahead and start with Dr. Carpenter and 12 just work my way across if that's okay and 13 you probably want to leave that up. 14 MS. LE HURAY: And if I may 15 just state, remember again, I'm not Rick 16 Becker so... 17 DR. GOLDMAN: We know. 18 MS. LE HURAY: And I don't 19 even plan on being. 20 DR. CARPENTER: So what the 21 American Chemistry Council is suggesting is 22 that the, the Board of Scientific Counselors 23 would be removed from this process? 24 MS. LE HURAY: Quite frankly, 25 I mean the CERHR does not have a Board of</p>	<p style="text-align: center;">Page 160</p> <p>1 light bulbs, so it was definitely light 2 bulb, propane light bulb. And then there 3 was another one that did four or five or 4 maybe even six studies altogether so now, 5 but I don't think that there is a BSC 6 subcommittee involved, am I wrong about that, 7 in the CERHR process? 8 DR. PORTIER: The Board of 9 Scientific Counselors reviews everything we 10 do with CERHR like all other aspects of the 11 program, but there's no specific subcommittee 12 for CERHR. 13 DR. DELZELL: Is, is 14 there...I know the, the CERHR process is, 15 CERHR process is relatively new, but has 16 there been any aspect of it that you would 17 criticize? 18 MS. LE HURAY: I know that 19 there have been... at one point, though we 20 think that that issue was resolved there was 21 some conflict of interest questions about who 22 was named or nominated to serve and I think 23 that those have been resolved, but quite 24 frankly, the, our biggest fear about going 25 in this direction that I'm suggesting,</p>

<p style="text-align: center;">Page 161</p> <p>1 proposing that NTP consider going in this 2 direction is that we are aware that the 3 current process could be... has been greatly 4 influenced by the participation of, of Jack 5 Moore and his, you know, perhaps unique 6 ability to be inclusive and to understand 7 who to include and how to get this done and 8 how to, to run it properly, but we think 9 that that's now been institutionalized, it's 10 been through, like I said, through four or 11 five cycles and our hope is that it won't 12 become a process where it all relies on one 13 person. So the process has worked very well 14 up 'til now, and we think that it's not just 15 Jack Moore's involvement that has resulted 16 in, in a very open and inclusive process. 17 DR. GOLDMAN: Okay, I can 18 tell you as I've, I've looked at the process 19 quite a bit over the years and the two 20 issues that have been raised again and again 21 have been the extent of the effort and 22 commitment by the outside expert panel 23 members, it's a tremendous amount of effort, 24 and many people after doing one have sworn 25 they would never do another, because it's</p>	<p style="text-align: center;">Page 163</p> <p>1 one time, it takes a long time, you're 2 right, I'm sure that the people who are 3 manning and woman-ing these expert review 4 panels spend a very large amount of time on, 5 you know, the work product has so far been 6 quite extensive, and they take ownership of 7 these expert review reports. So, you know, 8 since they're taking ownership, their name is 9 on it and that means they're going to spend 10 a lot more time on it. But we think that 11 in the end the result is a lot more 12 acceptable to, to the regulated community and 13 perhaps you would find that it wouldn't have 14 actually taken more time. I don't know. 15 You'll have more experience than you need, I 16 think, for that. 17 DR. DELZELL: The other thing 18 I, I wanted to ask you to comment on if 19 you'd like to, is that you and several other 20 people have mentioned that the, the peer 21 review response to public comments is often 22 not satisfactory and do, do you have any 23 comments about mechanisms for doing that? 24 MS. LE HURAY: Well, this is 25 the difficulty of my wearing the ACC hat</p>
<p style="text-align: center;">Page 162</p> <p>1 been nearly their entire job, you know, for 2 a couple of months to do it and nobody's of 3 course hiring them to do it. So, it's a lot 4 to ask volunteers to do and the second thing 5 has been the pace and the productivity. If 6 you compare the outputs with the outputs 7 from the RoC it's really no comparison at 8 all, it's a couple of orders of magnitude 9 different, so figuring out how to make that 10 kind of a process work that fast and then, 11 you know, maybe part of why people have 12 liked it is because it has been slow so 13 there's been a lot of time taken, but then 14 you don't have the public health benefit of 15 the analysis having been completed at the 16 end, so... 17 MS. LE HURAY: If I may just 18 add to that, I mean, another process that, 19 that, that is, has, has, is more like NTP 20 than CERHR, but that it has been more 21 inclusive in many ways, has been the IARC 22 process, and that's very different than what 23 NTP, you know, have done in this process, 24 but like Dr. Goldman was saying, they take a 25 smaller number of compounds to review at any</p>	<p style="text-align: center;">Page 164</p> <p>1 the, in, in that regard. How to and, and I 2 think that part of the overall problem, the 3 more standard problem, in my narrower 4 personal experience has been that the, the 5 peer reviewers, as I think Dr. Roth had 6 mentioned, are reviewing anything from, you 7 know, 10 to 12, perhaps a few more, few less 8 at any given RoC subcommittee meeting. They 9 have maybe an hour and a half to two hours 10 to spend on any given chemical, whether 11 it's one with very complicated issues or one 12 that there are no complicated issues, or at 13 least no dissent from the complicated issues. 14 I know I've been to RoC peer review 15 meetings where there have been nobody to 16 give public comments, and I, because I was 17 somebody who sits in the audience, nobody in 18 the audience who's really following what's 19 going on with a certain chemical. But then 20 there's other ones where there's been a 21 number of commenters but I think the members 22 of the, of the peer review committee, I 23 don't know how it is that they operate, but 24 I don't think they have a lot of time to 25 review all the materials they've been given,</p>

<p style="text-align: center;">Page 165</p> <p>1 including comments from the public, and I 2 would venture to guess that perhaps one of 3 their charges is not to specifically make 4 sure they're familiar with and respond to 5 those comments from the public, because none 6 of the proceedings are ever made public, you 7 know, other than the court reporters putting 8 out a transcript, that's the extent of what 9 is ever made public about those RoC 10 meetings.</p> <p>11 DR. GOLDMAN: And I can, I 12 can tell you my, my impression having served 13 not on the RoC subcommittee but certainly on 14 the BSC, that it seemed to me that the 15 members did feel that it was their job to 16 not only read all of the background document 17 but also all the comments that had been, 18 that had been submitted in. I think most 19 people do do the work, you know, do the 20 homework, but I can really hear the 21 frustration that you feel of seeing the 22 issues go by quickly without really seeing a 23 lot of discussion and I mean obviously that, 24 that would be frustrating and I think that 25 that's something that we've heard earlier</p>	<p style="text-align: center;">Page 167</p> <p>1 NTP add that language, so thank you. 2 DR. GOLDMAN: I want to keep, 3 I want to keep moving down the table and 4 then there are some hands up in the audience 5 as well but, no. Mark? 6 DR. TORAASON: Two questions. 7 One is, on this particular slide, one thing 8 that I'm trying to incorporate here is a 9 hallmark of the RoC and that's this voting 10 process that, you know, RG1, RG2, RG3 and 11 you sort of have a tally, which I think 12 probably plays heavily on the director in 13 trying to make a decision seeing how these 14 group, and I don't see that in here, or 15 having a real clear idea of how you would 16 either just get rid of that or incorporate 17 it into this. The other question is, the NTP 18 has a mandate to, to list or not to list, 19 do you think what you're proposing is 20 actually going to have an impact, I mean 21 there are, are there examples where the 22 outcome would actually be different if you 23 added all this extra elements of review or 24 are we adding more, something more to 25 achieve the same end?</p>
<p style="text-align: center;">Page 166</p> <p>1 today as well, so it's a, it's an important 2 point. You wanna, Chris? 3 DR. PORTIER: I, I want to 4 echo some of Lynn's points about that, that, 5 those being very important points, I just 6 want to make sure I didn't hear something 7 incorrectly. The RoC meetings, the, the 8 public part of the RoC meetings is the whole 9 meeting for the Board of Scientific 10 Counselors. There are no additional meetings 11 of that Board that occur other than in that 12 public meeting. The laws of the FACA require 13 that. I will note there is a substantial 14 difference between the IARC process and the 15 RoC in that none of the IARC meetings are 16 public. The votes are not public, what's 17 included or excluded from their documents is 18 not public, it's a very closed process, so, 19 and, and I think you want to be very careful 20 in making that comparison given some of your 21 other comments about openness.</p> <p>22 MS. LE HURAY: And I, and I, 23 and I agree, and I should have left them 24 alone, you're correct, because it's not 25 something that ACC is proposing, that, that</p>	<p style="text-align: center;">Page 168</p> <p>1 MS. LE HURAY: I, I, I would 2 say, to respond to your second question 3 first, I would say that it could impact 4 potentially outcome in that if you include 5 in outcome what is the documentation for the 6 decision that's made. The documentation for 7 the decisions that are made now, as you all 8 know, the RG1, you get a short summary 9 without any discussion of the basis for the 10 vote. For RG2 you get a short summary 11 without any discussion of the basis for the 12 vote. For the Board of Scientific Counselors, 13 you get a summary and it's, and you don't 14 get a, any kind of a sense of the often 15 quite intense discussions that happen in 16 those one and a half to two hours that you 17 have to devote to, to your chemicals. So to 18 compare this with the RoC process, what 19 we're really doing when you think about it 20 is that up through the point of the final 21 expert panel, a lot of what we're doing here 22 is proposing a new way for developing the 23 background document. Okay? And it's much 24 more focused on, you know, involving the 25 experts, involving industry, talk, talking at</p>

<p style="text-align: center;">Page 169</p> <p>1 the science level. Now we go then it gets 2 turned into what we call here a monograph 3 because we're simply duplicating language 4 that the CERHR is using, which as they call 5 there the NTP produced document, a decision 6 document, if you will, the monograph, and so 7 how, how that exactly would be, how, how it 8 would work to fit in, there's some sort of a 9 requirement that we have in RG1 and RG2, you 10 have to duplicate those, but then I think 11 that could be worked in, but it would happen 12 after the final expert report was issued, I 13 think is where it, would be where it would 14 fit, and so it might be beneficial, though, 15 to these groups to the extent that the 16 expert panel would come to some 17 recommendation. 18 DR. GOLDMAN: I mean, in 19 essence, you're also in a sense eliminating 20 the background document step in that the 21 expert panel is writing the document, the... 22 in a way that the draft expert panel report 23 might be the background document although it, 24 it has seemed to me, I've observed a couple 25 of the CERHR efforts that, the CERHR staff</p>	<p style="text-align: center;">Page 171</p> <p>1 is, is suggesting is that the overall amount 2 of interaction and transparency, that, you 3 know, nothing is ever going to be perfectly 4 transparent in this kind of a process, but 5 that certainly there could be a lot more 6 dialogue earlier on in the process, and I 7 think it would behoove everybody and improve 8 the process from everybody's perspective. 9 DR. GOLDMAN: Question from 10 the audience, please identify yourself? 11 MR. NIDEL: I have different 12 kinds of reactions maybe to what you just 13 were talking about. The first is regarding 14 the scientific quality, it seems like maybe 15 the posit..., you know, it just seems like 16 there's an aim to focus a hundred percent 17 on science rather than any bit on policy and 18 I guess from maybe an uneducated public 19 perspective it seems like we have to 20 remember that there is a policy element to 21 this despite the fact that the focus is on 22 getting the science correct. You know, 23 this, the Report on Carcinogens has very 24 policy based impacts and I think that there 25 are policy considerations that should be</p>
<p style="text-align: center;">Page 170</p> <p>1 do put some effort into filling the 2 information, you know, at least the 3 scientific data, you know, in, in a, in a 4 way they have it, and in some sense they 5 do have a background document but it, it 6 isn't called that and it gets worked over by 7 the expert panel before it becomes a draft 8 and so ... you know, I think that's another 9 thing that's worth thinking, someone has to 10 do that work, right, for the reviewers? 11 MS. LE HURAY: And I'm not 12 sure, you know, what happens behind the 13 doors of the CERHR, if you will. I mean, 14 the expert panel puts their name on this 15 report, the initial draft which is the peer 16 review draft, who prepares that, what sort 17 of process it goes through, that's very 18 opaque to me. I mean I have seen some of 19 those peer review jobs and seeing that 20 there's, you know, uneven quality, some are, 21 are more complete, some sections are more 22 complete than other sections, but that's to 23 be expected, you know, in something that's a 24 draft, but how that's produced I'm not 25 certain. And I think what I, what, what ACC</p>	<p style="text-align: center;">Page 172</p> <p>1 taken into account that are not going to 2 meet the same strictures as a scientific 3 standard. You know, an example would be the 4 kind of evidence that the government would 5 use to elevate a terror threat. If it's, if 6 it's a threat of great magnitude they're not 7 going to, you know, the credibility of the 8 evidence may not be as great, which brings 9 up kind of a conflict between the industry 10 and the policy which is, the greater market 11 there is for a product, the greater desire 12 the industry has to hold it to scientific 13 standard because this is a profitable product 14 that's, you know, going out to many people. 15 But from a policy perspective, that's even 16 greater weight in favor of the precautionary 17 principle and trying to protect the public 18 from the impact of that compound, I think 19 you brought up the 3M example and I, I may 20 not have the full, I mean I've read various, 21 you know, accounts of that example, but from 22 what I understood it was based on, that they 23 recalled based on the findings that Scotch 24 Guard or these compounds were in the blood 25 of people all throughout the globe rather</p>

<p style="text-align: center;">Page 173</p> <p>1 than some scientific evidence that said that 2 that was necessarily a health threat. 3 MS. LE HURAY: I, I do not 4 know the details myself of the P-tox 5 example, but let me respond to two questions 6 that you asked. One, one is, I mean, I, I 7 don't think that from a policy perspective 8 that this proposal makes any changes to what 9 I think I've heard most people say here 10 which is that policy discussions come after 11 the NTP has reached their conclusion. This 12 would still keep that conclusion, you know, 13 based on science, leave it up to the, the 14 regulators or policy makers to take that 15 conclusion, that whatever it is that NTP 16 reaches, and apply what they think is 17 appropriate to do with it. So, for example, 18 to, to stick to the CERHR example, 19 California also uses the CERHR as an 20 authoritative body to identify compounds as 21 developmental or reproductive toxins and they 22 have regulations based on that so, so NTP 23 reaches the scientific conclusion. This is 24 whatever, low concern, high concern from the 25 point of view of develop, developmental or</p>	<p style="text-align: center;">Page 175</p> <p>1 with some caution because I mean I've worked 2 with chemicals that had come out that were 3 listed in the 10th and the 9th report that 4 were never indicated to me by the industry 5 that I worked within and for, to be of any 6 hazard. So I think that there is, there is, 7 it's, it's not a hundred percent that the 8 industry knows best, I guess is what I would 9 say, even though they may be the people who, 10 you know, have patented or invented or you 11 know, come up with and handled these 12 compounds in huge volume. 13 MS. LE HURAY: Well, then, I 14 think we have a basic disagreement, but I 15 think what we can agree on is this, that to 16 the extent that science is never going to be 17 a hundred percent knowable because it's 18 science, it's not engineering where you can 19 have an equation and fill in the slot. 20 Industry has gone to great lengths to learn 21 about these chemicals and usually, maybe 22 there's exceptions, but usually industry will 23 try to know a little more and does know a 24 little more than people who have not focused 25 on those chemicals because they're not</p>
<p style="text-align: center;">Page 174</p> <p>1 the state of California goes forth and 2 regulates on that basis. So the policy, I, 3 and I think that's what I've heard before. 4 Then the second thing that I'd just like to 5 say is that in fact it's just the other way 6 around typically, which is that typically 7 your lower volume chemicals are more 8 profitable than the commodity chemicals that 9 are out to, out there, you know, used in 10 great bulk, because typically lots of those 11 are made and the prices are very low. 12 MR. NIDEL: Well, I, I 13 think, I mean, that probably depends a lot 14 on the product. My, my other response to 15 what you've said is you, you've referred to 16 industry as being scientific and knowing, you 17 know, kind of in a, just having, having a 18 good knowledge of these compounds and of 19 their chemical, you know, properties and 20 potentially their, their health effects and I 21 guess what strikes me as someone who is a 22 scientist that used to work in the industry, 23 I don't necessarily agree that that's true 24 and I just want to say that to take, I 25 guess my comment is to take what you're</p>	<p style="text-align: center;">Page 176</p> <p>1 focused on learning about those chemicals, 2 and that's one thing we do, I mean, we try 3 to know our products, so. 4 DR. GOLDMAN: Anybody else? 5 Okay. I guess one more, one more question. 6 DR. MOURE ERASO: It seems 7 that, that your proposal what I notice is 8 that you basically have very little 9 confidence on the expertise or scientific 10 ability of the people that do the work in 11 the NTP and NIEHS and the animal experiments 12 or the people that are called to be in the 13 Board of Scientific Counselors? 14 MS. LE HURAY: No, we, we 15 think that's not the case at all and I, I 16 would be the last person to, to personally 17 and I think that the ACC as well, to, to 18 question the credentials of any of the 19 people because we know the good work and we 20 are as supportive of much of the work that 21 NTP does as we sometimes will be critical of 22 the work that NTP does. It all depends on 23 circumstances. But we think that everybody's 24 in a bad situation and particularly the 25 Board of Scientific Counselors because quite</p>

<p style="text-align: center;">Page 177</p> <p>1 often we will see, you know, you've heard 2 other people say, for example, with the 3 background document which is, you know, the 4 basic document on which it's supposed to be, 5 which is the document of record supposed to 6 present the, the data on which decisions are 7 made. Sometimes that's not available until 8 very late in the process. Now I know there's 9 been a concerted effort to try to make that 10 available earlier and that's one of the 11 proposed changes that Dr. Jameson has 12 proposed in the Federal Register Notice to 13 the RoC process. But it's still been the 14 case in the past and we would hope that it 15 would not be in the future, if the process 16 were not to change, that, I, I have spoken 17 with people who served on these boards and 18 one thing that I have taken away from it is 19 that they feel very inundated because 20 oftentimes very late in the process, 21 sometimes a week or two, and if they're 22 lucky three or four, before the actual 23 meeting, mounds of paperwork all of a sudden 24 start appearing in their office. Which 25 includes the background document, the public</p>	<p style="text-align: center;">Page 179</p> <p>1 DR. MOURE-ERASO: They're not 2 supposed to, yeah. 3 DR. GOLDMAN: And I think, I 4 think that it has in common in both 5 instances in reality there's a background 6 document that is developed by a contractor. 7 Maybe in one case it's more visibly that 8 than the other but the I... as far as I 9 could always tell in with the process for 10 the developmental and reproductive toxicants 11 that the contractor does get it started. 12 Even though the expert panel finishes it, 13 there is that support that's given to the 14 experts. But I, I would agree that it, it 15 would be a very radical change, it's a... 16 MS. LE HURAY: And, and 17 that's, that's one of the things that we 18 recognize right at the very beginning, that 19 this is a sweeping change that we're 20 proposing, but we would suggest that we, we 21 had changes that we proposed at the meeting 22 five years ago, and there were, some of 23 those changes were implemented and 24 incorporated, but some of our experiences in 25 the last five years have been not that much</p>
<p style="text-align: center;">Page 178</p> <p>1 comments. You know, if you have a longer 2 period of time and you're reviewing, say, 3 ten chemicals but sometimes the, the timing 4 is very tenuous, and we've experienced that 5 because we oftentimes want to present 6 comments and we have perhaps one chemical to 7 review and feel as though we're being 8 stretched for time. Now perhaps it's, it's 9 different. 10 DR. MOURE-ERASO: But your, 11 your proposal is pretty radical... you're 12 saying, you're saying to basically dissolve 13 the Board of Scientific Counselors and stop 14 NIEHS to prepare the draft document and give 15 it to a panel of experts that supposedly 16 will, will come from another side, and it's 17 pretty radical. 18 MS. LE HURAY: Well, and I 19 agree with that, but I also think the Board 20 of Scientific Counselors to be able to look 21 at this would not be involved in developing 22 the background documents in any case. 23 DR. MOURE-ERASO: Not supposed 24 to. 25 MS. LE HURAY: Exactly.</p>	<p style="text-align: center;">Page 180</p> <p>1 different than the experiences were before 2 some of those changes were incorporated and 3 we said okay, well, why is this, what is at 4 the heart of the issues that we have? And 5 it really has to do with having a chance for 6 real input by the public early in the 7 process. Currently the, the opportunities to 8 comment come very late in the process, 9 after, essentially the science has been 10 reviewed in the background document and 11 that's the, the, you know, it's said to be 12 the, the document of record and as Dr 13 Portier said earlier, you know, once RG1 14 has, has reviewed it, there's no changes. 15 Well, we do not, the public doesn't have a 16 chance to comment before RG1 has reviewed 17 it. So it, it, it's kind of a little loop 18 system where, where we're frustrated by that 19 lack of involvement. 20 DR. PORTIER: I'd like to make 21 a correction. At least from my experience on 22 the Board for the last four years, I'm 23 finishing up the fourth year of my term, a 24 week or two, that's clearly not the case. 25 These, these background documents are, are</p>

<p style="text-align: center;">Page 181</p> <p>1 Oftentimes the inundation of, of materials 2 toward the end of the time period that 3 you're looking at are public comments. Those 4 are things that are being, coming in late to 5 us and because we all do make every effort 6 we can to look at the public comments, 7 personally I guarantee you that that goes 8 into my consideration of, of the information 9 but that's what takes the time right at the 10 end, it's not the background documents. 11 MS. LE HURAY: Yeah, but part 12 of the reason for that is that the public 13 comments, the background documents are not 14 made available to the public. You're seeing 15 it for the first time. Dr. Piccirillo, 16 who's giving the last speech of the day will 17 be talking about a case where the background 18 document was made available, I don't know, 19 was it six or seven weeks before the RoC 20 meeting and because we were trying to, you 21 know, get the comments in time for RG2, we 22 put together those comments in 10 days. But 23 you know, this is, we're not making comments 24 on policy here, you're making comments on 25 science and that sometimes take a long time</p>	<p style="text-align: center;">Page 183</p> <p>1 is an opportunity for a public comment on it 2 and we... it's been mentioned... I'll make a 3 couple of public comments. First of all the 4 SEER process is changing, we want to be 5 certain that we are in fact in line with 6 current peer review practices of the U.S. 7 government. And so the panels that make up 8 the SEER review committees are no longer 9 going to be ad hoc NI..., NTP panels, they 10 will in fact be special emphasis panels 11 which is a special government type of issue 12 and it's going to have, they will have a 13 slightly different make up to them than they 14 have previously, you will see because of 15 that factor. There's a number of things 16 that will be changing in that process you 17 should be aware of, and I would just keep an 18 eye on it since you've paid so much 19 attention to it. I would keep an eye on it 20 over the next few months as we actually 21 change the way in which that process works, 22 again keeping in line with what's happening 23 within the U.S. Government. 24 DR. GOLDMAN: Could you, could 25 you, what do you mean by special emphasis,</p>
<p style="text-align: center;">Page 182</p> <p>1 to develop. So if I had a wrong impression, 2 my, I think our impression is based on when 3 things get posted on the website. So...I'm, 4 I'm glad to hear that it's different for the 5 RoC committee. 6 DR. GOLDMAN: That's good to 7 have that clarified. That's important 8 because, I mean I do think that there was a 9 time several years ago when there, there 10 were documents that came late and so maybe 11 that's an impression that has been left but 12 I hadn't heard that for a long time either. 13 Okay, well, if it's okay with everyone, I'm 14 looking around here, why don't we go ahead 15 and move to our last speaker? 16 MS. LE HURAY: Well, I thank 17 you all for your patience, because like I 18 said, I'm not Rick Becker. 19 DR. GOLDMAN: You, you're 20 better than Rick Becker. We, we were pleased 21 to have you. Thank you so much. Yes, Chris. 22 DR. PORTIER: While we're 23 moving to the next qu..presenter, I'm going 24 to make a few comments about the SEER 25 process to make sure it is clear since this</p>	<p style="text-align: center;">Page 184</p> <p>1 just so... put it in English so that... 2 DR. PORTIER: It's hard to 3 put into English. The...you, you can think 4 of panels as falling into three different 5 categories. So you are made up of, to some 6 degree, representatives of our Board of 7 Scientific Counselors and past and present 8 and Executive Committee, past and present, 9 but as such you're an ad hoc advisory panel 10 for NIEHS in this particular capacity at 11 this particular time. In those cases we can 12 pretty much put whoever we want on such a 13 panel. If we really want something to, to, 14 to match up to where we, the, the Federal 15 Government thinks should, thinks should be in 16 terms of balance of expertise, balance of 17 location across the country, gender, et 18 cetera, then in fact we move into a more 19 formal category and special emphasis panels 20 fall into that category. It changes the way 21 the members of the panel are viewed as to 22 whether they're government employees or not 23 government employees as compared to in this 24 capacity, you are not government... you're 25 not actually government employees, you're</p>

<p style="text-align: center;">Page 185</p> <p>1 coming in as a one day advisor. In those 2 cases it's a slightly different set of rules 3 on conflict of interest. Then finally you 4 have a third level of advisory panel, that's 5 our Federal Advisory Committee Act fan, 6 panels, those are formal panels, they're, 7 they stay for long periods of time. Our 8 Board of Scientific Counselors is such a 9 panel. There's an actual process involved in 10 getting names on to such a panel, in review 11 of such a panel, there's formal evaluation 12 of conflicts, number of issues go into that, 13 so, the SEER panels are moving up out of 14 sort of this ad hoc into the special 15 emphasis panel category because we feel it's 16 appropriate for the activities they do. The 17 Board is a higher level panel in terms of 18 the activities they do in the requirements 19 for evaluation of their efficacy on that 20 panel or whatever.</p> <p>21 DR. GOLDMAN: So, basically 22 what he's really telling us is that we're 23 not special. Okay, there's another piece of 24 testimony that has been brought in from 25 James McGraw. It is several pages long and</p>	<p style="text-align: center;">Page 187</p> <p>1 because you've heard them several times 2 already. One of the main frustrations of the 3 Naphthalene panel during the RoC process was 4 the fact that it did not appear that there 5 were really substantive opportunities for 6 public input into the Naphthalene process. 7 And I think that this comes down to the fact 8 that even though it appeared that certain 9 time lines were, were in place that for 10 various reasons things were moving along very 11 quickly, not allowing really the, the public 12 input process to its full avail. As an 13 example with the, with Naphthalene, NTP 14 elicited recommendations on the listing of 15 NTP through the RG1 process, the RG2 process 16 and then took it to the BSC RoC 17 subcommittee. Unfortunately the RG1 review 18 occurred well in advance of the draft 19 background document, the RG2 review then 20 occurred before publication of the draft 21 background document and we really had, and, 22 and after and prior to the date of receipt 23 for public comments. So we really were 24 enmeshed in trying to provide comments, 25 trying to meet these time lines and I think</p>
<p style="text-align: center;">Page 186</p> <p>1 to spare all of you the agony of hearing me 2 give it a dramatic reading, what I'm going 3 to do is virtually read it into the record, 4 kind of like the way members of Congress 5 read things into the record. If you've ever 6 gone to a, a congressional hearing and then 7 you see the hearing record and later 8 they're, it's there. If that's okay with 9 everybody. We, we, we will pass out copies 10 if everybody would please read the testimony, 11 is, is that okay? Great. All right, so we 12 have one last presentation and this is 13 Vincent Piccirillo from Coppers and American 14 Chemistry Council, the Naphthalene panel.</p> <p>15 DR. PICCIRILLO: Good 16 afternoon. The Naphthalene panel of the 17 American Chemistry Council appreciates this 18 opportunity to talk with you today and 19 provide our comments on the review process 20 used by the National Toxicology Program in 21 the Report on Carcinogens process. I've heard 22 a number of comments earlier today which 23 actually paralleled the comments I was 24 planning to make and so I will not spend a 25 lot of time dwelling on those comments</p>	<p style="text-align: center;">Page 188</p> <p>1 from some of the earlier discussions, if we 2 had set time lines for the various reviews 3 or the various time periods for getting in 4 comments, this would really help the industry 5 to provide substantive comments on each of 6 these documents or to assure that the 7 underlying science involved with the chemical 8 does get to the hands of the scientific 9 reviewers. We know full well that NTP spends 10 a lot of energy in doing the literature 11 searches and reviewing the literature they're 12 able to find but if you look at the 13 industry, they're spending a lot of time 14 also looking at these chemicals and may be 15 well aware of documents of publications which 16 may illuminate the process of the, of 17 carcinogenicity for a particular chemical.</p> <p>18 In the current RoC process it really 19 seems that it's the, the Board of Scientific 20 Counselors subcommittee that is the principal 21 opportunity for public engagement and it is 22 based on this, these public comments that a 23 lot of decisions appear to be moved forward. 24 One of the things that we, we do feel is 25 that the time for public participation should</p>

<p style="text-align: center;">Page 189</p> <p>1 be much earlier than that in the process. As 2 was indicated, the public actually has 7 3 minutes in which to put forward their 4 comments on what could be some very 5 complicated issues in regards to things such 6 as mechanisms of carcinogenicity. Or 7 specifi...specificat...specificities regarding 8 the metabolism of the chemical. So it really 9 doesn't give a lot of time to really get 10 involved in the, the process with that, with 11 that Board. With Naphthalene, however, there 12 was something else that was brought up this 13 morning which is very important to us. And 14 this was the issue around the establishment 15 of closing dates for submission of scientific 16 literature or publications which would be 17 relevant to the deliberations of the 18 subcommittee. In the November 2002 RoC 19 subcommittee meeting we sh..., we saw a case 20 which we feel ne..., we need to bring 21 forward to the group so that similar things 22 don't happen in the future. In this 23 deliberation it was obvious that the basic 24 principles of the Data Quality Act, that is 25 objectivity, transparency and utility, were</p>	<p style="text-align: center;">Page 191</p> <p>1 objectivity, the transparency and the utility 2 of the Data Quality Act process were 3 violated for the following reasons. First, 4 the work of several well regarded, 5 independent academic researchers who've 6 extensively published on the toxicology of 7 Naphthalene and was presented in the draft 8 background document were criticized. The 9 widely accepted work was dismissed as being 10 of little value by the chairman, who based 11 on search of the literature, has not 12 published any research on Naphthalene. 13 Second, the public was not permitted to see 14 either the newly submitted document or the 15 publications that were said to form the 16 basis of the documents at the subcommittee 17 meeting. No public comment was sought either 18 at the subcommittee meeting or since the 19 presentation or were any changes made to the 20 background document to reflect the 21 discussions of the, of the chair on these 22 new documents. Third, since the RoC 23 subcommittee meeting, NTP has provided to the 24 Naphthalene panel a list of three references. 25 These three published papers were purported</p>
<p style="text-align: center;">Page 190</p> <p>1 compromised. And the rationale for saying 2 this is because the subcommittee chairman 3 temporarily stepped down from his job as the 4 chair to join the discussion of Naphtha..., 5 Naphthalene and to participate in the vote. 6 The chair also then provided a document to 7 the subcommittee members just prior to the 8 break and suggested that the subcommittee 9 members review that document during the break 10 because he would be making substantive 11 comments after the break. Following the 12 break, the Naphthalene panel was given its 13 seven minutes to make its comments and it 14 was then followed by oral presentations by 15 the chair, and this was a highly technical 16 presentation to the sc..., to the 17 subcommittee, including new information not 18 previously shared with the subcommittee nor 19 made part of the public record. The members 20 of the public present at the meeting were 21 neither permitted to see the materials on 22 which these judgments were being based nor 23 to ask questions or give additional 24 information or clarifications to some of the 25 things that were discussed. The ob...,</p>	<p style="text-align: center;">Page 192</p> <p>1 to be the basis of the document distributed 2 to the subcommittee members at the meeting. 3 The panel has reviewed this literature and 4 found that these data are of little to no 5 utility to the understanding of the 6 Naphthalene carcinogenicity. In the absence 7 of further information the panel can only 8 conclude that the presentation made by the 9 subcommittee chair was a personal opinion 10 unsupported by published literature. The 11 acceptance of the chair's privately 12 distributed document by the RoC subcommittee 13 without a review of these underlying 14 publications calls into question the 15 reliability of the decisions made by the RoC 16 committee. We feel that it was important to 17 bring these to your attention. It's very 18 important that these reviews also be unbiased 19 and we talked about bias this morning. We 20 hope that these types of deviations will be 21 considered in adopting some of the new 22 processes for the RoC to hopefully avoid 23 such situations in the future. Another 24 thing that we feel is, is also very 25 important is that the procedures for listing</p>

<p style="text-align: center;">Page 193</p> <p>1 should be clarified. One of the things that 2 came up during the subcommittee discussions 3 was that one of the members was not sure how 4 to deal with Naphthalene. He felt that it 5 was essential to go back and take a look at 6 other chemicals showing similar profiles as 7 far as carcinogenicity in animals, 8 genotoxicity, et cetera, to see how previous 9 subcommittees had dealt with those issues. 10 And it was his impression from going back 11 and re-looking at the RoC, the 9th and 10th 12 RoCs, that none of the chemicals that had 13 the same data or similar data to Naphthalene 14 were listed. So we feel it might be 15 important for NTP to try to put together 16 some kind of a, of a guidance that would 17 help in the committee's abilities to take a 18 look at the data, see what kind of 19 precedents may already have been set and 20 then determine if this chemical truly does 21 fit or not. This way, at least there will be 22 some clear pattern for the subcommittee to 23 move forward. Based on these experience, 24 experiences, the Naphthalene panel fully 25 supports the discussions that Dr. Le Huray</p>	<p style="text-align: center;">Page 195</p> <p>1 DR. PICCIRILLO: It, where it 2 became very difficult, Dr. Portier would 3 like, where it became very difficult for us 4 is the fact that the RG1 vote was 6 to 1... 5 DR. GOLDMAN: Okay. 6 DR. PICCIRILLO: ...to list, 7 the RG2 was 4 to 4. 8 DR. GOLDMAN: So RG1 was 6 to 9 1 to list, RG2 was a 4, 4 split. 10 DR. PICCIRILLO: 4, 4. 11 DR. GOLDMAN: Uh-huh. 12 (Indicating affirmatively.) 13 DR. PICCIRILLO: Yeah, and... 14 DR. GOLDMAN: I mean...and 15 I'm not usually focused on vote counting, I 16 was just wondering how things were, you 17 know, going before that. 18 DR. PICCIRILLO: What, what I 19 felt was rather interesting is that there 20 were some very good questions brought up by 21 some subcommittee members which seemed to be, 22 the decision was we can discuss these later, 23 but yet when the discussion turned to these 24 underlying documents some of those questions 25 were really never answered.</p>
<p style="text-align: center;">Page 194</p> <p>1 made in regards to making some sweeping 2 changes in the RoC process. Hopefully this 3 will increase the transparency of the process 4 and also lead to more meaningful science 5 ba... meth..., science based methodologies. 6 Thank you. 7 DR. GOLDMAN: Thank you very 8 much. I actually want to start off with a 9 question for you. I really can appreciate 10 from your description of what happened at 11 the, at the, I take it that was the BSC RoC 12 subcommittee that you were describing... 13 DR. PICCIRILLO: Yes. 14 DR. GOLDMAN: ...that...I, I 15 wasn't there so I can't really comment on it 16 obviously, but it sounds like it would've 17 been a fairly trying experience if it really 18 went as you described it. I was wondering if 19 it made a substantive impact though on the 20 way things were going, I mean what, what 21 were the votes like for the RG1 and RG2 22 committees and I mean did it, you know, did 23 this like change the tide in the way things 24 were going or, you know, where were things 25 going before it went there?</p>	<p style="text-align: center;">Page 196</p> <p>1 DR. GOLDMAN: Yeah. 2 DR. PICCIRILLO: One of the 3 other things that we wondered about, coming 4 back to the timing and the amount of time 5 that, that the subcommittee members actually 6 have in their review, I think it may be true 7 that, that some of these documents do arrive 8 in exceptional time for the members to 9 review them. But it's a matter then of the 10 time available because if, I noted that 11 there were a number of questions being 12 raised by some of the committee members that 13 were things that probably should've been 14 considered, looked at earlier. 15 DR. GOLDMAN: Mm-hmm. 16 (Indicating affirmatively.) 17 DR. PICCIRILLO: For instance 18 there was a, a discussion about whether 19 genotoxicity data are relevant to the 20 carcinogenic process. And it was obvious that 21 no one really had taken a look at the weight 22 of evidence approach to using gene tox data 23 that EPA had promulgated a number of years 24 ago. So, the, the lack of genotoxicity for 25 Naphthalene just seemed to be discarded. So</p>

<p style="text-align: center;">Page 197</p> <p>1 it's just some of these sorts of things made 2 me at least have a sense that, that many of 3 the committee members, the committee members 4 are working in the thick, but in some cases 5 they may not have really had the time... 6 DR. GOLDMAN: Yeah. 7 DR. PICCIRILLO: ... to 8 completely get involved in the issues. 9 DR. GOLDMAN: Well, let me 10 provide you with a bit of reassurance having 11 worked with science committees like this a 12 lot over the years and scientists of fairly 13 high caliber and I've never seen a s...you 14 know, a group like that who, you know, 15 somebody at the last minute throws something 16 over the transom, and it doesn't contain 17 data and... that's what you described, that 18 that would sway them away from looking at 19 data that they had reviewed and, and I, I, 20 you know, it must have been painful to 21 watch that, but I don't believe that that 22 kind of stunt, whatever it was that you 23 observed, would have distracted a group of 24 scientists from the actual data that they 25 were looking at, and I think that's</p>	<p style="text-align: center;">Page 199</p> <p>1 available for everybody to discuss. The.. It 2 happens that, that, that the person that was 3 a member of the panel, was the chair, has 4 done studies in his group of study in UCLA 5 and presented this data as one scientist 6 making a comment on, on Naphthalene and this 7 was presented as any other evidence that 8 everybody else presented. And, and I really 9 reject the characterizations of lack of 10 transparency or attempt to influence the 11 votes of people, I think it's insulting to 12 say that. And the transcripts of the meeting 13 are available and I recommend that everybody 14 that is interested in this should read it 15 and you'll see exactly what happened there. 16 DR. GOLDMAN: And I, I 17 didn't mean to imply that I was accepting 18 any one version of it, but I certainly can 19 see that from the perspective of our 20 presenter that what happened there didn't 21 feel that way and, you know, so this is one 22 of those disputes that we're not here to 23 settle. We're really here to see if the 24 process has a problem in..... 25 DR. PICCIRILLO: Yeah, I, I</p>
<p style="text-align: center;">Page 198</p> <p>1 important, you know, for you to hear. And, 2 and also that, by the way, there, there has 3 been a change since EPA promulgated those 4 guidelines some years back in terms of, you 5 know, an earlier belief that all, all 6 carcinogens are genotoxic agents and, and a 7 greater degree of sophistication that genes, 8 gene expression can be affected in many 9 ways, in ways that cause cancer without 10 classically being quote, unquote, genotoxic 11 in terms of the in vitro tests and so forth, 12 which I'm sure you're aware of. Why don't I 13 go ahead and open it up for comment? I 14 don't know if anybody...um, yes? 15 DR. MOURE-ERASO: Well, first 16 of all I would like to caution Dr. Goldman 17 to accept one description of what happened 18 as what happened. 19 DR. GOLDMAN: But I wasn't 20 there. 21 DR. MOURE-ERASO: Exactly, I, 22 I was a member of the committee and I 23 disagree with the perspective that is being 24 presented here. I don't think that in any 25 way, the, the, the evidence that was</p>	<p style="text-align: center;">Page 200</p> <p>1 think where, where our comment comes in is 2 the fact that we have a very short time in 3 which to make our presentation. Had this 4 document been submitted as part of the 5 public comments, it would have been available 6 to us. It would've placed us in a position 7 where our 7 minutes would've been spent 8 discussing that document and the relevance of 9 that document rather than spending the 7 10 minutes discussing some issues and things 11 which were already covered within the 12 background document itself. 13 DR. TORAASON: This may not 14 be a fair question, but, you, you mentioned 15 advocates and it was mentioned earlier in 16 the, in the day, but there was also the, the 17 idea of expert panels. Don't expert panels 18 by their nature have advocates on them and 19 how do you resolve that? 20 DR. PICCIRILLO: That, that 21 very well may be true, that depends on the 22 make up of the, of the panels, depends on, 23 on the selection process for putting the 24 panels together. So...I don't know if there 25 is a fair way of putting together a non-</p>

<p style="text-align: center;">Page 201</p> <p>1 seemed that there was a, a situation which 2 maybe could've been controlled better. 3 DR. CARPENTER: You and the 4 speaker before talked about limited time of 5 discussion, it's been my experience that 6 that's really not the case. Do we ever have 7 a time limit on a particular chemical? 8 Didn't we discuss talc for the better part 9 of a day without being cut off and saying, 10 time is up? As long as new information was 11 being offered and presented, the Bo..., the 12 Board was listening to it and I, and I don't 13 know where this idea of a set time came 14 from. 15 DR. PICCIRILLO: Well, 16 actually Dr. Portier mentioned that this 17 morning that one of the changes was going 18 from a 5 minute time period to a 7 minute 19 time period. 20 DR. CARPENTER: Comments from 21 the public, but I'm talking about the review 22 process. Then you, you said the Naphthalene 23 committee was given an hour and a half to 24 consider all of this information and I 25 never, I don't remember having been on ...</p>	<p style="text-align: center;">Page 203</p> <p>1 subcommittee. 2 DR. GOLDMAN: Yes? 3 DR. PORTIER: I, I want to 4 make sure I clarify one issue. The chairman 5 for any given meeting of the NTP Board of 6 Scientific Counselors is just the chairman 7 for that meeting. There is no permanent 8 chairman for any of the meetings. We always 9 discuss the issue of who should be the 10 appropriate chairman and again, to make the 11 record straight here, for the Naphthalene 12 situation and to give you a little more 13 insight about how we run the Board of 14 Scientific Counselors RoC meeting, generally 15 the chair does not vote at the Board of 16 Scientific Counselors Report on Carcinogens 17 Meeting because they feel that if they were 18 going to vote on such an issue they become 19 an advocate and they can't properly control 20 the discussion between, in the Board to 21 bring out the, the issues that are being on. 22 They, they're concerned that they might be 23 somewhat biased. If any chairman for any 24 particular meeting does in fact express a 25 strong desire to enter into the debate on an</p>
<p style="text-align: center;">Page 202</p> <p>1 DR. PICCIRILLO: Well, no, 2 actually, I think what Dr. Le Huray said was 3 we had a, we ended up because of the timing 4 with the RG2 coming up, et cetera, we had a 5 period of about 10 days to do our, our 6 public comments. So... 7 DR. CARPENTER: But you 8 yourself during your presentation made a 9 comment about not having adequate time to 10 present to the Board because of, of 11 constraints. I mean that doesn't, that 12 doesn't make much sense to me. 13 DR. PICCIRILLO: But no, 14 that's...to the, yeah, this is to the 15 subcommittee itself. We had, we had a 7 16 minute time period in which to present 17 comments. We had submitted all of our, our 18 written comments prior to that and when 19 you've got that 7 minutes, it's very 20 difficult to determine which issues you want 21 to discuss. So the earlier comment that I 22 made was if we had seen other public 23 comments, and there were some concerns that 24 were raised, that would have influenced how 25 we spent our seven minutes before the</p>	<p style="text-align: center;">Page 204</p> <p>1 issue and to vote on that issue, we discuss 2 very carefully with that chairman whether or 3 not they should chair such a session because 4 we are very concerned that they might 5 control that session. So in this case, for 6 this particular session, this person was not 7 chair of the, of the particular meeting from 8 the start to finish. They stepped down for 9 the entire Naphthalene discussion. And you 10 will see that happen again, if it ever 11 occurs, simply because we, we feel the, 12 there's greater concern on our part for them 13 dominating the meeting as chairman than for 14 just entering into discussion with the rest 15 of the Board. 16 DR. GOLDMAN: Thank you for 17 that clarification. That sounds much more 18 appropriate. It's, it's good to hear that. 19 Other comments or questions? 20 DR. MOURE-ERASO: One last 21 comment. For the record, I find it curious 22 that you say that the person that made a 23 presentation did not have any expertise of 24 Naphthalene when one of the most respected 25 papers on Polycyclic Aromatic Hydrocarbons</p>

<p style="text-align: center;">Page 205</p> <p>1 as been, he, this person has been an author, 2 he's considered an authority on air pollution 3 and Polycyclic Aromatic Hydrocarbons and the 4 record is clear about this and to say that 5 he didn't have any expertise with 6 Naphthalene, I consider preposterous. 7 DR. PICCIRILLO: No, the 8 comment we made was, we did a, I, search of 9 his, his li..., of the literature published 10 by this particular individual and none of 11 the research was on Naphthalene per se. 12 DR. GOLDMAN: I think I'm 13 going to call a time out for this, okay. 14 They can take it outside or whatever, 15 but...seriously, I mean, we're... we really, 16 you know, we really appreciate your comments 17 and, on the process and I think that it, I 18 think that it's, it's quite helpful. Are 19 there other questions or comments for this 20 presenter? If not, I'm going to invite you 21 to sit down and, and, I've taken a little 22 bit of time here to summarize some of the 23 things I've heard and I thought maybe I 24 could kind of walk through that and then 25 open it up to make sure that, you know, that</p>	<p style="text-align: center;">Page 207</p> <p>1 the public actually makes the nominations but 2 in that selection process. Secondly, it was 3 raised that the scientific review process 4 perhaps could be improved. Now we've heard 5 that the NTP already has established a goal 6 of a 45 day period where the background 7 document is out there for review, to give an 8 opportunity to read it prior to the, to, for 9 everybody to read and maybe comment for the 10 RG1. However, there are some other ideas 11 that were put forward such as perhaps that 12 even more subject matter experts might be 13 involved, such as revising the background 14 document at each stage instead of appending 15 the changes that occur at each stage to the 16 document, whether you rewrite it or append 17 seems to be an issue. And even to as radical 18 of a proposal of getting rid of the RG1 and 19 RG2 processes in, in essence and replacing 20 them with an expert panel that's more like 21 the Panel for the CERHR which is changing, 22 but might still be seen by some as being a 23 preferable process to the RG1 and 2 24 processes. Some issues were raised about the 25 role of the Board of Scientific Counselors.</p>
<p style="text-align: center;">Page 206</p> <p>1 we have, that we've heard what everybody has 2 to say. Read what document? No, I'm not 3 going to read that document. We're, that, we 4 have virtually read that document into the 5 record. So, so some very, very quickly, very 6 quickly and I've kind of arranged these in 7 order of the, of the process. Obviously 8 very consistently during the day, I think 9 we've heard a lot of support overall for the 10 process of listing of carcinogens through the 11 concept that carcinogenicity is an attribute 12 that is in, intrinsic to a chemical, that 13 there's a weight of evidence approach that 14 should be applied and that the listing 15 process has public health value. Broadly, of 16 course that the public should be involved 17 early and as often as possible, that they 18 should be striving for full transparency and 19 more time somehow for discussions back and 20 forth, discussions throughout the process. 21 Specifically with the nominations process 22 starting at the beginning, there was a 23 question raised as to whether there was some 24 way to bring in public input into the 25 nominations process other than the fact that</p>	<p style="text-align: center;">Page 208</p> <p>1 I think some of those ended up in getting a 2 better understanding of how the BSC actually 3 works. But some of them had to do with 4 perhaps even more time for them to 5 deliberate on individual chemicals, perhaps 6 more time for people to give presentations 7 to them and have back and forth dialogue 8 with them. And of, to an extreme of perhaps 9 cutting the BSC out of the process and 10 having those interactions occur with the 11 expert panel, in essence that the expert 12 panel would encompass, you know, the RG1 and 13 2 and 3 processes all into one process, 14 which then I suppose a la CERHR would result 15 in something that the whole BSC would look 16 at as opposed to having an RoC subcommittee. 17 Some questions were raised about the next 18 step which is the role of the Executive 19 Committee for the National Toxicology 20 Program, you know, what is that thing and 21 what does it really do and I think from what 22 I've heard, comments ranged from either, you 23 know, better defining that role, to make it 24 more, more understandable to, to actually 25 eliminating the Executive Committee from the</p>

<p style="text-align: center;">Page 209</p> <p>1 process. I will say, you know, my two bits 2 in this having participated in various 3 elements of this is that, if there weren't 4 an Executive Committee to look at these 5 listings at this stage probably whoever is 6 directing the NIEHS would want to invent 7 one, because of just the need to vet these 8 decisions among all the part..., parties that 9 are a part of the National Toxicology 10 Program before taking them to the Secretary 11 in the Department of Health and Human 12 Services which is a big step, and there are 13 a lot of agencies in the department who care 14 about this, and those agencies need to 15 participate somehow and it is a, it is a 16 forum for that and I think that it would be 17 a real loss to the process to cut that out 18 and I think you'd end up with processes that 19 would be less out in the open and less 20 direct and probably less well informed by 21 the science without having the Executive 22 Committee, that's just my opinion. A lot of 23 questions came up with the interface between 24 this process and the Risk Management Process. 25 And it was pointed out that, you know, that</p>	<p style="text-align: center;">Page 211</p> <p>1 other comments were made throughout the day 2 about the issues of peer review and the 3 quality of, of the data, and again, just my 4 perspective, but I think it would be hard to 5 point to a process either in the government 6 or outside of the government where there's 7 been a higher level of peer review or a 8 higher degree of attention to the quality of 9 the information that goes into these reports. 10 And I, you know, I think that one would need 11 to proceed with great caution before changing 12 this process because it, it really has been 13 extraordinarily successful in being a very 14 high quality, very highly respected process. 15 And just to go back at, at the, in closing 16 to Bernie Goldstein's quote of what I said 17 in 1999 and I would still say, and that is 18 that this is a process that really has 19 focused on the science and bringing the 20 science into a weight of the evidence 21 approach to determining carcinogenicity. It's 22 not a process that's done for the sake of 23 process. And that, that it's probably 24 important to, to maintain. Obviously there 25 are some changes that are gonna need to be</p>
<p style="text-align: center;">Page 210</p> <p>1 there's even a state government in our 2 country, California, that has regulations 3 that directly incorporate the decisions, the 4 listings of the RoC into the regulatory 5 processes and that case for proposition 65, 6 that there is sometimes a public health duty 7 to put the listing into perspective and I 8 think that that's a place where I think 9 we've heard today that the NTP has taken 10 that into account and that that has happened 11 now a couple of times with pharmaceutical 12 agency, agents like Tamoxifen. But again, Dr. 13 Goldstein recommended publication of an 14 actual notice around the time of the, of the 15 NTP RoC listing, that would give, give 16 stronger signals about where the regulatory 17 agencies are going with that. And this is a 18 bit out of the purview of the NTP so far, 19 and, and again my two bits worth is that's 20 probably a good thing because one of the 21 things that has probably made this process 22 so successful over the years is that it is 23 not a regulatory process, that it's a 24 scientific process and it's not, not embedded 25 in a regulatory agency. Another, a number of</p>	<p style="text-align: center;">Page 212</p> <p>1 done but fundamentally the public health 2 value of this process needs to be honored in 3 the process of considering those changes. Are 4 there comments on, are there points that I 5 missed in that summary that need to be 6 brought out, other issues that, that people 7 heard that need to be brought forward? I'm 8 kind of opening it up for a bit of 9 discussion on that. I was going to call 10 on... 11 MR. KELLY: Would you like 12 me to come up or...? 13 DR. GOLDMAN: What? 14 MR. KELLY: Would you like me 15 to come up, or... 16 DR. GOLDMAN: No. Speak from 17 the mic is fine. Just...and identify 18 yourself. 19 MR. KELLY: Well, I've been 20 debating whether, there is an issue that has 21 not come up and it's, it's an important 22 issue I think, I've been debating whether to 23 even raise it because it's a bit of a can 24 of worms, has to do with the criteria for 25 listing a known human carcinogen. And the</p>

<p style="text-align: center;">Page 213</p> <p>1 clarification that's given for that, and 2 what's important to know is that that 3 clarification itself has been interpreted and 4 that when you consider the interpretation, 5 the clarification is not clear. Now what 6 the, what the criteria for known human 7 carcinogens says is you have to have 8 sufficient evidence from studies in humans to 9 establish a causal relationship. And then the 10 clarification says you need, this means you 11 need evidence from studies, actually it says 12 studies of humans rather than in humans. It 13 doesn't say sufficient evidence to establish 14 a causal relationship, it just says you need 15 evidence of studies of humans. But then it 16 adds a second paragraph that says there is a 17 summary paragraph that applies to both the 18 known and the reasonably anticipated criteria 19 that says consider all relevant data. Now 20 that, when that first came out, that was in 21 the Federal Register Notice in 1996, the all 22 relevant data language. We did not consider 23 it that important because relevant seemed to 24 refer to whatever was stated in the 25 criteria. If it's relevant for known, you</p>	<p style="text-align: center;">Page 215</p> <p>1 when you consider what happened there and 2 the interpretation that's been put on it, 3 and I'm sure this will come up again some 4 time in the future, that clarification can 5 be considered quite ambiguous. And I wanted 6 to point that out and it may be necessary to 7 make a clarification of the clarification. 8 DR. GOLDMAN: Well, I'm not 9 saying that I agree with you that it 10 actually says that, but I'm remembering now 11 that also Dr. Sass raised the question about 12 further defining the situations under which 13 human data other than epidemiologic data 14 would move a chemical up into the known 15 category and, and so I, I think that that's 16 another thing to add to the, the summary. 17 It's another issue and, and you're raising 18 it from a different direction. And, and the 19 need to have it be, if you may, equitable in 20 terms of those, you know, the kin..., the 21 data can cause you to down grade a chemical, 22 you know, and what can cause you to upgrade 23 it and I think if Dr. Sass were here, that's 24 the point that she would raise again, so I, 25 but, we, we should add that, that issue to</p>
<p style="text-align: center;">Page 214</p> <p>1 consider if it's relevant for what's said 2 reasonably anticipated cri..., listing 3 criteria, you consider that. Then when we 4 got to the dioxin listing, what happened was 5 there was a background document that said 6 the basis for the listing is a combination 7 of three things, human epidemiological 8 evidence, which the background document said 9 was not sufficient. It was limited. Animal 10 experimental evidence and in vitro 11 mechanistic data indicating that there was a 12 similarity between the mechanism for animals 13 and humans. So there was not sufficient 14 evidence from studies in humans but that 15 insufficienc..., insufficiency was compensated 16 for by animal and in vitro data. And that 17 was justified on the basis of this final 18 paragraph that says, we can consider any 19 relevant data. So in effect what it said is 20 you don't need sufficient evidence from 21 studies in humans. If you've got other 22 evidence that will compensate for 23 insufficient evidence, that's evidence in the 24 form of animal evidence or in vitro data 25 that all adds up to mechanistic data. So</p>	<p style="text-align: center;">Page 216</p> <p>1 the list because it seems that that is still 2 a live issue. Other, I know there were some 3 other hands... yes? 4 MS. FELTER: Susan Felter. I 5 have a couple of questions that evolve 6 around the issue of exposure and the first 7 one is, is really a question in terms of 8 whether a draft document is considered to be 9 adequate or not to move forward? The sense I 10 got from the discussion was focused more on 11 the, the toxicity side of it. But if I 12 understand the mandate correctly, the list of 13 substances that must be published is based 14 on those that are known or reasonably 15 anticipated and to which a significant number 16 of persons residing in the U.S. are exposed. 17 Is that better defined somewhere in terms 18 and, and has that ever been a basis for 19 deciding that something is, documentation is 20 not sufficient to move something forward 21 because there's inadequate information on the 22 exposure side or where do you find a better 23 description? 24 DR. GOLDMAN: So your 25 question is are there chemicals that have</p>

<p style="text-align: center;">Page 217</p> <p>1 been nominated that have not been moved 2 forward because of a judgment that there are 3 not a sufficient number of people in the 4 United States who are exposed to that 5 chemical? Does anybody from the program know? 6 Bill, can you, can you answer that question? 7 DR. JAMESON: Yes, as a 8 matter of fact there have been a couple of 9 chemicals that were listed in the first 10 Report on Carcinogens that were subsequently 11 removed from or de-listed from, from the 12 Report on Carcinogens because it was 13 determined that there was no longer any 14 human exposure to that material. So it 15 didn't, since there was no documented 16 exposure to those materials, they were 17 removed even though there was strong, strong 18 evidence that, that it was an animal 19 carcinogen. 20 DR. GOLDMAN: Which materials 21 and which chemicals? 22 DR. JAMESON: I'd, I'd have 23 to look at the report, I can't really... 24 DR. MOURE ERASO: I, I don't 25 remember a, the specific chemical but one</p>	<p style="text-align: center;">Page 219</p> <p>1 MS. FELTER: Yeah. I'd like 2 to continue with my question about exposure, 3 it goes back to I think the very first 4 opening statement that I've heard a couple 5 of times that cancer is intrinsic to a 6 chemical and I find that to be a very 7 interesting statement to not have 8 controversies surrounding it because as we 9 all know there is species specificity, 10 metabolic differences such that one strain, 11 one specie may be, it may be intrinsic to a 12 male rat but no one else, may be associated 13 with high doses and not low doses, example 14 of lung cancer associated with particle 15 overload. So a chemical that demonstrates 16 some tumorigenicity or carcinogenicity under 17 specific situations, to say that now it's an 18 intrinsic property of the chemical...if you 19 could address that a bit? 20 DR. GOLDMAN: Well, I 21 should've said the ability of the, of the 22 chemical to cause cancer in a human and I 23 think that that issue that you raised about 24 species differences has been addressed and 25 for quite some time actually in the way that</p>
<p style="text-align: center;">Page 218</p> <p>1 thing that, that concern me about that as 2 being one criteria is that there might be 3 the, the mistaken conclusion that that 4 particular chemical might not be a carcinogen 5 or it doesn't have cancer effects when in 6 reality the only criteria that was used, not 7 to have studied, is that there is no 8 exposures in the United States. Meaning that 9 if there are not exposures in the United 10 States, it doesn't matter if it's 11 carcinogenic or not, which, I found it a 12 little strange to say that and also probably 13 the language could be changed in a way that, 14 that to make it clear that nothing is being 15 said about the carcinogenic effect of the 16 chemical one way or another, simply it has 17 not been studied. Because there might be the 18 possibilities of having that confusion. 19 SPEAKER: Actually that 20 language can't be changed because that's the 21 law. I mean, that's the one we've always had 22 to deal with that issue, so... 23 DR. MOURE-ERASO: The 24 language stays basically. 25 DR. GOLDMAN: Go ahead.</p>	<p style="text-align: center;">Page 220</p> <p>1 data that are relevant to species that might 2 support the notion that the risks for humans 3 are different than risks for other species, 4 and has been incorporated and can be used, 5 has been used to downgrade the classification 6 of chemicals just as those same mechanistic 7 data in humans has sometimes been used to 8 upgrade the classification of a chemical. So, 9 that's, that's a part of this process. 10 MS. FELTER: May I? I, I 11 certainly agree, and I've seen many examples 12 of where that is true, certainly with the 13 species differences. What might be less 14 obvious to me and, and maybe the question of 15 genotoxicity to some extent comes in here is 16 the relevance of findings at higher doses 17 and not lower doses, where from the amount 18 of information that's available on the Report 19 on Carcinogens, again, with the goal being 20 public health, if there's no distinction made 21 between, you know, there's no dose 22 information included in here to indicate that 23 this chemical caused tumors in these 24 bioassays or these studies under these 25 conditions. It's simply a statement that it</p>

<p style="text-align: center;">Page 221</p> <p>1 caused tumors, boom. Which when you really 2 get into it from a toxicological perspective, 3 the implications of finding tumors under one 4 set of circumstances versus a different set 5 of circumstances in terms of the public 6 health implications are quite different. And 7 so has there been discussion about, and 8 maybe this goes beyond the scope of this, 9 this meeting.</p> <p>10 DR. GOLDMAN: No, it, it 11 really isn't. I mean, it's, it's, I think 12 that it's been an ongoing issue for probably 13 from the beginning of the program and the 14 way I would encapsulate the issue is, is it 15 okay that the Report on Carcinogens stops at 16 the hazard identification stage or should 17 they take a next step and do dose response 18 modeling, you know, come up with potencies 19 or, or come up with judgments about what 20 would be the appropriate dose response curve 21 and whether there might be a threshold and 22 so forth and so on. And at, at this point 23 in time there may be comments and I think 24 that the NTP folks can talk about that, 25 sometimes there are kind of comments about</p>	<p style="text-align: center;">Page 223</p> <p>1 about how do we present this material and to 2 what degree we might try other things, so I 3 think your comments are useful and we, we 4 will follow up on them. One of the reasons 5 we are now very vehement, I personally am 6 very vehement about the background documents 7 becoming sort of something that is 8 permanently there for people to look at and 9 review and see the comments and see the 10 process that went through is, it's actually 11 that that puts the, the report of, Report on 12 Carcinogens listing into context. It's really 13 hard in a short document that isn't the 14 entire book of the background document to 15 break it all down into something clear and 16 so the background document then plays a more 17 important role as do the comments on the 18 background documents and the minutes from the 19 meeting and the discussions of the votes, et 20 cetera. They all become something that 21 place the listing in context. And so we're 22 working on it, it's just not an easy issue.</p> <p>23 DR. BABBAGE: Yeah, Michael 24 Babbage from CPSC and I just wanted to 25 comment mostly on Dr. Goldstein's very</p>
<p style="text-align: center;">Page 222</p> <p>1 some of that, but once NTP makes the 2 judgment about classification, it's up to the 3 individual agencies to go through processes 4 of attempting to determine exposures, dose 5 response modeling and so forth and they 6 don't always do those things the same way to 7 even, even further complicate our lives. So 8 this has, this has been an ongoing issue 9 and, and it's been felt that by stopping 10 short of that, that it, it clearly draws the 11 line between this process and a risk 12 management process, but I think it's always 13 going to be an issue. Chris?</p> <p>14 DR. PORTIER: I just want to 15 make sure I, I'm understanding the comment, 16 now this is a comment on the RoC document 17 itself because obviously the background 18 documents spent a considerable amount of time 19 talking about the context of the observations 20 which are being reviewed and so the question 21 is to what degree does all of that 22 information then also get characterized into 23 the rather short listing that goes into the 24 Report on Carcinogens. And certainly every 25 re..., every report we visit the discussion</p>	<p style="text-align: center;">Page 224</p> <p>1 interesting proposal but also a little bit 2 on this last comment is, as it stands now 3 when a chemical is listed in the RoC, it 4 doesn't automatically trigger any regulatory 5 action in at least at CPSC, and when we do 6 evaluate potential hazards we of course 7 consider the RoC, IARC and the CERHR and, 8 and, and so on, but the, but our policy has 9 always been that we do our own evaluations 10 of everything from hazard ID to the, to the 11 risk and risk management, so really the, the 12 bottom line is that the bur..., the burden 13 is on us, on, on the regulatory agencies, or 14 in our case on us in particular to, to do 15 the, the, the, the next three steps of the 16 risk assessment essentially and to, and to 17 say whether a particular product in our 18 jurisdiction is a hazard and I mean, that's, 19 that's how it is and whether that should 20 change, I don't know, but that's the way, 21 that's how it is now.</p> <p>22 MR. KELLY: Of course, this, 23 this issue came up the last time we had a 24 public meeting on this in, in 1999; that is, 25 the issue of to what extent should the</p>

<p style="text-align: center;">Page 225</p> <p>1 listing information on the Report on 2 Carcinogens give some information about dose 3 or exposure and what is known about 4 carcinogenicity at a particular dose or 5 exposure, to what extent does that knowledge 6 depend on there being a certain level of 7 dose or exposure. Since that meeting we, we 8 do have new legislation and guidelines in 9 the form of the Data Quality Act and 10 guidelines and one of the requirements of 11 that is utility. Utility is defined as 12 utility to the intended, for the intended 13 purpose of the information product. We've 14 discussed this before when you go back to 15 the legislative history of the Report on 16 Carcinogens, it's very clear that Congress 17 intended that this report have utility for 18 individual Americans who would make choices 19 about their personal lifestyles and 20 exposures. And yet at the very, in the 21 introduction of the Report on the Carc..., 22 on Carcinogens currently it says that 23 there's nothing in the Report on Carcinogens 24 is intended to necessarily have any relevance 25 to the activities of people in their daily</p>	<p style="text-align: center;">Page 227</p> <p>1 called, pursue an alcoholic lifestyle. That 2 is, they're very heavy drinkers and have all 3 the other things associated with an alcoholic 4 lifestyle of just general dissipation, poor 5 diet, lack of exercise, you know, lack of 6 productive work, that sort of thing, possibly 7 low socioeconomic status which has been 8 correlated with increased risk of cancer, et 9 cetera. And yet the, so the implication of 10 this would be that the listing should say 11 that alcoholic beverages are known to cause 12 cancer among people who are heavy drinkers 13 or who are, who are, pursue an alcoholic 14 lifestyle, something like that. That was the 15 debate and yet they were instructed that 16 they could not insert that sort of language 17 in the Report on Carcinogens and they should 18 not even consider it as part of the 19 information product because the Report on 20 Carcinogens is only a hazard document, 21 doesn't consider risk. I think this issue 22 now with the new legislation... 23 DR. GOLDMAN: Bill, I don't 24 believe that's what the committee concluded 25 about the literature on alcohol, but, you</p>
<p style="text-align: center;">Page 226</p> <p>1 lives and there have been occasions when 2 the, there have been critical issues 3 regarding dose and exposure that have come 4 up with regard to specific listings and the 5 review panels, particularly the RoC 6 subcommittee have been instructed by RoC 7 staff that they should not consider dose or 8 exposure in making recommendations on the 9 listings. The one that comes most prominently 10 to mind as a good example of this is, which 11 I no longer have any interest in other than 12 my daily personal life as an individual 13 consumer is the consumption of alcoholic 14 beverages, in which there is considerable 15 evidence that very moderate intake of 16 alcoholic beverages is not carcinogenic and 17 is actually has health benefits, mainly in 18 the form of having to do with heart attack 19 and stroke. But the point is that, and this 20 was raised and debated considerably among the 21 RoC subcommittee members is that the evidence 22 we have that shows carcinogenicity with 23 alcoholic beverages; that is, what we were 24 already shown as known to be a carcinogen 25 only has to do with people who are what they</p>	<p style="text-align: center;">Page 228</p> <p>1 know, I might be wrong, it's been a few 2 years, but I don't think that that really 3 was their conclusion. 4 MR. KELLY: Oh, I don't know 5 about the conclusion, I'm talking about 6 the... 7 DR. GOLDMAN: That, that the 8 risk for cancer was only among these 9 subgroups that suffer from all these other 10 conditions. I don't think that that was 11 their conclusion. So I, you just have to be 12 careful here but... 13 MR. KELLY: I didn't say 14 they concluded that, I said... 15 DR. GOLDMAN: Yeah. 16 MR. KELLY: ...they were 17 debating that and then they were told that 18 that was not even appropriate to get into 19 and it was not necessary to debate. So they 20 never really reached a conclusion on it. But 21 it was an imp...it is an important point. 22 It, it comes up with, very prominently with 23 some other listings that are in the Report 24 on Carcinogens now. And I think it's going 25 to come up sometime with the new legislation</p>

<p style="text-align: center;">Page 229</p> <p>1 and guidelines and should probably be dealt 2 with at some point. And the usual response 3 is that they're, you know, we don't want to 4 get into quantitative risk assessment and 5 dose response curves and the usual, you 6 know, things that regulatory agencies get 7 into and I don't think you need to do that. 8 I think a, there are broad qualitative sort 9 of dose response or exposure statements that 10 can be made about some of these chemicals. 11 You know, for example, on some of them you 12 could say that, you know, cancer has only 13 been found, is, is only known to have 14 occurred in worker populations that were 15 exposed to extremely high doses as a result 16 of industrial accidents. You know, if that 17 were the, the case rather than in the 18 general population, rather than saying it's 19 giving the implication that it's known to 20 cause cancer among anybody who's exposed to 21 this. But again, I would like to point out 22 that we, we do have some new law on this 23 particular issue. There is very pertinent 24 legislative history. It's never really been 25 confronted adequately I believe by the</p>	<p style="text-align: center;">Page 231</p> <p>1 of priorities or is it a list or, or, or 2 how? 3 DR. GOLDMAN: I tried to put 4 it in the order of the process. So starting 5 from the nomination through the scientific 6 review through bringing it forward to the 7 Board of, so I tried to just put it in the, 8 in, in process order. 9 DR. MOURE-ERASO: Yeah, 10 because of, of, I probably will have, as, as 11 probably the people here in the panel have 12 different levels of, of reactions to these 13 statements that were presented, I mean, it 14 doesn't seem that, if the panel is going to 15 react to the issues that were presented, 16 there will be different opinions I assume. 17 DR. GOLDMAN: Perhaps it would 18 make sense at this stage to, you know, turn 19 to the members of the panel to see if you 20 have some feedback that you know, your own 21 reactions or, you know, further points that 22 you want to make to be sure to put them in 23 here now. There will also be a written 24 report and an opportunity in that to, you 25 know, after we've had a chance to ruminate</p>
<p style="text-align: center;">Page 230</p> <p>1 agency. I found the response to the public 2 meeting comments in 1999 to be very 3 dismissive in fact of this particular issue. 4 And since it has come up, I do feel that 5 this needs to be pointed out at this point. 6 Thank you. 7 DR. GOLDMAN: Okay, well, I 8 guess that's another issue to put up there, 9 but I, I should say that I have not yet 10 heard anything either here or elsewhere to 11 say that there's a determination that the 12 Data Quality Act applies to this process so, 13 I, but I think that your point about trying 14 to put the, put it in somehow in context 15 with exposure and I think it get backs to 16 the point that was made earlier needs to be, 17 you know, added as one of the, one of the 18 issues that was raised. Are there other 19 issues that need to be identified as coming 20 out from, from this meeting? Make sure that 21 we're not leaving anything out. 22 DR. MOURE-ERASO: I mean, I, 23 I, I read what you presented as the summary 24 of the issues and I, a little unclear about 25 it, the way that you presented this in order</p>	<p style="text-align: center;">Page 232</p> <p>1 further, to, to add to that. So, do you want 2 to lead off on that? 3 DR. MOURE-ERASO: Sure. 4 First of all I, I, I hear with some 5 trepidation the proposal of a re- 6 configuring the procedure, the process of, 7 of conducting the business of the NTP. 8 Specifically the, the recommendations of 9 basically eliminating the R, RG1 and RG2 and 10 the Board of Scientific Counselors. I believe 11 very strongly that the appropriate function 12 of the science in the federal prog..., in 13 the federal government that exists in, in 14 NTP is to take the responsibility of the 15 process of making decisions that eventually 16 are going to have big public health impacts. 17 And I absolutely reject the notion that we 18 can privatize this process. The expert panels 19 as it was described here constituted mostly 20 from the industry that supposedly is being 21 affected by these decisions is in my mind 22 absolutely not an improvement in the process, 23 but the opposite. I also believe that one of 24 the things that is also of great importance 25 in terms of having a fairness in the way</p>

<p style="text-align: center;">Page 233</p> <p>1 that mechanistic data are used as you 2 mentioned, what Dr. Sass mentioned that there 3 is a need to have explicit descriptions of 4 how mechanistic data can affect a process, 5 upwards and downwards and that that should 6 be made specific in the language, and not 7 only put an example of how things could be 8 de-listed and know how things could be 9 changed from one classification to another. 10 And specifically to, to maximize the 11 appropriate use of mechanistic data, to 12 properly inform people of, especially 13 properly inform exposed people what to expect 14 in effects of carcinogenicity. 15 DR. DELZELL: I'm sure that 16 each of us on the panel has a slightly 17 different view of what's transpired and what 18 our reactions are. I, I do, I have heard 19 some very specific recommendations for 20 clarifying and improving the process, and I 21 think those need to be carefully considered. 22 I am not as willing to, not dismiss but, but 23 have a negative reaction to the idea that 24 the whole process be reviewed and perhaps 25 changed. I think that it is very good to</p>	<p style="text-align: center;">Page 235</p> <p>1 minimal. And I think that the Board gets an 2 understanding of that issue, I think that 3 the industry that's being affected and 4 impacted by those decisions understand that 5 issue, but I don't think that in general 6 very many other people really do, that a lot 7 of times with, when you're, when you're 8 dealing with state agencies in particular, if 9 you see a chemical listed as a carcinogen, 10 it's an immediate problem, and that's, that's 11 clearly not true. And I think there, there, 12 there should be a mechanism whereby some of 13 those reservations can be expressed and I've 14 done this in, in RoC meetings as have a 15 num..., number of other people. It's in my 16 understanding not part of the mechanism now, 17 but I would really like to see it part of 18 the mechanism whereby a description says, you 19 know, it's, the apparent risks from this 20 exposure to this chemical are small, but 21 this is a hazard identification process and 22 I think that get, gets lost a lot of the 23 time in discussions is that, is that this is 24 limited to hazard identification and I think 25 that's a real issue that's going to keep</p>
<p style="text-align: center;">Page 234</p> <p>1 consider changes, particularly in light of 2 the very sweeping changes that we see taking 3 place in science or are about to take place. 4 I, I do feel that the peer review process 5 can be improved. I'm less sure of the 6 specific mechanism for improving the peer 7 review process. The, the other thing that 8 we've heard quite a bit about today is the, 9 the need to improve the exchange with the, 10 between the public and the peer review 11 process. And I'm sure that that can be 12 improved also. 13 DR. CARPENTER: Yeah, I agree 14 that, I think that there is a fundamental 15 misunderstanding about what the peer review 16 process is because we encounter the same 17 arguments. A number of the discussions that 18 have taken place today take place in the RoC 19 meetings themselves. Particularly questions 20 about exposure and the idea of listing a 21 chemical, realistically exposures will never 22 occur to humans, so they're, they're, or 23 they're at least not likely to occur. So 24 that the actual risk that's being posed by 25 these chemicals in everyday life is, is</p>	<p style="text-align: center;">Page 236</p> <p>1 coming up until it gets addressed formally. 2 DR. GOLDMAN: Mark? 3 DR. TORAASON: I think, there 4 was a lot of discussion about the document, 5 I'm not sure that, that the review documents 6 met the same, serve the same purpose as the 7 reproductive health effects documents. I 8 mean, the documents that the NTP uses are to 9 facilitate the review by the Board of 10 Scientific Counselors and the different 11 regroup, review groups, and over the years 12 those documents have been improved and it's 13 sort of coming back to bite the NTP because 14 the better they get, the more people want 15 them to be better, the more they want the 16 process to be better. And if that's an 17 int., if that's the intent, to produce an, 18 a comprehensive document, then some of the 19 recommendations we heard were great. But 20 perhaps maybe the focus should be on the 21 writing that appears in the Report on 22 Carcinogens because that's the thing that 23 really goes forward, that's the thing that 24 most people read. And that isn't given a 25 review process that I'm aware of, it just</p>

<p style="text-align: center;">Page 237</p> <p>1 sort of appears. So maybe that, that could 2 be a place of focus. The other comment I, I 3 have, that I think there, there are some 4 really good recommendations about the time 5 allowed, I heard some things from a 6 perspective that I hadn't noticed before and 7 one particular point is, I've attended a lot 8 of meetings and it's invariably there was 9 plenty of time for everybody to say what 10 they want. There were a couple of meetings 11 where people were cut short and I was 12 thinking, what's this concern about time? But 13 I, it did dawn on me, when you're told ahead 14 of time you only have 7 minutes, you only 15 prepare 7 minutes. I guess if you're savvy 16 about what goes on in the meetings, you can 17 prepare for 30 minutes and 40 minutes, so... 18 And the other point was what Hillary made 19 about, oh, we get these documents two months 20 ahead of time, that's true, but I'm more 21 sympathetic toward the people that want to 22 respond to that. They have two months, they 23 have to write it and then we get it in at 24 the last moment, and then they feel that 25 because reviewers got it at the last moment</p>	<p style="text-align: center;">Page 239</p> <p>1 DR. JAMESON: Yeah, just, 2 just for the record, I'd like to identify 3 the fact that we received additional written 4 comments for this process meeting from 5 individuals who could not attend. We've 6 received these, these, the written comments 7 and they were placed on the web as part of 8 the public record for this meeting, but, but 9 for, for the purpose of the record I'd like 10 to identify that Sam Cohen of the University 11 of Nebraska Medical Center, Neil King of 12 Wilmer, Cutler, Pickering on behalf of the 13 Nickel Production Environmental Research 14 Association and Inco United States submitted 15 comments, I'm sorry, Samuel Cohen submitted 16 comments, Mr. King submitted comments, Wulf 17 Utian of the North American Menopause Society 18 submitted comments, Dr. Lawrence Robinson 19 from the Color Pigments Manufacturing 20 Association and James Enstrom from the 21 University of California at Los Angeles 22 submitted written comments. These were made 23 available on the web, distributed to the 24 panel and, and copies are also available 25 outside.</p>
<p style="text-align: center;">Page 238</p> <p>1 they didn't get much of a chance. And I 2 think so, even though I may get the document 3 two months ahead of time which gives me 4 plenty of time, not plenty of time, but 5 adequate time to review, I'm realizing that 6 there's also this other gap where people 7 want to not only review it, they want to 8 comment on it and they want me to have time 9 to review what they say and maybe there is 10 need, a need for a little more time there. 11 DR. GOLDMAN: Excellent. And 12 I think those last points are really points 13 that should have been in my summary too, 14 that, the re..., the idea of the review of 15 the actual listing was a very interesting 16 idea, I don't know exactly how you would do 17 that, but there might be some way at least, 18 you know, minus the judgment call, the 19 description of the substance and the 20 description of the toxicology, maybe that 21 could be vetted fairly early, that's kind of 22 an interesting idea. What I want to do now 23 is turn to first Bill Jameson, he has some 24 additional information for the record to give 25 us and then ask Chris Portier to sum up.</p>	<p style="text-align: center;">Page 240</p> <p>1 DR. GOLDMAN: Thank you. 2 DR. MOURE-ERASO: Dr. 3 Jameson, there were some other things, there 4 were some other things that were distributed 5 here that were in part of the written record 6 too...that will appear in the, in the final 7 list? 8 DR. JAMESON: Yes, yes, 9 every, everything that was distributed from, 10 from individuals who were, were scheduled to 11 make presentations but were unable to and 12 submitted their, their, their comments, those 13 will also be made part of the record, yes. 14 DR. PORTIER: I thank you 15 all, Lynn, thank you very much for running a 16 very interesting meeting and I, I actually 17 look forward to the written part of this, 18 bulleted it's good enough, I, I think we've 19 got a lot of the points down that you 20 brought forth. I'm going to clar..., I was, 21 I've been debating whether to clarify an 22 issue or not, but I, I can't let it go. 23 Sometimes at public meetings things are said 24 that get carried away and everyone leaves 25 with the impression that's an incorrect</p>

<p style="text-align: center;">Page 241</p> <p>1 impression. So I'm going to pick on alcohol. 2 Because I really want to make it clear that 3 we do go to some degree of effort to try to 4 clarify our listings. I'm just going to read 5 one part from the alcohol listings, so, so 6 you can all go back and do your homework and 7 read and look at this. The second sentence 8 on the alcohol listing, the first sentence 9 clearly says, alcohol is a known human 10 carcinogen, according to our review of the 11 second sentence it says, studies indicate 12 that the risk of cancer is most pronounced 13 among smokers and at the highest levels of 14 consumption. I just want to clear, make it 15 clear that the, we do take into account the 16 issues that have been debated, the last part 17 of this, we do draw a line about where we're 18 going with dose response. In some of our 19 presentation there are issues that clearly 20 become very difficult issues that being an 21 expert in dose response and having spent 25 22 years of my life doing research on it, I 23 recognize some of the difficulties involved 24 in making decisions about what level 25 constitutes concern and what level does not</p>	<p style="text-align: center;">Page 243</p> <p>1 recommendation for a listing or non-listing 2 in the Report on Carcinogens. It's very 3 important we get that record very clear and 4 there's been some excellent suggestions here 5 on how to improve that record and improve 6 that debate. And I think we'll be looking 7 very carefully at how we do that. Again, 8 thank you all very much. I want to thank Dr. 9 Jameson and his staff not only for this 10 meeting but for years and years and years of 11 effort in putting together the Report on 12 Carcinogens, creating over the course of, 20 13 years of your career now, Bill? Over 20 14 years of process that I think is second to 15 none, not only in the U.S. government but in 16 the world. I think we've got a process that 17 is more open than any other decision process 18 for hazard I've ever seen and I've been 19 involved in a lot and we continue to try to 20 make the, make it better and I think it's 21 Bill and his staff that have taken us there 22 and I want to thank them very much. Thank 23 you all for being here. Thank you very much 24 for your comments. Again, if you have any 25 additional comments or anything else you'd</p>
<p style="text-align: center;">Page 242</p> <p>1 constitute concern. We're always willing to 2 consider where we're going with that but I 3 really don't see us ever, unless legally 4 required by Congress directly, going into the 5 issue of setting thresholds and standards and 6 things like that. It's just not the mandate 7 of the Report on Carcinogens and I believe, 8 my interpretation and my counsel will correct 9 me at some point is that that would take us 10 way beyond the mandate of the law for the 11 Report on Carcinogens and I just don't see 12 us going there. But the comments have been 13 very stimulating, there's a lot of things I 14 will take back to staff and look at very 15 carefully. We, we always look at how we list 16 the criteria and we are constantly trying to 17 redo that. We always very carefully look at 18 how much time we've given you in, in 19 providing additional comment to us up front 20 because we really do believe it's the 21 debate, both the debate that occurs at the 22 public meetings, the debate that occurs at 23 the government meetings and the debate that 24 occurs in the written documents that drive 25 where the, the program is going to go in</p>	<p style="text-align: center;">Page 244</p> <p>1 like us to consider, we are always open to 2 comments even after the close of this 3 meeting. Contact Dr. Jameson, Dr. Wolfe and 4 get them to us. And again, Lynn, thank you 5 very much and I'll turn it back over to you 6 now. 7 DR. GOLDMAN: Well, and I 8 think all of our thanks to Bill Jameson and 9 the NTP staff for the work that they do on 10 the Report. Obviously, it's something we all 11 appreciate and that's why people are here to 12 try to help make it better. 13 DR. JAMESON: If I may, I'd 14 like to recognize Anna Sabella of my staff 15 who worked very hard for all the logistics 16 of this meeting, and, and has done an 17 excellent job in getting everything and I... 18 DR. GOLDMAN: Thank you. 19 DR. JAMESON: ... I'd like 20 to thank, publicly thank Anna Lee. Thank 21 you. 22 DR. GOLDMAN: Okay, 23 adjourned. 24 (WHEREUPON, the Meeting was concluded at 3:16 25 p.m.)</p>

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CAPTION

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The Meeting in the matter, on the date, and at the time and place set out on the title page hereof.

It was requested that the Meeting be taken by the reporter and that the same be reduced to typewritten form.