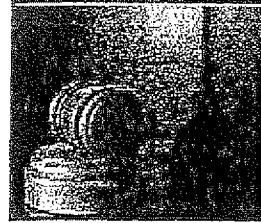


CONDENSED

IN THE COURT OF THE STATE OF OREGON

In the Matter of  
HAYNES VERSUS ADAIR HOMES  
CASE NO. CCV0211573



HEARING  
FEBRUARY 18, 2005  
CD TRANSCRIPTION  
CD 1

BE IT KNOW THAT, the above-referenced Transcript of Proceedings was transcribed from compact disc on March 15, 2005.

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2-1

Page 1	Page 3
<p>1        IN THE COURT OF THE STATE OF OREGON</p> <p>2</p> <p>3</p> <p>4        In the Matter of</p> <p>5        HAYNES VERSUS ADAIR HOMES</p> <p>6        CASE NO. CCV0211573</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16        HEARING</p> <p>17        FEBRUARY 18, 2005</p> <p>18        CD TRANSCRIPTION</p> <p>19        CD 1</p> <p>20</p> <p>21        ---</p> <p>22</p> <p>23        BE IT KNOW THAT, the above-referenced Transcript of</p> <p>24        Proceedings was transcribed from compact disc on March</p> <p>25        15, 2005.</p>	<p>1        toxicology. We have [inaudible] medical toxicologist.</p> <p>2        I do testing for -- safety testing of new products,</p> <p>3        in terms of the toxicology. So, safety testing of</p> <p>4        drugs and chemicals, and I have an industrial hygiene</p> <p>5        group.</p> <p>6        MR. KECKLE: Tell us a little bit</p> <p>7        about your education.</p> <p>8        BRUCE J. KELMAN: I have a PHD</p> <p>9        from the University of Illinois. I did my research</p> <p>10      on animal models of human disease in the Department</p> <p>11      of Physiology and Pharmacology at the university.</p> <p>12      Let's see, I was awarded PHD in 1975, and I did a</p> <p>13      two-year post-doctoral study of toxicology at the</p> <p>14      Oakridge National Laboratory through the University of</p> <p>15      Tennessee.</p> <p>16        MR. KECKLE: What professional</p> <p>17        certifications do you have, Doctor?</p> <p>18        BRUCE J. KELMAN: I'm board</p> <p>19        certified by the American Board of Toxicology in</p> <p>20        General Toxicology. And, I've been -- I actually had</p> <p>21        forgotten how many I've been re-certified. We have</p> <p>22        a requirement that we have to be re-certified every</p> <p>23        five years. So, you get to take the exam a number</p> <p>24        of times.</p> <p>25        MR. KECKLE: And, you've been</p>
Page 2	Page 4
<p>1        DEFENSE: Defense calls Dr. Bruce</p> <p>2        Kelman.</p> <p>3        JUDGE VANDYK: All right.</p> <p>4        COUNTY CLERK: Under penalty of</p> <p>5        perjury, do you swear or affirm that the testimony</p> <p>6        you're about to give in the matter is the truth, the</p> <p>7        whole truth, and nothing but the truth?</p> <p>8        BRUCE KELMAN: I do.</p> <p>9        COUNTY CLERK: Can you please your</p> <p>10      full name and spell your last name for the record?</p> <p>11      BRUCE KELMAN: Bruce J. Kelman.</p> <p>12      K-E-L-M-A-N. And, can I have just a second to take</p> <p>13      the files out?</p> <p>14      JUDGE VANDYK: To take the files</p> <p>15      out?</p> <p>16      UNIDENTIFIED SPEAKER: Oh, yes.</p> <p>17      BRUCE J. KELMAN: Just my reference</p> <p>18      materials?</p> <p>19      JUDGE VANDYK: Sure. Certainly.</p> <p>20      BRUCE J. KELMAN: Okay.</p> <p>21      JUDGE VANDYK: Precede, Mr. Keckle.</p> <p>22      MR. KECKLE: Dr. Kelman, are you</p> <p>23      currently employed?</p> <p>24      BRUCE J. KELMAN: I have an</p> <p>25      ontotoxicology practice. It consists of some forensic</p>	<p>1        re-certified every five years since, what 1985, is</p> <p>2        that what you said?</p> <p>3        BRUCE J. KELMAN: Since 1980 was</p> <p>4        my initial certification.</p> <p>5        MR. KECKLE: 1980. Okay. Now, Dr.</p> <p>6        Kelman, you're not a medical doctor, correct?</p> <p>7        BRUCE J. KELMAN: That's correct.</p> <p>8        I'm a toxicologist and scientist.</p> <p>9        MR. KECKLE: And, what's the</p> <p>10      difference?</p> <p>11      BRUCE J. KELMAN: Well, I wouldn't</p> <p>12      see a physician -- or, I'm sorry, I wouldn't see a</p> <p>13      patient, or examine a patient. A scientist is</p> <p>14      trained to, as opposed to diagnosing a disease, look</p> <p>15      into the -- try and answer the condition of -- or</p> <p>16      the situation why that there's -- that disease has</p> <p>17      occurred. What does the medical literature say?</p> <p>18      What does the scientific literature say? What is the</p> <p>19      possibility that -- or, is it even possible that that</p> <p>20      disease could be due to exposure to the material that</p> <p>21      it's claimed to be.</p> <p>22      MR. KECKLE: And, do you have any</p> <p>23      -- have you had any teaching appointments?</p> <p>24      BRUCE J. KELMAN: Yes, I've -- I'm</p> <p>25      an [inaudible] professor at Mexico State University.</p>

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2-2

Page 5	Page 7
1 and I helped them start their toxicology program 2 there. 3 MR. KECKLE: What about, you know, 4 research experience? 5 BRUCE J. KELMAN: Well, I did -- 6 I've done laboratory research -- I did laboratory 7 research more than 20 years. Again, all on animal 8 models of human disease, and more recently have done 9 research more focused on existing literature and 10 evaluating that literature. 11 MR. KECKLE: What professional 12 societies do you belong to in your field? 13 BRUCE J. KELMAN: Well, I'm one of 14 six or so PhD's that's been admitted to the American 15 College of Occupational and Environmental Medicine. 16 It's primary physicians, but there's a few PhDs that 17 have been admitted. I'm a full member of the Society 18 Toxicology, I'm American College of Toxicology, 19 American Society for Terminal Therapeutics, and what's 20 the -- American Society of Pharmacology and 21 Experimental Therapeutics. 22 MR. KECKLE: And, I notice on your 23 resume that you have -- did you -- I don't know if 24 you said this one, Society of Experimental Biology and 25 Medicine.	1 MR. KECKLE: Well, have any of 2 those publications dealt with mold and micro toxins? 3 BRUCE J. KELMAN: Yes. The -- I'm 4 gonna be talking about some calculations I've done, 5 which have been published in a [inaudible] journal. 6 And, I was also one of the co-authors of the Fact 7 Based Physician statement that came out from American 8 College of Occupational and Environmental Medicine in 9 2002. 10 MR. KECKLE: Okay. Thank you, 11 doctor. Now, as a part of your profession you look 12 at toxicology and causation, is that correct? 13 BRUCE J. KELMAN: Well, the -- the 14 way I'd state that is one of the things I do is 15 evaluate whether exposure to a chemical, in this case 16 micro toxins are a chemical, has caused an injury. 17 MR. KECKLE: Okay. And, that's 18 one of the things that you specialize in? 19 BRUCE J. KELMAN: Yes, that's the 20 basic process, at least for what I do in forensic 21 toxicology. 22 MR. KECKLE: Okay. Well, what it 23 -- what is the study of adverse affect of chemicals? 24 How does that happen? 25 BRUCE J. KELMAN: Well, the heart
Page 6	Page 8
1 BRUCE J. KELMAN: Well, actually I 2 tripped over that, but that's the other one that I'm 3 active in -- 4 MR. KECKLE: Okay. 5 BRUCE J. KELMAN: -- Society for 6 Experimental Biology and Medicine. 7 MR. KECKLE: And, do these 8 societies require any certain qualifications to be a 9 member? 10 BRUCE J. KELMAN: Yes, they all 11 do. The Society of Toxicology requires a substantial 12 amount of experience, substantial recognition, and a 13 focus on the practice of toxicology. American College 14 of Occupational and Environmental Medicine requires -- 15 or for me as a PhD, they required me to have a 16 substantial interest in the conduct of occupational 17 and environmental medicine. 18 MR. KECKLE: And, publications, 19 have you been published? 20 BRUCE J. KELMAN: Yes. 21 MR. KECKLE: Approximately how many 22 times? 23 BRUCE J. KELMAN: Actually, it's 24 somewhat in excess of one hundred publications. I 25 don't remember exactly how many.	1 of toxicology, the most important part of toxicology 2 is something called dose response. And, actually 3 everyone is familiar with dose response, and if I can 4 use the -- 5 MR. KECKLE: Please. And, Your 6 Honor, would it be okay if Dr. Kelman stood with me? 7 JUDGE VANDYK: Absolutely. 8 BRUCE J. KELMAN: -- Thank you. 9 JUDGE VANDYK: If you -- just a 10 one admonition, Dr. Kelman, keep your voice up so our 11 recording devices will pick you up. 12 BRUCE J. KELMAN: All right. 13 Actually, dose response is -- it's probably not a 14 terminology you've heard before, but it's not a 15 secret. And, most of you have probably experience 16 it. An example that I use to teach my graduate 17 classes starts with coffee, drinking coffee. If you 18 were to drink one cup of coffee, a few cups, the 19 cups I'm talking about here are five ounce cups, so 20 that the cups of coffee you might get at, oh, at 21 Starbucks can go up to 20 ounces. So, that would be 22 four of these cups. If you drink a couple cups of 23 coffee it may taste good, but it doesn't make much 24 difference, in terms of your feeling alert, for most 25 people. But, if you go on to drink six or seven

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Videography

2-3

Page 9	Page 11
<p>1    cups of coffee you'd start feeling actually much more  2    alert, maybe even a little bit jittery, and depending  3    on the individual. And, of course, here we're still  4    talking about these five-ounce cups of coffee. So,  5    that means that — oh — a vente is 20 ounces, so a  6    couple of ventes you'd start feeling a bit jittery.  7    If you consume the amount of caffeine that's in 20  8    cups of coffee, and to do that — on first glance  9    you might say, "Well, that's not likely to happen,"  10   and that's true. That's one of the reasons that  11   coffees actually pretty safe to drink. But, if you  12   happen to be taking a diet pill that had caffeine in  13   it, and you were drinking coffee, and you were a  14   college student taking [inaudible] on top of that,  15   it's quite possible to drink the amount of caffeine,  16   and equivalent amount of caffeine. And, in that  17   case, if you got up to the 20 cups, you'd feel  18   really jittery. In fact, if you held your hand out  19   you'd have what's called a fine tremor and shake a  20   little bit. And, your stomach would probably be  21   pretty upset too. Now, let's say you lost all track,  22   you took too many of those [inaudible], and you were  23   staying up all night drinking the coffee. Now, in  24   that case, it is possible to get up to 50 cups of  25   coffee, at the amount of caffeine that's in the</p>	<p>1    of the bucket. And, when the water comes over the  2    edge you've reached the threshold, in this case you're  3    considering death. And, you get an effect after the  4    threshold. As long as the water is below the level  5    of the threshold you don't have an effect for that  6    particular [inaudible]. Finally, for the most basic  7    part, the question of time comes in. And, actually  8    the caffeine in coffee you metabolize, you change its  9    form in your body so it can be excreted. And, I've  10   shown metabolism and excretion by punching two holes  11   in the bottom of the bucket. And, as the water runs  12   out, by being either excreted or metabolized, it makes  13   it more difficult to reach that threshold. So, those  14   concepts are the heart of toxicology. And, that's  15   the reason when a toxicologist is faced with a  16   situation, or asked the question, "Has exposure caused  17   an injury?" The first thing that they're gonna ask  18   is, "Well, how much are we talking about?" And, in  19   situations where a toxicologist doesn't know how much  20   you're talking about, we put together what's called a  21   maximum exposure. It's the biggest exposure you can  22   think of over the most ridiculous conditions. And,  23   if that biggest exposure isn't sufficient to cause the  24   adverse effect that you're looking at then the lower  25   exposures don't matter. They're not gonna cause the</p>
<p>1    equivalent of 50 cups of coffee, you'd feel sick. In  2    fact, you might even become unconscious. And yet,  3    this is coffee that with all of the strength. Now,  4    one of the basic tenants of toxicology is that  5    there's a fatal dose for every, single chemical. So,  6    in this case we're talking about coffee. 75 to 85  7    cups of coffee is a fatal dose for an adult unit.  8    Now, obviously, that would be really hard to drink 75  9    or 85 cups of coffee, even over an evening, which is  10   why we can consume coffee and not need to worry about  11   it killing us. But, there is a fatal dose of that.  12   So, the basic idea is as you have less of a chemical  13   you have less response. And, as you consume more, or  14   are exposed to more, you have a bigger response.  15   And, in fact, for every chemical there's an amount  16   that's fatal and there's an amount that has no effect  17   at all. Now, what that means is that talking about  18   exposure to a chemical is not very [inaudible], or  19   exposure to mica toxins. The real question that one  20   has to ask is, "Are you exposed to enough to cause  21   an injury?" Now, that concept of there's a certain  22   amount you can be exposed to and it won't cause any  23   effect, is called threshold. And, you've watched the  24   bucket fill up with coffee. The threshold in this  25   case would be the edge of the [inaudible], the edge</p>	<p>1    effect.  2        MR. KECKLE: Well, how do you use  3    this — this dose exposure — how is that used to  4    determine whether a chemical has in fact caused an  5    effect?  6        BRUCE J. KELMAN: Well,  7    toxicologists have reached a generally accepted way of  8    doing this, and it involves five different ideas.  9    And, there actually — when you say them out loud  10   they sound -- they're pretty basic. So, the first  11   question you ask is, "Has the chemical," or in this  12   case the mica toxin, "Been shown to be present?" The  13   second question you'd ask is, "Has the mica toxin  14   ever been shown to cause the effect?" Now, to show  15   that a mica toxin causes an effect you would have to  16   go to either a clinical study, which unless it's a  17   cancer study, is very unlikely because we aren't gonna  18   expose people intentionally to something that could  19   hurt them, or what's called an epidemiological study.  20   And, the first place you go is data in people,  21   because you're interested in people. If there's not  22   data in people then there is a way to use animal  23   models, but the first place you go is for data in  24   people. An epidemiology study allows you to compare  25   one group that's been defined against -- and</p>

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Page 13	Page 15
<p>1 supposedly exposed, against another group that hasn't  2 been exposed. And, the reason you have to do that  3 comparison is for most injuries and most disease  4 processes there's a baseline that occurs. It's not  5 that the injury never occurs, or the disease never  6 occurs, it's that you'd expect it to increase in the  7 exposed group. Oh, I'm sorry. I only got to the  8 second and I told you there were five. The third  9 one's what we were just talking about, dose response.  10 "Was there enough present for a long enough period of  11 time, and the right timeframe, to have any possibility  12 of causing an injury?" And, then the fourth one has  13 to do with timing. If you have a disease that's  14 present before an exposure, well, then you could never  15 say the exposure caused the disease cuz it was  16 already there. And, if it's a - a mica toxin, or  17 a chemical that's metabolized quickly then many months  18 or years after the exposure, unless the injury  19 occurred right then, you wouldn't expect just to see  20 the disease. So, the timing is very important. And,  21 then the last one is, "Is there a better alternative  22 explanation?" And, that last piece is normally what  23 a physician does, because they're dealing with  24 individuals.  25 MR. KECKLE: Okay. Thank you,</p>	<p>1 of pages probably.  2 BRUCE J. KELMAN: It's probably  3 closer.  4 MR. KECKLE: Okay. And, isn't it  5 true that you reviewed medical records dating back to  6 19 - I believe, ear -- late -- mid, late 80's?  7 BRUCE J. KELMAN: I believe they  8 went back that far --  9 MR. KECKLE: Renee Haynes, I'm  10 sorry.  11 BRUCE J. KELMAN: Yes.  12 MR. KECKLE: Yes. I'm sorry, Mr.  13 Haynes.  14 BRUCE J. KELMAN: For Mrs. Haynes.  15 MR. KECKLE: Did you also review  16 any industrial hygiene reports?  17 BRUCE J. KELMAN: Yes.  18 MR. KECKLE: Okay, of mold testing  19 in the home?  20 BRUCE J. KELMAN: Yes.  21 MR. KECKLE: Okay. Now, were Mrs.  22 Haynes, and Michael, and Liam Haynes, were they  23 exposed to mold?  24 BRUCE J. KELMAN: Oh, yes, of  25 course. There's nothing new about mold. Mold's</p>
Page 14	Page 16
<p>1 doctor. You were provided several materials to  2 review, with respect to this case, is that correct?  3 BRUCE J. KELMAN: Yes, quite a  4 bit.  5 MR. KECKLE: Okay. And, among  6 those materials were medical records?  7 BRUCE J. KELMAN: Yes.  8 MR. KECKLE: Okay. And, you saw  9 the stack of medical records that Mr. Vance and  10 [inaudible] front, Dr. Marankavitch (Phonetic), I  11 believe. Did you see that stack?  12 BRUCE J. KELMAN: Yes.  13 MR. KECKLE: Is it still up there?  14 BRUCE J. KELMAN: No.  15 MR. KECKLE: Okay. Okay. And,  16 the stack that you reviewed was that as large, or  17 larger than that?  18 BRUCE J. KELMAN: Well, I couldn't  19 really tell. I have three of these mostly double  20 sided, and a fourth one that's a little bit smaller.  21 So, there's quite a bit.  22 MR. KECKLE: Several hundred pages,  23 correct?  24 BRUCE J. KELMAN: At least.  25 MR. KECKLE: Or several thousands</p>	<p>1 everywhere. It's -- I don't know anybody that hasn't  2 had mold grow in their showers at some time. In  3 fact, mold is a quarter of the biomass of the earth.  4 If it wasn't for mold things wouldn't get to be --  5 they wouldn't digest, or they wouldn't decompose.  6 MR. KECKLE: Well, I'm sorry --  7 BRUCE J. KELMAN: In fact, the --  8 all the molds that you find inside a house, are found  9 outside. Stachybotris (Phonetic), the famous black  10 mold, which actually is no more toxic than any other  11 mold, is -- originally comes from decaying leaves and  12 normally finds its way into the house, not through  13 the air cuz it's too heavy, but tracked on people's  14 feet. Well, there's a lot of decaying leaves out  15 there, and every time you see a black mold there's a  16 good chance that that's stachybotris, cuz stachybotris  17 likes to eat cellulose. And, those leaves wouldn't  18 decay without it. All the other molds that you find  19 inside growing on building materials grow outside as  20 well.  21 MR. KECKLE: And, what effect can  22 someone get from mold?  23 BRUCE J. KELMAN: Well, the  24 American College of Occupational and Environmental  25 Medicine has divided effects into three areas, and</p>

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2-5

Page 17

1 this is in their positions statement. And, I think  
 2 it's important to understand the physician statement,  
 3 although I said I was one of the authors I only  
 4 began the process. So, I and two other authors were  
 5 asked to put the report, the statement, together, but  
 6 then went to a committee on scientific affairs. This  
 7 committee on scientific affairs has twenty some  
 8 physicians in it, they reviewed it, they sent it out  
 9 to many more physicians, went to the board of  
 10 directors, they reviewed it. I was told by the head  
 11 of that committee that somewhere in the order of one  
 12 hundred very critical physicians reviewed that paper.  
 13 So, by the time it gets to the end of the process,  
 14 the college adopts it as their position statement.  
 15 And, their position statement says we have three  
 16 possible effects. We have allergies, and 20% of the  
 17 population develops allergies. About a quarter of  
 18 those will develop allergies to mold. It's quite  
 19 common actually. Infections, those are very special  
 20 situations, and in general, the stuff that grows on  
 21 building materials doesn't grow on people. The  
 22 special molds grow on people. And, then what's  
 23 called -- well, toxicity due to exposure to the  
 24 toxins found in mold. The term is micatotoxicosis  
 25 (Phonetic), which if you've had a drink you won't be

Page 18

1 able to say very quickly. Toxicosis means toxic, and  
 2 the mica refers to originating from fungi. So, those  
 3 are the three effects. Sometimes you hear something  
 4 about irritation. Irritation is always a combination  
 5 of those three effects.

6 MR. KECKLE: Okay. Well, were  
 7 Renee -- I'm sorry, or Mr. Haynes [inaudible] were  
 8 Mrs. Haynes, Michael, and Liam, were they exposed to  
 9 sufficient levels of mica toxins to make them sick?

10 BRUCE J. KELMAN: Well, actually,  
 11 because you've got -- molds produce mica toxins  
 12 sometimes. They don't always produce mica toxins.  
 13 And, in fact, the fact that you've got mold present  
 14 tells you nothing about what mica toxins are present,  
 15 or how much is present. So, even in the laboratory  
 16 where you're carefully controlling the conditions and  
 17 trying to force the mold to grow mica toxins, to  
 18 excrete mica toxins, scientists are not very  
 19 successful doing that. So, to begin with, and as the  
 20 first step of evaluation, I would look to see, "Do we  
 21 have any measurements of mica toxins?" And, the  
 22 answer is, "No." So, we really don't know whether  
 23 there's any mica toxins present.

24 MR. KECKLE: So, there's no data  
 25 in this case, as to whether or not mica toxins were

Page 19

1 present in the -- in the indoor air in the Haynes  
 2 home?  
 3 BRUCE J. KELMAN: That's -- yes,  
 4 that's correct.  
 5 MR. KECKLE: And, I believe that's  
 6 what Dr. Morankavitch also testified too, that he has  
 7 no knowledge as to whether any mica toxins were  
 8 actually present.

9 BRUCE J. KELMAN: That's correct.  
 10 MR. KECKLE: And, the industrial  
 11 hygiene reports that you reviewed, did they have any  
 12 testing, or any indication, as to whether mica toxins  
 13 were actually present?

14 BRUCE J. KELMAN: No.  
 15 MR. KECKLE: I'm sorry. I didn't  
 16 mean to interrupt.

17 BRUCE J. KELMAN: Well, what we  
 18 can use -- do is say in those circumstances, "Well,  
 19 we don't know if mica toxins are present, but if they  
 20 were what -- how much mica toxin could be present?"  
 21 And, I think you heard this characterized as a  
 22 [inaudible], but there's actually some relatively  
 23 simple calculations we can do to see what's the  
 24 highest amount of mica toxins somebody could be  
 25 exposed to. Is this the right time to show that?

Page 20

1 MR. KECKLE: Oh, have you -- did  
 2 you do those calculations?

3 BRUCE J. KELMAN: Yes.  
 4 MR. KECKLE: Well, let's -- did  
 5 you do them for all the family members?

6 BRUCE J. KELMAN: Yes.

7 MR. KECKLE: Well, why don't we  
 8 start with Mrs. Haynes and you can explain to the  
 9 jury what the calculations are and what they mean.

10 BRUCE J. KELMAN: Okay, I'm gonna  
 11 need some help holding this up.

12 JUDGE VANDYK: There's also an  
 13 easel there, Dr. Kelman. It's laying back against  
 14 the wall. Put it right here.

15 BRUCE J. KELMAN: Okay. Now, I  
 16 promise I'm not gonna test you on this, but this is  
 17 almost [inaudible] divided. So, there's no real  
 18 advanced math involved, but there's a lot of careful  
 19 consideration. And, what I'm gonna do is I'm gonna  
 20 start with the first line with a mica toxin that's  
 21 called fumitremorgin (Phonetic). Tremor is the word we  
 22 take out. And, this is a compound, and I'll show  
 23 you later, where if it's administered to test animals,  
 24 will cause a fine tremor, just like the coffee find  
 25 here. If you give enough you can kill the animal,

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2-6

Page 21

1 but the effect that I'm gonna compare this to is fine  
 2 tremor. And, I wanted to use just this first one as  
 3 an example, cuz you'll die if I go through all of  
 4 them. The first thing we did is we went to the  
 5 literature, and we said, "Okay, can we -- what's the  
 6 highest concentration of mica toxin that we can find,  
 7 per spore, in [inaudible]?" So, if you try and  
 8 produce mica toxin in these pores, what's the highest  
 9 amount? And, we found, in fact, it was -- well, we  
 10 had a number of pores. Just the way you read this  
 11 number, this [inaudible] means 10 to the minus eleven,  
 12 which is a number way too small for me to measure.  
 13 Then we'd say, "What's the highest indoor level of  
 14 spores we've got data on?" Now, I can speculate that  
 15 the levels are higher or lower, but in fact the  
 16 report that is closest to, in time, to when the  
 17 Haynes lived in the house, showed that the highest  
 18 concentration, [inaudible] spores, was 48/78.

19 MR. KECKLE: Now, Dr. Kelman,  
 20 before you move on. You've used the term, "The  
 21 literature," a couple times. What is that? What are  
 22 you referring to?

23 BRUCE J. KELMAN: When I do a  
 24 literature search, we're referring to the peer review,  
 25 scientific, and medical literature, and for these

Page 22

1 purposes [inaudible] differentiate between those two.  
 2 Now, you've heard a kind of strange definition of  
 3 peer review. Peer review means that the person who  
 4 reviewed the article has no relationship to the person  
 5 who wrote it. The person who wrote it doesn't know  
 6 who's doing the reviewing. That's really important,  
 7 because otherwise the reviewers don't feel free to  
 8 severely criticize the article. I mean, I'm not  
 9 gonna criticize my friend's article, particularly if I  
 10 know that he knows that I reviewed it. So, I use  
 11 the peer review scientific literature. And, I will  
 12 admit, I constrain myself to the scientific  
 13 literature, [inaudible] chemistry and physics. So, we  
 14 went and the way we get this is with a very  
 15 sophisticated search mechanism on the computer that  
 16 examines a huge number of databases, and I don't  
 17 really know how many. Looking at the literature for  
 18 the subject. So, in this case we would go, "Okay,  
 19 what's the highest concentration of hemotremorgin  
 20 (Phonetic)?" We get a whole bunch of articles from  
 21 the laboratory, peer review laboratory studies, and  
 22 that was the highest number. Okay, we talked about  
 23 where this number came from. That was the highest  
 24 total spore count we found indoors. It was a little  
 25 bit after the occupation period, but not too far.

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Page 25	Page 27
<p>1            BRUCE J. KELMAN: I promise this  2    is the last time we do [inaudible]. The -- so, this  3    is the number that corresponds to this number down  4    here. I just ran out of space. So, this is the  5    maximum possible dose in milligrams per kilogram.  6    That's the amount per unit of body weight. Okay.  7    So, we've got this amount, what do we do with that?  8    Well, now we want to compare it to some level that's  9    an effects level. In other words, do we know  10   anything about this hemotremargin? Well, we don't  11   have any data [inaudible], cuz we're not gonna do the  12   experiment on humans, but -- again, I looked  13   extensively in the literature, and I looked for the  14   lowest level that there's a reported effect. And, in  15   this case, the effect was a perceptible tremor in a  16   few mice that had been injected with this, but no  17   deaths. And, I could compare the two numbers, but  18   frankly, when you get down the numbers this small  19   even I can't conceptualize them. So, I compared an  20   exhibit that kind of gives you an idea of this  21   difference. And, if I could have that --</p> <p>22            MR. KECKLE: Is this correct?</p> <p>23            BRUCE J. KELMAN: Okay. So,  24    actually, that comes up [inaudible] building. If the  25    maximum dose is one that we calculated, under all</p>	<p>1    Buildings stacked on top of each other. Now, we have  2    similar, large discrepancies between the possible dose  3    and the [inaudible] effect for a number of different  4    mica toxins that I considered, that represent the  5    range of different kinds of mica toxins. But, I  6    think one of the most interesting ways of looking at  7    that, and this is [inaudible] earlier is, well, what  8    if those spores were stuffed with micotyne  9    [inaudible]? Now, we're all allowed to eat  10   [inaudible] and yet it is a very powerful mica toxin.  11   And, in fact the most sensitive population, the people  12   [inaudible] protect are kids [inaudible]. And, in --  13   for this particular case, if we used the same  14   exposure conditions and stuff those spores with  15   affotoxin (Phonetic), which by the way you don't find  16   growing on building materials. You find it growing  17   on grain. But if you took that most powerful one  18   [inaudible] the level that the FDA, the Food and Drug  19   Administration, has said is safe to consume, this dose  20   would be about a tenth of that, that's safe to  21   consume, with all the safety factors that are built  22   in there to protect kids [inaudible] peanut butter.  23   So, we're just a long ways from any possible adverse  24   affect from mica toxin. And, I will -- I want to  25   remind you that this really doesn't apply to allergies</p>
Page 26	Page 28
<p>1    those ridiculous conditions, highest concentration per  2    spore, living in the dwelling 24 hours a day and  3    never coming out, high breathing rate, the highest  4    regimen that we obtained. If you put all of those  5    factors together and you represented the maximum  6    exposure as the edge of this piece of paper --  7    [inaudible] piece of paper, then the amount that would  8    cause a perceptible tremor in a few mice that had  9    been injected IP [inaudible], would be two Empire  10   State Buildings stacked on top of each other. Now,  11   for a toxicologist for that difference that means  12   talking about things like, "Oh, what if there's more  13   than one mica toxin?" There may be more than one  14   mica toxin, but we're so far away [inaudible]. What  15   if there's some interaction between the mica toxins  16   that makes them more potent than just being alone?  17   Well, again, this is such a huge difference it  18   doesn't matter. In fact, in toxicology there is a  19   way to deal with that, it's called safety factors. I  20   won't go into those other than there is a way to  21   deal with those kinds of uncertainties. So, using  22   this example of hemotremargin [inaudible] -- I'm  23   sorry, Mrs. Haynes, the dose is the edge of the piece  24   of paper, and the level at which you'd have an effect  25   in the experimental model is two Empire State</p>	<p>1    or infections. That's a different kind of calculation  2    that you do.</p> <p>3            MR. KECKLE: Now, did you do  4    similar calculations for the children, Michael and  5    Liam?</p> <p>6            BRUCE J. KELMAN: Yeah. I did.</p> <p>7            MR. KECKLE: And, what -- in the  8    interest of time, what was your conclusions based on  9    those similar?</p> <p>10          BRUCE J. KELMAN: Because children  11    are smaller and the exposure parameters are a little  12    bit different, the numbers don't come out the same,  13    but there is huge differences. [Inaudible] for  14    example, looking at that same neurotoxin. If the  15    maximum dose that I calculated is the size of a coke  16    can, then the dose where you hit these tremors would  17    be three [inaudible] stacked on top of each other.  18    That would be true -- I think that was for Michael.</p> <p>19          MR. KECKLE: I'm sorry.</p> <p>20    [Inaudible] right order. Yes, I believe that was  21    correct.</p> <p>22          BRUCE J. KELMAN: Okay. And, it's  23    similar for Liam, because they're about the same size.</p> <p>24          MR. KECKLE: So, based on -- based  25    on your experience and your review of the information</p>

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Page 29	Page 31
<p>1 you were provided, the review of the literature, do  2 you have an opinion based on reasonable scientific  3 certainty, or probability, as to whether or not there  4 was -- could possibly be enough mica toxins in this  5 house to have caused any illness to either?</p> <p>6 JUDGE VANDYK: We'll get it taken  7 care of. Let's answer this question first. Why  8 don't you restate it, okay?</p> <p>9 MR. KECKLE: Okay.</p> <p>10 BRUCE J. KELMAN: I'm sorry.</p> <p>11 JUDGE VANDYK: That's all right.</p> <p>12 MR. KECKLE: Based on the studies  13 that you have done, the literature that you had  14 reviewed, the peer review literature that you have  15 discussed, and your experience and training, have you  16 formed an opinion based on reasonable scientific  17 probability or certainty as to whether or not there  18 was enough mica toxin in the home to have caused any  19 illness to Mrs. Haynes, Michael Haynes, or Liam  20 Haynes?</p> <p>21 BRUCE J. KELMAN: Yes.</p> <p>22 MR. KECKLE: And, what is that  23 opinion, doctor?</p> <p>24 BRUCE J. KELMAN: There could not  25 be. I mean, the differences between the maximum dose</p>	<p>1 relationship between it. You can't predict one from  2 the other, primarily because there's so much mold that  3 present in the environment anyway.</p> <p>4 MR. KECKLE: Now, you've looked at  5 the types of symptoms and effects that the Haynes  6 family have claimed. A few of them, in the interest  7 of time I'll only talk about a few of them. And,  8 with Mrs. Haynes a few of the problems that she has  9 been claiming are respiratory problems, hearing loss,  10 memory loss, dizziness, neurological deficits, and  11 depression. Now, in your professional opinion,  12 doctor, are any of these -- well, have -- let me ask  13 you this, have you formed an opinion, based on  14 reasonable degree of scientific certainty, as to  15 whether any of those symptoms can potentially be  16 caused or are consistent with mica toxins?</p> <p>17 BRUCE J. KELMAN: Yes.</p> <p>18 MR. KECKLE: What is that opinion?</p> <p>19 BRUCE J. KELMAN: Well, first, I  20 have to admit I do have a limitation here, because my  21 limitation is the scientific literature, the scientific  22 and medical literature, and basic laws of chemistry  23 and physics. And, I'm not making up any new  24 hypothesis on the spot. Well, based on the  25 literature and what we know about how these things</p>
Page 30	Page 32
<p>1 that we could come up with and the level at which we  2 see effects for a broad range of mica toxins, is just  3 too great.</p> <p>4 JUDGE VANDYK: All right. Now,  5 we'll get this out of our way here. Okay.</p> <p>6 MR. KECKLE: There has been and  7 will be a -- there's an assertion in this case by  8 the Haynes family that they had to discard, and/or  9 leave behind personal property that was exposed to  10 mold spores. In your professional opinion, is that a  11 reasonable thing to do? Does that need to be done?</p> <p>12 BRUCE J. KELMAN: Generally not.  13 Remember there's mold spores everywhere. It doesn't  14 matter what surface you take a measurement off of you  15 can find mold spores. In our experience, particularly  16 our industrial hygiene experience, if the item does  17 not smell mold and you can't see mold growing on it,  18 it's generally clean enough that you really don't need  19 to do anything, because there's not indication that  20 there's more mold spores on that item than there  21 would be anywhere else sitting around. And, there's  22 no correlation between mold, for example, growing on a  23 wall and mold that's being inhaled by an individual  24 or reaching a surface. In some circumstances you get  25 higher levels, but there's just -- there's no</p>	<p>1 behave, the scientific literature -- there's nothing  2 in it that would show, using human data, that for  3 example, memory loss. We have people who've studied  4 it. There's not data that shows, with an  5 epidemiological study, cuz we wouldn't do this in a  6 clinical setting, that exposure to mica toxins, in  7 inhaled mica toxins in an indoor setting causes memory  8 loss. I could not -- I searched the world's  9 literature and the only literature that appears to  10 exist is the non-peer reviewed literature, where it's  11 the opinion of single individuals. And, that's  12 completely consistent with the conclusions of what we  13 call learned bodies, of which the Institute of  14 Medicine is considered a very high level of learned  15 body. The Institute of Medicine is a branch of the  16 National Academy of Sciences. I participated in that  17 process. The committees are very, carefully chosen to  18 represent a broad range of views. And, the academy  19 itself is commissioned by the congress to conduct its  20 studies.</p> <p>21 JUDGE VANDYK: Mr. Keckle I'm  22 concerned --</p> <p>23 MR. KECKLE: [inaudible] two more  24 questions.</p> <p>25 JUDGE VANDYK: -- about the</p>

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**2-9**

Page 33

1 opportunity to cross-examine. I wouldn't be much  
 2 concerned if Dr. Kelman could be made available again  
 3 as a witness.

4 MR. KECKLE: And, he can  
 5 [inaudible].

6 JUDGE VANDYK: And, he cannot even  
 7 by telephone.

8 MR. KECKLE: I don't know. Dr.  
 9 Kelman, would telephone be an option?

10 BRUCE J. KELMAN: That's actually  
 11 possible. I hadn't considered that.

12 JUDGE VANDYK: All right. Continue  
 13 with your questions.

14 MR. KECKLE: Thank you, Your Honor.  
 15 And, I should be able to finish up real quick.  
 16 Again, in the interest of time, with respect to the  
 17 children, Michael and Liam Haynes, just a few of the  
 18 symptoms -- there has been allegations of candida  
 19 (Phonetic), neurological damage, impaired neurological  
 20 development, impaired social development, and sensory  
 21 integration disorder, and compromised immune system for  
 22 Michael Haynes. Same question to a reasonable degree  
 23 of medical certainty as to whether there -- those  
 24 could be caused by Mica toxins?

25 BRUCE J. KELMAN: Just so that I

Page 35

1 tell me your understanding of the steps that were  
 2 taken by the Institute of Medicine in preparing this  
 3 step?

4 BRUCE J. KELMAN: Well, I would  
 5 have to do that from my general knowledge from having  
 6 served on other committees, and there was no  
 7 indication that this process was any different. The  
 8 individuals were chosen to represent a broad range of  
 9 views. The individuals write a text and then they  
 10 come together for a conclusion. If any individual  
 11 disagrees with the conclusions then they have the  
 12 right to write a minority report, and sometimes the  
 13 Institute of Medicine and National Academy committees  
 14 do write minority reports. In this case, there was  
 15 no minority report. And, the basic conclusions, which  
 16 I'd actually rather have in front of me --

17 MR. KECKLE: And, I also want to  
 18 ask you is the -- is this the committee that was  
 19 kept together for that study that's listed there?

20 BRUCE J. KELMAN: Yes.

21 MR. KECKLE: Okay. With respect  
 22 to the committee, can you just briefly identify a few  
 23 of those, and who they're affiliated with?

24 BRUCE J. KELMAN: Noreen Clark, the  
 25 Chairperson, is the Dean and she's also a Professor

Page 34

1 can get my hands around an answer, let me kind of  
 2 group that into two different groups. One is it  
 3 seemed like it was primarily neurological effects.  
 4 The neurological effects are very straightforward.  
 5 The peer review scientific literature just does not  
 6 support those effects. For effects, toxic effects, on  
 7 the immune system, which is different than allergic  
 8 effects, you can't argue both directions. If you had  
 9 an allergy developed to a mica toxin, which there's  
 10 not evidence of at all, the allergy means the immune  
 11 system is increased in function, it's overreacting.  
 12 You could have allergies to mold, but you can't have  
 13 an allergy and immune suppression at the same time,  
 14 cuz that's a decrease. Now, the scientific literature  
 15 does not support, again, a decreased functioning of  
 16 the immune system from exposure to molds in indoor  
 17 environments. I've looked and looked and it's just  
 18 not there. The allergy part definitely is.

19 MR. KECKLE: My final question,  
 20 doctor. Are you familiar with damp, indoor spaces?

21 BRUCE J. KELMAN: Yes.

22 MR. KECKLE: And, were you aware  
 23 that the study was going on, when it was going on?

24 BRUCE J. KELMAN: Yes, I was.

25 MR. KECKLE: Okay. And, can you

1 of Public Health, and Professor of Pediatrics at the  
 2 University of Michigan.

3 MR. KECKLE: Are there any  
 4 political affiliations in that committee?

5 BRUCE J. KELMAN: No.

6 MR. KECKLE: Those are al --

7 BRUCE J. KELMAN: There's certainly  
 8 a wide range of views, but there -- I mean, the idea  
 9 that this is a political appointment is incredible.

10 MR. KECKLE: Okay. And, can you  
 11 just in a brief summary fashion describe the  
 12 conclusion that the Institute of Medicine came to,  
 13 with respect to mold and health effects?

14 BRUCE J. KELMAN: Yes. There's --  
 15 actually, the one I just pulled up was [inaudible]  
 16 environments. Here we go. They've divided these  
 17 things into four categories. And, in the language of  
 18 science there's always a possibility, a chance, that  
 19 there's a new study going to come out that will show  
 20 something different. So, the best one can say in  
 21 science is there's not just -- not sufficient data to  
 22 reach some kind of conclusion. And, I think most  
 23 telling is under the category of sufficient evidence  
 24 of a causal relationship, in other words, that  
 25 exposure to mold causes a particular disease, no

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2-10

Page 37

1 outcomes met this definition. For sufficient evidence  
 2 of an association, which is different than cause and  
 3 affect. Association is storks and babies. You can  
 4 kill storks, it won't prevent babies. But, for an  
 5 association, sufficient evidence of association, upper  
 6 respiratory, nasal and throat [inaudible] symptoms,  
 7 cough, wheeze, asthma symptoms, in sensitive people.  
 8 Those are people who are allergic to molds. And  
 9 that's consistent with what we know about antibody  
 10 formation. Limited or suggested evidence of an  
 11 association is shortness of breath and upper  
 12 respiratory illness in other healthy - otherwise  
 13 healthy children. So, this is just kind of a hint  
 14 of an association. Inadequate or insufficient  
 15 evidence to determine whether an association even  
 16 exists, not whether there's causal relationship, but  
 17 even the storks and the babies is airflow obstruction,  
 18 mucous membrane irritation syndrome, chronic  
 19 obstructive pulmonary disease, inhalation fevers, lower  
 20 respiratory illness, particularly what's called  
 21 pulmonary [inaudible] in infants, which is what the  
 22 CVC story was about. Skin symptoms, gastrointestinal  
 23 tract problems, fatigue, neuro psychiatric symptoms,  
 24 cancer, reproductive effects, and immunological  
 25 (Phonetic) type effects. So, this learned body came

Page 38

1 to the conclusion that there was insufficient evidence  
 2 to even show an association for the ones I just read  
 3 off.  
 4 MR. KECKLE: Okay. Thank you,  
 5 doctor. One just last, final question. You  
 6 indicated that the committee was appointed, or on the  
 7 committee that prepared that has a wide range of  
 8 views. What do you mean by that?  
 9 BRUCE J. KELMAN: Well, sorry. I  
 10 have to get my glasses back out again. There -- no  
 11 one is allowed on the committee who has a position  
 12 that could never change, cuz there wouldn't be any  
 13 point in having them on the committee. However, I  
 14 personally know Harriet Deman (Phonetic) who is one of  
 15 the members, and she has a strong believe that  
 16 there's at least the possibility that there's some  
 17 kind of relationship beyond what I was talking about.  
 18 She's expressed that in private. As a group when she  
 19 came to a consensus opinion, meaning she had the  
 20 right to right a minority opinion, she agreed with  
 21 these conclusions. I believe Dr. Gurnsy (Phonetic)  
 22 was kind of on the other side of the spectrum. She  
 23 didn't really think it was there, but she was  
 24 certainly willing to look at the data to see it.  
 25 And, that's what I mean by a spectrum of views.

Page 39

1 MR. KECKLE: The committee  
 2 consisted of people that both supported health effects  
 3 in mold and those that were skeptical of it?  
 4 BRUCE J. KELMAN: Yes.  
 5 MR. KECKLE: Together this is what  
 6 they conclude.  
 7 BRUCE J. KELMAN: That's correct.  
 8 MR. KECKLE: Thank you. Before I  
 9 conclude I'd like to request that Exhibit Number 175,  
 10 which is Dr. Kelman's critical [inaudible] be admitted  
 11 [inaudible].  
 12 JUDGE VANDYK: Any objection?  
 13 UNIDENTIFIED SPEAKER: No, Your  
 14 Honor.  
 15 JUDGE VANDYK: Exhibit 175 is  
 16 received.  
 17 MR. KECKLE: Thank you.  
 18 JUDGE VANDYK: All right. Mr.  
 19 Vance?  
 20 MR. VANCE: Yes, Your Honor, I'll  
 21 be brief, which may surprise you, but I'll try.  
 22 JUDGE VANDYK: It won't surprise  
 23 me. Go ahead.  
 24 MR. VANCE: Mr. Kelman, you're from  
 25 the Seattle area, is that right?

Page 40

1 BRUCE J. KELMAN: That's correct.  
 2 MR. VANCE: Well, welcome to  
 3 Oregon, Mr. Kelman.  
 4 BRUCE J. KELMAN: It's not too  
 5 far.  
 6 MR. VANCE: I'm sorry, Dr. Kelman.  
 7 But, you're not a medical doctor. You were straight  
 8 up about that. You said that, "I'm not a medical  
 9 doctor." Right?  
 10 BRUCE J. KELMAN: That's correct.  
 11 MR. VANCE: You studied at the  
 12 University of Illinois and you took some courses on  
 13 veterinarian -- veterinarian medicine, what do they  
 14 call that? Veterinary science?  
 15 BRUCE J. KELMAN: Well, the general  
 16 category is in the veterinary science area. The  
 17 research I conducted was within the veterinary school,  
 18 because they're the only ones -- I did my  
 19 experimentation on animals, and they're the only ones  
 20 that were qualified to handle animals.  
 21 MR. VANCE: So, you didn't achieve  
 22 a degree in -- as a veterinarian then?  
 23 BRUCE J. KELMAN: No. That wasn't  
 24 my intent of studying at the -- at the time I was  
 25 interested in research.

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Videography

2-11

Page 41

1 MR. VANCE: Okay. I understand.  
 2 BRUCE J. KELMAN: And, the  
 3 veterinarian degree is a clinical degree.  
 4 MR. VANCE: And, now what you do  
 5 is you work for drug companies and you try to analyze  
 6 their drugs and help them with getting those drugs  
 7 approved by the Food and Drug Administration, isn't  
 8 that correct?  
 9 BRUCE J. KELMAN: That's one of a  
 10 broad range of - of activities. There's a certain  
 11 number of tests, certain prescribed amount of testing  
 12 that has to be done by drugs before the FDA will  
 13 even consider them for release.  
 14 MR. VANCE: But, among your  
 15 client, you would include pharmaceutical companies?  
 16 BRUCE J. KELMAN: Yes.  
 17 MR. VANCE: How does that work?  
 18 If they hire you to help them with some study or to  
 19 get a drug approved is it like a confidential  
 20 relationship? You share information back and forth  
 21 and you talk about the properties of the drug and  
 22 what potential side effects are?  
 23 BRUCE J. KELMAN: Well, yes. I  
 24 mean, the discussion of the drug is confidential.  
 25 MR. VANCE: All right.

Page 42

1 BRUCE J. KELMAN: The testing  
 2 results are not.  
 3 MR. VANCE: Okay. Now, the  
 4 testing results; do you actually do these tests are  
 5 does someone else do the tests and you review them?  
 6 BRUCE J. KELMAN: Well, I did them  
 7 for a number of years and now I do what's called  
 8 directing them. So, I'll come into the laboratory  
 9 and inspect and make sure they're doing the tests  
 10 correctly.  
 11 MR. VANCE: And, then you help  
 12 write a report of some nature?  
 13 BRUCE J. KELMAN: Yes.  
 14 MR. VANCE: Okay. You mentioned,  
 15 I believe, dose response. And, I was curious about  
 16 that because I wanted to ask you about anaphylactic  
 17 shock, do you know what that is?  
 18 BRUCE J. KELMAN: Yes, I do.  
 19 MR. VANCE: And, are you familiar  
 20 with what they call the peanut allergy?  
 21 BRUCE J. KELMAN: Yes, I think the  
 22 key word is allergy.  
 23 MR. VANCE: Oh -- I was going to  
 24 ask you if you're familiar with the fact that you  
 25 don't need an awful lot of exposure to peanuts if you

Page 43

1 have that particular allergy, isn't that correct?  
 2 BRUCE J. KELMAN: The allergic  
 3 response is different. It's quite -- it's easy to  
 4 diagnose.  
 5 MR. VANCE: Okay. And, there are  
 6 people that are allergic to certain kinds of medicines  
 7 and if they get the wrong kind of prescription from  
 8 their pharmacist they could be in a lot of trouble  
 9 after just taking a few pills, isn't that true?  
 10 BRUCE J. KELMAN: Well, the  
 11 allergic process is completely different.  
 12 MR. VANCE: Well, isn't it true --  
 13 BRUCE J. KELMAN: Yes, the dose  
 14 response -- I think I indicated that when I was  
 15 showing this, the dose response for a chemical effect,  
 16 which is what I'm talking about, is different than  
 17 the dose response for an effect from antibodies.  
 18 MR. VANCE: Okay. And, people  
 19 that happen to be allergic to bee stings. If they  
 20 get stung by a bee they can go into anaphylactic  
 21 shock with a single bee sting, isn't that true?  
 22 BRUCE J. KELMAN: Yes.  
 23 MR. VANCE: So, the dose response  
 24 wouldn't really apply to certain individuals that  
 25 might have a predisposition or a certain allergy,

Page 44

1 isn't that a fair statement?  
 2 BRUCE J. KELMAN: No. That's not  
 3 correct at all. It's a different dose response.  
 4 MR. VANCE: Well, what we're  
 5 talking about --  
 6 BRUCE J. KELMAN: There is an  
 7 amount that they can be exposed to that they will not  
 8 react to.  
 9 MR. VANCE: But, the dose response  
 10 theory, you're not trying to apply that then to  
 11 people that have a certain susceptibility? You're  
 12 trying to apply that to people that don't have a  
 13 certain sensitivity. Am I understanding that correct?  
 14 BRUCE J. KELMAN: No. The dose  
 15 response -- you can still give some amount of antigen  
 16 without the body recognizing that antigen. The  
 17 difference is we call it -- the dose response is very  
 18 steep for the allergic response, and it has a  
 19 slightly different shape. But, there are some toxins  
 20 that are exquisitely toxic also, for example,  
 21 botulism (Phonetic). I don't know if -- that's  
 22 what you get in [inaudible]. It's been calculated it  
 23 only takes 12 botulism (Phonetic) molecules to  
 24 cause death in a human. That's a very steep dose  
 25 response, and that would be similar to an antibody

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Trial Presentation

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Videography

2-12

Page 45

1 response in that it's a steep response.  
 2 MR. VANCE: Thank you, Dr. Kelman.  
 3 Thank you. I think it answers my questions. Dr.  
 4 Kelman, you're not saying that there's no medical  
 5 literature -- and that there's [inaudible] or that  
 6 there's no medical literature out there connecting  
 7 mold with health problems are you?  
 8 BRUCE J. KELMAN: Certainly not.  
 9 MR. VANCE: Okay.  
 10 BRUCE J. KELMAN: We know that  
 11 people can be allergic to mold.  
 12 MR. VANCE: Thank you. And, you  
 13 mentioned -- what was it the American Congress of  
 14 Occupational and Environmental Medicine?  
 15 BRUCE J. KELMAN: No. It's the  
 16 American College of Occupational and Environmental  
 17 Medicine.  
 18 MR. VANCE: American College. Now,  
 19 this isn't a university, is it?  
 20 BRUCE J. KELMAN: No. This is a  
 21 professional college.  
 22 MR. VANCE: Well, it's more of a  
 23 trade association, isn't it? It's a group, it's an  
 24 association of doctors and people that study certain  
 25 things?

Page 46

1 BRUCE J. KELMAN: No. Actually,  
 2 it's a learned body. So, calling it a trade  
 3 association is ridiculous.  
 4 MR. VANCE: Well, I just went to  
 5 the website and they call themselves an association.  
 6 And, that's why -- and you can go to their website  
 7 and you can look them up and you can see [inaudible]  
 8 their an association, correct?  
 9 BRUCE J. KELMAN: Well, they are  
 10 an association. There's lots of different of  
 11 associations.  
 12 MR. VANCE: Well, I understand  
 13 that, but I'm talking about this particular college.  
 14 It's not a university --  
 15 BRUCE J. KELMAN: You used the  
 16 word trade association. It's not a trade association.  
 17 MR. VANCE: -- it's not a  
 18 university and it's not an educational institution.  
 19 It's more of a group of people.  
 20 BRUCE J. KELMAN: It's certainly a  
 21 learned body, yes.  
 22 MR. VANCE: Well, and I'm not  
 23 arguing with you, sir. I'm just saying it's a group  
 24 of people rather than an educational institution. You  
 25 don't go there to get a degree.

1 BRUCE J. KELMAN: No. You  
 2 wouldn't go there to get a degree, although they  
 3 teach many, many course.  
 4 MR. VANCE: Thank you. Thank you.  
 5 Because your testimony was that a few PhDs have been  
 6 admitted.  
 7 BRUCE J. KELMAN: That's correct.  
 8 MR. VANCE: All right. Isn't it  
 9 true that you testified in a case in Arizona, Carrie  
 10 Killian versus Equity Residential Trust, United States  
 11 District Court for the District of Arizona, trial date  
 12 on June 22nd, 2004, do you recall your testimony on  
 13 that case?  
 14 BRUCE J. KELMAN: I recall  
 15 testifying. I don't recall exactly what I said.  
 16 MR. VANCE: You testified for the  
 17 defense in that case, is that right?  
 18 BRUCE J. KELMAN: That's correct.  
 19 MR. VANCE: All right. And, in  
 20 that case -- in your testimony you mentioned that  
 21 there are approximately 6,000 members of [inaudible]  
 22 College of Occupational and Environmental Medicine, do  
 23 you recall that?  
 24 BRUCE J. KELMAN: That's the last  
 25 -- I don't recall testifying to that, but that's the

Page 48

1 last figure I've seen.  
 2 MR. VANCE: Okay. 6,000. Now,  
 3 membership in that group is not restricted to doctors  
 4 or PhDs is it?  
 5 BRUCE J. KELMAN: The last I heard  
 6 it was, but it's possible if they had [inaudible]  
 7 yes, the process is the committee on scientific  
 8 affairs puts it together, it's reviewed by the board  
 9 of directors and those physicians that they feel will  
 10 give it usually the most -- the greatest criticism.  
 11 And, of course, you couldn't possibly deal with 6,000  
 12 comments.  
 13 MR. VANCE: No. But, you could  
 14 have -- make it a little bit more democratic than 100  
 15 out of 6,000 members, couldn't you? I mean, let's --  
 16 don't you think that's fair to be a little more  
 17 democratic than that? Dr. [inaudible] I would draw  
 18 the question -- Dr. Eckheart Yohanning (Phonetic), do  
 19 you know who he is?  
 20 BRUCE J. KELMAN: Oh, yes.  
 21 MR. VANCE: He's one of the  
 22 pioneers on molds and bioaerosols (Phonetic) in the  
 23 nations, isn't he?  
 24 BRUCE J. KELMAN: I wouldn't use  
 25 the word pioneer.

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2-13

13 (Pages 49 to 52)

1           MR. VANCE: Well, he wrote a book 2   on bioaerosols that so long ago that it's not out of 3   print, isn't that true? 4           BRUCE J. KELMAN: He's written a 5   number of them, none of which have been peer 6   reviewed, none of which were subject to criticism or 7   critical review. 8           MR. VANCE: Isn't it fair to say, 9   Mr. Kelman, he was writing books on mold when you and 10   I were still in high school?	11           BRUCE J. KELMAN: Actually, I don't 12   how old he is or when his first review came out. 13           MR. VANCE: Okay. That's fair. 14   That's fair enough. Dr. Yohanning gave a speech in 15   Boston after this paper that you and some others 16   wrote, and he wasn't very happy about it. He said 17   that this so called paper -- he said, "If you look 18   at how it was generated you'll realize," and he says 19   he has legal documents to prove it -- 20           MR. KECKLE: This is hearsay. 21   This is hearsay. 22           MR. VANCE: -- that it wasn't 23   objective. 24           JUDGE VANDYK: You haven't laid the 25   foundation --	1           I haven't heard it, nor have I read it. 2           MR. VANCE: Well, you've heard that 3   he has criticized you study, though, haven't you? 4           BRUCE J. KELMAN: Are you talking 5   about the position statement from the American College 6   of Occupational and Environmental Medicine? 7           MR. VANCE: Yes, sir, I am. I am 8   talking about that? 9           BRUCE J. KELMAN: I'm sure he 10   criticized that. 11           MR. VANCE: All right. So, it 12   doesn't surprise you to learn that he's called it in 13   a speech in Boston, "Undemocratic and not objective"?
		14           BRUCE J. KELMAN: Well, I guess I 15   would have trouble with the characterization from Dr. 16   Yohanning of "unobjective". I'd say critical review 17   by 100 critical, very critical, physicians is quite 18   objective, and I would also have to say that normally 19   when one picks a learned body, you don't do it 20   democratically. You pick the people that have the 21   best scientific credentials and the best knowledge of 22   the area. 23           MR. VANCE: Well, I certainly don't 24   expect you to ask medical students to participate in 25   this study. I mean, we have other things to do
1           MR. KECKLE: I'd like to see those 2   documents. 3           JUDGE VANDYK: Hold it, hold it, 4   hold it, hold it. Wait a minute. Wait a minute. 5           MR. VANCE: Have you heard this 6   criticism from Mr. -- 7           JUDGE VANDYK: Mr. Vance? MR. 8   VANCE: Your Honor, I'm sorry I did not hear. 9           JUDGE VANDYK: All right. We have 10   an objection. 11           MR. VANCE: I'm sorry, Your Honor. 12           JUDGE VANDYK: And, please don't 13   answer if I -- cuz I have to make a ruling. I got 14   a job too. 15           MR. VANCE: I'm sorry, Your Honor, 16   I didn't hear. 17           JUDGE VANDYK: That's all right. 18   You haven't laid an adequate foundation for this 19   confrontation. 20           MR. VANCE: Fine, Your Honor, I 21   will. I assume you've heard Dr. Yohanning's criticism 22   given his high profile in the medical community. 23           BRUCE J. KELMAN: Well, first of 24   all, I disagree with the characterization of high 25   profile, and I've not heard him speak. So, no, I	1           [inaudible] but -- 2           BRUCE J. KELMAN: Wait. Are you 3   talking about the American College of Occupational -- 4           MR. VANCE: Yes, I am. 5           BRUCE J. KELMAN: Okay. I could 6   hardly call that a study. 7           MR. VANCE: Well, you paid for 8   that? 9           JUDGE VANDYK: Mr. Vance? 10           MR. VANCE: Yes, Your Honor. 11           JUDGE VANDYK: We're gonna end this 12   here now, unless -- 13           MR. VANCE: I just have just a two 14   more -- three or four more question, Your Honor. 15   Please -- 16           JUDGE VANDYK: You're gonna hold 17   him to that, okay? 18           MR. VANCE: All right. 19           JUDGE VANDYK: All right. 20           MR. VANCE: You didn't identify 21   who you worked with when you first started testifying. 22   You said that you're from GlobalTox. And now you say 23   you're from GlobalTox, cuz I can see your resume, is 24   that right? 25           BRUCE J. KELMAN: Yes. GlobalTox is	Page 52

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Page 53	Page 55
1 the name of my practice. 2 MR. VANCE: And, you're actually 3 one of the owners of GlobalTox, aren't you. 4 BRUCE J. KELMAN: One's normally an 5 owner of a practice, yes. 6 MR. VANCE: Yes. GlobalTox is an 7 international corporation, isn't that true? 8 BRUCE J. KELMAN: We have offices 9 in the US and in Canada, and we work across the US. 10 MR. VANCE: Okay. Do you have any 11 offices -- 12 BRUCE J. KELMAN: I mean, I'm 13 sorry, across the world. 14 MR. VANCE: You have offices in 15 Europe? 16 BRUCE J. KELMAN: No. We do not. 17 MR. VANCE: Okay. Now, this 18 revision of the Colleges of Occupation and 19 Environmental Medicines state -- 20 BRUCE J. KELMAN: What revision? 21 MR. VANCE: The revision -- you 22 said that you were instrumental in writing the 23 statement, and then later on you said you and a 24 couple other colleagues wrote a revision of that 25 statement, isn't that true?	1 been given two pages. 2 JUDGE VANDYK: Do you have a copy 3 of the transcript? 4 MR. KECKLE: I do not. 5 MR. VANCE: Your Honor, I learned 6 about Dr. Kelman just a -- 7 JUDGE VANDYK: How many pages do 8 you have? 9 MR. VANCE: I have the entire 10 transcript from pages -- 11 JUDGE VANDYK: All right. Hand 12 him the transcript. 13 MR. VANCE: -- I'd be happy to 14 give it to him, Your Honor. 15 JUDGE VANDYK: All right. 16 MR. VANCE: Would you read into 17 the record the highlighted portions of that 18 transcript, sir? 19 BRUCE J. KELMAN: "And, that new 20 version that you did for the Manhattan Institute, your 21 company, GlobalTox got paid \$40,000. Correct. Yes, 22 the company was paid \$40,000 for it." 23 MR. VANCE: Thank you. So, you 24 participated in writing the study, your company was 25 paid very handsomely for it, and then you go out and
Page 54	Page 56
1 BRUCE J. KELMAN: No, I didn't say 2 that. 3 MR. VANCE: Well -- 4 BRUCE J. KELMAN: To help you out 5 I said there were revisions of the position statement 6 that went on after we had turned in the first draft. 7 MR. VANCE: And, you participated 8 in those revisions? 9 BRUCE J. KELMAN: Well, of course, 10 as one of the authors. 11 MR. VANCE: All right. And, isn't 12 it true that the Manhattan Institute paid GlobalTox 13 \$40,000 to make revisions in that statement? 14 BRUCE J. KELMAN: That is one of 15 the most ridiculous statements I have ever heard. 16 MR. VANCE: Well, you admitted to 17 it in the Killian deposition, sir. 18 BRUCE J. KELMAN: No. I did not. 19 MR. VANCE: Your Honor, may I 20 approach. Would you read into the record, please, 21 the highlighted parts of pages 905 and 906 of the 22 trial transcript in that case. 23 MR. KECKLE: Your Honor, I would 24 ask that Dr. Kelman be provided the rest of the 25 transcript under the rule of completeness. He's only	1 you testify around a country legitimizing the study 2 that you wrote. Isn't that a conflict of interest, 3 sir? 4 BRUCE J. KELMAN: Sir, that is a 5 complete lie. 6 MR. VANCE: Well, your vouching for 7 your own self [inaudible]. You write a study and you 8 say, "And, it's an accurate study." 9 BRUCE J. KELMAN: We were not paid 10 for that. In fact, the sequence was in February of 11 2002, Dr. Brian Harden, and [inaudible] surgeon 12 general that works with me, was asked by American 13 College of Occupational and Environmental Medicine to 14 draft a position statement for consideration by the 15 college. He contacted Dr. Andrew Saxton, who is the 16 head of immunology at UC - clinical immunology at 17 UCLA and myself, because he felt he couldn't do that 18 by himself. The position statement was published on 19 the web in October of 2002. In April of 2003 I was 20 contacted by the Manhattan Institute and asked to 21 write a lay version of what we had said in the ACOEM 22 paper - I'm sorry, the American College of 23 Occupational and Environmental Medicine position 24 statement. When I was initially contacted I said, 25 "No." For the amount of effort it takes to write a

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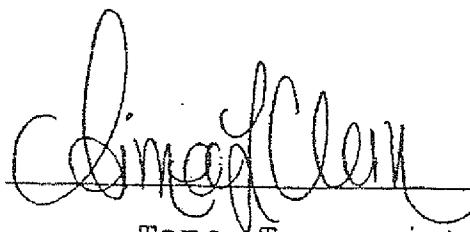
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CERTIFICATE

I, Amie L. Clem, do hereby certify that the matter herein mentioned on the preceding title page was transcribed via tape recording. I transcribed all testimony adduced and other oral proceedings had in the foregoing matter; and that the foregoing transcript pages constitute a full, true and correct record of such testimony adduced and oral proceeding had and of the whole thereof.

IN WITNESS HEREOF, I have hereunto set my hand this 15th day of March,  
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2-17

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