

SUPERIOR COURT IN THE STATE OF CALIFORNIA
FOR THE COUNTY OF SAN FRANCISCO
UNLIMITED JURISDICTION

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ELIEZER WILLIAMS, a minor, by)
SWEETIE WILLIAMS, his guardian ad)
litem, et al., each individually)
and on behalf of all others)
similarly situated,)

Plaintiff(s),)

vs.) No. 312236

STATE OF CALIFORNIA, DELAINE EASTIN)
STATE SUPERINTENDENT OF PUBLIC)
INSTRUCTION, STATE DEPARTMENT OF)
EDUCATION, STATE BOARD OF)
EDUCATION,)

Defendant(s).)

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DEPOSITION OF MEGAN T. SANDEL, M.D.
VOLUME II
San Francisco, California
January 29, 2003

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REPORTED BY: Cindy Pickens, CSR No. 3262

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I N D E X

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15 QUESTIONS INSTRUCTED NOT TO ANSWER

16 (None.)

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1 MEGAN T. SANDEL, M.D.

2 called as a witness herein, having been

3 first duly readministered the oath,

4 testified further as follows:

5 -oOo-

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1 SUPERIOR COURT IN THE STATE OF CALIFORNIA

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15 STATE OF CALIFORNIA, DELAINE EASTIN)

16 STATE SUPERINTENDENT OF PUBLIC)

17 INSTRUCTION, STATE DEPARTMENT OF)

18 EDUCATION, STATE BOARD OF)

19 EDUCATION,)

20)

21 Defendant(s).)

22 _____)

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25 San Francisco, California January 29, 2003

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The deposition of MEGAN T. SANDEL, M.D. was taken in the above-entitled matter pursuant to all of the provisions of law pertaining to the taking and use of depositions before Cindy Pickens, CSR, with offices at Glendale, California, commencing at the hour of 9:30 a.m., at the law offices of O'MELVENY & MYERS, LLP, 275 Battery Street, 26th Floor, San Francisco, California.

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2 MR. POULOS: Counsel, I last night spoke to

3 Jack London and David Haron: Mr. London of the

4 Morrison & Foerster firm, and Mr. Haron of the

5 O'Melveny & Myers firm. And it was my best belief

6 last night that Tony was going to probably require

7 most of the day to conclude his questioning, and,

8 therefore, it appeared to me that this deposition

9 would not be able to conclude today.

10 Based on that belief, I spoke with both Mr.

11 London and Mr. Haron and asked if they were willing to

12 stipulate that LAUSD could preserve its objections,

13 but excuse itself from the remainder of today's

14 deposition, and that we would then reschedule a

15 further session at some later date convenient to Dr.

16 Sandel.

17 It was my belief that, although difficult to

18 estimate with any degree of precision, that I would

19 probably require three or four hours, maximum, of

20 questions for this witness. That could well be

21 shorter, based on the resumption of the questions that

22 were asked here today.

23 That was -- that proposal was acceptable to

24 Mr. London and Mr. Haron. Off-record, counsel -- Mr.

25 Eliasberg, Tony, and Gene -- have all expressed a

1 willingness to agree to that, as well.
 2 Is that acceptable to all counsel?
 3 MR. ELIASBERG: Yeah. From our position,
 4 I've spoken with Mr. Poulos and it's acceptable to us.
 5 I would have hoped that we could have finished in two
 6 days. I think, since Dr. Sandel's report has not even
 7 been introduced as an exhibit after a full day, I'm
 8 disappointed that we have not moved more quickly. But
 9 given the current circumstances I've accepted what Mr.
 10 Poulos has put on the record in that agreement.
 11 MR. POULOS: Is that okay with you, Tony?
 12 MR. SEFERIAN: Yeah. I agree to the
 13 stipulation. As far as I'm concerned, the deposition
 14 has proceeded as rapidly and efficiently as it could
 15 have been. Yeah, I agree.
 16 MR. HILL: And I share the comment about the
 17 deposition. We expect our time to run maybe three
 18 hours. Could be less, depending on the questions that
 19 are dealt with today. So another day seems necessary,
 20 and I would agree with the proposals made of other
 21 counsel. I do intend to stay the day, however.
 22 MR. POULOS: Thank you all.
 23 Doctor, it was a pleasure meeting you.
 24 THE WITNESS: Thank you.
 25 (Mr. Poulos leaves the room.)

1 -oOo-
 2 EXAMINATION (Continued)
 3 BY MR. SEFERIAN:
 4 Q. Do you realize you're still under oath?
 5 A. Yes.
 6 Q. Since approximately 5:30 p.m. last evening,
 7 have you reviewed any documents or information
 8 concerning this case or your deposition?
 9 A. No.
 10 Q. Since that same time, have you spoken with
 11 anyone about your deposition or this case until the
 12 deposition started this morning?
 13 A. After the deposition ended, Mr. Eliasberg and
 14 I went back to Morrison & Foerster and spoke briefly,
 15 maybe five or ten minutes.
 16 I also called my husband, spoke with him, and
 17 had dinner with my brother.
 18 Q. Can you tell me what you and Mr. Eliasberg
 19 spoke about after the deposition last night?
 20 A. We spoke about the length of the deposition
 21 and the fact that only one of the lawyers had
 22 questioned me, so that the likelihood of finishing in
 23 two days seemed unlikely.
 24 I think I failed to mention that Mr.
 25 Eliasberg also called me later with the proposal from

1 the lawyer from LAUSD, asking me what I thought of
 2 that proposal. And I thought that it made sense.
 3 That is my recollection of the extent of our
 4 conversations.
 5 Q. During the time after you were hired as an
 6 expert in this case, you had numerous conversations
 7 with Mr. Eliasberg over the course of several months.
 8 Is that right?
 9 A. Yes.
 10 Q. What did you generally discuss with Mr.
 11 Eliasberg on the telephone during those times?
 12 MR. ELIASBERG: Objection. Over broad.
 13 THE WITNESS: I don't think I can recall all
 14 the conversations. The types of things we would talk
 15 about included, sometimes, questions about the expert
 16 report. Since Mr. Eliasberg is not an expert in this
 17 area, sometimes he would ask questions, not
 18 understanding what I was trying to say, and so we
 19 would discuss how to best clarify it to a person who
 20 didn't know the field as well as I do.
 21 We also discussed, obviously, scheduling the
 22 deposition, and then deposition preparation. There
 23 were some materials that I requested that he would
 24 request for me. And then, also, I provided many
 25 copies of some of the materials that I cited in my

1 bibliography.
 2 BY MR. SEFERIAN:
 3 Q. Is it correct that you do not have any notes
 4 or records showing the dates that you spoke with Mr.
 5 Eliasberg?
 6 A. Yes. I no longer have notes of those
 7 conversations.
 8 Q. Do you still have some of the e-mail
 9 communication between yourself and the attorneys for
 10 plaintiffs in this case?
 11 A. I believe I have some of the e-mail
 12 communication. I don't -- I would be fairly sure I
 13 don't have all of it.
 14 Q. Did you attend any meetings in person or by
 15 telephone with any of the other plaintiffs' experts in
 16 this case?
 17 A. No.
 18 Q. Have you spoken to anyone in the media about
 19 this case or your work in this case?
 20 A. I believe that my e-mail was passed along to
 21 a reporter from San Francisco, and the reporter and I
 22 exchanged e-mails, though we never spoke by phone.
 23 And that was the extent of the media contact that I've
 24 had in this case.
 25 Q. When you say your e-mail was passed to a

1 reporter in San Francisco, which e-mail are you
2 referring to?

3 A. I have a work e-mail, which is
4 megan.sandel@bmc.org.

5 Q. What information was exchanged in the e-mail
6 that you sent to the reporter and vice versa?

7 A. I cannot recall the exact contents of the
8 e-mail. My memory is that we exchanged my main
9 conclusions from the expert report, that I believe
10 there to be -- or that substandard conditions in
11 California Public Schools can potentially make
12 children sick with short-term and long-term illnesses.

13 Q. Who was the reporter with whom you exchanged
14 e-mails?

15 A. I don't recall her name. I believe it was a
16 woman.

17 Q. Do you know who the reporter worked for?
18 Which organization?

19 A. My memory is that it was the San Francisco
20 Chronicle, but I'm not positive.

21 Q. Do you know whether any articles were
22 published citing you or quoting you in the San
23 Francisco Chronicle or any other media outlets as a
24 result of the e-mails you exchanged with the reporter?
25 A. Not that I'm aware of.

1 as Exhibit 4, Dr. Sandel?

2 A. It's an e-mail that I received from Mr.
3 Moynihan.

4 Q. From your understanding, who did Mr. Moynihan
5 work for?

6 A. Morrison & Foerster.

7 Q. Exhibit 4 is a printout of an e-mail you
8 received from Mr. Moynihan.

9 Is that correct?

10 A. It's a printout of both the e-mail he sent me
11 as well as a reply that I sent back.

12 Q. Before today, had you seen that e-mail
13 printout in Exhibit 4?

14 A. I had not seen it printed out. I do recall
15 receiving it.

16 Q. Looking at Exhibit 4, does that let you know
17 what e-mail address you received that e-mail from Mr.
18 Moynihan at?

19 A. It shows that the e-mail was mailed to
20 megan.sandel@bmc.org.

21 Q. Has that been your e-mail address from the
22 time you first began working on this case to the
23 present?

24 A. Yes.

25 Q. Does anyone other than yourself have access

1 Q. Do you still have a copy of the e-mails or
2 e-mail that you exchanged with the reporter in San
3 Francisco?

4 A. I may, but I may not. I have about three or
5 four hundred e-mails in my inbox. I'm not very good
6 at cleaning that. So I may, but I'm not sure.

7 Q. Approximately when did the e-mail exchange
8 with the reporter occur?

9 A. I believe it was sometime in the fall, after
10 the final expert report was submitted, but I can't
11 recall an exact date.

12 Q. Have you given any presentations wherein you
13 specifically discussed the work you performed in this
14 case, the Williams versus California case?

15 A. I have not specifically mentioned the case
16 during any presentations, that I can recall. Many of
17 the conclusions that I've reached in the expert report
18 are conclusions that I have presented during some
19 presentations.

20 Q. I'd like to ask you to look at a document
21 which I'll have the court reporter to mark as an
22 exhibit.

23 (Exhibit 4 marked for identification.)

24 BY MR. SEFERIAN:

25 Q. Have you seen the document that's been marked

1 to or use that e-mail address?

2 A. No. Just myself.

3 Q. Is that e-mail address, megan.sandel@bmc.org,
4 an address that you can access outside of the Medical
5 Center?

6 A. There is a web-based platform that has a
7 secure server so that it can only be accessed through
8 a password.

9 Q. But you can access that e-mail -- your e-mail
10 address from outside the Medical Center, correct?

11 A. Yes.

12 Q. And in your work in this case when you would
13 send e-mails to the plaintiffs' attorneys or others,
14 did you always send them from the hospital, or would
15 you send them from home and other locations as well?

16 A. I did send them from other locations besides
17 the hospital, usually from my home office.

18 Q. Would you say almost all of the e-mail
19 correspondence you had in this case with plaintiffs'
20 attorneys was sent from your home, as opposed to from
21 the hospital?

22 A. I think that, generally, I did most of the
23 work of this case from home in off hours, since this
24 wasn't part of my job description. There may have
25 been some e-mails that I sent during the work hours

1 from the hospital.

2 Q. Looking at the e-mail which is marked as
3 Exhibit 4, does that e-mail refresh your recollection
4 at all about the approximate date that you started
5 working on the report in this case?

6 A. Yes. It shows the date of my reply being
7 February 15, 2002.

8 Q. Do you have any estimate of the approximate
9 date that you actually began writing the report in
10 this case?

11 A. I don't recall the exact date I wrote the
12 report, or began writing the report. As I have stated
13 previously, I didn't keep a log of my work hours or
14 dates.

15 Q. In looking at Exhibit 4, does that refresh
16 your recollection as to whether you began drafting
17 your report in this case before or after February 15,
18 2002?

19 A. To the best of my recollection, I do not
20 think that I started the report until I received an
21 example, as is stated in the e-mail in Exhibit 4. My
22 best estimate would be that I began it after February
23 15th.

24 Q. Do you have any recollection about
25 approximately when it was after February 15, 2002,

1 THE WITNESS: My memory of that report sent
2 as an example was that it had something to do with
3 conditions and school learning, but I don't recall the
4 substance beyond that.

5 BY MR. SEFERIAN:

6 Q. What discussions did you have with Mr.
7 Eliasberg about what type of information should be
8 included in the report?

9 A. My memory was that we discussed examples of
10 conditions that children described, and he sent me a
11 box with the depositions and declarations for myself
12 to understand the extent of the conditions. And then
13 I tried best to organize those conditions into
14 categories in the expert report.

15 Q. Did you have any discussion about that type
16 of organization of the report, in terms of putting the
17 conditions in different categories?

18 A. It's difficult for me to recall whether I
19 discussed the organization prior to submitting the
20 first draft or after submitting the first draft. But
21 my memory is that I -- I did mimic the other expert
22 report in terms of having an introduction of
23 qualifications, scope of assignment, summary of
24 opinions, a description of California schools, and
25 then a description of the types of conditions, though

1 that you received the exemplar report?

2 A. I don't recall the exact date. My memory is
3 that it was, approximately, within a week.

4 Q. Did you print out any e-mails pertaining to
5 this case and provide them to plaintiffs' counsel?

6 A. No. Not that I can recall.

7 Q. I'd like to show you another document, which
8 I'll ask the court reporter to mark.

9 (Exhibit 5 marked for identification.)

10 BY MR. SEFERIAN:

11 Q. Do you recognize the document that's been
12 marked as Exhibit 5? I'll give you a chance to look
13 at it.

14 (Witness examines document.)

15 THE WITNESS: It looks to be my expert report
16 submitted in this case.

17 BY MR. SEFERIAN:

18 Q. Did you write the report that's been marked
19 as Exhibit 5?

20 A. Yes.

21 Q. Do you recall what was contained in the
22 example report that you were provided from plaintiffs'
23 counsel before you began drafting your report in this
24 case?

25 MR. ELIASBERG: Asked and answered.

1 I don't recall whether they had all of those same
2 categories, or whether they had more categories and I
3 simply condensed the categories.

4 Q. Do you recall approximately how long it took
5 you from the time you first started working on this
6 case until the time that you had completed the first
7 draft of your expert report in this case?

8 A. My memory is that I submitted a first
9 draft -- around March 1st is my memory. Though I
10 can't recall exactly when I began writing the report,
11 my best guess would be approximately one to two weeks
12 in that first draft.

13 Q. I believe you testified yesterday that your
14 recollection was that you may have prepared a total of
15 eight or nine drafts of the report in this case.

16 Is that correct?

17 A. Yes.

18 Q. Can you give any -- any sense of how much
19 time you spent in preparing the first draft and the
20 subsequent drafts?

21 MR. ELIASBERG: Asked and answered.

22 THE WITNESS: My best recollection would be
23 that I spent 10 to 15 hours on the first draft, and
24 approximately five hours per subsequent draft. And I
25 would estimate that time spent as being about half of

1 it reviewing documents and sources and half of it
2 writing.

3 BY MR. SEFERIAN:

4 Q. What was the date that you finished the
5 report in this case or had it finalized in your mind?

6 A. I'm not sure I recall the exact date. My
7 memory is that it was sometime over the summer.

8 Q. How would you describe the subsequent drafts
9 of the report that you prepared in this case? Were
10 any of the subsequent drafts complete rewritings of
11 the first draft, or were they more-or-less just
12 revisions of certain portions of the report?

13 Can you describe that in some way?

14 MR. ELIASBERG: Objection. Vague and
15 ambiguous and compound.

16 THE WITNESS: My memory of the draft process
17 was that most of the major revisions were done in the
18 first one to two drafts.

19 After the second or third draft, my memory is
20 that most of the changes were either word
21 substitution, placing two paragraphs that were making
22 essentially the same point together, or reorganizing
23 paragraphs to give some examples of the -- what I
24 would consider more minor revisions that went on in
25 later drafts.

1 A. Generally I would e-mail it to Mr. Eliasberg.
2 I may have on some of them cc'd Mr. Moynihan.

3 BY MR. SEFERIAN:

4 Q. Did anyone else ever to your knowledge seek
5 drafts of your reports -- withdraw that.

6 To your knowledge, did anyone else see a
7 draft of your report before it was finalized, other
8 than the plaintiffs' attorneys in this case?

9 A. Not that I'm aware of.

10 Q. To your knowledge, when you would send a
11 draft of your report as an e-mail attachment to the
12 plaintiffs' attorneys, would the format you sent the
13 report in allow the plaintiffs' attorneys to access
14 your report by going into the document?

15 MR. ELIASBERG: Calls for speculation.

16 THE WITNESS: I would attach the document as
17 a Word document to the e-mail.

18 I never heard that they had trouble opening
19 the document, but I wasn't there when they opened it.

20 BY MR. SEFERIAN:

21 Q. But as far as you were aware when you sent
22 the report as an e-mail attachment, the plaintiffs'
23 attorneys would be able to go into your document -- go
24 into the report, using the software program that you
25 were using.

1 BY MR. SEFERIAN:

2 Q. Would it be accurate to say then that you
3 spent more time working on the first or second
4 subsequent drafts than you did later drafts?

5 MR. ELIASBERG: Objection. Vague.

6 THE WITNESS: In giving an estimate of time,
7 I gave an average per draft. I think that it probably
8 would be fair to say that, though averaged over time
9 per draft, I may have spent more time on earlier
10 drafts than later drafts.

11 BY MR. SEFERIAN:

12 Q. Did you prepare the drafts of your expert
13 report in this case on software programs in your
14 computer at home?

15 A. Yes. On a word processing program at home.

16 Q. Which word processing program did you use?

17 A. Word.

18 Q. Each time you prepared a draft in this case
19 or a revision of your report, would you provide it to
20 plaintiffs' counsel?

21 A. Yes. I would generally e-mail as an
22 attachment the latest revision of the report.

23 Q. As you were preparing drafts of your report
24 in this case, who would you e-mail the report as an
25 attachment to?

1 Is that right?

2 MR. ELIASBERG: Objection. Asked and
3 answered.

4 THE WITNESS: Though I was not there, I am --
5 it may be safe to say they were able to access the
6 documents.

7 BY MR. SEFERIAN:

8 Q. At any time did any of the plaintiffs'
9 attorneys make any revisions or additions or any
10 changes to any of the drafts of the reports that you
11 prepared in this case?

12 A. I believe the last draft, Mr. Eliasberg and I
13 discussed revisions over the phone. And since they
14 were extremely minor, such as replacing a word or
15 moving a word for simplicity, I asked him to do the
16 changes for me, since I was outside of my home.

17 That's the only instance that I can recall.

18 Q. So with regard to the last draft of your
19 report, Mr. Eliasberg made some very minor changes to
20 the report and then sent an e-mail back to you and
21 attached the final version of the report.

22 Is that correct?

23 A. I believe that is right. They were changes
24 that Mr. Eliasberg and I had discussed, in that they
25 were changes that I agreed with. But that's -- that's

1 my best recollection.

2 Q. Do you recall what changes you discussed with
3 Mr. Eliasberg regarding that last draft?

4 A. I'm not sure that I can recall specifics of
5 that -- of that draft. To give examples of the types
6 of word changes would be changing "ventilation,
7 heating, and air-conditioning systems" to "HVAC
8 systems," for example.

9 Q. Other than the last draft of your report,
10 were there any other occasions where the plaintiffs'
11 attorneys actually went into your draft report -- into
12 the Word document and made changes and sent those
13 changes via e-mail back to you?

14 A. I can -- I can only recall one instance where
15 changes that Mr. Eliasberg and I discussed and I
16 agreed to were made to the document. There may have
17 been more than one, but I really only recall one time.
18 But a majority of the report's drafts were made by
19 myself and sent to Mr. Eliasberg and other plaintiffs'
20 attorneys.

21 Q. When you say a majority of the drafts, can
22 you be any more specific than that?

23 A. I recall eight or nine drafts. So my
24 estimate would probably be seven or eight out of those
25 eight or nine drafts were revised by myself and sent

1 drafts via e-mail and phone.

2 BY MR. SEFERIAN:

3 Q. Other than the times that plaintiffs'
4 attorneys may have made revisions to a draft of your
5 report, do you recall receiving any e-mails from
6 plaintiffs' attorneys where they attached a copy -- a
7 draft of your report to the e-mail?

8 MR. ELIASBERG: Vague and ambiguous. And
9 compound.

10 THE WITNESS: Aside from the instances that I
11 have previously mentioned, I don't recall the
12 plaintiffs sending me a draft of my own report.

13 BY MR. SEFERIAN:

14 Q. In that last answer when you said, "instances
15 that I have previously mentioned," what were you
16 referring to?

17 A. I was referring to the examples I gave of the
18 last one to two drafts of the report, where Mr.
19 Eliasberg and I discussed changes over the phone. And
20 since they were deemed very minor, Mr. Eliasberg
21 offered to make the changes to the document since I
22 was away from my home. And I agreed to those changes
23 being made.

24 Q. Before you began preparing the report in this
25 case, were you ever told what the purpose of the

1 to Mr. Eliasberg.

2 Q. And the remaining one to two drafts may have
3 been revised by Mr. Eliasberg and sent to you.

4 Is that correct?

5 MR. ELIASBERG: Asked and answered.

6 THE WITNESS: After Mr. Eliasberg and I
7 discussed the changes and agreed to them, Mr.
8 Eliasberg would send me a copy for my records.

9 BY MR. SEFERIAN:

10 Q. Did you ever exchange drafts -- I'll withdraw
11 that question.

12 Did you ever exchange draft reports with the
13 plaintiffs's attorneys in this case by any other means
14 than sending e-mails with attachments with -- of the
15 document? By that, I mean: Did you ever mail copies
16 of a draft?

17 Did you ever discuss the drafts in person or
18 was it all done by e-mail?

19 MR. ELIASBERG: Objection. Compound.

20 THE WITNESS: My memory is that I only
21 exchanged drafts via e-mail. As I stated previously,
22 I did mail copies of documents from -- that I cited as
23 sources in the report. I don't recall including a
24 draft of the report in that box. And Mr. Eliasberg
25 and other plaintiffs' attorneys and I discussed these

1 report was?

2 MR. ELIASBERG: Asked and answered.

3 THE WITNESS: My understanding of the scope
4 of the report was that if these substandard conditions
5 existed in California schools, that I was to describe
6 the extent to which they could affect children's
7 health.

8 BY MR. SEFERIAN:

9 Q. Were you ever told that the report that you
10 prepared in this case would be published?

11 A. What do you mean by "published"?

12 Q. Were you ever told that the report you
13 prepared in this case would be submitted for --
14 submitted for publication to any publisher or medical
15 journal, magazine, or those types of publications?

16 A. I did not have an expectation that this would
17 be published in a magazine or a journal or in the
18 medical literature. It was solely prepared for this
19 case.

20 Q. Were you told that your report would be
21 placed on the internet?

22 A. I don't recall ever discussing with Mr.
23 Eliasberg or other plaintiffs' attorneys how this
24 report would be available to the public.

25 Q. Did you ever prepare any other reports for

1 this case, other than the one that's been marked as
2 Exhibit 5?

3 MR. ELIASBERG: Asked and answered.

4 THE WITNESS: No. This is the only report
5 that I have generated for this case.

6 BY MR. SEFERIAN:

7 Q. As you sit here today, do you recall any
8 specific, substantive changes or revisions to your
9 report that were ever discussed between you and
10 plaintiffs' counsel while the report was being
11 finalized over those several months?

12 A. I can recall examples of some of the changes
13 that were made in the report.

14 One example would be describing both the
15 direct and indirect effects of these substandard
16 conditions on health, and how best to organize that
17 within the report.

18 Some of the more important points, such as
19 cockroach allergen and its effect on children's
20 health, was at one point in the middle of a paragraph
21 and it made sense to create it into its own paragraph.

22 Those are two examples I can think of as --
23 of changes that were made after discussing to -- to
24 plaintiffs' counsel.

25 Q. Did you consult or rely upon any studies that

1 Q. When you first started working on this case,
2 did you ask plaintiffs' attorneys to send you an
3 outline or example of a technical report?

4 MR. ELIASBERG: Objection. Asked and
5 answered. This is really beginning to consist of
6 badgering the witness. This question has been asked
7 numerous times. There's an e-mail in which that
8 request was made. This is simply an inefficient and
9 wasteful way to use deposition time.

10 THE WITNESS: Yes, I did request an example
11 of a technical report.

12 BY MR. SEFERIAN:

13 Q. I believe yesterday you testified that you
14 were initially told that you would need to submit a
15 first draft of the report by March 1st.

16 Is that correct?

17 A. To the best of my recollection, yes.

18 Q. At some point, were you told by plaintiffs'
19 attorneys that you no longer had to submit a draft of
20 the report by March 1st?

21 A. My memory was that I did submit a draft of
22 the report on March 1st. My memory was that the
23 actual report needed to be submitted March 15th, and
24 that was why I needed to submit a first draft by March
25 1st, so that if revisions needed to be done I would

1 are not cited in your report in forming your opinions
2 in this case?

3 A. No, not that I can recall.

4 Q. Would you agree that the report you prepared
5 in this case is not an exhaustive review of the
6 medical literature pertaining to the relationship
7 between public school-facility conditions and
8 childhood illnesses?

9 MR. ELIASBERG: Objection. Vague.

10 THE WITNESS: In defining "an exhaustive
11 review," I would say that this report cites many good
12 studies to support its conclusions.

13 It is difficult to quote every study that --
14 that supports this view, but it is my opinion that the
15 sources cited are more than adequate to support the
16 conclusions of the case.

17 BY MR. SEFERIAN:

18 Q. Would you say that the report you prepared in
19 this case is a thorough review of the medical
20 literature pertaining to the relationship between
21 public school-facility conditions and childhood
22 illnesses?

23 A. In my opinion, yes. It is a thorough review
24 of the literature supporting indoor environment
25 conditions in children's health.

1 have time to do those. I don't recall when I was told
2 that the March 15th date was no longer applicable.
3 But I was told at some point that there was more time
4 available for subsequent drafts.

5 Q. Would you agree that most of the evidence
6 cited in your report comes from housing?

7 MR. ELIASBERG: Objection. Vague.

8 THE WITNESS: My estimate would be that a
9 percentage of the -- the citations are from housing
10 and a portion is also from schools.

11 BY MR. SEFERIAN:

12 Q. Would it be accurate to say that in some
13 instances in preparing your report you did not have
14 time to find corresponding references for school
15 environments?

16 A. In my initial preparation of the report, when
17 I believed my timeline to be only a few weeks, I used
18 sources nearly available to me from previous writings.
19 Since I had much more time to prepare subsequent
20 drafts, I did find other sources for these same
21 unsanitary conditions to be found in schools.

22 Q. What did you mean in your answer when you
23 said, "previous writings"?

24 A. Previous academic-journal articles.

25 Q. Were any portions of your report in this case

1 taken from documents or publications that you had
2 drafted previously, before you began working on this
3 case?

4 MR. ELIASBERG: Objection. Vague.

5 THE WITNESS: Many of the articles cited in
6 the bibliography I have cited in other articles. I
7 don't recall actually taking language from previous
8 articles to put into this report.

9 BY MR. SEFERIAN:

10 Q. Does your report in this case, Exhibit 5,
11 contain all of the opinions that you have formed in
12 this case?

13 MR. ELIASBERG: Objection. Asked and
14 answered.

15 THE WITNESS: This is the only work that I
16 have done for this case. It represents my conclusions
17 in this case.

18 BY MR. SEFERIAN:

19 Q. Does your report contain all the factors
20 supporting the opinions you have formed in this case?

21 MR. ELIASBERG: Objection. Vague and
22 ambiguous.

23 THE WITNESS: This report outlines many of
24 the substandard conditions that allegedly are in
25 California Public Schools, and I have described the

1 Instruction?

2 A. I believe myself to be an expert in how
3 substandard conditions can affect children's health.
4 I don't believe it was in the scope of my expert case
5 to provide any additional opinions.

6 Q. Would it be correct to say that it was not in
7 the scope of your assignment in this case to offer
8 opinions about or criticisms of any state-level
9 government in California or government entities?

10 MR. ELIASBERG: Asked and answered. The
11 witness has very clearly delineated multiple times
12 what was in the scope of her report and what was the
13 scope of her assignment. And this is just badgering
14 and a huge waste of time.

15 THE WITNESS: I did not believe it to be
16 within the scope of my report to provide those
17 opinions.

18 MR. SEFERIAN: I'd like to ask you to review
19 Exhibit 5, page 2, paragraph 7 and paragraph 8.

20 (Witness examines document.)

21 BY MR. SEFERIAN:

22 Q. Are there any assumptions you were asked to
23 make in this case, other than what's contained in
24 paragraph 8 of your expert report?

25 A. The only one that I don't feel like is

1 potential health effects of children being exposed to
2 those substandard conditions.

3 BY MR. SEFERIAN:

4 Q. As you sit here today, are there any factors
5 or facts supporting the opinions in your report that
6 you did not include in your report?

7 MR. ELIASBERG: Objection. Vague and
8 ambiguous. Asked and answered.

9 BY MR. SEFERIAN:

10 Q. What I'm trying to find out is -- it's my job
11 to find out if all the opinions and the facts
12 supporting those opinions are contained in your
13 report, or not.

14 MR. ELIASBERG: Same objections.

15 THE WITNESS: Though I believe this report to
16 be a thorough report and review of the health effects
17 from these substandard conditions in California Public
18 Schools, in the extensive medical literature there may
19 be additional citations to support these conclusions.
20 I feel confident that the citations that I included in
21 my report are more than adequate to support my
22 conclusions.

23 BY MR. SEFERIAN:

24 Q. Do you have any opinions about or criticisms
25 of the California Superintendent of Public

1 explicitly stated, but that I believe I discussed
2 later in the report, is unsanitary conditions from
3 overflow in bathrooms.

4 But as best as I can recall, those are the
5 assumptions of the conditions that I would discuss the
6 health consequences of.

7 Q. And paragraphs 7 and 8 of your expert report
8 contain the entire scope of your assignment in this
9 case, correct?

10 A. Yes. I believe the scope of my assignment
11 would be to discuss the -- the effects of physical
12 conditions on the health of students.

13 Q. In paragraph 8 of your report, what is your
14 definition of "excessive heat," as that term is used
15 in that paragraph?

16 A. My definition of "excessive heat" would be
17 temperatures above 75 degrees Fahrenheit.

18 Q. Was that definition of "excessive heat"
19 something that you discussed at all with plaintiffs'
20 counsel, to your recollection?

21 A. I don't recall discussing the definition in
22 preparation of the report itself. While preparing for
23 the deposition, while the role-play and being asked
24 questions, that was a question that plaintiffs'
25 counsel asked me.

1 Q. What is the basis of your definition of
2 "excessive heat" -- in excess of 75 degrees?

3 MR. ELIASBERG: This is set forth in
4 paragraph 44 of your report. The game of having a
5 memory test about her report is really just another
6 example of an excessive waste of time.

7 MR. SEFERIAN: Counsel, she's free to look at
8 her report in answering these questions, and the
9 report is in front of her. And your comments are only
10 serving to delay the deposition.

11 THE WITNESS: The definition that I use is
12 from one of the books cited in my bibliography by Jack
13 Spangler, called, The Indoor Air Quality Handbook.

14 BY MR. SEFERIAN:

15 Q. In reaching your opinions in this case, did
16 you assume that the excessive heat referred to in your
17 report was present for a certain length of time, a
18 certain amount of time per day, or a certain number of
19 days or months per year?

20 A. No, I did not make assumptions as to length
21 of exposure.

22 Q. In reaching your opinions in this case, did
23 you make any assumptions about length of exposure of
24 any of the conditions that are mentioned in paragraph
25 8 of your expert report?

1 A. No. I did not make any assumptions as to
2 length of exposure.

3 Q. What was the reason that in reaching your
4 opinions in this case you did not make any assumptions
5 about the length of exposure of the conditions
6 mentioned in paragraph 8 of your report?

7 A. For different children there are different
8 thresholds of what they could be exposed to in order
9 to show ill health effects. It would be difficult to
10 generalize those times of exposure, so that for some
11 kids very short times of exposure may still make them
12 ill.

13 Q. Would different lengths of exposure of the
14 conditions mentioned in paragraph 8 of your report
15 affect in any way the conclusions you reached in your
16 report?

17 MR. ELIASBERG: Objection. Vague.

18 THE WITNESS: Though length of exposure may
19 impact the full number of children who are made ill,
20 in my opinion, many of the ill effects described could
21 be experienced with even short exposures. And those
22 effects were described within the report itself.

23 BY MR. SEFERIAN:

24 Q. What is your definition of "inadequate
25 air-conditioning, heating, and ventilation systems,"

1 as that's used in paragraph 8 of your report?

2 A. My definition of "inadequate
3 air-conditioning" would mean that temperatures would
4 reach the 75-degree, 76-degree level that I mentioned
5 previously.

6 "Inadequate levels of heating" would mean
7 temperatures being below what is considered an
8 acceptable temperature range of 67 degrees.

9 And "ventilation systems," generally, should
10 have air flows defined per person. Occupancy within
11 the room are, generally -- approximately, I believe,
12 15 cubic feet per minute, as an approximate air-flow
13 rate.

14 MR. ELIASBERG: We've been going an hour and
15 a half, so let's take a short break.

16 MR. SEFERIAN: Okay.

17 (Recess.)

18 BY MR. SEFERIAN:

19 Q. In preparing your report in this case, did
20 you have a specific definition of "mold and other
21 biologic hazards," as that's used in paragraph 8 of
22 your report?

23 A. The definition that I had in mind was visible
24 mold or mold odor as being the main biologic hazards.

25 Q. What other biologic hazards, if any, were

1 part of your definition in paragraph 8 of your report?

2 A. I was including, also, infectious diseases
3 such as viruses, for example, as another biologic
4 hazard.

5 Q. Did you discuss with plaintiffs' counsel the
6 definition of "mold and other biologic hazards" that
7 you would assume in this case?

8 A. We did not, to the best of my recollection,
9 discuss mold or biologic hazards and its definition --
10 or my definition during the preparation of the
11 document itself. But, as stated previously, during my
12 preparation for the deposition, we did discuss it as
13 the lawyers were in role preparing me for the
14 deposition.

15 Q. Did you make any assumptions, in preparing
16 your opinions in this case, about any other infectious
17 diseases besides viruses, in terms of the definition
18 of mold and other biologic hazards in paragraph 8 of
19 your report?

20 A. There are other infectious diseases such as
21 bacteria that can also be spread by overcrowding.

22 Q. In forming your opinions in this case, did
23 you make any assumptions about different species of
24 mold in terms of the definition of -- in paragraph 8
25 of your report?

1 MR. ELIASBERG: Objection. Vague.

2 THE WITNESS: I made assumptions about the
3 existence of mold if there was visible mold or mold
4 odor. As stated previously, speciation of different
5 molds is dependent on multiple factors, and so I did
6 not feel that it needed to be described more at length
7 in this expert report.

8 BY MR. SEFERIAN:

9 Q. Why is that?

10 A. Since different regions within the State of
11 California and different climates within the State of
12 California may have different predominance of
13 different species of mold, or, for example, different
14 schools may have more water intrusion problems that
15 may cause different species of mold to prosper or be
16 made of different materials that would encourage mold
17 growth, I did not think that it was necessary to
18 attempt to describe every variation of mold or other
19 hazards.

20 In my opinion, if mold is present in a school
21 setting -- "present" being defined as a visible mold
22 or mold odor -- then it has the potential to make some
23 children sick.

24 Q. Do different species of mold have different
25 rates of growth?

1 seeing evidence of pests, including feces, urine,
2 hair, or other evidence of presence such as chewing of
3 different parts of an indoor environment.

4 Q. In forming the opinions in this case, did you
5 make any assumptions about the different types of
6 "pests," as that term is used in paragraph 8 of your
7 report?

8 A. I described "pests," including cockroaches
9 and mice. I also described rodents, which I would
10 include both mice and rats. There is one other
11 allergen that some consider a pest and others may not,
12 which is a dust mite.

13 Q. When you use the term, "infestation," in
14 paragraph 8 in forming your opinions in this case, did
15 you make any assumption about the extent of the pest
16 presence at a school?

17 A. My assumption would be that if you saw any
18 evidence, as I described previously, of pests, that
19 would be considered an infestation.

20 Q. In forming your opinions in this case, what
21 is your definition of "lead and other toxic hazards,"
22 as used in paragraph 8 of your report?

23 A. My definition of "lead and other hazards"
24 would include exposure to lead through lead paint and
25 lead dust, either from paint or from soil.

1 A. Yes.

2 Q. Do different species of mold have a different
3 severity of harmful effects on children?

4 A. As I described previously, mold can affect
5 health through many different mechanisms. Some are
6 allergic; some are infectious; some can be toxigenic,
7 producing toxins; and some can be irritative -- as
8 examples of mechanisms.

9 In each of those four mechanisms I've
10 described, there's a range from mild to severe
11 depending on the child.

12 Q. And do those mechanisms also have a range
13 that varies among the different species of mold?

14 MR. ELIASBERG: Objection. Vague.
15 Ambiguous.

16 THE WITNESS: Some species of mold are more
17 likely to produce toxins, for example. But, in my
18 opinion, mold can act through all those mechanisms,
19 even if they are more likely to act through one
20 mechanism.

21 BY MR. SEFERIAN:

22 Q. What is the definition of "pest infestation,"
23 as used in paragraph 8 of your report?

24 A. My definition of "pest infestation" includes
25 either seeing pests in the indoor environment or

1 I also described other toxic hazards
2 including carbon monoxide; toxic chemicals such as
3 formaldehyde, benzene, or toluene, which are volatile
4 organic compounds; and I believe I also talk about
5 asbestos -- yes, as examples of a toxic compound or
6 toxic hazards.

7 Q. In making your assumptions and reaching your
8 opinions in this case, were you using any examples of
9 toxic hazards other than those that are cited
10 somewhere in your report?

11 A. Those were the toxic hazards that I felt
12 should be represented for what the potential health
13 effects of exposure to these toxic hazards would be.

14 I would not consider it an exhaustive list,
15 but I think that it covers many potential toxic
16 hazards in California Public Schools.

17 Q. As you sit here today, can you recall any
18 other toxic hazards that you saw evidence of in
19 California Public Schools that you did not cite
20 somewhere in your report?

21 A. For example, there are other volatile organic
22 compounds, beyond the ones listed, that can be exposed
23 from off-gassing of certain construction materials,
24 such as portable classrooms or other commonly-used
25 materials that may have ill effects. I included a

1 few, but that's one example of other toxic hazards
2 that may potentially be present that I did not
3 describe further.

4 Q. Were you provided any evidence about these
5 other volatile organic compounds that -- that those
6 compounds had been found to exist in California Public
7 Schools?

8 A. I read some of the reports cited in my expert
9 report, including the Environmental Working Group, and
10 I believe, also, the Daisy and Angel report, that do
11 cite some of these toxic hazards. Again, I -- I chose
12 to focus in on just a few to give a sense on the
13 potential for these hazards.

14 Q. Other than what you mention in your
15 deposition and what's contained in your report, can
16 you think of any other "toxic hazards" that are a part
17 of your opinions in this case, as that term is used in
18 paragraph 8 of your report?

19 A. Aside from what I have mentioned previously
20 about other volatile organic compounds, I'm not aware
21 of other toxic hazards that I've been provided
22 evidence for.

23 Q. As used in paragraph 8 of your report in
24 forming the opinions in this case, what was your
25 definition of "overcrowding"?

1 to "legal definition of 'stated capacity.'"

2 THE WITNESS: I'm not aware of the legal
3 definition of "stated capacity."

4 My understanding is that different building
5 structures have recommended capacities associated with
6 them, and that my definition of "overcrowding" would
7 be that those recommended levels would be exceeded.

8 BY MR. SEFERIAN:

9 Q. When you use the term, "school structure," in
10 paragraph 8 of your report, were you referring to --
11 what were you referring to?

12 A. Examples of what I'd be referring to would
13 include the overall school building itself. So, the
14 total number of students within a school complex. And
15 also, at times, were given rooms within the school
16 itself.

17 Q. In forming your opinions in this case, did
18 you make any assumptions about whether there would be
19 different health effects on students from overcrowding
20 on a school-wide basis, versus overcrowding in a
21 particular classroom?

22 A. I think that the effects from overcrowding on
23 a school-wide basis may reflect more on facilities
24 such as bathrooms being able to be maintained in a
25 sanitary way; whereas, individual rooms may -- when

1 A. As is stated in paragraph 8 of my expert
2 report, each school structure will have a stated
3 capacity. And my definition of "overcrowding" would
4 be that that stated capacity would have been exceeded.

5 Q. When you use the term, "stated capacity," in
6 paragraph 8 of your report, where does that term come
7 from, or how can one find the "stated capacity," as
8 you define it there?

9 MR. ELIASBERG: Objection. Lacks foundation.
10 Calls for speculation. Compound.

11 THE WITNESS: My understanding is that school
12 structures, when they are designed, are designed to
13 meet certain numbers of children that -- and that the
14 building structure is designed, for those number of
15 children, to provide safety and adequate facilities.

16 It is my understanding that, at times, those
17 original estimates of capacity can be exceeded and,
18 therefore, overburden a school structure, providing
19 overcrowding conditions.

20 BY MR. SEFERIAN:

21 Q. Would it be accurate to say that when you use
22 the term, "stated capacity of a school structure," in
23 paragraph 8 of your report, you're referring to the --
24 the legal definition of "stated capacity"?

25 MR. ELIASBERG: Objection. Vague. Vague as

1 having too many students in that given room will
2 increase the rate of spread of infections, as examples
3 of types of connections that I would make between
4 overcrowding and their -- and potential ill health
5 effects.

6 Q. If a school were accommodating more students
7 than its stated capacity by converting to a staggered
8 schedule so that it was servicing students at
9 different times, would that school be overcrowded
10 under your definition?

11 MR. ELIASBERG: Objection. Vague. Vague
12 with respect to "staggered schedule."

13 THE WITNESS: My definition of overcrowding
14 would be that it would be relevant only to the number
15 of students in a given school facility at a given
16 time; that the maintenance of the facility and how
17 that affects the school facility and its -- and how
18 much it is used may be indirect effects of
19 overcrowding; but that most of my definition for
20 overcrowding is directly related to number of students
21 in a given school at a given time.

22 BY MR. SEFERIAN:

23 Q. On page 3 of your report in paragraph 9-A in
24 performing your work in this case, what definition of
25 "chronic illnesses" were you using?

1 A. Examples of chronic illnesses could include
2 asthma, or in some examples that I believe I state
3 later in the paragraph, the potential for children to
4 be diagnosed with cancer.

5 Q. On page 3 in paragraph 9-A of your report,
6 what definition were you using of "allergens"?

7 A. I was referring to many of the allergens
8 listed later in the report on the section 3, part B,
9 Allergens, where I discuss allergens from pests such
10 as cockroaches, mice, and rats -- as well as dust
11 mites, as examples of allergens.

12 Q. Are there any other examples of "acute
13 illness," as that term is used in paragraph 9-A of
14 your report, that form the basis of your opinion,
15 other than the acute illnesses mentioned in that
16 paragraph?

17 A. There are other examples, including other
18 biologic hazards such as viruses or bacteria, that can
19 be spread from overcrowded conditions that can result
20 in children becoming ill, for example.

21 Q. Are those the same viruses or bacteria that
22 are part of your definition of "infectious diseases"?

23 A. Yes.

24 Q. In paragraph nine A of your report, when you
25 say "extremes in temperature," would that be

1 setting or at times may be -- spend time in multiple
2 home settings in large extended families.

3 BY MR. SEFERIAN:

4 Q. As far as you recall, do any of the studies
5 you looked at for this case attempt to segregate the
6 effects of students' exposure to mold, allergens, or
7 toxins at school from the effects of exposure at their
8 home or other indoor environments?

9 MR. ELIASBERG: Objection. Asked and
10 answered.

11 THE WITNESS: The studies in the report that
12 I cite -- many of them will compare the conditions to
13 home and to school and found them to be similar. And
14 then there were other studies that looked at the
15 health effects of those conditions.

16 BY MR. SEFERIAN:

17 Q. In paragraph 9-B of your report where you use
18 the term, "multiple indoor hazards," in forming your
19 opinions in this case, did you make any assumptions
20 about what the cumulative effect of those multiple
21 indoor hazards would be on students' health?

22 A. When describing how a given condition could
23 manifest itself in multiple indoor hazards, I was
24 trying to both demonstrate that a single condition
25 could make any child sick in multiple ways but could

1 temperatures below 67 degrees or above 75 degrees?

2 MR. ELIASBERG: Asked and answered.

3 THE WITNESS: Yes. They would include
4 temperatures below 67 degrees and above 75 to 76
5 degrees.

6 BY MR. SEFERIAN:

7 Q. Would you agree that more children are
8 exposed to mold, allergens, and toxins in their home
9 as opposed to their schools?

10 MR. ELIASBERG: Objection. Incomplete
11 hypothetical.

12 THE WITNESS: In my opinion, it depends on
13 the conditions within the home or the condition within
14 the school, to decide which environment that children
15 were being exposed to substandard conditions.

16 BY MR. SEFERIAN:

17 Q. Would you agree that children, on average,
18 spend more time at their home than at school?

19 MR. ELIASBERG: Objection. Vague and lacks
20 foundation.

21 THE WITNESS: In my experience as a
22 pediatrician, children can spend consistent time at
23 school on a regular basis, sometimes up to 12 hours a
24 day if a child participates in an after-school
25 program. Children may spend equal time in a home

1 also affect multiple children through each of the --
2 the indoor hazards that resulted.

3 Q. Is there any way to quantify the effect of a
4 single indoor hazard on children's health versus
5 multiple indoor hazards?

6 MR. ELIASBERG: Objection. Vague and
7 ambiguous.

8 THE WITNESS: As I said previously, it is
9 difficult to provide estimates of numbers of children.

10 I think that any given condition can manifest
11 itself in multiple ways. The example given is: very
12 moist or humid conditions that can directly result in
13 mold growth, but could also be a source of water for
14 pests; could also cause lead paint to deteriorate;
15 could also cause dust-mite proliferation, is another
16 example that's not listed there that could be a
17 potential indoor hazard from excess moisture. So that
18 to make an estimate of -- of potential, cumulative
19 effect, you would have to estimate the number of
20 children made sick from each of those hazards, taking
21 into account the fact that some children may be -- a
22 single child may be affected multiple ways.

23 BY MR. SEFERIAN:

24 Q. Referring to paragraph 9-A of your report on
25 page 3 in the last sentence, what asthma symptoms were

1 you referring to in that sentence?

2 A. The asthma symptoms that I was referring to
3 can include cough, wheeze, poor sleep, since many of
4 the allergic reactions triggered take hours to resolve
5 and include, in severe cases, shortness of breath and
6 limitation of activity.

7 Q. Do urban areas have a higher burden of asthma
8 compared with less-populace areas?

9 A. There's some research to suggest that urban
10 areas have higher rates of asthma, though other
11 studies will show some concentrations of asthma in
12 rural areas as well.

13 Q. Do you have any opinion about which areas
14 seem to have the higher burden of asthma?

15 A. I believe that asthma does have high
16 concentrations in some urban areas, and it has been a
17 focus of study of mine to understand and try and treat
18 those concentrations of urban asthma.

19 As I stated in my previous answer, I do
20 believe there to be other pockets of other rates of
21 asthma in rural populations; but I do most of my
22 research in urban areas.

23 Q. Would you agree that many studies have found
24 multiple allergens in homes and multiple sensitivities
25 among inner-city residents with asthma?

1 A. Yes, I think that there have been studies
2 documenting allergen sensitivity and allergen exposure
3 in inner-city homes.

4 Q. Would you agree that because many inner-city
5 homes have pets or a history of pets, many children
6 with asthma are exposed to pet allergens continuously?

7 MR. ELIASBERG: Objection. Assumes facts.
8 Incomplete hypothetical.

9 THE WITNESS: While some children are exposed
10 to pets in their home, I think it would be a difficult
11 assumption to assume that they're exposed
12 continuously, considering that they are not always in
13 their home setting.

14 BY MR. SEFERIAN:

15 Q. Page 3 of paragraph 9-B of your report in the
16 next to the last sentence, what was your definition of
17 "high humidity"?

18 A. High humidity can be somewhat relative to
19 time of year, given temperature. I would consider
20 normal humidity to generally have a range of 20 to 60
21 percent. But I must add that, in some cold-winter
22 settings, a humidity of 30 percent at times may be
23 excessive and cause water condensation.

24 Q. What did you mean when you said that "High
25 humidity can be somewhat relative to time of year,

1 given temperature"?

2 A. In many regions in the United States, winter
3 tends to have colder temperatures than summer. I was
4 making that point to, again, underline that lower
5 temperatures may have excessive humidity at lower
6 percentages than warmer temperatures.

7 Q. For any given time period, then, is there a
8 way to state what you would define as "high humidity,"
9 as used in paragraph 9-B of your report?

10 MR. ELIASBERG: Objection. Vague.

11 THE WITNESS: Could you read the question
12 back to me?

13 MR. SEFERIAN: I'll restate it.

14 THE WITNESS: Okay.

15 BY MR. SEFERIAN:

16 Q. If there is -- I'll withdraw that.

17 Given what you've said, that the high
18 humidity can be relative to the time of year, how
19 would one determine what would be considered high
20 humidity at any given time, as that term is used in
21 paragraph 9-B of your report?

22 MR. ELIASBERG: Objection. Vague.

23 THE WITNESS: High humidity would be relative
24 to the amount of water present in the environment and
25 the temperature. It's generally felt that excessive

1 humidity results in water condensation. So that if
2 water condensation was present or if human comfort was
3 compromised because of a feeling of moisture in the
4 air, that has generally been well correlated with
5 humidity above normal levels, as well as having a
6 threshold of 60 percent, generally, is considered to
7 be excessive no matter the temperature.

8 BY MR. SEFERIAN:

9 Q. In your last answer when you mentioned
10 "humidity above normal levels," is that also the level
11 at which the high humidity can directly result in mold
12 growth, as you state at paragraph 9-B of your report?

13 A. As I stated previously, any humidity above 60
14 percent, regardless of temperature, can result in mold
15 growth. In some temperatures that are lower, mold
16 growth can be encouraged at lower humidity levels
17 because of the water in air vapor condensing.

18 Q. For any given environment, indoor
19 environment, how would one determine that growth of
20 mold could be encouraged at a humidity level below 60
21 percent?

22 A. If water condensation is present or at times
23 if human comfort is -- is compromised because of
24 what's perceived as excess moisture.

25 Q. Is it true that there are also outdoor

1 exposures that may aggravate a person's asthma?
 2 A. Yes. There are -- are some hazards that are
 3 found in the outdoor environment that can exacerbate
 4 asthma.

5 Q. Is it true that psychologic stress may
 6 increase a child's risk for developing asthma and
 7 allergy?

8 A. Yes. There is some data to support
 9 psychologic stress may exacerbate asthma in children.

10 Q. Is it also true that psychologic stress may
 11 increase a child's risk for developing asthma in the
 12 first place?

13 A. There are some newer studies coming out that
 14 are making a link between psychologic stress in the
 15 child and in the mother prenatally and the potential
 16 for asthma development.

17 Q. Are there also genetic factors that cause
 18 asthma?

19 MR. ELIASBERG: Objection. Vague.

20 THE WITNESS: There are thought to be genetic
 21 factors that predispose children to develop asthma.

22 BY MR. SEFERIAN:

23 Q. Do you agree with that thought?

24 MR. ELIASBERG: Objection. Vague --
 25 Withdraw it.

1 has spent considerably more time, as she mentioned
 2 yesterday, than she had originally planned.

3 So we had talked with her about we're more
 4 than willing to pay her, basically, on an hourly rate,
 5 taking into account the fact that we've already paid
 6 her \$2,000.

7 So I didn't want there to be any confusion
 8 about what she eventually gets paid versus what she
 9 said about her understanding about it at the time.

10 And she can tell you -- answer any questions
 11 further. I don't want there to be any inconsistency
 12 between what she says eventually at trial, if that
 13 question comes up about what she was paid versus what
 14 she might have said at the deposition.

15 We did think that it was appropriate to pay
 16 her more because we felt that her time -- she had
 17 spent much more time than she originally had thought
 18 and that we had originally thought that she would
 19 spend on this case.

20 MR. SEFERIAN: Is that hourly rate from this
 21 point forward, or retroactively also?

22 MR. ELIASBERG: We have not literally signed
 23 any written contract. My understanding was that the
 24 idea would be to try to take into account, basically,
 25 all the time she spends to travel and the time on her

1 THE WITNESS: Yes, I believe that for some
 2 children they have a predisposition to develop asthma.
 3 BY MR. SEFERIAN:

4 Q. Do you have any opinion about what percentage
 5 of children have that predisposition to develop asthma
 6 in the United States?

7 A. The studies that I've seen have very wide
 8 ranging percentages. I've seen some that estimate 30
 9 percent of kids and some that estimate as high as 80
 10 percent of kids.

11 I think that it's important to note that
 12 though genetics may load the gun, to use an analogy,
 13 the environment pulls the trigger, so that genes may
 14 predispose someone to developing asthma, for example,
 15 but that it is generally thought that environmental
 16 exposures are what actually bring that disease to a
 17 head.

18 MR. SEFERIAN: Why don't we go off the
 19 record.

20 (Noon recess.)

21 MR. ELIASBERG: Primarily today Dr. Sandel
 22 and I talked about, given the amount of time she
 23 spent, although she was -- you know, accurately set
 24 forth what I understood to be our original agreement
 25 about payment. We also talked about the fact that she

1 preparation. And that we would be looking at paying
 2 her in the range of, you know, so far, including let's
 3 say today, in the range of 50 hours. And if then
 4 there's another day that we would pay her for her time
 5 for that, too.

6 So it would be basically retroactively. I
 7 can't say that every hour is going to be in that
 8 computation, but we are going to try to adjust for the
 9 fact that she has done substantially more than she had
 10 originally thought.

11 MR. SEFERIAN: At the same hourly rate that
 12 we discussed?

13 MR. ELIASBERG: Yeah. The same rate.

14 MR. SEFERIAN: Thank you.

15 Q. Doctor, in paragraph 10 of page 3 of your
 16 report, what did you mean by "clear relationship"?

17 MR. ELIASBERG: Sorry. Which paragraph?

18 BY MR. SEFERIAN:

19 Q. Paragraph 10.

20 A. I meant that I felt that there was
 21 substantial evidence to support that relationship
 22 between student health and various conditions of the
 23 indoor environment.

24 Q. What did you mean, in the last sentence of
 25 paragraph 10 of your report, when you stated that, in

1 part, the amount of evidence may vary from condition
2 to condition?

3 A. Some conditions in the indoor environment
4 have been more extensively studied than others; and,
5 therefore, the amount of evidence available would
6 vary.

7 Q. Which conditions in the indoor environment
8 have been more extensively studied than others?

9 A. In my opinion, cockroach allergen is a more
10 newly discovered indoor environmental hazard. And
11 though the amount of evidence for that may not be as
12 extensive as mold or dust mites, the quality of that
13 evidence is very good.

14 Q. Other than the evidence regarding
15 cockroaches, are there any other conditions that you
16 would say the amount of evidence varies regarding?

17 MR. ELIASBERG: Objection. Ambiguous.

18 MR. SEFERIAN: Let me withdraw that.

19 Q. Are there any other conditions that you were
20 thinking of or referring to in paragraph 10 of your
21 report, besides cockroaches, when you said, in part,
22 that the amount of evidence may vary from condition to
23 condition?

24 A. I'm not sure that I had any specific
25 condition in mind. I was more evaluating the -- among

1 report?

2 A. In my opinion, substandard conditions are
3 conditions that are not considered to be either
4 standard -- within code -- or sanitary. Examples of
5 substandard conditions include pest infestation, mold
6 growth, for example.

7 Q. What did you mean in paragraph 10 of your
8 report when you used the term, "many children"?

9 A. In my opinion, the substandard conditions in
10 school environment can lead to poor health and school
11 absences in a number of children, not just any single
12 child.

13 Q. Referring to paragraph 11 of your expert
14 report, what evidence or citations support the
15 statements in that paragraph?

16 A. It is well accepted that children spend 90
17 percent of their time indoors, and that a majority of
18 that time is spent in school or day-care or home
19 environments.

20 In my opinion, since those statements are
21 generally accepted, they don't require specific
22 citation.

23 And in examining where children spend most of
24 their time, many people believe that the indoor
25 environment is the most important in children's

1 the number of conditions that I was documenting in the
2 report, the variety of evidence available.

3 Q. Is there any condition -- facility condition
4 mentioned in your report for which you believe there
5 is insufficient evidence to demonstrate a clear
6 relationship between student health and various
7 conditions of the indoor environment?

8 MR. ELIASBERG: Can you read that question
9 back, please?

10 THE COURT REPORTER: "QUESTION: Is there any
11 facility condition mentioned in your report for which
12 you believe there is insufficient evidence to
13 demonstrate a clear relationship between student
14 health and various conditions of the indoor
15 environment?"

16 MR. ELIASBERG: That's vague and extremely
17 ambiguous.

18 THE WITNESS: In my opinion, the conditions
19 cited in my report have sufficient evidence, as cited
20 in my bibliography, to support their connection
21 between children's health and these conditions being
22 found in the indoor environment.

23 BY MR. SEFERIAN:

24 Q. What did you mean when you used the term,
25 "substandard conditions," in paragraph 10 of your

1 health.

2 Q. When you said "many people," in your answer,
3 who were you referring to?

4 A. Other researchers, public health officials,
5 organizations.

6 Q. In the second sentence of paragraph 11 of
7 your report when you use the phrase, "that time," were
8 you referring to the 90 percent mentioned in the first
9 sentence?

10 A. Yes.

11 Q. In preparing your report in this case, did
12 you make any assumptions about what portion of
13 children's time spent indoors is spent in a school,
14 day-care, and the home?

15 A. The assumption that I made was that those
16 three environments -- the school, the day-care, and
17 home -- were where children spent the majority of the
18 90 percent of their time indoors. I did not
19 necessarily make assumptions as to the proportion of
20 spent time, since that can vary from child to child.

21 Q. In the research community, is there any
22 well-accepted assumption about the portion of time
23 that children spend in school, day-care, and home
24 environments?

25 A. I believe that most children probably spend a

1 full school day, with obvious exceptions of
2 kindergartners or vocational students, for example.

3 Given that a full school day can depend on
4 certain schools' definitions, I would think that a --
5 an estimate could be eight hours a day, with obvious
6 variations in different school districts.

7 Q. Do you have any estimate of how many hours
8 per day, on average, children spend in the home
9 environment?

10 A. I think this can also vary from child to
11 child. At minimum, if most children sleep in a home
12 environment and get eight hours of sleep, it could
13 equal, at minimum, eight hours. In some situations it
14 may be more or may be less.

15 Q. Is the amount of time that children spend
16 indoors related to the likelihood or severity of
17 illness?

18 MR. ELIASBERG: Objection. Incomplete and
19 improper hypothetical.

20 THE WITNESS: If children spend time in an
21 indoor environment that has a condition that can
22 potentially make them sick, it doesn't matter whether
23 that indoor environment is from the school or a
24 day-care or the home.

25 BY MR. SEFERIAN:

1 of your report?

2 A. School and home environments are similar.
3 But just like homes can vary and be different, school
4 conditions can vary and be different. An example
5 would be that a school may have a central ventilation
6 system that a home may not, and that -- if I could add
7 to what I consider to be the definition of "adequate
8 ventilation," it may not be cleaned on a regular basis
9 so that dust would be brought throughout the
10 ventilation system.

11 Homes and schools can have ventilation
12 problems and how those problems manifest themselves
13 may be different.

14 Q. Is the reason that the problems may be
15 different because -- withdraw that.

16 What is the reason that the problems may be
17 different?

18 MR. ELIASBERG: Objection. It calls for
19 speculation.

20 THE WITNESS: There are examples where they
21 can be different or they can be the same.

22 An example where they can be the same is that
23 if you have water intrusion you can have the potential
24 for mold growth.

25 The ways they can be different may be in --

1 Q. Is the amount of time that a child spends in
2 an indoor environment that could make them sick
3 related to the likelihood that the child would become
4 sick?

5 MR. ELIASBERG: Objection. Incomplete
6 hypothetical.

7 THE WITNESS: It depends on the condition and
8 on the child. An example would be a child who is
9 allergic to a specific allergen, such as cockroach
10 allergen. That child may become sick in a relatively
11 short exposure time, and so it is difficult to
12 generalize that the time is relevant to all
13 conditions.

14 BY MR. SEFERIAN:

15 Q. Is it relevant to some conditions?

16 A. It is relevant to some conditions in the
17 sense that longer exposure can sometimes mean more
18 cumulative exposure that can result in adverse health
19 conditions.

20 Q. In paragraph 12 of your report, you state,
21 "School and home environments are similar and
22 generally manifest the same problems."

23 Are there any ways in which the school and
24 home environments do not manifest the same problems,
25 in the sense that you used that term in paragraph 12

1 the structure of the school environment may be
2 different; and, therefore, it may cause a school to
3 develop a condition that wouldn't happen similarly in
4 the home, given that structure and the conditions
5 present.

6 I think that, regardless of why those
7 conditions manifest themselves, the effect of those
8 conditions, I still maintain, are the same in the home
9 and the school environment.

10 BY MR. SEFERIAN:

11 Q. Was there anything about the structure of the
12 school environment, generally, that would make those
13 conditions more likely to occur than the home
14 environment?

15 MR. ELIASBERG: When you say, "those
16 conditions," are you talking about all the things she
17 lists in her report?

18 MR. SEFERIAN: Yes.

19 MR. ELIASBERG: Okay.

20 THE WITNESS: Again, it depends on the school
21 and on the home.

22 An example would be schools may use portable
23 classrooms that may have problems with off-gassing of
24 volatile organic compounds.

25 A regular home, one built of wood or brick,

1 may not have that same problem. But a mobile home
2 would have that same problem, so that, generally, they
3 may manifest the same problems.

4 But because there are different types of
5 homes in different types of schools, it's difficult to
6 say that they always manifest the same problems.

7 BY MR. SEFERIAN:

8 Q. Is one of the ways that school and home
9 indoor environments, with respect to children's
10 health, might be different that in the school
11 environment each student is exposed to health problems
12 that other students have?

13 A. Can you give me an example of a health
14 problem?

15 Q. For example, a virus or a bacteria.

16 MR. ELIASBERG: It's an incomplete
17 hypothetical.

18 THE WITNESS: There are some exposures that
19 are contagious, such as a virus or a bacteria. But,
20 as stated previously in this report, the spread of
21 that virus or bacteria is increased by overcrowding
22 conditions. So that most of the conditions that
23 children may have are generally not as contagious as a
24 virus or a bacteria and, therefore, may not affect
25 other children as directly.

1 report. I recall discussing pest allergens such as
2 cockroach or rodent allergens.

3 Q. Do you believe it's possible for one student
4 in a public school to transmit pest allergen to
5 another student?

6 A. My understanding of pest allergen is that it
7 does not carry as well as other, as I previously
8 described, "stickier" allergens that domestic pets
9 have.

10 It is difficult to state with absolute
11 certainty that that could not occur, but it is my
12 opinion that it is a very low probability.

13 Q. But it's still possible, correct?

14 A. In my opinion, it is much more probable for a
15 child to become sick because they're exposed in their
16 indoor environment directly. But it is possible to be
17 exposed to an allergen that is brought from the home,
18 though, again, domestic pet allergen would be much
19 more likely than the pest allergen that I describe in
20 this report.

21 Q. So that domestic pet allergens are more what
22 you would describe as a "sticky" allergen than pest
23 allergens.

24 Is that correct?

25 MR. ELIASBERG: Asked and answered.

1 BY MR. SEFERIAN:

2 Q. Do public school students transmit allergens
3 to other students?

4 A. There are some allergens that are felt to be
5 "stickier," or more likely to travel with -- with
6 students. They tend to be more associated with
7 domestic pets than with some of the pest allergens
8 that I've described in this report, such as cockroach
9 or rodent allergens, for example.

10 Q. Can students transmit pest allergens
11 associated with domestic pets to other students in
12 their class or their school?

13 A. There can be pet allergens that are on a
14 child's clothing or that could potentially make a
15 child sick.

16 The exposure would have to be of a certain
17 amount of allergen to reach a threshold to cause an
18 allergic attack. And in my mind the likelihood of a
19 transferred allergen causing an attack is less likely
20 than a direct allergen exposure within an indoor
21 environment to reach that level of threshold.

22 Q. Are there any studies cited in your report
23 that discuss that opinion that you just gave in your
24 last answer?

25 A. I don't recall discussing pet allergens in my

1 THE WITNESS: Yes.

2 BY MR. SEFERIAN:

3 Q. Are there any allergens that you discuss in
4 your report that you would describe as "sticky
5 allergens," as you've used that term in this
6 deposition?

7 MR. ELIASBERG: Objection. Misstates her
8 prior testimony.

9 THE WITNESS: The allergens that I would
10 describe as "sticky" are domestic pet allergens such
11 as cat and dog. I would not describe the allergens
12 listed in my report, such as cockroach or rodent, as
13 being "sticky" to the same extent that I believe
14 domestic pet allergens are "sticky."

15 BY MR. SEFERIAN:

16 Q. In the last sentence of paragraph 12, you
17 state, in part, that the same conditions that are
18 unhealthy in homes are also unhealthy in schools and
19 vice versa.

20 Is it your opinion that, for any given
21 condition mentioned in your report, if that condition
22 exists in the same amount for the same duration that
23 it would be equally unhealthy for the student in his
24 or her home as it would in his or her school?

25 MR. ELIASBERG: Objection. Compound.

1 THE WITNESS: If, given the assumptions that
2 in the same child -- if they were exposed in equal
3 amounts over an equal period of time, that they may
4 react in the same way to those environments, given
5 this very difficult and improbable hypothetical, I
6 would say that I would -- I would assume they would
7 react in the same way.

8 BY MR. SEFERIAN:

9 Q. Do children generally have the same types of
10 interaction with their indoor school environment as
11 they do with their indoor home environment?

12 MR. ELIASBERG: Objection. Vague,
13 incomplete.

14 THE WITNESS: I think it depends on the
15 child, what their school environment is, and what
16 their home environment is. A child who spends most of
17 their time in one classroom may experience that
18 environment differently than a child who spends
19 different portions of time in different rooms in a
20 given house.

21 I think that it's difficult to answer that
22 question because of the differences in schools, how
23 much time kids spend in certain spaces within that
24 school, and differences in home and behavior of
25 spending time at homes.

1 BY MR. SEFERIAN:

2 Q. Do you agree that inadequate ventilation is
3 considered to be an indicator but not a causal agent
4 for health symptoms in public schools?

5 MR. ELIASBERG: Could you read that back,
6 please?

7 THE COURT REPORTER: "QUESTION: Do you agree
8 that inadequate ventilation is considered to be an
9 indicator but not a causal agent for health symptoms
10 in public schools?"

11 THE WITNESS: It's my opinion that inadequate
12 ventilation -- which in previous description I had
13 described as via a number of cubic feet per minute per
14 person -- can also include, as I said in later
15 answers, dust formed in ventilation systems when not
16 properly maintained or when filters are not changed on
17 a regular basis filtering out allergens or other -- or
18 other inorganic dust.

19 Though I don't consider myself to be an
20 expert on building science of ventilation systems --
21 engineering, there can be many problems in ventilation
22 that can result in directly causing ill health in
23 children. Many of the ways that I list inadequate
24 ventilation in this study point to also indirect ways
25 that inadequate ventilation can result in ill health

1 BY MR. SEFERIAN:

2 Q. When you started -- withdraw that.

3 When you cited studies for literature in your
4 expert report in support of statements in your report,
5 was it your general practice to cite the most recent
6 study that pertained to the point you were making?

7 A. I tried to cite the most relevant research to
8 the point that I was making. And I tried to include,
9 in general, the most up-to-date research that I could
10 find.

11 Q. What did you mean when you said, "the most
12 relevant research"?

13 A. There are certain studies that, although are
14 older, and given other studies, are excellent studies
15 that support a given point; therefore, I would rank my
16 sources both on the relevance of their -- their
17 subject matter as well as their timeliness.

18 Q. In deciding which studies to include in your
19 report, did you give any more preference to whether a
20 study was relevant or whether a study was timely?

21 MR. ELIASBERG: Objection. Vague.

22 THE WITNESS: I think I included both in
23 weighing whether to include a source in my citations.
24 It's difficult for me to state whether I gave one more
25 weight than another.

1 in substandard conditions.

2 BY MR. SEFERIAN:

3 Q. In paragraph 13 of your report you state, in
4 part, that California schools have been found to have
5 allergens from dust mites, animals, and insect
6 allergens.

7 Would you agree that dust mites are more
8 common in homes than in schools?

9 A. In my opinion, it depends on what is in the
10 school environment and what's in the home environment.

11 An example would be if a school is carpeted
12 and a home is not. In my opinion, it would be more
13 likely to find dust-mite allergen in a school setting,
14 for example.

15 Q. In your experience, have you found it more
16 likely that a child's home environment or school
17 environment would have carpeting?

18 MR. ELIASBERG: Objection. Foundation.
19 Calls for speculation.

20 THE WITNESS: In my experience as a
21 pediatrician, I think that carpeting can be found in
22 school settings and in home settings.

23 BY MR. SEFERIAN:

24 Q. Are there any other places that dust mites
25 live besides carpeting?

1 A. Yes.

2 Q. Where are those places?

3 A. Drapes, upholstered furniture and mattresses
4 and pillows, to name examples.

5 Q. Would you agree with the statement that in
6 most studies on indoor air quality, ventilation, and
7 indoor air quality and building-related health
8 problems in schools, neither the building
9 ventilation-system problems nor specific pollutants
10 have been clearly and unambiguously demonstrated to be
11 causally related to the symptoms?

12 MR. ELIASBERG: Could you read that back,
13 please?

14 THE COURT REPORTER: "QUESTION: Would you
15 agree with the statement that in most studies on
16 indoor air quality, ventilation, and indoor air
17 quality and building-related health problems in
18 schools, neither the building ventilation-system
19 problems nor specific pollutants have been clearly and
20 unambiguously demonstrated to be causally related to
21 the symptoms?"

22 THE WITNESS: In my opinion, when doing
23 studies of indoor air quality -- building ventilation
24 in indoor environments, being able to associate those
25 conditions with ill health require some association in

1 mentioned previously that could further prove that
2 there would be a causal relationship. I gave examples
3 of some of the criteria for proving causality. There
4 are some other criteria. But, in my opinion, studies
5 have shown evidence to make that case for certain
6 conditions.

7 BY MR. SEFERIAN:

8 Q. Would you say that most studies have made
9 that case that have considered that issue?

10 MR. ELIASBERG: Vague as to "most studies."

11 THE WITNESS: In my opinion, it is
12 inappropriate to judge any single study on its ability
13 to prove causality. Causality is generally proven
14 with more of a body of literature, in that there may
15 be more seminal studies that advance that body of
16 literature over others.

17 MR. ELIASBERG: It's been about an hour. I'm
18 going to try to keep the break short so we can move
19 this, but I think an hour's about the limit. So we'll
20 take about five minutes.

21 MR. SEFERIAN: Okay.

22 (Recess.)

23 BY MR. SEFERIAN:

24 Q. Dr. Sandel, in paragraph 15 of your report --
25 your expert report, you use the term, "unsatisfactory

1 certain areas to be considered causal.

2 Some of these criteria are used in public
3 health, first developed by Hill and Barlow to examine
4 the causal relationship between tobacco smoke and lung
5 cancer. When looking at indoor air conditions or
6 environmental indoor conditions and their ability to
7 be proven to cause problems, such criteria such as
8 temporality, dose response, biologic plausibility, for
9 example, all must be considered when determining
10 whether there is a cause determined.

11 In my opinion, some of the indoor environment
12 conditions have met that standard of proof.

13 BY MR. SEFERIAN:

14 Q. Would you agree that most public studies --
15 I'll withdraw that question.

16 Would you agree that in most of the published
17 studies on indoor air quality, ventilation, and indoor
18 air quality and building-related health problems in
19 schools, neither the building and ventilation system
20 problems nor specific pollutants have been clearly and
21 unambiguously demonstrated to be causally related to
22 the symptoms?

23 MR. ELIASBERG: Asked and answered.

24 THE WITNESS: In my opinion, many of the
25 studies conducted have shown some of the criteria I

1 environmental factor."

2 Do you recall whether the term,
3 "unsatisfactory environmental factor," is a term that
4 was used in the citations for that statement, or
5 whether that was a term that you used yourself, or
6 both?

7 A. I'm not sure. My memory is that it may have
8 come directly from the GAO reports. I do, in the
9 previous paragraph 14, define what the GAO defined as
10 adequate -- or inadequate, I should say. I don't know
11 if I substituted "unsatisfactory" for "inadequate," or
12 whether that is directly from the GAO language.

13 Q. Would you agree that the GAO reports cited in
14 paragraph 15 of your report do not link unsatisfactory
15 environmental factors to specific numbers of students
16 becoming ill?

17 A. My understanding of those reports were that
18 they were estimating prevalence of conditions in
19 school facilities throughout the United States,
20 including California.

21 I do not recall the reports estimating
22 numbers of children who would be sick as a result.

23 Q. In paragraph 16 of your report when you use
24 the word "substandard," what was your definition of
25 "substandard," in that context?

1 A. It related to the present conditions defined
2 in that sentence such as water leaks, mold growth,
3 pest infestation, temperature extremes, lack of
4 ventilation, and unsanitary bathroom conditions.
5 Q. Do you agree that housing conditions are the
6 most frequent cause of childhood lead poisoning?
7 A. Most lead exposure is from indoor paint
8 exposure; and indoor lead paint can be found both in
9 the home and in the school.
10 Q. I'd like you to -- ask you to look at a
11 document which I'll ask the court reporter to mark as
12 the next exhibit.
13 And I'm not asking you to read the whole
14 document. I'm just asking you to look at it and see
15 if you recognize what that document is.
16 (Exhibit 6 marked for identification.)
17 THE WITNESS: It looks to be the Not Safe At
18 Home report.
19 BY MR. SEFERIAN:
20 Q. As far as you can tell, is Exhibit 6 a true
21 and correct copy of the Not Safe At Home report?
22 A. In briefly reviewing it, it does look to be a
23 true copy.
24 Q. Were you one of the authors of Exhibit 6, the
25 Not Safe At Home report?

1 A. Yes.
2 Q. If I could ask you to turn to the page that's
3 marked four --
4 MR. ELIASBERG: Do you have copies of that?
5 MR. SEFERIAN: Sorry. You want me to make a
6 copy of it?
7 MR. ELIASBERG: No. It would be nice if I
8 could have it, but I don't really want to delay the
9 deposition for that. I can look over her shoulder.
10 BY MR. SEFERIAN:
11 Q. I'd like to ask you to turn to page -- the
12 page that's marked 438 on the bottom.
13 On the page that's marked 438, which I guess
14 is page 12 of Exhibit 6, does the report make the
15 statement that housing conditions are the most
16 frequent cause of childhood lead poisoning?
17 A. Yes, underneath the Housing Lead Connection
18 subtitle.
19 Q. Do you agree with the statement in Exhibit 6,
20 the Not Safe At Home report, that housing conditions
21 are the most frequent cause of childhood lead
22 poisoning?
23 A. Yes. As stated previously, lead paint --
24 from mostly indoor lead paint, though some outdoor
25 lead paint can cause childhood exposure.

1 I think that it is more common for children
2 to be exposed in their home, but it is not the only
3 indoor environment where lead paint is present and
4 where children can potentially be exposed.
5 Q. In paragraph 18 of your report in the second
6 sentence where you mention new schools, were you
7 attempting to make any type of comparison between the
8 health effects of new schools versus older schools?
9 MR. ELIASBERG: The report speaks for itself.
10 You can go ahead and answer.
11 THE WITNESS: In my mind, I was trying to
12 make the point that both new schools and old schools
13 can have substandard conditions that could potentially
14 impact children's health.
15 BY MR. SEFERIAN:
16 Q. In paragraph 19 of your report, what is the
17 authority for the first sentence of that report? Let
18 me withdraw that question.
19 Paragraph 19 of your report: What is the
20 authority for the first sentence of paragraph 19?
21 A. I believe that it is the same citation as the
22 following sentence, the Environmental Working Group
23 report.
24 Q. Referring to paragraph 20 of your expert
25 report, what is the authority for the first sentence

1 of paragraph 20?
2 A. In my opinion, it would be generally accepted
3 that mold is a common biologic hazard and that that
4 did not require a specific citation.
5 Q. In your opinion, is mold a microbiological
6 pollutant?
7 A. In my opinion, mold is found generally in the
8 environment in microscopic quantities that do not make
9 people sick. But, given certain conditions, mold can
10 grow so that it is visible to the naked eye or is able
11 to be smelled; and, therefore, would be -- or would
12 pose a risk to children.
13 Q. Is it your opinion that mold is more commonly
14 found in the environment in microscopic quantities, or
15 in conditions such that it is visible to the naked eye
16 or is able to be smelled?
17 MR. ELIASBERG: Objection. Speculation.
18 THE WITNESS: In my opinion, it depends on
19 the given environment whether that is -- it is more
20 common to have it in visible quantities or microscopic
21 quantities.
22 BY MR. SEFERIAN:
23 Q. In paragraph 20 of your report, you state, in
24 part, that lack of an adequate ventilation system can
25 result in increased humidity and moisture in schools.

1 Is it true that low humidity can also
2 compromise health?
3 A. Yes, in -- low humidity can result in drying
4 of mucosal areas in the nose or lungs that can
5 predispose children to become sick.
6 Q. What is the authority, in paragraph 22 of
7 your report, for the second sentence of that
8 paragraph?
9 A. You mean the sentence, "Leaking roofs, poorly
10 sealed windows, and inadequately drained basements
11 provide multiple water sources in schools to encourage
12 mold growth"?
13 Q. Yes.
14 A. In my opinion, the previous statement
15 discussed water intrusion. I have previously stated,
16 in the previous section on California schools,
17 examples of water intrusion such as leaking roofs,
18 poorly sealed windows or basements, so that these are
19 more -- iteration of those as sources of water
20 intrusion and, therefore, preconditions to mold growth
21 in schools.
22 Q. Referring to paragraph 25 of your report,
23 what is the authority for the sentences after the
24 first sentence of paragraph 25?
25 A. Those statements are part of my general

1 experience as a pediatrician and a researcher.
2 BY MR. SEFERIAN:
3 Q. What is the authority for the second and
4 third sentences of paragraph 30 of your report?
5 A. You mean the sentence that begins, "When
6 children are exposed to an allergen in early life?"
7 Q. Yes.
8 A. These statements are similar to statements
9 described in paragraph 25 and 26. I would again say
10 that they're from my experience as a pediatrician and
11 a researcher.
12 Q. What is the authority for the first sentence
13 in paragraph 35 of your report?
14 A. I believe, as mentioned in paragraph 19
15 describing exposure to chemicals in portable
16 classrooms, I would repeat the citation from the
17 Environmental Working Group report.
18 Q. What is the authority for the second sentence
19 in paragraph 35 of your report?
20 A. I would say that the authority from that is
21 also from the Environmental Working Group report.
22 I've also -- in further reviewing some of the
23 resources cited in my bibliography, I found similar
24 statements in the Spangler book on indoor air quality.
25 Q. What is the authority for the last sentence

1 understanding as a pediatrician. The source would
2 include the previous citation of the Rudolf textbook
3 of pediatrics.
4 The last statement, of people who have asthma
5 describe it as trying to breathe through a coffee
6 stirrer, is from my personal experience as a
7 pediatrician.
8 Q. What is the authority for the statements
9 contained in paragraph 26 of your report?
10 A. Similarly, these statements are from my
11 experience being a pediatrician; and some from my
12 experience as a researcher.
13 Q. In paragraph 27, what is the authority for
14 the statement that without these conditions pest
15 infestation is entirely preventable?
16 A. That statement can be both derived from the
17 previous citation of the chapter by Howard, and also
18 from my experience as a pediatrician and a researcher.
19 Q. What is the authority for the last two
20 statements in paragraph 27 of your report?
21 MR. ELIASBERG: You mean, specifically, the
22 last two sentences?
23 MR. SEFERIAN: Yes.
24 THE WITNESS: The last two sentences of
25 paragraph 27 of my report are, again, from my

1 in paragraph 35 of your report?
2 A. That is my professional opinion as a
3 pediatrician and a researcher.
4 Q. In performing the work in this case, did you
5 review any studies that demonstrated a link between
6 using portable classrooms and children being diagnosed
7 with cancer?
8 MR. ELIASBERG: Objection. Vague.
9 THE WITNESS: Since that study that you
10 mentioned would require a large longitudinal sample
11 followed over time, I'm not aware of a specific study
12 that has done that specific correlation.
13 Other studies that I've cited in this report,
14 including the Environmental Working Group, have
15 estimated increased likelihood of, potentially,
16 children being diagnosed with cancer in later life.
17 It is with that evidence that I wrote the
18 sentence, "In my opinion, as a result of using
19 portable classrooms to alleviate overcrowding, some
20 California children could be diagnosed with cancer in
21 the future."
22 BY MR. SEFERIAN:
23 Q. When you made the statement, in paragraph 35
24 of your report, that "some California children could
25 be diagnosed with cancer," did you make any

1 assumptions regarding how long children were using
 2 portable classrooms?
 3 A. The assumption I made was the one from
 4 paragraph 19, where the Environmental Working Group
 5 estimated that over 2,000,000 children in California
 6 have at least one class per day in a portable
 7 classroom.
 8 Q. In paragraph 37 of your report, what is the
 9 authority for the third and fourth sentences in that
 10 paragraph?
 11 A. The -- the sentence beginning, "Therefore
 12 many children"?
 13 Q. Yes.
 14 A. Those two sentences are both from my
 15 experience as a pediatrician, as well as from my
 16 experience as a researcher.
 17 Q. What is the authority for the statement in
 18 paragraph 37 of your report that if lead was removed
 19 in a way that does not control dust, then lead
 20 particles can travel and potentially poison children?
 21 A. In understanding proper lead remediation as
 22 a -- as a researcher, an expert in this field, it is
 23 well accepted that lead-dust control during the
 24 remediation process is essential.
 25 Q. Have you diagnosed patients of yours as

1 of lead exposure?
 2 A. A process called a "lead determination" is
 3 done, where samples of dust are taken and sent to a
 4 laboratory to analyze the content for lead.
 5 Q. What is the authority for the first sentence
 6 of paragraph 1 of your report?
 7 A. Based on the age of many school buildings --
 8 as previously cited in paragraph 16, that over half of
 9 California schools are over 30 years old, from the Ed
 10 Source document -- it would be safe to assume that
 11 some of those schools may contain asbestos, which was
 12 a common insulation at that time.
 13 Q. I'd like to show you a document which I'll
 14 ask the reporter to mark as the next exhibit.
 15 (Exhibit 7 marked for identification.)
 16 BY MR. SEFERIAN:
 17 Q. Do you recognize that document?
 18 A. Yes.
 19 MR. HILL: What exhibit number is this?
 20 THE WITNESS: Seven.
 21 BY MR. SEFERIAN:
 22 Q. What is Exhibit 7?
 23 A. It is a copy of e-mail communication between
 24 myself and Dr. Bruce Lanphear.
 25 Q. Did you have any other e-mail communications

1 having become lead poisoned by sitting or playing near
 2 windows and doors that shed lead-paint particles into
 3 household dust?
 4 A. I have had children in my practice that have
 5 been poisoned as a result of, in my estimation, being
 6 exposed to lead dust in their home setting.
 7 Some examples of how lead dust enters the
 8 home setting is through window sills or deteriorated
 9 paint.
 10 Q. In those cases where you have determined that
 11 your patients have been poisoned as a result of being
 12 exposed to lead dust in the home setting, how did you
 13 make the determination of the source of the poisoning?
 14 MR. ELIASBERG: Objection. Assumes facts.
 15 THE WITNESS: When children are poisoned,
 16 generally there are many ways to address that problem.
 17 First, we try to lower the lead level, given
 18 its toxic effects. Second, we will do home
 19 inspections of children who have high lead levels.
 20 And at times we will find children who -- the home
 21 setting they're in currently is not the source of
 22 their lead exposure.
 23 BY MR. SEFERIAN:
 24 Q. In those cases, how do you make the
 25 determination that the home setting is not the source

1 with Dr. Lanphear pertaining to this case, other than
 2 Exhibit 7?
 3 A. No. This is the only e-mail communication I
 4 have with Dr. Lanphear regarding this case.
 5 Q. In addition to the e-mail communication, did
 6 you have any telephone or in-person conversations with
 7 Dr. Lanphear about this case?
 8 A. No. This is the only communication I had
 9 with Dr. Lanphear about this case.
 10 Q. At the -- near the bottom of the first page
 11 of Exhibit 7 where it says, "As you predicted, JAPA
 12 did not accept the article": What does that refer to?
 13 A. In my C.V., one of the
 14 manuscripts-in-progress was listed as Residential
 15 Hazards and Effects on Child Health, I believe. I may
 16 not have the exact title correct.
 17 We had been invited to submit that article to
 18 the Journal of the Ambulatory Pediatric Association,
 19 or JAPA. Unfortunately, the article became mammoth
 20 because the subject matter was so extensive. I had
 21 written the article with K.J. Phelan, P-H-E-L-A-N --
 22 Phelan and Dr. Lanphear, but we were unable to
 23 complete it enough for JAPA to feel like they would
 24 publish it.
 25 Q. Is that the article listed on your C.V. as

1 Residential Hazards and Child Health?
 2 A. Yes.
 3 Q. Has the article, Residential Houses and Child
 4 Health, since been published?
 5 A. No.
 6 Q. Do you have any intention to have that
 7 article, Residential Hazards and Child Health,
 8 published?
 9 A. My hope is: when I find the time to revise
 10 it again and submit it for publication to another
 11 journal.
 12 Q. I'd like to show you another document and ask
 13 you to look at that document.
 14 (Exhibit 8 marked for identification.)
 15 MR. SEFERIAN: I'll ask the court reporter to
 16 mark it as the next exhibit.
 17 Q. Do you recognize that document that's marked
 18 as Exhibit 8?
 19 A. I do.
 20 Q. What is that document, Exhibit 8?
 21 A. This was an article where I was one of a
 22 group of authors that I believe was published in an
 23 energy journal or a -- as part of an energy
 24 conference. I do not recall the exact name or nature
 25 of the journal or conference beyond that.

1 Q. Did you draft a portion of that document
 2 which is marked Exhibit 8?
 3 A. Yes.
 4 Q. Do you recall which portion of Exhibit 8 you
 5 drafted?
 6 A. The Health Ramifications portion.
 7 MR. SEFERIAN: Why don't we go off the
 8 record.
 9 (Discussion held off the record.)
 10 (Exhibit 9 marked for identification.)
 11 BY MR. SEFERIAN:
 12 Q. Dr. Sandel, have you had an opportunity to
 13 look at the documents that are in Exhibit Number 9?
 14 A. Yes.
 15 Q. Do you recognize the documents in Exhibit 9?
 16 A. Yes.
 17 Q. Can you tell me what the documents are in
 18 Exhibit 9?
 19 A. They are e-mail communications between
 20 myself, Mr. Eliasberg, and Mr. Moynihan.
 21 Q. Are the documents in Exhibit 9 true and
 22 correct copies of printouts of e-mail communication
 23 between yourself and the plaintiffs' attorneys in this
 24 case?
 25 A. They do appear to be true printouts of the

1 communication between myself and plaintiffs'
 2 attorneys.
 3 In reviewing the documents, it appears that
 4 in counting the drafts that I sent, I did not find a
 5 Sandel Technical Report 4.
 6 To the best of my recollection, there was --
 7 at one point I did do some work on these technical
 8 reports at my work office. It is possible that I had
 9 an internal draft that I did not end up sharing with
 10 the plaintiff's attorneys, since it's generally my
 11 practice to e-mail documents from home to work, and to
 12 maintain separate drafts of those in case of computer
 13 viruses and things like that.
 14 MR. ELIASBERG: And just to add, if I could,
 15 Tony, we -- I called when -- I believe that this is
 16 complete -- and I called over to Morrison & Foerster
 17 and asked them to go back through. They've kept
 18 copies. And they said, you know, nothing -- they
 19 don't see any evidence that anything slipped through
 20 the crack, that an e-mail got put in the wrong folder
 21 or that --
 22 They think this is complete. They don't have
 23 any evidence that there is an e-mail with a Sandel 4
 24 attached that was sent from Dr. Sandel to either me or
 25 Mr. Moynihan.

1 BY MR. SEFERIAN:
 2 Q. Is it correct that the documents that are in
 3 Exhibit 9 are true and correct copies of printouts of
 4 e-mail communication between yourself and plaintiffs'
 5 attorneys?
 6 A. To the best of my recollection, yes.
 7 Q. Other than possible e-mail pertaining to
 8 technical report number 4, do you recall any other
 9 e-mail communication between yourself and plaintiffs'
 10 attorneys that is not reflected in any of the
 11 documents in Exhibit 9?
 12 A. To the best of my recollection, no.
 13 Q. Were all of the draft reports that you
 14 prepared in this case in response to conversations
 15 that you had with plaintiffs' attorneys?
 16 MR. ELIASBERG: Objection. Vague.
 17 THE WITNESS: Generally, between drafts I
 18 would have a discussion with Mr. Eliasberg and, at
 19 times, other plaintiffs' attorneys to discuss clarity
 20 and organization of the drafts. After those
 21 conversations I would generally draft a new version of
 22 the expert report. As previously described, there is
 23 a chance that there was an internal draft within
 24 myself that the plaintiffs' attorneys did not see.
 25 And there was at least one or two instances where,

1 after a conversation between myself and the
 2 plaintiffs' attorneys, that they made the minor
 3 changes to the report instead of myself.
 4 MR. SEFERIAN: I don't have any other
 5 questions. Thank you.
 6 MR. ELIASBERG: Let's go off the record for a
 7 minute.
 8 (Discussion held off the record.)
 9 MR. ELIASBERG: We'll stipulate that when Mr.
 10 Seferian is done with his questioning, the deposition
 11 remains open for Mr. Hill and Mr. Poulos; that we will
 12 start the processing of the transcripts for the days
 13 that have already been completed; that the reporter
 14 will send copies to plaintiffs' attorney; and that Dr.
 15 Sandel will have 45 days from the time that the --
 16 any -- each specific transcript, or both if they're
 17 sent at the same time, are -- is sent from the
 18 reporter to plaintiffs' counsel.
 19 If Dr. Sandel doesn't sign those
 20 transcripts -- Dr. Sandel will have the opportunity to
 21 look at the transcripts and either send back an errata
 22 sheet and a signature. If that is not done, then any
 23 party may use the unsigned deposition transcript for
 24 all appropriate purposes.
 25 Tony, I think there was one other thing. Oh,

1 yeah.
 2 If -- the plaintiffs' counsel will retain the
 3 original; however, if there is any need during these
 4 court proceedings for another party to obtain the
 5 original -- any court-ordered need or requirement by
 6 the court that any party obtain the original, then
 7 plaintiffs' counsel will make the original available.
 8 Otherwise, parties can use certified copies of the
 9 transcript for any purpose.
 10 Does that cover it?
 11 MR. SEFERIAN: Yes. So you're going to
 12 receive the original, correct?
 13 MR. ELIASBERG: Right.
 14 MR. SEFERIAN: So stipulated.
 15 MR. HILL: So stipulated.
 16 (END TIME: 3:58 p.m.)
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1 -oOo-
 2
 3 I declare under penalty of perjury under the laws
 4 of the State of California that the foregoing is true
 5 and correct.
 6
 7
 8
 9 Executed at _____, California on _____, 2003.
 10
 11
 12
 13
 14 _____
 15 (WITNESS SIGNATURE)
 16
 17
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 24
 25

1 STATE OF CALIFORNIA)
 2) ss.
 3 COUNTY OF FRESNO)
 4
 5 I, CINDY PICKENS, a Certified Shorthand Reporter
 6 of the State of California having offices located at
 7 Fresno, California, do hereby certify:
 8 THAT the witness in the foregoing deposition,
 9 named MEGAN T. SANDEL, M.D., was by me duly
 10 readministered the oath to testify to the truth, the
 11 whole truth and nothing but the truth for the taking
 12 of the testimony herein;
 13 THAT said deposition was reported in shorthand by
 14 me at the time and place above stated and thereafter
 15 transcribed under my direction and control.
 16 I FURTHER CERTIFY that I am not interested in the
 17 outcome of said action, nor connected with, nor
 18 related to any of the parties in said action or to
 19 their respective counsel.
 20
 21
 22
 23
 24 _____
 25 CINDY PICKENS, C.S.R. No. 3262