

OFFICE OF ZONING AND ADMINISTRATIVE HEARINGS
FOR MONTGOMERY COUNTY

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:
PETITION OF COSTCO WHOLESALE : Case No. S-2863
CORPORATION : OZAH No. 13-12
:
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A hearing in the above-entitled matter was held on
May 29, 2014, commencing at 9:42 a.m., at the Office of
Zoning and Administrative Hearings, 100 Maryland Avenue, 2nd
Floor Council Hearing Room, Rockville, Maryland 20850
before:

Martin L. Grossman
Hearing Examiner

A P P E A R A N C E S

For the Applicant:

Patricia Harris, Esq.

Mike Goecke, Esq.

Lerch, Early & Brewer, Chartered

3 Bethesda Metro Center, Suite 460

Bethesda, Maryland 20814

For Kensington Heights Civic Association:

Michele Rosenfeld, Esq.

The Law Office of Michele Rosenfeld, LLC

11913 Ambleside Drive

Potomac, Maryland 20854

C O N T E N T S

Surrebuttal				
Witnesses:	Direct	Cross	Redirect	Recross
Henry Cole				
By Mr. Goecke		40		
By Ms. Rosenfeld			112	
By Mr. Silverman				153

E X H I B I T S

Exhibit No.		Marked/Received
353(a)	Summary relating to PowerPoint presentation in Exhibit 353	163
353(b)	Narrative full report relating to PowerPoint presentation in Exhibit 353	169
431(c)	Corrected version of 431(b)	188
606(c)	February 2012 research report on allergic inflammation in the human lower respiratory tract affected by exposure to diesel exhaust	192
606(d)	Non-cancer health effects of diesel exhaust, February 2012	192
609	Ambient Ration Method Version 2	51
610	User's Guide for the AMS/EPA Regulatory Model-AERMOD	56
611	British Environmental Agency review of methods for NO2 conversion in plumes at short ranges, November 2007	72
612	Page 655 of the 2000 Glossary of Meteorology	91
613	Texas Implementation of the Motor Vehicle Emission Simulator MOVES Model	131
1-613	Except as previously noted, all exhibits were received in evidence	196

P R O C E E D I N G S

1 MR. GROSSMAN: This is the 36th day of a public
 2 hearing in the matter of Costco Wholesale Corporation, Board
 3 of Appeals No. S-2863, OZAH No. 13-12, petition for a
 4 special exception pursuant to Zoning Ordinance Section
 5 59-G-2.06 to allow petitioner to construct and operate an
 6 automobile filling station which would include 16 pumps.
 7 The subject site is located at 11160 Veirs Mill Road, Silver
 8 Spring, Maryland, Lot N, 631 Wheaton Plaza, Parcel 10, also
 9 known as Westfield Wheaton Mall, and it is zoned C-2.
 10 The hearing was begun on April 26, 2013, and the
 11 next session will be for oral arguments because, hopefully,
 12 this will be the last evidentiary session, oral closing
 13 arguments. I'm going to propose -- and we'll discuss it
 14 later -- that they take place on August 12, 2014, here in
 15 the second floor hearing room of the COB, the Council Office
 16 Building, at 9:30 a.m., and we'll discuss the dates for the
 17 briefs shortly.
 18 This hearing is conducted on behalf of the Board
 19 of Appeals. My name is Martin Grossman, the Hearing
 20 Examiner, which means I will take evidence and write a
 21 report and recommendation to the Board of Appeals which will
 22 make the decision in this case. Will the parties identify
 23 themselves, please?
 24 MS. HARRIS: Good morning. Pat Harris on behalf

1 of Costco.
 2 MR. GROSSMAN: Ms. Harris.
 3 MR. GOECKE: Good morning. Mike Goecke for
 4 Costco.
 5 MR. GROSSMAN: Mr. Goecke.
 6 MS. CORDRY: Good morning. Karen Cordry for
 7 Kensington Heights.
 8 MR. GROSSMAN: Okay.
 9 MS. ROSENFELD: Good morning. Michele Rosenfeld
 10 with Kensington Heights.
 11 MR. GROSSMAN: Good morning.
 12 MR. SILVERMAN: Good morning, Mr. Grossman. Larry
 13 Silverman for Stop Costco Gas Coalition.
 14 MR. GROSSMAN: Good morning.
 15 MS. ADELMAN: Good morning, Mr. Grossman. Abigail
 16 Adelman for Stop Costco Gas Coalition.
 17 MR. GROSSMAN: Good morning.
 18 MS. DUCKETT: Good morning. Eleanor Duckett,
 19 Kensington View.
 20 MR. GROSSMAN: All right. And I see Mr. --
 21 MR. BRANN: Good morning. Erich Brann for Costco.
 22 MR. GROSSMAN: -- Mr. Brann and Mr. Sullivan here
 23 as well. All right. And as I understand, before we went on
 24 the record, that Dr. Cole has not yet arrived. Is anybody
 25 able to check and see --

Page 6

1 MS. ROSENFELD: I can try.
2 MR. GROSSMAN: All right. Hopefully, he didn't --
3 did somebody speak to him to make sure that he remembers
4 that --
5 MS. ROSENFELD: Oh, he --
6 MR. GROSSMAN: He knows? Okay.
7 MR. SILVERMAN: He's very well aware, very well
8 aware of it.
9 MR. GROSSMAN: All right.
10 MS. ROSENFELD: Yes. We were in communication by
11 e-mail.
12 MR. GROSSMAN: All right.
13 MS. ROSENFELD: Yes.
14 MS. CORDRY: This morning.
15 MS. ROSENFELD: This morning, very early.
16 MR. GROSSMAN: All right. Preliminary matters?
17 MS. CORDRY: And he does have to come from the far
18 side of Washington, diametrically opposed to where we are --
19 MR. GROSSMAN: Okay.
20 MS. CORDRY: -- around the circle. So --
21 MS. ROSENFELD: He's coming from the Upper
22 Marlboro area --
23 MR. GROSSMAN: Okay.
24 MS. ROSENFELD: -- so he has to deal with the
25 Beltway.

Page 7

1 MR. GROSSMAN: All right. And, of course, the
2 only witness scheduled for today is the cross-examination of
3 Dr. Cole in surrebuttal, and then we'll discuss the
4 objections to exhibits. And where we left off was the
5 question of the applicant considering filing some additional
6 exhibits in lieu of trying to call a reply witness, and I
7 know that those were e-mails. Let's see. I'm not sure
8 which exhibit numbers those were.
9 The ones I have listed as being the new ones are
10 606 through 608, 606 being a memo from Ms. Harris,
11 submitting a CD; (a) is the CD, containing two
12 health-related articles, and (b) is an e-mail from
13 Ms. Harris regarding the article. 607 is a report submitted
14 by Ms. Harris regarding Intersection 16, and 608 is an
15 e-mail from Ms. Harris, submitting an Excel file, and 608(a)
16 is the Excel file, summary of Wang 2011 data regarding
17 Intersection 16, as I recall.
18 MS. HARRIS: Mr. Grossman, actually, that 608(a)
19 Excel file was relating to one of the, one of the documents
20 that was supposed to be used on cross-examination.
21 MR. GROSSMAN: Okay. All right. So, in any
22 event, I stand corrected, and Dr. Cole has since arrived.
23 Welcome, sir. All right. Let's talk for a second about,
24 about that question. Has everybody agreed to the process,
25 that we will admit the articles that have been cross-filed

Page 8

1 by the parties and there will be no further witnesses after
2 Dr. Cole?
3 MR. GOECKE: Yes.
4 MS. ROSENFELD: Yes.
5 MR. GROSSMAN: All right. All right. Good.
6 MS. ADELMAN: I don't agree.
7 MR. SILVERMAN: We don't agree.
8 MS. ADELMAN: I think, yes, I think the Coalition
9 doesn't agree.
10 MR. SILVERMAN: We do not agree.
11 MR. GROSSMAN: Do not agree --
12 MR. SILVERMAN: No.
13 MR. GROSSMAN: -- okay. So let me hear from the
14 Coalition on the point.
15 MR. SILVERMAN: Yes. I think, you know, they
16 chose not to put -- let's talk about the medical stuff first
17 and then the air pollution stuff.
18 MS. CORDRY: That's all we're talking about right
19 now, is the medical.
20 MR. SILVERMAN: The medical, okay, yes.
21 MR. GROSSMAN: Before I hear from you on that,
22 what about you, Ms. Duckett, do you agree with KHCA or --
23 MS. DUCKETT: No, I don't -- I didn't agree with
24 submitting these last articles that they submitted, but I
25 don't understand enough about a court process. I thought,

Page 9

1 why are they adding stuff in that seems brand-new on
2 rebuttal of a witness who is not there? So I didn't agree
3 with it. I told Karen I didn't agree with --
4 MR. GROSSMAN: Okay.
5 MS. DUCKETT: -- admitting those.
6 MR. GROSSMAN: All right. So Ms. Duckett joins
7 you, Mr. Silverman.
8 MR. SILVERMAN: Yes. They, the applicant had the
9 opportunity to do a rebuttal on medical matters. They stood
10 by Dr. Chase. That's fine. That's their decision and we
11 moved on. Now they're putting in medical evidence that was
12 not referenced by Dr. Chase, has nothing to do with
13 Dr. Chase's testimony, and of which we cannot cross-examine.
14 One of them -- they're quite, they're voluminous and they're
15 complex. There's no expert behind them. I know when
16 Mrs. Adelman was testifying, we sort of gave her a little
17 bit of a rush because she was bringing in expert documents,
18 involved a very educated person, was not an expert in that
19 field.
20 So now we have documents hanging from a tree with
21 no explanation, no nuance, no sense of -- no expert to guide
22 us through what they mean and what they don't mean and what
23 their limitations are and so forth, no cross-examination. I
24 don't see how you could base a decision on that in which --
25 well, that's it. I --

Page 10

1 MS. ADELMAN: But we -- yes.
2 MR. SILVERMAN: -- don't see how you can base a
3 decision on the matter or take guidance from it when you
4 have no guidance from an expert, when we've been saying so
5 many times, as various laywitnesses tried to put in learned
6 treatises, that why -- I think you said, well, why do that
7 when you have experts? Well, they have plenty of experts.
8 They have unlimited resources. They chose not to go that
9 route. So I don't think we should, it should, we should
10 cloud the record with these items.
11 MR. GROSSMAN: I'm not exactly sure what you mean
12 by, we gave Mrs. Adelman a rush. I guess I won't explore
13 that any further unless she wants to add on, but I think I
14 have the sense of your point. Before I turn to the
15 applicant, do you want to respond to that, Ms. Rosenfeld?
16 MS. ROSENFELD: Well, certainly. In conceding to
17 admitting these documents, we don't, we're not making any
18 concessions on their relevance or their weight or their
19 credibility --
20 MR. GROSSMAN: Certainly.
21 MS. ROSENFELD: -- and all of that remains to be
22 argued. So I don't want our, at least from the point of
23 Kensington View -- Kensington Heights, I don't want it to be
24 presumed that we're accepting it at face value, the reports.
25 MS. CORDRY: And I would note that one of the

Page 11

1 articles was already submitted by Dr. Chase as one of his
2 references. So --
3 MR. GROSSMAN: Right.
4 MS. CORDRY: -- in that sense, it's not a new
5 article anyway. He didn't reference it, he didn't talk
6 about it, he didn't rely on it, but --
7 MR. SILVERMAN: I do not have an objection to
8 that.
9 MR. GROSSMAN: So we're talking about one article?
10 MR. SILVERMAN: One article, yes.
11 MS. CORDRY: One of the three, yes.
12 MS. ADELMAN: Right, one of the three.
13 MR. SILVERMAN: I do not have an objection to
14 that.
15 MR. GROSSMAN: Okay.
16 MR. SILVERMAN: I mean, I think that's fair game.
17 MS. CORDRY: So based on all of that, we decided
18 it was, considering the other objection or issues that could
19 be raised with respect to the credibility, the partiality of
20 the people doing it, the weight, the timing and everything,
21 we thought it was not sufficiently problematic to object and
22 bring another witness back and prolong this any further.
23 So --
24 MR. GROSSMAN: I mean, the trade-off was that the
25 opposition put in additional articles as well --

Page 12

1 MS. ADELMAN: That's right.
2 MR. GROSSMAN: -- you understand that?
3 MS. ADELMAN: That's right.
4 MR. SILVERMAN: I agree with that. I think the
5 opposition's articles were really very relevant to our
6 medical experts, and one of them, I think, was essentially
7 an update. I think we -- we had a document that said you
8 can't quote it, it's just a draft, and now we have another
9 document that, this time, which is, which is essentially the
10 same information that is quotable and is an official
11 document. I think that's, I think it's a -- there's no
12 surprise here, and I think it just illuminates the testimony
13 that was given.
14 And to the extent that Dr. Chase has cited a
15 source, if they want to put that source in, that's fine; if
16 they think that the health effects of diesel engines is
17 relevant to this proceeding, that's fine. I wouldn't have
18 an objection to that. I just don't think we should start
19 bringing in a whole lot of new, really new things that have
20 not been brought up before.
21 MR. GROSSMAN: No, I mean, but your -- part of
22 your objection was that there isn't an expert coming in to
23 explain or be, or be responsive to cross-examination on the
24 new articles, and I guess the same could be said about the
25 additional health articles being proposed by the opposition

Page 13

1 in lieu of having Dr. Jison return to the stand. So I, I
2 thought that was kind of a balanced thing, and --
3 MS. ADELMAN: Right.
4 MR. SILVERMAN: Well, I'm sure that's why my
5 colleagues went for it, because -- on the substance of it,
6 you know.
7 MR. GROSSMAN: So would you prefer if we just
8 struck all of those last articles from both sides?
9 MR. SILVERMAN: Well, I guess my position is that
10 Dr. Jison's pieces really were illuminated by her testimony.
11 She essentially testified to them, even though they were --
12 the documents she was looking at were less developed than
13 the ones that are put in now as kind of an improvement on
14 it. So I think there's a difference, but --
15 MR. GROSSMAN: The same concern --
16 MR. SILVERMAN: Yes.
17 MR. GROSSMAN: -- that you raised, however, about
18 the availability of cross-examination --
19 MR. SILVERMAN: Yes.
20 MR. GROSSMAN: -- with the whole thereto. That's
21 why I think that there was a kind of balance. Well, let me
22 hold off on, really on this until I hear from the applicant
23 on that.
24 MR. GOECKE: Sure. Sure, and I think,
25 Mr. Grossman, you've pointed out how we got here. This was

Page 14

1 a compromise that was actually suggested by Ms. Rosenfeld,
2 and I'm unclear whether she's objecting to this proposal now
3 or if it's only -- she's not?
4 MR. GROSSMAN: No.
5 MS. CORDRY: No, we're not objecting.
6 MR. GOECKE: Okay. So it's just Mr. Silverman and
7 Ms. Adelman, and so --
8 MR. GROSSMAN: And Ms. Duckett.
9 MR. GOECKE: And Ms. Duckett as well. And so just
10 to clarify how we got here, the whole point was to avoid
11 having the additional medical experts testify, again,
12 Drs. Jison and Dr. Bunn. If Mr. Silverman's objection is
13 that he can't cross-examine the witness who would testify
14 about this, we're happy to provide Dr. Bunn on June 6. We
15 can make him available. He is available on that day.
16 We had reached this compromise in an effort to
17 avoid prolonging this hearing and adding additional
18 testimony. So we would, you know, accept Ms. Rosenfeld's
19 offer. This is the first we're hearing of any objection.
20 You know, we told them that we were going to provide these
21 documents. We received many, many documents that we could
22 have submitted. We tried to pick a select few, to narrow it
23 down, that were the most germane and without being
24 repetitive or redundant.
25 We think that these documents are highly relevant

Page 15

1 to the issues in this case. We think they would be helpful
2 to you in making your decision. We think that
3 Ms. Rosenfeld's caveats are well-noted in terms of their
4 reliability, and if there's problems with the science, they
5 can attack that in a closing brief, just as we can use them
6 to support our position. We think it's a useful exercise
7 and would ask that you allow all the documents in, as
8 Ms. Rosenfeld and I had agreed.
9 MR. GROSSMAN: All right. Has there been any
10 consultation between the opposition factions here as to
11 whether or not you want to try to resolve this among
12 yourselves before --
13 MS. CORDRY: I mean, we have talked some.
14 Perhaps, maybe we can just wait and come back and talk again
15 at the break and see if we have a final --
16 MR. GROSSMAN: All right.
17 MS. CORDRY: -- deal on this --
18 MS. ADELMAN: Yes.
19 MS. CORDRY: -- after hearing this discussion.
20 Thank you.
21 MR. GROSSMAN: Okay.
22 MR. GOECKE: And I know Mr. Silverman says, well,
23 she sort of testified about them before, but these are new
24 documents that Dr. Jison has not testified about. So it's
25 improper --

Page 16

1 MR. GROSSMAN: Right.
2 MR. GOECKE: -- if -- I think, when applies, it
3 has to apply consistently. So either they all come in or
4 they don't all come in would be our position.
5 MR. GROSSMAN: Okay. All right. So let's move to
6 the next point in terms of the timing of the briefing.
7 Assuming that today is the last evidentiary day, then it was
8 agreed that the applicant's brief would be filed -- would be
9 due 30 days after the final hearing date, Opposition brief
10 would be due 20 days thereafter, and the reply brief due 10
11 days after that. So the Applicant's brief is therefore due
12 on June 30th since June 28th is a Saturday. So that moves
13 it to the following Monday under that program. So that
14 would be June 30 for the applicant's brief. The opposition
15 brief would be due on July 21, 2014, because July 20 is a
16 Sunday. Applicant's reply brief, if any, will be due on
17 July 31, 2014, and then I am proposing that the next session
18 would be for oral closing arguments, which the parties have
19 requested, here in the second floor hearing room of the COB
20 at 9:30 a.m. on Tuesday, August 12, 2014. And then -- yes,
21 ma'am.
22 MS. HARRIS: Oh, I'm sorry. Go ahead.
23 MR. GROSSMAN: I was just going to say that after
24 we adjourn today, the record will remain open only for
25 briefs, oral closing arguments, and discussion of possible

Page 17

1 conditions.
2 MS. HARRIS: I'm coming back from vacation on the
3 12th, and I'm confirming that date with my husband as we
4 speak. So that date won't work. The --
5 MR. GROSSMAN: Okay.
6 MS. HARRIS: -- 13th or 14th would work, I
7 believe. Mike, is that correct?
8 MR. GOECKE: It'll work for me.
9 MR. GROSSMAN: Well, let me look at the calendar
10 for a second.
11 MS. CORDRY: The 13th is a Wednesday. Is that --
12 would we be doing that oral argument here again? Is that a
13 problem then because it's a Wednesday?
14 MR. GROSSMAN: Yes, we -- I mean, probably the
15 Board of Appeals will not be meeting, but I can't assume
16 that. It's also my birthday, but I don't know that that --
17 MS. HARRIS: Well --
18 MR. GROSSMAN: -- but I'm not going to postpone it
19 for that, just that --
20 MR. COLE: I had to be here on my birthday.
21 MR. GROSSMAN: That's true --
22 MS. HARRIS: The 14th would be preferable,
23 actually.
24 MR. GROSSMAN: -- and did they buy you a beer
25 afterwards? No --

Page 18

1 MR. SILVERMAN: No.
2 MR. GROSSMAN: -- don't say that on the record.
3 We won't find out. Let's see. I mean, we could do August
4 14.
5 MS. HARRIS: That would be better for me.
6 MR. GOECKE: That works for us.
7 MR. GROSSMAN: Does that work for everybody,
8 Thursday?
9 MS. ROSENFELD: Wait. Wait. I'm not sure. I'm
10 not sure. Hold on.
11 MR. GROSSMAN: I am going to be out of town on the
12 15th. So --
13 MS. ROSENFELD: I am probably going to be taking
14 my daughter to college. The first move-in date is August
15 15th.
16 MR. GROSSMAN: Will you not be available on the
17 14th, are you saying, or -- if your move-in date is the --
18 MS. ROSENFELD: Actually, if the move-in date is
19 the 15th --
20 MR. GROSSMAN: How far --
21 MS. ROSENFELD: -- the 14th would probably work.
22 MR. GROSSMAN: Okay.
23 MS. ROSENFELD: South Carolina.
24 MR. GROSSMAN: Okay. Well, that's where, that's
25 where I'm going -- well, that's another, that's another

Page 19

1 question.
2 MR. SILVERMAN: Share rides, talk about the case.
3 MS. ROSENFELD: Should we meet up for a beer?
4 MR. GROSSMAN: Well, actually, I'm going to be in
5 South Carolina for a wedding in June --
6 MS. ROSENFELD: Okay.
7 MR. GROSSMAN: -- but I'll be in Atlanta on August
8 15th, but in any event, all right.
9 MS. CORDRY: I believe that's fine for me --
10 MS. ROSENFELD: I think the 14th will work.
11 MS. CORDRY: -- I will double-check my work
12 calendar when I get there tomorrow, but --
13 MR. GROSSMAN: Okay.
14 MS. CORDRY: -- as far as I know, that should be
15 fine as well.
16 MR. GROSSMAN: All right. Well, it's important, I
17 guess, that we decide that now. You can call, perhaps, and
18 check your calendar. The reason I say that is, since, once
19 again, we're not issuing formal notices now to everybody, I
20 have to announce it at the adjourn hearing date. So --
21 MS. CORDRY: I'm reasonably sure that far out I
22 don't have anything. So I should be --
23 MR. GROSSMAN: Okay.
24 MS. CORDRY: And I'll just work around it.
25 MR. GROSSMAN: All right.

Page 20

1 MS. ADELMAN: There's no problem with the
2 Coalition.
3 MR. GROSSMAN: Okay. Great.
4 MS. DUCKETT: August 16th, is that --
5 MS. CORDRY: No, 14.
6 MS. ADELMAN: August 14th.
7 MR. GROSSMAN: No, August 14th.
8 MS. ADELMAN: 14.
9 MS. DUCKETT: 14th, right. Right. I'm okay with
10 that.
11 MR. GROSSMAN: Okay. Good. Then we're a go. So
12 when we adjourn today, the record will close for everything
13 except for closing oral arguments, briefs, and a discussion
14 of conditions to be recommended, and we will resume here on
15 August 14 at 9:30 a.m., Council Office Building, second
16 floor hearing room, to hear, just to hear oral closing
17 argument and discuss conditions. All right. Oh, and the
18 nature of oral argument, I think, was agreed upon, that the
19 applicant will have 40 minutes and the opposition will have
20 40 minutes, similar to what the Council does when it has
21 oral arguments on zoning and re-zoning matters.
22 Any other preliminary or procedural matters?
23 MR. SILVERMAN: There are other witnessless
24 documents that the --
25 MR. GROSSMAN: Witless or witnessless?

Page 21

1 MR. SILVERMAN: Witnessless, that is to say,
2 documents without witnesses, hanging in the air. There's,
3 Mr. -- there are two documents that they indicated they're
4 going to cross-examine Dr. Cole on. One is from the
5 American Petroleum Institute dealing with ARM2, and I don't
6 recall there was any discussion by Mr. Sullivan or Dr. Cole
7 or anybody else about ARM2. I never heard of it before, and
8 I -- this is a, this is the cross-examination, and it seems
9 to me, it's out of the scope and it's also an introduction
10 of a whole new concept that -- I mean, we, you know, I'm
11 sure Dr. Cole can deal with it and we could show how
12 irrelevant it is, but at some point, if they thought this
13 was an important document, they had every opportunity with
14 their rebuttal testimony to bring it up or even the concept
15 of it to bring up. And this ARM2 seems to be a modification
16 of Stage II, EPA's -- Tier 2 of EPA, and they declined to
17 use Tier 2. They went from Tier 1 to Tier 3. So I don't
18 see where it's a pertinent document.
19 MR. GROSSMAN: Okay. And as to pertinence, now,
20 well, we'll see that when the document is attempted to be
21 used. Usually, on cross-examination you can bring up a
22 document that has not been in evidence. Here they followed
23 the rule of prior disclosure. So you all knew that it was
24 coming, as evidenced by your objection.
25 So I'm going to wait until there's an attempt to

Page 22

1 use it on cross-examination; then you can raise any
2 objection at that time, and let's see if it's irrelevant in
3 the context of the cross-examination at that point. I don't
4 want to rule on that preliminarily.
5 MR. SILVERMAN: Okay. And then with regard to
6 Mr. Guckert's new documents, there again, if he had
7 something he wanted to introduce, he had, you know, their --
8 they had their rebuttal, he could have introduced it, but
9 this idea of, oh, well, we were hurt on our rebuttal and
10 therefore we'll come up with a whole new thing, in a way,
11 this is a -- I just think it was a humanitarian gesture. I
12 mean, how many times does Ms. Cordry have to go through and
13 correct Mr. Guckert's mistakes? I mean, we've done it twice
14 and on two whole different theories, and now we've got some
15 third thing. I don't, I don't pretend to understand it. I
16 kind of got the ARM2 stuff, but I don't get this at all. I
17 never have, but it just seems, this is a late date. I mean,
18 they could keep on coming with theories endlessly. This is
19 really late in the day.
20 MR. GROSSMAN: All right. Let's turn, first of
21 all, I guess, to Ms. Cordry on the humanitarian gesture.
22 MS. CORDRY: I will have to say, although I do
23 appreciate, Mr. Silverman, I believe, and if you're speaking
24 of the HCM analysis that they submitted on --
25 MR. SILVERMAN: Yes.

Page 23

1 MS. CORDRY: -- one day ago --
2 MR. GROSSMAN: Which they indicated, it was a
3 summary of what he testified to, I think, is what --
4 MS. CORDRY: It appears to me, I do recall his
5 testifying that they had used a default value of a certain
6 percentage of trucks, they thought the number was lower,
7 that because trucks are slower, I guess, and bigger, that
8 they can take a little longer going through and it would
9 make about a one-second difference and that this is now a
10 re-version of the, revision of the document that shows the
11 effect of that one second. I, all in all, I don't really
12 care. I mean, the difference between 49 point --
13 MR. GROSSMAN: We've worn you down after --
14 MS. CORDRY: Well --
15 MR. GROSSMAN: -- only 36 days?
16 MS. CORDRY: Well, the point is he testified to
17 the one second. Having him put in in detail the difference
18 between the 50.63 and the 49.6, none of that affects the
19 numerous points I made about why either one of those numbers
20 is too low. So I will not fight this particular one coming
21 in. I don't really think it does much of anything there,
22 but that's fine.
23 One point I would make on the articles, these new
24 articles, although they were given to us, they weren't given
25 to us anything like 10 days in advance. So we will

Page 24

1 certainly be objecting to those documents when they come in,
2 to try to -- the other documents, when they try to
3 cross-examine Dr. Cole about them.
4 MR. GROSSMAN: Okay.
5 MS. HARRIS: Mr. Grossman, if I could just comment
6 on that?
7 MR. GROSSMAN: Yes. Well, I was going to hear
8 from Ms. Duckett first.
9 MS. HARRIS: Okay. Okay.
10 MR. GROSSMAN: Did you have anything to say on
11 these points, Ms. Duckett?
12 MS. DUCKETT: No. The Guckert e-mail? No, I
13 don't have anything to say about that.
14 MR. GROSSMAN: Okay.
15 MS. HARRIS: I was going to remain silent until
16 the comment about the 10-day period. The applicant has been
17 extremely patient and forgiving in this case in regards to
18 counting to 10 and documents submitted 10 days in advance,
19 and so we -- and especially when it came to
20 cross-examination documents.
21 MR. GROSSMAN: Right.
22 MS. HARRIS: So in fairness to all parties, I
23 think there is no weight to that comment at all.
24 MS. CORDRY: Well, that's --
25 MS. HARRIS: I mean, we provided it as soon as we

Page 25

1 could after hearing Dr. Cole's testimony.
2 MS. CORDRY: Okay.
3 MR. GROSSMAN: I think that's fair. We've --
4 MS. CORDRY: Well --
5 MR. GROSSMAN: -- bent the rule, in terms of
6 cross-examination, to the extent that it -- once again, it
7 is an ad hoc rule that I have imposed here to ensure that in
8 a case of this volume and complexity, that we got the
9 fairest presentation of evidence, but I think it's fair.
10 MS. CORDRY: I will have my, we will have our
11 points about whether or not this information was not in
12 their contemplation before then, but the last point -- and
13 this is a different point -- I have a correction for a
14 previously admitted document that I think is not going to be
15 controversial. I think it'll be -- I'm just going to
16 suggest we should do it at the end when we're doing the
17 objections to the other documents. I can just show what
18 this correction is and we can deal with it. I don't think
19 we need to deal with it now, but just to let you know that.
20 MR. GROSSMAN: I will leave it to your judgment as
21 to when to raise it, but --
22 MS. CORDRY: It's actually, was the argument
23 document I put in about emissions and background levels and
24 so forth; so it's not an evidentiary document. I found that
25 what I had mailed to everybody was in fact the correct

Page 26

1 version but what had gotten copied and put in the record was
2 a prior version. So I want to make sure that --
3 MR. GROSSMAN: I see.
4 MS. CORDRY: -- the version that stays in the
5 record is the version that was sent to them at the time, and
6 we've never actually -- nobody's actually ever come out and
7 testified about that. We took that, if you recall, as being
8 an advance on the argument. So --
9 MR. GROSSMAN: The same thing as occasionally
10 happened in the other direction with --
11 MS. CORDRY: Right. Right, but this --
12 MR. GROSSMAN: -- with the rebuttal report.
13 MS. CORDRY: -- this time they were e-mailed the
14 correct version. So --
15 MR. GROSSMAN: Right.
16 MS. CORDRY: -- the version that's in the record
17 that I don't think anybody's ever looked at since it went in
18 the record is the one that's in error. So --
19 MS. HARRIS: Karen, which exhibit are you
20 referring to?
21 MS. CORDRY: It's 431(b). It's the one labeled
22 Emissions Levels, Effective Monitor Choices and Other
23 Corrective Factors.
24 MR. GROSSMAN: Just in case somebody is just
25 tuning in here, some of the documentation that Ms. Cordry

Page 27

1 produced that we allowed, we allowed because it really was
2 just an advance on her closing argument or a portion of her
3 closing argument. It was argumentative rather than
4 evidentiary and was to be treated in that fashion, and I
5 presume, I don't remember by specific numbers, but I presume
6 that the one you're talking about here, 431(b), fits into
7 that category.
8 MS. CORDRY: Yes, that was the one that was --
9 MR. GROSSMAN: Right.
10 MS. CORDRY: -- predominantly the one that that
11 was being taken as, and because it only came in as argument
12 and really wasn't discussed at that time, I didn't review it
13 then. It was really when I came back and was looking at
14 some of it in terms of Dr. Cole's and Mr. Sullivan's
15 testimony, that I realized that the version I had as the
16 exhibit version --
17 MR. GROSSMAN: Right.
18 MS. CORDRY: -- was an incorrectly printed
19 version.
20 MR. GROSSMAN: Do you have a redline to show what
21 has been changed?
22 MS. CORDRY: I do. I do, yes. Do you --
23 MR. GROSSMAN: Okay. Why don't you give that to
24 the --
25 MS. CORDRY: Right.

Page 28

1 MR. GROSSMAN: -- the applicant's counsel --
2 MS. CORDRY: Okay.
3 MR. GROSSMAN: -- so they can take a look at it
4 during a break and see --
5 MS. CORDRY: Yes, and to complicate it just
6 slightly further, which is one of the reasons why I was just
7 going to put it off, but let's, since we're already in the
8 middle of this, let me just do it. When I was looking at
9 it, I found three minor corrections that I wanted to have in
10 the final version. One was a page cite was wrong. One was
11 a quote that I did. I had slightly paraphrased instead of
12 correctly quoting it. And the third one -- this is what I
13 was learning when I was going back over this -- I had
14 thought I had the last version of the protocol. What I had
15 was the earlier version of the protocol. So one of my
16 footnotes --
17 MR. GROSSMAN: Which protocol?
18 MS. CORDRY: The master protocol that had been
19 worked on between Dr. Cole and Mr. Sullivan.
20 MR. GROSSMAN: I see.
21 MS. CORDRY: So one of my footnotes said, in his
22 report Mr. Sullivan said he did such and such out of the
23 protocol, and I said that was wrong, blah, blah, blah. What
24 I realized was that I had been looking at an earlier version
25 of the protocol and the final version of the protocol was in

Page 29

1 fact consistent with what Mr. Sullivan was saying. So I --
2 MR. GROSSMAN: Okay.
3 MS. CORDRY: -- so I have actually two redline
4 versions. Let me, let me, I'll work on this all within a
5 break, but I will give everybody a copy.
6 MR. GROSSMAN: All right. It doesn't sound like
7 any of those corrections --
8 MS. CORDRY: No.
9 MR. GROSSMAN: -- would be offensive to the
10 applicant, but in any event, why don't you work it out on a
11 break, and then I --
12 MS. CORDRY: Right. Right. Right.
13 MR. GROSSMAN: -- I don't know that I'd need the
14 redline version if they don't object --
15 MS. CORDRY: Okay.
16 MR. GROSSMAN: -- because it sounds to me like two
17 of the corrections are formalities, in effect, and the third
18 one actually moves in their direction --
19 MS. CORDRY: Right. Right.
20 MR. GROSSMAN: -- to be corrected, according to
21 the record.
22 MS. CORDRY: So I will give them the original
23 version that was in the record, a copy of that so they can
24 look at it. I have the final, final version, and I have two
25 redlines.

Page 30

1 MR. GROSSMAN: I'm not sure why you need two
2 redlines for that.

3 MS. CORDRY: Well, one was the redline of the
4 exhibit version to my final version, and the other is a
5 redline between what I submit -- I'll explain it. I can't
6 even keep track myself right now, but there are, there are
7 two.

8 MR. GROSSMAN: All right. All right. I'll go
9 with that. All right. Now, did you, did the applicant wish
10 to be heard further on the, on Mr. Silverman's objection to
11 additional articles?

12 MR. GOECKE: I guess one other point I'd like to
13 make is, to the extent that there are exhibits that have
14 been submitted that no one has testified about, the
15 opposition has submitted voluminous amounts of exhibits that
16 no one has testified about. So I think this is another
17 example of where they're trying to apply inconsistent rules
18 to the proceeding.

19 MR. GROSSMAN: Well, let me stop you here. What
20 about that, Mr. Silverman? There are tons of exhibits that
21 have been submitted by the opposition for which there has
22 not been an expert koshering here.

23 MR. SILVERMAN: Well, you know, we were, at the
24 very -- the very first day of this case we were told that
25 the opposition, we were emotionally, not driven by facts and

Page 31

1 so forth. This is not, I'm not, this is not -- this is not
2 an emotional statement, but when someone says you really
3 don't know what you're talking about or you're not being
4 scientific and so forth, then I think people like
5 Mrs. Adelman and other educated people in the community have
6 a right to say, oh, you know what, I've done a lot of
7 research, I know something about it, and here's the basis of
8 my opinion.

9 And we -- you may not take this charge that the
10 opposition is all emotional too seriously. I really don't
11 myself, but I mean, they made that. That was the opening of
12 their case, and I think that opened the door to anything
13 that sort of substantiates the reasonableness of our
14 positions.

15 MR. GROSSMAN: Your submitting articles,
16 scientific articles, without being verified by expert
17 testimony does not entitle them to do the same?

18 MR. SILVERMAN: Actually, I don't think it does.
19 I'd like to have it both ways.

20 MR. GROSSMAN: I understand. All right. Anything
21 further from the applicant on the point?

22 MS. HARRIS: I think that speaks for itself. I
23 think one of the goals here -- and you've said it
24 consistently -- is fairness and equal approach to both
25 sides, and --

Page 32

1 MR. GROSSMAN: Right.

2 MS. HARRIS: -- I think Mr. Silverman just
3 admitted that his preference is to not have it that way.
4 So --

5 MR. GROSSMAN: All right. Yes. My ruling on it
6 is I'm going to allow the articles, the agreement with, at
7 least that portion of the opposition by Kensington Heights
8 Civic Association, with the applicant in lieu of live
9 testimony. As I've said before, certainly live expert
10 testimony has a, subject to cross-examination, is given a
11 certain weight here and there's a lesser weight given to
12 articles which are, you know, from scientific sources but
13 are not, have not been subject to, in effect, the
14 cross-examination process. But given the nature of our
15 proceeding here, we're allowing those in for the weight that
16 they deserve, and I think the fairness aspect is to both
17 sides here. Okay.

18 MS. CORDRY: So that is just the three articles,
19 right, and nothing else that was submitted with respect to
20 Dr. -- Dr. Bunn, Mr. Bunn?

21 MR. GROSSMAN: I'm not --

22 MS. ADELMAN: Doctor.

23 MS. CORDRY: He had a CV and various things like
24 that, none of which are coming in because --

25 MR. GROSSMAN: Right.

Page 33

1 MS. CORDRY: -- he's not being admitted as an
2 expert or anything like that? Okay.

3 MR. GROSSMAN: That's correct. All right.

4 MR. SILVERMAN: Can I raise one other preliminary
5 point?

6 MR. GROSSMAN: Yes.

7 MR. SILVERMAN: I don't know if this is
8 appropriate, but I was reading about global warming in the
9 newspapers and so forth, these latest reports, and I do hope
10 that the Hearing Examiner will make a finding on this and
11 express an opinion about it. I think to not discuss it at
12 all, I mean, there's been evidence -- whether you're
13 persuaded or not, I don't know -- but there's been evidence
14 that this way of getting gas in stations that are designed
15 to have lines increases global warming in the county, and I
16 think it's very well for you to say, well, I can't do
17 anything about it, but I hope you'll mention it because I
18 think it would -- future readers, if there are any, of these
19 proceedings, I think, would find fault with the process and
20 the Hearing Examiner if the issue is not even discussed.

21 MR. GROSSMAN: Well, I expect lots of people to
22 find fault with whatever I do, but it is a public policy
23 matter, but it is not something, as I read the portions of
24 the zoning ordinance that direct me and limit my scope of
25 responsibility, it is not included here.

Page 34

1 I am not charged with making legislative decisions
2 regarding things that affect the world, in general. I have
3 a narrow scope, to deal with the potential adverse effects
4 on the site, the immediate neighbors, and the general
5 neighbor. That's the limited scope. So I don't think -- we
6 have plenty here to keep us busy and to evaluate without
7 trying to evaluate the issue of global warming or climate
8 change, whatever you want to call it.
9 MS. CORDRY: We will respectfully dissent from
10 that, and I expect --
11 MR. GROSSMAN: Right.
12 MS. CORDRY: -- we will still make the argument to
13 you, but we will not pursue it any further on the record
14 today.
15 MR. GROSSMAN: All right. Very good. Okay. Then
16 I think we've finished our preliminary matters and we are
17 turning to the resumption of the cross-examination of
18 Dr. Cole and his surrebuttal.
19 MR. COLE: Mr. Grossman --
20 MR. GROSSMAN: And you are still under oath,
21 Dr. Cole.
22 (Witness previously sworn.)
23 THE WITNESS: Yes, and if I can indulge you for a
24 second, you asked a question last time that I didn't have a
25 precise answer to.

Page 35

1 MR. GROSSMAN: All right.
2 THE WITNESS: With your permission, I would like
3 to come back to it, which was with regard to the choice of a
4 monitoring site for background NO2 concentrations.
5 MR. GROSSMAN: Yes.
6 THE WITNESS: And I have a couple of slides here
7 which, which I will refer to.
8 MR. GROSSMAN: Slides that were previously
9 submitted, you mean?
10 THE WITNESS: No, but they're from data that was
11 previously submitted.
12 MR. GROSSMAN: Well, why don't you just -- before
13 you get into slides --
14 THE WITNESS: Okay.
15 MR. GROSSMAN: -- just tell me what you're, what
16 you're adding to your answer.
17 THE WITNESS: All right. I've, I put together a
18 set of criteria and said to myself, if I were going to
19 choose a representative site --
20 MR. GROSSMAN: Right.
21 THE WITNESS: -- that had some conservancy based
22 into it, which is what the applicants claim to have done, I
23 would have the following criteria. Number one is that it
24 should have a continuing, continuous record for a number of
25 years. Number two is that you would have both ozone and,

Page 36

1 ozone and NO2 monitored at the same site -- let me just
2 consult my list -- that you would have, that you would have
3 at least suburban density so that it's representative of the
4 level of traffic; and, finally, that my preference would be
5 to choose something that was as close to the site, in other
6 words, to the mall, as possible, and that was also in the
7 same basic relationship of the site to the metropolitan
8 area.
9 Now, when I looked at those criteria, only, really
10 only two stations had stood out, and those were the two
11 District of Columbia sites. One was 34th Street Northeast,
12 and the second was, the second was First Street Northwest.
13 The, those sites meet all the criteria, and they are
14 consistently about 10 parts per billion higher than the
15 Arlington monitor, which is located a great distance from
16 the site. So of those two I picked the closest, which has
17 slightly lower values but it is the closest site to the
18 mall, which would be the First Street Northwest. It's
19 located to the north of the metropolitan area.
20 MR. GROSSMAN: All right. So as I recall your
21 testimony the last time, you had stated the criteria but you
22 had not selected a site.
23 THE WITNESS: Okay.
24 MR. GROSSMAN: That's my recollection of it, and
25 now what you're doing is saying you've now looked it over

Page 37

1 and the site you would have chosen -- and I presume you mean
2 for NO2 one-hour background, is that correct?
3 THE WITNESS: That is correct.
4 MR. GROSSMAN: Okay. The site you would have
5 chosen, a monitoring site, to get the background data would
6 have been the First Street Northwest, D.C., site?
7 THE WITNESS: Correct.
8 MR. GROSSMAN: Okay. And was there a discussion
9 of which site would be chosen when you were discussing the
10 protocol with Mr. Sullivan?
11 THE WITNESS: At the time, we were mainly focused
12 on PM2.5, and if you look at the protocol, it has some
13 discussion of the Rockville and Beltsville monitors, which
14 do monitor PM2.5. I thought that was, those were close,
15 fairly close to the site. I had some questions about
16 whether they were representative, which I have expressed in
17 previous submittals to you about the fact that these, that
18 there was more sort of rural area and less traffic at those
19 two sites. That would certainly -- that's in the record.
20 MR. GROSSMAN: Are you saying you didn't have any
21 discussion regarding NO2 monitoring in terms of the
22 protocol?
23 THE WITNESS: I don't recall any discussion of NO2
24 monitoring or of the, particularly of your Arlington site.
25 It is mentioned in the protocol, but I don't recall

Page 38

1 discussing that.

2 MR. GROSSMAN: All right. And until you came to

3 testify today about it, you had not selected the First

4 Street Northwest, D.C., site as the most appropriate for the

5 background monitoring for NO2?

6 THE WITNESS: Right. I had expressed a preference

7 for those D.C. sites to the north of most of the

8 metropolitan area, and in deference to your question, I

9 selected one of those as what I thought was the best, the

10 most representative, the most accurate.

11 MR. GROSSMAN: No, I mean, prior to today. You

12 talked about --

13 THE WITNESS: Right.

14 MR. GROSSMAN: -- Beltsville and Rockville. Was

15 there a discussion -- was there a recommendation or had you

16 reached this conclusion prior to today regarding an

17 appropriate monitoring site?

18 THE WITNESS: Not for NO2.

19 MR. GROSSMAN: Okay. All right. Thank you. All

20 right. Do you want to resume your cross-examination,

21 Mr. Goecke?

22 MR. GOECKE: I do, but before we get into it, I

23 think there's one more preliminary matter. You had raised a

24 question last time about the additive nature, about the

25 ratio that Mr. Sullivan had applied in and around the gas

Page 39

1 queue area as in terms of how that combined with background,

2 and I think, I think you have a misunderstanding of how he

3 had done that, and if we could, I'd just like to have

4 Mr. Sullivan correct that for the record.

5 MR. GROSSMAN: I'm not sure what, what you're

6 referring to. Do you have a transcript?

7 MR. GOECKE: We don't. The transcript is not

8 available yet --

9 MR. GROSSMAN: Not out yet.

10 MR. GOECKE: -- so unfortunately I don't, but it

11 was -- he can speak to it more intelligently than I can,

12 obviously -- but the issue itself was when you were asking

13 Dr. Cole, well, if he used the .25 ratio coming out of the

14 tailpipe --

15 MR. GROSSMAN: Yes.

16 MR. GOECKE: -- and then added it to a .5

17 background, that would get to a .75 of NO2 to NOx ratio.

18 And Dr. Cole at the time, I believe, was advocating for a

19 .8, and I think your point was, well, isn't it essentially

20 the same thing anyway.

21 MR. GROSSMAN: Yes. Well, that's --

22 MR. GOECKE: Right.

23 MR. GROSSMAN: -- for Dr. Cole to answer.

24 MR. SILVERMAN: Right.

25 MR. GROSSMAN: If I'm incorrect, I mean, Dr. Cole

Page 40

1 can straighten me out --

2 MR. GOECKE: Right.

3 MR. GROSSMAN: -- on it.

4 MR. GOECKE: Right. Okay.

5 MR. GROSSMAN: I don't think it's really a

6 Mr. Sullivan question.

7 MR. GOECKE: Okay.

8 MR. GROSSMAN: Okay.

9 SURREBUTTAL CROSS-EXAMINATION (Resumed)

10 BY MR. GOECKE:

11 Q And so, Dr. Cole, just touching upon the

12 monitoring locations that you mentioned a moment ago, so you

13 have no recollection of discussing NO2 monitoring sites in

14 your protocol discussions with Mr. Sullivan?

15 A That's my recollection.

16 Q Your recollection is that you have no

17 recollection?

18 A No. My recollection is we did not -- we discussed

19 monitoring sites in general. The issue of specifically NO2

20 in Arlington, in my recollection, did not come up.

21 Q And that's because you were more concerned about

22 PM2.5 at that point and not NO2?

23 A That's my recollection.

24 MR. GROSSMAN: Forgetting about Arlington for a

25 second, did you discuss in the protocol discussions a site

Page 41

1 to use as a monitoring site for NO2?

2 THE WITNESS: I don't remember that.

3 MR. GROSSMAN: Okay.

4 THE WITNESS: I do not recall any such discussion.

5 You'll remember that that was at a time when -- well, I'll

6 leave it at that.

7 MR. GROSSMAN: Okay.

8 BY MR. GOECKE:

9 Q But you saw the draft protocol report that

10 identified Arlington as the monitoring location that was

11 going to be used for NO2 background levels, correct?

12 A I believe it was in there.

13 Q And you never objected to Mr. Sullivan using that

14 location until today?

15 A Well, the answer to that is, at that point, it was

16 my impression that NO2 was not going to be a hot-button

17 issue because the numbers that I had seen were low relative

18 to the standard. That all changed, of course, when the --

19 Q Okay. Well, one thing at a time. You still

20 didn't answer --

21 MR. GROSSMAN: Well, don't cut him, don't cut him

22 off.

23 MR. SILVERMAN: Let him finish the answer.

24 MR. GROSSMAN: That all changed, yes. Go ahead.

25 THE WITNESS: Thank you. That changed, of course,

1 when the famous error in converting parts per billion to
2 micrograms per cubic meter occurred, and suddenly it was
3 clear that NO2, the one-hour NO2 was in fact a very critical
4 issue, and at that point, you know, I started to look in
5 greater detail.

6 BY MR. GOECKE:

7 Q So your answer is, until today, you've never told
8 Mr. Sullivan he shouldn't use the Arlington location for the
9 NO2 background levels?

10 A Well, after the November 2nd protocol, there was
11 no discussion about anything. He chose all kinds of methods
12 without any consultation whatsoever with me. So --

13 Q So you're still avoiding the question. Until
14 today, you never complained to Mr. Sullivan about the use of
15 the Arlington location for NO2 background levels?

16 A What is the format for complaining to
17 Mr. Sullivan? Is that an ex parte discussion? I came and
18 testified, and I think, I believe I raised some concerns in
19 previous testimony about that.

20 Q The error you're referring to in the conversion of
21 parts per billion to micrograms per cubic meter, when did
22 that -- when did you first become aware of that?

23 A I believe it was around June of 2013.

24 Q Yes. And you testified in this hearing on
25 December, early December of 2013, correct?

1 A That's right. It was December 5th and 6th.

2 Q For two days you testified, and during those two
3 days of testimony, you never once suggested that he should
4 have used the -- should have not used the Arlington location
5 for NO2, monitoring background?

6 A Okay. I don't recall --

7 Q So that was an opportunity to complain.

8 A -- the exact testimony. Do you have some pages
9 for me to look at?

10 Q I don't have pages. You don't remember whether or
11 not you complained about that or not?

12 A I don't believe I complained about it at that --

13 Q But you agree, that was an opportunity for you to
14 disagree with Mr. Sullivan's use of the Arlington location?

15 A Well, in answer to that, Mr. Sullivan has, under
16 his work for Costco, the applicant, has continued to issue
17 more and more reports, reports after June, when the
18 correction was made. There was the August 2013 report. Now
19 there's the rebuttal report. Those -- when you see
20 additional documents and additional evidence, it invites
21 additional perusal. That's the way the scientific process
22 works. As more data becomes available, new questions arise.
23 In fact, that exact point is made in EPA's 2011 guidance on
24 one-hour NO2. It says the more and more conservative
25 reports are made, the more departures there are from default

1 values, the more scrutiny and the less agreement there is.
2 That's simply the way the process works.

3 MR. GROSSMAN: Mr. Goecke, what's the exhibit
4 number for the final protocol that was agreed to?

5 MR. GOECKE: I'm not sure. We can check the
6 exhibit list.

7 MS. HARRIS: We can check, but it may take a
8 while.

9 MR. GROSSMAN: Yes. I mean, I would actually like
10 to look at that protocol.

11 MS. CORDRY: Okay.

12 MR. GROSSMAN: Okay.

13 BY MR. GOECKE:

14 Q Okay. And so taking what you're saying now, that
15 with reduced conservatism, the modeling process invites more
16 scrutiny, the fact remains that in terms of the Arlington
17 monitoring location, you have never voiced any criticism, or
18 not -- say, you've never suggested an alternative location
19 until today?

20 A Well, that's, that would be correct.

21 Q Thank you. And can you tell me the criteria,
22 again, that you applied in coming up with the two D.C.
23 locations?

24 A One is that they have a continuous multiyear
25 record, which the Arlington site meets that criteria.

1 Q Okay.

2 A The second one is that ozone and NO2, the monitors
3 be co-located. The two Washington sites meet that criteria.
4 The Arlington site does not.

5 Q Okay.

6 A The --

7 Q I think one of them --

8 A -- the third one was that, that they have a
9 minimal of suburban development, some combination of
10 suburban and urban to be --

11 Q Okay. And you would agree that the --

12 A -- to be representative of the Wheaton site.

13 Q Okay. And you would agree that Arlington meets
14 that minimum suburban development threshold?

15 A Yes, it does, but it doesn't meet two of the other
16 criteria, which is being in proximity, closer proximity to
17 the, to the site, the Wheaton site, and it's located
18 entirely on the opposite side of the metropolitan area --

19 Q Okay.

20 A -- and I think that's -- did I give you four?

21 Q Okay. That's four. That's right.

22 A Okay.

23 Q And so these four criteria that you've come up
24 with today, what -- are these, are these your criteria, are
25 these from the scientific literature, are they from EPA

Page 46

1 guidance? How did you come up with these four criteria?
2 A Well, EPA guidance manual talks about
3 representativeness of the site --
4 Q Yes.
5 A -- and that was my criteria for being
6 representative.
7 Q And which guidance are you referring to
8 specifically?
9 A It's, I'm sure it's in Appendix W. I can't give
10 you the exact cite.
11 Q Okay. And does Appendix W, is proximity one of
12 their criteria, Appendix W?
13 A I'm not sure.
14 Q And I think we talked about this at the last
15 hearing. We agreed that Appendix W is more focused on
16 representativeness as opposed to proximity, is that correct?
17 A Yes --
18 Q So --
19 A -- but it doesn't give you a whole lot of detail,
20 and to me, something that's entirely on the opposite end of
21 the metropolitan area and subject to much different
22 source-receptor relationships, depending upon wind
23 direction, is not representative. That's my professional
24 judgment.
25 Q Would Beltsville meet your criteria?

Page 47

1 A I don't believe that Beltsville -- I'm trying to
2 think whether they have -- can you show me the --
3 Q If you haven't looked at it, that's fine. I'm
4 just curious if you've analyzed it.
5 A I don't think that Beltsville met the criteria,
6 and I can't --
7 Q Why not?
8 A I'd have to go back and look at the --
9 Q Do you know whether the NO2 background levels for
10 Beltsville are higher or lower than Arlington?
11 A I'd have to check that out.
12 Q Would you agree that the locations in --
13 A I believe, I believe that, for example, that ozone
14 and possibly NO2 were only recorded for part of the year,
15 for the summer, basically, because they're, those -- the
16 concern there was ozone, regional ozone concentrations
17 rather than NO2 specifically. That's my recollection. I'd
18 have to -- I will, during a break, check that.
19 MR. GROSSMAN: When you say only recorded for part
20 of the year, are you talking about the D.C. locations --
21 THE WITNESS: No.
22 MR. GROSSMAN: -- the Arlington location, the
23 Beltsville location?
24 THE WITNESS: Those, for NO2 --
25 MR. GROSSMAN: No, for ozone.

Page 48

1 THE WITNESS: For ozone?
2 MR. GROSSMAN: Yes. You said, you just added on
3 that you --
4 THE WITNESS: Arlington, Arlington does not have
5 ozone, number one.
6 MR. GROSSMAN: And the two D.C. sites that you
7 mentioned?
8 THE WITNESS: The two D.C. sites have both NO2 and
9 ozone for the whole year.
10 MR. GROSSMAN: For the whole year. Okay.
11 THE WITNESS: I believe that Beltsville -- and I
12 do want the privilege of checking this out during a break to
13 make sure I've got this right, because I'm not a Univac with
14 a total recall of all the data --
15 MR. GROSSMAN: Okay.
16 THE WITNESS: -- I believe that's right, but I
17 would like --
18 MR. GROSSMAN: And you believe that what's right?
19 That Beltsville what?
20 THE WITNESS: Only records ozone for part of the
21 year.
22 MR. GROSSMAN: Okay.
23 BY MR. GOECKE:
24 Q And I noticed that you were looking at your
25 computer before you made that last comment. Did you look at

Page 49

1 a document or some site to refresh your recollection?
2 A I couldn't find it. I'm looking at a, I'm looking
3 at a -- do you want to look at it?
4 MR. GOECKE: May I approach?
5 MR. GROSSMAN: You may, and if you prefer, the
6 witness doesn't have to have any documents in front of him.
7 THE WITNESS: Oh, that's fine. Fine. Fine. I
8 didn't touch anything.
9 MR. GOECKE: I'm just curious as to what he's
10 looking at.
11 THE WITNESS: Right there.
12 BY MR. GOECKE:
13 Q Okay.
14 A I couldn't, I can't both pay attention -- as my
15 wife will tell you, she can do six things at the same time,
16 but I can only do one thing at a time. So have some --
17 Q Okay. I'm just trying --
18 A -- have --
19 Q -- I'm just trying to focus on one thing right
20 now, just on --
21 A -- have forbearance.
22 Q We're just going to focus on Beltsville right now.
23 So would you agree that Beltsville meets the minimum
24 requirement of suburban development as one of your four
25 criteria?

Page 50

1 A Well, Beltsville is a lot of rural area. There is
2 Route 1, that corridor next to -- but there's also an awful
3 lot of rural space, which is missing from the Wheaton Mall.
4 So I --
5 Q So, in your opinion, no, it does not?
6 A I don't think it's necessarily representative, no.
7 Q Okay. Would it meet your criteria for proximity
8 to the Wheaton site?
9 A Yes, it would.
10 Q And would you agree that the two monitoring
11 locations in D.C. are more developed than the Wheaton
12 location?
13 A No.
14 MR. GOECKE: And, Mr. Grossman, I'd like now to
15 ask the witness a few questions about the document that
16 Mr. Silverman alluded to before. This is the Ambient Ratio
17 Method Version 2 --
18 MR. GROSSMAN: Okay.
19 MR. GOECKE: -- which has been distributed to
20 everyone but not made part of the record yet.
21 MR. GROSSMAN: All right.
22 MR. SILVERMAN: I'd like to object to it being
23 outside the scope.
24 MS. CORDRY: Yes. We would like to object to this
25 initially on the basis that --

Page 51

1 MR. GROSSMAN: Well, it's not marked as an exhibit
2 yet?
3 MS. ADELMAN: No.
4 MR. GOECKE: It is not.
5 MR. GROSSMAN: Okay. So let's mark it as an
6 exhibit so we know what we're objecting to. This will be
7 Exhibit 609.
8 MS. ADELMAN: Have we had this for 10 days?
9 MS. CORDRY: No. This is what we talked about
10 earlier.
11 MS. ADELMAN: This is the document.
12 MR. GROSSMAN: This is the Ambient Ratio Method
13 Version 2, also known as ARM2, for use with AERMOD -- that's
14 A-E-R-M-O-D -- for one-hour NO2 modeling. All right. Now,
15 what's the objection?
16 (Exhibit No. 609 was marked
17 for identification.)
18 MS. CORDRY: The objection is based on that this
19 does not meet the standard for admissibility or use in any
20 way, shape, or form in a proceeding such as this, based on
21 the Maryland standards of evidence. We did look up and find
22 the May 2014 User's Guide from EPA on the AERMOD modeling,
23 and this particular method is designated as a beta method.
24 The beta method is referred to on page 17 of this document
25 as a non-default option, and it further says: Inclusion of

Page 52

1 these draft beta-test options does not imply any endorsement
2 of their use for regulatory or non-regulatory applications
3 of the model. In addition, the designation of beta test to
4 these draft enhancements does not imply that these options
5 have completed rigorous internal, quote, alpha, unquote,
6 testing prior to being included in a public release of the
7 model.
8 We think those statements, standing alone; make
9 clear that this is not any kind of scientific method that
10 has received general scientific acceptability. It is a, in
11 the same parlance as a computer test, it's a beta test.
12 It's an experimental document that's being reviewed, it's
13 being considered, but it has not in any way, shape, or form
14 even been endorsed by the EPA as a non-default option.
15 So --
16 MR. GROSSMAN: All right. First of all, where
17 were you reading in the EPA?
18 MS. CORDRY: We're reading from a document
19 entitled User's Guide for the AMS slash EPA --
20 MR. GROSSMAN: Hold it. User's Guide for the AMS?
21 MS. CORDRY: Slash EPA Regulatory Model dash
22 AERMOD.
23 MR. GROSSMAN: Hold it a second. Regulatory Model
24 slash AERMOD.
25 MS. CORDRY: And it's --

Page 53

1 MR. GROSSMAN: And who puts that out?
2 MS. CORDRY: This is the EPA. It's an addendum
3 that was released in May 2014.
4 MR. GROSSMAN: All right. So May 2014 addendum.
5 MS. CORDRY: And I have --
6 MR. GROSSMAN: Addendum to what?
7 MS. CORDRY: To the original User's Guide for the
8 AMS slash EPA Regulatory Model.
9 MR. GROSSMAN: Is that published somewhere?
10 MS. CORDRY: Yes. It's on the web, which -- where
11 you can find it from the EPA, which is where we found it.
12 MR. GROSSMAN: You don't have a Federal Register
13 cite?
14 MS. CORDRY: No. I could probably pull it up and
15 find it.
16 MR. GROSSMAN: Do you have a copy of that for the
17 record, because I think that would be helpful?
18 MS. CORDRY: We, yes, we printed out the whole
19 thing. We will try to print the relevant pages. It was
20 pages --
21 MS. ROSENFELD: It's 159 pages. So --
22 MR. GROSSMAN: Of course.
23 MS. CORDRY: But the only, as I said, the only --
24 MR. GROSSMAN: I know you're not --
25 MS. ROSENFELD: The relevant --

Page 54

1 MR. GROSSMAN: -- it's against your better
2 judgment to introduce anything that's not at least 150
3 pages.
4 MS. CORDRY: Right. Right. Well, we will
5 certainly print out these, some of the relevant pages. We
6 really only, obviously, got the original document a couple
7 of days ago --
8 MR. GROSSMAN: Right.
9 MS. CORDRY: -- looking at this. That's from
10 pages 17 and 18 of this document.
11 MR. GROSSMAN: Okay. So pages 17 to 18.
12 MS. CORDRY: Right.
13 MR. GROSSMAN: Let's mark that --
14 MS. CORDRY: All right.
15 MR. GROSSMAN: -- and we'll put it in as Exhibit
16 610.
17 MS. CORDRY: Okay.
18 MR. SILVERMAN: Mr. Grossman --
19 MR. GROSSMAN: Mr. Silverman.
20 MR. SILVERMAN: -- we have a less scientific, more
21 legal objection.
22 MR. GROSSMAN: I understand, but let me --
23 MS. CORDRY: Right.
24 MR. SILVERMAN: Okay.
25 MR. GROSSMAN: -- let me deal with one at a time

Page 55

1 here.
2 MS. CORDRY: And because this also deals with
3 something that is a beta model to Tier 2, Tier 2, which they
4 have already suggested they have not used in these, in their
5 analysis, we're trying to figure out if this is now an
6 attempt to bring in a Stage IV analysis at this process,
7 Stage V. I'm not quite sure how many stages we're at now in
8 their analysis, but this is a, this is a variation on a Tier
9 2 model that they have never used in their documentation
10 until this point.
11 MR. GROSSMAN: The this antecedent you're
12 referring to is 609?
13 MS. CORDRY: 609, yes.
14 MR. GROSSMAN: Okay. All right. But right now
15 let me have 610 so that I can -- because you're referring to
16 609 but you're holding 610.
17 MS. CORDRY: Right.
18 MR. GROSSMAN: Okay. Thank you.
19 MS. HARRIS: Do you have an extra copy of that?
20 MS. CORDRY: No, but they should be well aware of
21 that document since they wanted to put in 609.
22 MR. GROSSMAN: Well, let's be fair here. All
23 right. So 610 --
24 MS. ROSENFELD: Mr. Grossman, since there's
25 limited pages in there that we anticipate referencing, I'm

Page 56

1 happy to make copies of those pages rather than introduce
2 multiple copies. I didn't have time to make eight copies of
3 a 159-page document.
4 MR. GROSSMAN: Right. I think what we'll do is
5 let them look at it during the break for sure, or they can
6 take a break now, if they want, to look it over and see
7 where they go from there, but hold on. Let me just write
8 this. This is EPA May 2014 Addendum to User's Guide for the
9 AMS slash EPA Regulatory Model-AERMOD, and I'll put parens,
10 specifically pages 17 to 18. Hold on a second.
11 (Exhibit No. 610 was marked
12 for identification.)
13 MS. CORDRY: There may be other pages that also
14 describe that this is the beta model and so forth, but
15 that -- the document is available on the EPA website. I
16 don't believe it's published in the Federal Register. It's
17 part of their internal guidance. Actually, if you look
18 at -- yes, on page 18 it specifically describes it. The
19 ARM2 option, which is referred to here, is one of the ones
20 that's specifically listed there as being one of these beta
21 options. So it does refer to it there.
22 MR. GROSSMAN: Right. And are you suggesting that
23 in this document, Exhibit 610, that the EPA is saying don't
24 use ARM2, or are they saying we're not guaranteeing its
25 accuracy or whatever because it hasn't been fully tested?

Page 57

1 MS. CORDRY: They're saying this is a document
2 that was -- this is a new-attempt model. There are a great
3 many variations on the accepted models out there, floating
4 around.
5 MR. GROSSMAN: Right.
6 MS. CORDRY: This is a model that was developed by
7 the American Petroleum Institute last summer, apparently.
8 It is attempting to come up with a different way of doing
9 the Tier 2 analysis, and the EPA said, here, I'll put it in
10 the AERMOD, you can use it, you can play with it, you can
11 do, you can beta test it, you can do these kinds of things,
12 but it's certainly saying at this point exactly what it says
13 there: it's not a -- it does not imply that they've
14 completed the internal testing; it doesn't imply any
15 endorsement of their use for regulatory or non-regulatory
16 applications of the model.
17 MR. GROSSMAN: I understand it's not endorsing it,
18 but are you suggesting that the EPA rejects its use in the
19 modeling?
20 MS. CORDRY: I don't think they've probably gotten
21 that far. At this point, if you recall, there are default
22 options which you can use; there are non-default options
23 which have to be specifically justified to the EPA to be
24 used, which was what the Tier 3 OLM method was. This is
25 another step beyond that which they, as far as I can tell

1 from this, they have simply said, here it is, you can play
2 with it, but they have not said whether they're going to
3 accept it or use it in any way, shape, or form yet.

4 I mean, you're reading the same language I'm
5 reading, which came out on May 16th, I believe it was, yes,
6 May 16th. So -- but I certainly cannot read that as saying
7 that a beta test model can meet the criteria in Maryland law
8 for general scientific acceptability when the agency itself
9 says we have not taken any position on whether we're going
10 to use, allow this.

11 MR. GROSSMAN: I'm going to give the applicant a
12 chance to look this over before I rule on anything, but let
13 me hear from Mr. Silverman now. He had some other point
14 that he wanted to --

15 MR. SILVERMAN: Yes. I don't recall Mr. Sullivan
16 mentioning ARM2 in his testimony. I don't recall him
17 mentioning it in his testimony. I do recall, Mr. Sullivan
18 acknowledged that he did, he skipped over Tier 2. This is a
19 modification of Tier 2. So I think this is beyond the scope
20 of the rebuttal. It is beyond the scope of the direct
21 testimony of Dr. Cole and should not be admitted for that
22 reason. And it's -- well, I'll stop there.

23 MR. GROSSMAN: Okay. All right. So you're --

24 MS. ROSENFELD: And we would join Mr. Silverman,
25 as well, in his objections.

1 MR. GROSSMAN: Okay. So the objection is based
2 on, number one, the beta status of it; number two, that it's
3 beyond the scope of Sullivan and Dr. Cole's testimony?

4 MS. CORDRY: Right.

5 MR. GROSSMAN: Okay.

6 MS. CORDRY: And I would notice, just looking at
7 this document itself, 609, on page little iv, so little 4,
8 you know, the introduction, it says: Based on the analyses
9 presented herein, it is recommended that ARM2 be approved by
10 EPA as a refinement to the current fixed-ratio ARM method --
11 which is the Tier 2 method; that's my parenthesis there --
12 picking up again, for performing one-hour NO2 analyses, or
13 be approved as an additional Tier 3 screening method.
14 Consistent with other recent updates to AERMOD, EPA could
15 implement this refinement by posting a memorandum on the
16 SCRAM, S-C-R-A-M, website, authorizing the use of ARM2 for
17 AERMOD modeling analyses and referencing this report as
18 supporting documentation. An updated version of AERMOD
19 should also be posted that includes the ARM2 model option.

20 At this point, all that's happened is that they
21 have posted a version of AERMOD that includes this as an
22 option, but they have clearly not included something that
23 says that this is authorized to be used, referencing this
24 report as supporting documentation. At this point, it's
25 simply something that I think -- I mean, my opinion would be

1 from reading this that they put it out there and it's like,
2 here it is, folks, you know, go ahead, do some more work on
3 it; at some point, when we have enough rigorous internal
4 alpha testing, maybe we'll consider making it a model, but
5 at this point, it's just something out there that people can
6 use to play with, as far as I can tell from this.

7 MR. GROSSMAN: Yes. I'm going to let the
8 applicant take a look at this. One of the things that I'm
9 wondering about is we don't know yet how it's going to be
10 used in cross-examination. So I don't know how pertinent
11 these objections are at this point, but let's let them look
12 at the 610 comments in the addendum to the user guide. And
13 how much time do you need to --

14 MR. GOECKE: Just a few minutes.

15 MR. GROSSMAN: Okay. All right. Why don't we
16 come back -- it's 10 to, or eight minutes to 11:00 now --
17 we'll come back at 11 o'clock?

18 MR. GOECKE: Thank you.

19 MR. GROSSMAN: Okay. And we're in recess then.
(Whereupon, at 10:52 a.m., a brief recess was
21 taken.)

22 MR. GROSSMAN: All right. Back on the record.
23 Does the applicant wish to respond to the objection?

24 MR. GOECKE: Yes, we do.

25 MR. GROSSMAN: All right. You may proceed.

1 MR. GOECKE: Just a couple of comments. One, on
2 page 18, beneath the numbered paragraphs there, I think
3 right below No. 5 there's a sentence that says, you know,
4 identification of this beta system is not an endorsement.
5 It doesn't --

6 MR. GROSSMAN: Right.

7 MR. GOECKE: -- it doesn't say it's not allowed or
8 whether it is allowed, but as you alluded to before we took
9 the break, I think that their concerns are misplaced because
10 we're not, we're not submitting any new analysis or any new
11 report and that's not the purpose of why we're referencing
12 this document, and with your indulgence, after a few
13 questions I think it'll become clear as to what we're going
14 to show with that.

15 MR. GROSSMAN: You have --

16 MS. ROSENFELD: Candidly, Mr. Grossman, I'd like
17 to have a proffer of where this is going. This is certainly
18 well beyond the scope of any direct testimony. It's beyond
19 the scope of anything that's in the record. So --

20 MR. GROSSMAN: Well, I don't think we need a
21 proffer. Let's get the question asked, and then you can
22 object to the question. How's that?

23 MS. CORDRY: Well, but again, if the questioning
24 is going to be based on a new form of modeling that has not
25 been used before, that is not subject to these things, I

Page 62

1 mean, this is just an area that we don't need to be getting
2 into.
3 MR. GROSSMAN: Well, I don't know that until I
4 hear the question. So when I hear the question, and I'll
5 hear your objection at that point, it may or may not be an
6 improper question. He may be questioning Dr. Cole about his
7 opinion regarding the Stage III as opposed to Tier 3
8 analysis by Mr. Sullivan. I don't know. I mean, let's hear
9 the question, and then we'll know a little bit better in the
10 sense that is a proffer when he asks the question. So --
11 MR. GOECKE: Thank you.
12 BY MR. GOECKE:
13 Q Dr. Cole, if you could turn to page 3 of this
14 document.
15 MR. GROSSMAN: This document being 609?
16 MR. GOECKE: 609, the --
17 MR. GROSSMAN: Okay.
18 THE WITNESS: Roman III or regular 3?
19 BY MR. GOECKE:
20 Q Regular 3.
21 A Okay.
22 Q And if you look at the second paragraph --
23 A Yeah.
24 Q -- and the second sentence --
25 A Okay.

Page 63

1 Q -- which begins: As a plume containing NOx is
2 transported --
3 MR. GROSSMAN: Well, that's not what my page 3
4 has. So --
5 MR. GOECKE: On 609?
6 MR. GROSSMAN: Oh, the second sentence. Okay. In
7 the second sentence in the first full paragraph, is that --
8 MR. GOECKE: The first full paragraph, that's
9 correct.
10 MR. GROSSMAN: Okay.
11 BY MR. GOECKE:
12 Q It reads: As a plume containing NOx is
13 transported downwind over time, there is increased plume
14 dispersion and entrainment of ambient air. The increased
15 entrainment brings additional ambient ozone into the plume,
16 which causes additional conversion of NO to NO2 through the
17 fast oxidation reaction. These processes result increased
18 NO2 to NOx ratios and decreased NOx concentrations with the
19 plume's increased dispersion over time. Did I read that
20 correctly?
21 A I believe so.
22 Q And do you agree with that statement?
23 A I believe that's a true statement but it needs to
24 be qualified --
25 Q Okay.

Page 64

1 A -- in terms of testimony that I gave. I'm going
2 to try and speak up because -- thank you. Thank you.
3 MR. GROSSMAN: I don't know what the -- what does
4 the wave to the audience --
5 MS. CORDRY: The audience couldn't hear.
6 THE WITNESS: Because there have been complaints
7 from --
8 MR. GROSSMAN: I see.
9 THE WITNESS: -- various people that I don't --
10 MR. GROSSMAN: Okay.
11 THE WITNESS: And so I'm trying not to be --
12 MR. GROSSMAN: Too quiet.
13 THE WITNESS: Right.
14 MR. GROSSMAN: Okay.
15 THE WITNESS: I say qualify because this report
16 further refers to the Janssen studies, which are based on
17 power plant plumes. We've -- I've testified extensively
18 that what happens to a power plant plume that's 30 feet --
19 300 meters up in the air is very different from what happens
20 along the ground when you've got a lot of cars and exhausts.
21 The second thing is, the second thing is that this
22 model has been evaluated -- has not been evaluated in this
23 particular report for motor vehicle areas, for traffic.
24 It's based on point sources such as refineries or a gas
25 plant or in one case a power plant. So it's very important

Page 65

1 to qualify the rate of dispersion and mixing down to the
2 molecular level by the circumstance you're looking at.
3 MR. GROSSMAN: You're saying that this article
4 pertains to particularly problematic power plant plumes?
5 You don't have to answer that. Go ahead.
6 MS. ADELMAN: Alliteration.
7 THE WITNESS: Was that a --
8 MS. CORDRY: That was a joke.
9 THE WITNESS: -- PTP --
10 MR. GROSSMAN: A joke, it was a joke. The Hearing
11 Examiner gets to make the jokes. All right.
12 BY MR. GOECKE:
13 Q So it's your testimony, Dr. Cole, that the
14 statement that I read from page 3 applies only to power
15 plant plumes?
16 A No. I said it applies in general but one must
17 qualify. If one is going to talk about the time or the
18 distance that it takes for the plume to mix downward, for
19 the NOx to mix downward to the molecular level so it comes
20 into contact with ozone, one must look at the particular
21 circumstances. Secondly, I said that the evaluation studies
22 that are cited here are not for ground-level motor vehicle
23 sources; so they wouldn't apply here.
24 Q I'm sorry. It wouldn't apply here because why?
25 A Because the evaluation studies that are listed in

Page 66

1 this report are for point sources or industrial sources, not
2 for roadways or traffic areas.
3 Q Okay. So you disagree that a plume emitted from a
4 parking lot or a gas queue would not disperse more over
5 time, that NOx would not disperse more over time? I'm just
6 trying to find out what portion of this you disagree with in
7 terms of applying it here.
8 A I didn't disagree with it. I qualified it.
9 Q Well, you said --
10 A I said --
11 Q -- you said it doesn't apply here.
12 MS. CORDRY: Asked and answered, I think, several
13 times now.
14 MR. GROSSMAN: Yes, but I think he can clarify. I
15 think I understand his answer, but if you want to pursue it
16 a little bit further, you can.
17 MR. GOECKE: I'm sorry. I don't understand his
18 answer, yes. So --
19 MR. GROSSMAN: Okay.
20 MR. GOECKE: -- I would like to pursue it further.
21 THE WITNESS: Okay. The last time I was,
22 testified and answered questions on this subject, I
23 distinguished between the length of time and the distance
24 that it takes for a plume to get from the exhaust down to
25 the molecular level and I made a distinction between motor

Page 67

1 vehicles, which happen at ground level, where there's a lot
2 of surface roughness, versus an elevated plume which may be
3 100 meters high, which is not encountering that kind of
4 dispersion.
5 So my only point is, this is basically correct;
6 the issue is the speed of time and the distance that it
7 takes for the molecules to get in contact with one another.
8 Is that clear?
9 BY MR. GOECKE:
10 Q I think it is. So --
11 A Okay.
12 Q -- let me try it this way. So the time and
13 distance required to convert NO to NO2 would be different
14 for a plume coming from the gas station queue as compared to
15 a power plant tall stack plume?
16 A Absolutely.
17 Q Okay.
18 MR. GROSSMAN: I think you mean NOx as opposed to
19 NO, NO being presumably --
20 THE WITNESS: Well, it's, should I -- can I
21 clarify that for you?
22 MR. GROSSMAN: Sure.
23 THE WITNESS: Okay. So if you take a power plant
24 plume, what's coming out of the stack is mostly NO. There
25 is some NO2, which is formed in the hot exhaust.

Page 68

1 MR. GROSSMAN: Right.
2 THE WITNESS: Those two things together are most
3 of the NOx. So what remains to react with the ozone is the
4 NO.
5 MR. GROSSMAN: Okay. So you correctly stated it.
6 THE WITNESS: Yeah.
7 MR. GROSSMAN: Okay.
8 BY MR. GOECKE:
9 Q Okay. And so at the last hearing, when you
10 testified that distance is not a factor, that wasn't
11 entirely correct, was it? I mean, distance, as you say,
12 time and distance are factors in the conversion of NO to
13 NO2.
14 A I don't believe that's a correct statement of what
15 I said. I disagree with that understanding of what I said.
16 Q Okay. Well, perhaps I misunderstood you. So you
17 agree that distance is a factor in the conversion process of
18 NO to NO2?
19 A Distance is a factor, and the ground-level
20 sources, the vehicle exhausts are going to react -- are
21 going to dilute down to the molecular level both faster in
22 time and in a shorter distance. So they will affect -- the
23 NO2 will affect receptors that are much closer to the
24 vehicles than it will, than the reaction takes place, let's
25 say, in a power plant plume. And I made the point that even

Page 69

1 the document, the Environmental Agency document, not to be
2 confused with EPA --
3 Q Yes.
4 A -- made the point, advised against or said it
5 would not accept using that model, that Janssen method, for
6 ground-level sources, for smaller sources.
7 Q And so it's your testimony that the conversion
8 process will happen more quickly in the gas station queue
9 than it would in a plume emitting from a power plant stack?
10 MS. CORDRY: I think that has now been asked and
11 answered --
12 MR. GROSSMAN: Well, let him, let him --
13 MS. CORDRY: -- repeatedly.
14 MR. GROSSMAN: I'll overrule the objection.
15 THE WITNESS: That is my testimony.
16 BY MR. GOECKE:
17 Q Okay. And why is that exactly? Is that because
18 the air is moving faster, or what's causing the process to
19 happen more quickly in a gas station queue?
20 A Well, you have to look at the scales of
21 turbulence. As I testified last time, with a power plant
22 plume, you have a very wide stack, and I showed pictures
23 of -- since Mr. Sullivan focused on stable conditions, I
24 showed a picture of a plume, a power plant plume under
25 stable conditions. It was several hundred meters up in the

Page 70

1 air, and you could see that the plume was not mixing. You
2 could see that plume for miles, which is what happens with
3 an elevated plume under stable conditions.
4 On the other hand, when you get down to the ground
5 level, when you have cars, when you have much smaller
6 plumes, when you have surface roughness that creates
7 turbulence at a smaller scale in relationship to the
8 smaller-scale plume that's coming out, I showed pictures of
9 how rapidly exhausts from cars can disperse. So I think
10 I've covered that in my previous testimony pretty well.
11 MR. GROSSMAN: And I think you've covered it in
12 the cross-examination. So --
13 THE WITNESS: Can you hear me back there?
14 MS. ADELMAN: Yes.
15 MS. CORDRY: Much better. Much better. Thank
16 you.
17 MR. GOECKE: Mr. Grossman, I'd like to ask
18 Dr. Cole a question about the Environmental Agency report
19 that he just referred to. I don't have the exhibit number.
20 MR. GROSSMAN: That's the British Environmental
21 Agency --
22 MR. GOECKE: Yes.
23 MR. GROSSMAN: -- one? I think it might -- let's
24 see.
25 MR. GOECKE: Do you know what exhibit that is,

Page 71

1 Michele?
2 MS. ROSENFELD: I don't, and I'm not sure it was
3 ever exhibitized.
4 MR. SILVERMAN: I'm not sure it was exhibitized.
5 MS. ROSENFELD: It's the first --
6 MR. SILVERMAN: It was referenced.
7 MS. ROSENFELD: -- reference in Mr. Sullivan's
8 report, but I don't think it was ever entered as an exhibit
9 that I heard.
10 MR. GROSSMAN: I thought it was, but maybe I'm
11 mistaken.
12 MS. ROSENFELD: It's been discussed a number of
13 times.
14 MR. GROSSMAN: I'm not seeing it, which doesn't
15 mean that it wasn't introduced, but I'm not seeing it
16 directly here. Do you have a copy there?
17 MR. GOECKE: I only have one copy, but we can
18 submit one. We can put it on the screen as well.
19 MR. GROSSMAN: All right. What's your -- what's
20 the question?
21 MR. GOECKE: So I'm referring to page 47 of this
22 report.
23 MR. GROSSMAN: All right. Let's mark it since
24 we're referencing it, and apparently, we're not -- gee, I
25 know I've seen it before. Hold on a second.

Page 72

1 MR. GOECKE: Sure.
2 MR. GROSSMAN: Let's see if I brought it in with
3 me.
4 MR. GOECKE: And we'll put a copy up on the screen
5 as well.
6 MR. GROSSMAN: This CAPCOA, I guess, was 567, and
7 then I think it came up at the same time. All right. Well,
8 let's mark this as Exhibit 611. We'll just say, British
9 Environmental Agency review of methods for NO2 conversion in
10 plumes at short ranges. Let's see if we have a date on
11 this, November 2007. Okay. And you're looking at page 47?
12 (Exhibit No. 611 was marked
13 for identification.)
14 MR. GOECKE: This is page 47, yes.
15 BY MR. GOECKE:
16 Q And if you would, Dr. Cole, please read the
17 paragraph beginning, these urban schemes.
18 A These urban schemes suggest that to assume 100
19 percent conversion, the first option available to the EA is
20 unrealistically conservative. Further, the photostationary
21 state does not indicate 100 percent conversion. We
22 anticipate that 100 percent conversion would frequently give
23 too high an estimate of impact of, I think it says NO2 or --
24 Q NOX.
25 A I think, I think they meant to say NO2, because

Page 73

1 NOx has nothing to do with conversion, but anyway: From a
2 regulatory perspective, a 100 percent conversion is the most
3 conservative estimate that is possible to make. Work by
4 Janssen of 1988 suggests that for large plumes there is a
5 near-surface, a near-, I'm sorry, a near-source region with
6 a low conversion, but that is rapidly asymptotic to the
7 photostationary state after a modest travel time of perhaps
8 200 seconds, according to our calculation, using their
9 method. As such, it bears an unexpected but welcome
10 similarity to our understanding of urban NO2 data. Hence we
11 suggest that the Janssen method may be more applicable to
12 smaller plumes than has been recognized hitherto, provided
13 care is taken to use appropriate, conservative values of --
14 MS. CORDRY: Alpha.
15 THE WITNESS: -- alpha. This uses wind speed at
16 plume height, O3 background, NO plus O3 rate constant and
17 NO2 photolysis rate.
18 BY MR. GOECKE:
19 Q Thank you. So contrary to your earlier statement
20 that the EA report said that the Janssen study was not
21 applicable to situations such as the proposed Costco gas
22 station, this says the opposite. This says that it actually
23 bears an unexpected but welcome similarity to our
24 understanding of urban NO2 data; hence we suggest that the
25 Janssen method may be more applicable to smaller plumes than

Page 74

1 has been recognized hitherto.
2 A Interesting you didn't read the last part of the
3 last sentence: provided care is taken to use an
4 appropriate, conservative value of alpha.
5 Q Okay.
6 A Now, somewhere else in this document they say that
7 this agency doesn't accept the Janssen method for small
8 plumes for urban sources. So I can't -- it's not at my
9 fingertips, but I think you can find it.
10 Secondly, I want to comment on the scientific
11 nature of the statement. Sure, you can use the same
12 framework to look at turbulence at different scales, but
13 they're very careful in how they qualify this because they
14 recognize that there's a difference in the turbulence from a
15 plume that's way up in the air to something that's close to
16 the ground and that's a smaller source. So that's why
17 they're talking about an appropriate, conservative value of
18 alpha.
19 So I don't think this changes a thing. I think
20 it's consistent with what I've said, that basically the
21 physics of the atmosphere is the same in terms of the effect
22 of motions, but the scales are so different here. It's like
23 comparing apples and oranges.
24 MR. GROSSMAN: I don't think alpha was defined in
25 that paragraph. What is alpha?

Page 75

1 THE WITNESS: Alpha is a constant that takes into
2 consideration the plume height, the wind speed, the ozone
3 background, and the -- and the NO plus O3 rate constant.
4 BY MR. GOECKE:
5 Q But you agree that according to this, if you apply
6 conservative values for alpha, however it's defined, you may
7 have similarities at an urban -- in an urban situation
8 compared to the power plant plume?
9 A Right. For a power plant plume, they say 200
10 seconds. Okay? For a plume near the ground, where you have
11 all this surface roughness, Mr. Sullivan has testified that,
12 that these vehicles add to the surface roughness, and I
13 showed that not only does increased surface roughness
14 increase the rate of mixing but it also slows the wind
15 speed. So if you have a slower wind speed -- you have a
16 slower wind speed, you're going to have more time for those
17 pollutants to mix down to the molecular level.
18 So I don't, you know, it's nice that they think
19 that there's an optimistic way of doing it. You notice that
20 the quote doesn't say they have a method. It just says,
21 gee, maybe this is an avenue to explore provided you have
22 the right constant, conservative constant. So --
23 Q Okay. And let's talk about some of those
24 constants. So in your calculations for one-hour NO2 at the
25 site, you calculated the surface roughness?

Page 76

1 MR. GROSSMAN: When you say his calculations, what
2 are you referring to? Is there a specific document you're
3 looking at, or --
4 MR. GOECKE: No. I don't believe he's prepared
5 any document.
6 MR. GROSSMAN: Oh, just in general from his
7 testimony?
8 MR. GOECKE: From his testimony, yes.
9 MR. GROSSMAN: Okay.
10 BY MR. GOECKE:
11 Q And correct me if I'm wrong. You haven't
12 provided -- you haven't given us any documents that shows
13 your calculation or your estimate for one-hour NO2 levels,
14 have you?
15 A Do you have the slides from the last time? I
16 think I gave a reference for the formula that I used.
17 Q Yes.
18 A It's not an unusual formula. It's fairly
19 standard.
20 Q Yes.
21 A It's called the logarithmic profile, and it's a
22 well-known fact that with greater roughness, the surface
23 layer, the surface boundary layer is going to have slower
24 wind speeds, period.
25 Q Dr. Cole --

Page 77

1 A And the reason for that is that when you have
2 turbulence, that takes away from the forward kinetic energy
3 of the wind. It's simple physics. It's called the law of
4 conservation of energy. It's simple.
5 Q And so your testimony here is that the gas station
6 will be more turbulent than air coming out of a power plant
7 plume?
8 A Yes.
9 Q Okay.
10 A Well, I'm going to qualify that. If you have the
11 same stability and you have surface roughness, you're going
12 to have turbulent scales that are very different between a
13 power plant plume and what's happening at ground level. You
14 just don't have those obstacles at 300 meters up in the air.
15 Now, that doesn't say you don't have turbulence. You may
16 have a lot of convective turbulence based on thermal eddies
17 and whatnot, but that, that's not the kind of turbulence --
18 he's not listening to my answer.
19 MR. GROSSMAN: It's okay. You're still on the
20 record. That's not the kind of --
21 THE WITNESS: Let the record show they're not
22 listening.
23 MR. GROSSMAN: I'm sure a portion of their ear is
24 trained to your statements. Did you want to finish your
25 sentence?

Page 78

1 THE WITNESS: Mr. Goecke, you're --
2 MR. GROSSMAN: No, no.
3 THE WITNESS: -- and Mr. Sullivan --
4 MR. GROSSMAN: Dr. Cole --
5 THE WITNESS: -- you're lucky you're not in my
6 class.
7 MR. GROSSMAN: Dr. Cole --
8 THE WITNESS: All right. Okay.
9 MR. GROSSMAN: -- do you want to finish your
10 sentence?
11 THE WITNESS: This is the 36th session.
12 MR. GROSSMAN: I know. I know, but do you want
13 to --
14 THE WITNESS: Okay.
15 MR. GROSSMAN: But it's not your 36th session --
16 THE WITNESS: Oh.
17 MR. GROSSMAN: -- it's most of the rest of us, but
18 in any event, did you want to finish your sentence?
19 THE WITNESS: Yeah. Simply stated, again, is that
20 you're going to have a kind of chop at ground level,
21 particularly with the surface roughness on that mall
22 surface, that induces very rapid mixing, more rapid mixing
23 at the surface with the car exhaust than you will with a
24 power plant plume that's going to take a much longer period
25 of time, and that's exactly why, that's exactly why that

Page 79

1 statement in the Environmental Agency report is qualified.
2 And I just want to repeat that they haven't come up with a
3 method in that paper at all. They're just saying, gee, this
4 might be an avenue to explore, it looks like good news, it
5 might make things easier, but it doesn't say it will make,
6 will use exactly the same constants or come up with the same
7 answers, period.
8 BY MR. GOECKE:
9 Q Dr. Cole, in your opinion, is there any difference
10 between the terms roughness length and surface roughness?
11 A Well, surface roughness is, can be used in a
12 qualitative way. The length is a numerical value that can
13 be -- the z sub zero -- that can be plugged into various
14 equations that give you information about the wind profile
15 or the turbulence.
16 Q Okay. And so do you have a copy of your slide
17 show in front of you?
18 A I don't. Do you?
19 MR. GROSSMAN: That would be Exhibit -- let's see.
20 MR. GOECKE: 581, I believe.
21 MR. GROSSMAN: Yes, Dr. Cole's PowerPoint slide.
22 THE WITNESS: If you could show me what you're
23 referring to, I'd appreciate it.
24 BY MR. GOECKE:
25 Q Yes.

Page 80

1 MR. GOECKE: If I may approach?
2 MR. GROSSMAN: Yes.
3 BY MR. GOECKE:
4 Q Slide 4 of 581 that I have, you have your
5 logarithmic wind profile. I believe this is the slide you
6 were referring to a moment ago.
7 A Yeah.
8 MS. ADELMAN: What page is that?
9 MR. GOECKE: It's on Slide 4 of Exhibit 581.
10 MR. SILVERMAN: Can you put it on the screen?
11 THE WITNESS: Okay.
12 BY MR. GOECKE:
13 Q Okay. And so z0, according to your calculations,
14 equals what?
15 A That would be your, your roughness length.
16 MR. SILVERMAN: Mr. Grossman, we don't have this.
17 I wonder if we could put it on the screen, if Mr. Goecke has
18 it on his computer?
19 MR. GROSSMAN: Can it be put on the screen?
20 MR. BRANN: I don't, I don't have --
21 MR. GROSSMAN: Let's see if we -- here.
22 MR. GOECKE: Do you have an extra copy?
23 MR. GROSSMAN: Let's see if we -- here, it's in
24 this file, 581. Which slide are you talking about?
25 MR. GOECKE: Slide 4.

Page 81

1 MR. GROSSMAN: Slide 4. Okay.
2 THE WITNESS: So --
3 BY MR. GOECKE:
4 Q We're waiting for everyone to --
5 A Oh, okay.
6 Q -- find the PowerPoint.
7 MR. GROSSMAN: Ms. Rosenfeld, do you have a copy
8 of that since it's your witness?
9 MS. ROSENFELD: Yes, I do.
10 MR. GROSSMAN: Are you sharing with Mr. Silverman?
11 MS. ROSENFELD: Yes.
12 MR. SILVERMAN: Yes.
13 MR. GROSSMAN: Okay. All right.
14 MS. ADELMAN: And me.
15 MR. GROSSMAN: Okay.
16 MS. ROSENFELD: And Ms. Adelman.
17 MR. SILVERMAN: Right.
18 MR. GROSSMAN: And Mrs. Adelman.
19 MR. SILVERMAN: Of course, it's transparent to all
20 of us here.
21 BY MR. GOECKE:
22 Q Well, let's try to decode it a little bit. So you
23 were saying a moment ago, Dr. Cole, z0 -- z0, I'm sorry,
24 what does z0 represent?
25 A That is a roughness, a roughness -- a surface

Page 82

1 roughness length which is a characteristic -- it's that
2 point, to be specific, z sub O or the surface roughness
3 element is that point at which the -- below that point you
4 really don't have a mean wind speed. You have a lot of
5 turbulence, and when you reach that point, then you're
6 dealing with an atmosphere which is, which is different.
7 So that -- it's well-known that this logarithmic
8 profile explains the curve; so -- and let me clarify that
9 the only calculation I did was the curve on the extreme
10 left, which I've enumerated here on the right side of the
11 page.
12 MR. GROSSMAN: Well, we must be looking at a
13 different slide, because mine says, big whirls, little
14 whirls. You said Slide 4, right?
15 MR. GOECKE: Slide 4, yes.
16 MS. ADELMAN: Logarithmic wind is what you want.
17 MR. GROSSMAN: That's not --
18 THE WITNESS: Is this what you're --
19 MR. GROSSMAN: That's not what's labeled 4 on
20 Exhibit --
21 THE WITNESS: Is this what you're --
22 MR. GOECKE: Yes.
23 MS. ADELMAN: It's page 3, Mr. Grossman.
24 THE WITNESS: It's this, it's this one.
25 MR. GROSSMAN: It's page 3 --

Page 83

1 MS. ADELMAN: Yes.
2 MS. ROSENFELD: No. It's 4.
3 MR. GROSSMAN: -- but it's really Slide 4; is that
4 what you're saying?
5 MR. GOECKE: The version I have --
6 MR. GROSSMAN: No. That's --
7 MR. GOECKE: -- they weren't numbered. I think
8 I've handwritten them in.
9 MS. ADELMAN: Aren't there numbers? Mine has
10 numbers.
11 THE WITNESS: It's this, it's this one,
12 Mr. Grossman.
13 MR. GROSSMAN: All right. That's not what's on my
14 copy.
15 THE WITNESS: Okay.
16 MS. ADELMAN: Page 4, my mistake.
17 MR. GROSSMAN: Well, page 4 is not, that's not
18 what's showing here. Let me see if we're talking about the
19 same exhibit. Exhibit 581, right --
20 MS. ADELMAN: Right.
21 MR. GROSSMAN: -- or is that 587?
22 MS. ROSENFELD: There was a 581, and then it was
23 updated the morning of the hearing. There was 581, new.
24 MR. GROSSMAN: Ah.
25 MS. ROSENFELD: It did have page, each slide was

Page 84

1 numbered. The original one had handwritten numbers, page
2 numbers.
3 MR. GROSSMAN: Yes, I'm looking at one
4 handwritten, and the page 4 I have handwritten --
5 MS. ROSENFELD: It was updated subsequent to that,
6 handed in at the hearing when Dr. Cole testified.
7 MR. GROSSMAN: Let's see.
8 MS. ADELMAN: Has a colored picture on the front.
9 MS. ROSENFELD: The first page --
10 MR. GROSSMAN: Let me see if we have -- do we
11 have, do we have a --
12 MS. ROSENFELD: The first page looks like this.
13 MR. GROSSMAN: I know, but do we have an exhibit
14 number for the updated version?
15 MS. ROSENFELD: It was just, came in, I think, as
16 581 and then new in parentheses.
17 MR. GROSSMAN: Oh, I remember that picture, but
18 let me see if -- so that was supposed to be substituted,
19 right?
20 THE WITNESS: Do you want to use this one?
21 MR. GROSSMAN: No. Hold on one second, if you
22 would. Let me see if we have -- for some reason that didn't
23 get in. All right. All right. Maybe I thought this was
24 just a copy you were giving me and it needs, now it needs to
25 be substituted in here, and we'll do that. All right. So

Page 85

1 now, at least, I'm on the same page as everybody else.
2 MS. ROSENFELD: Maybe we should label it 581(b).
3 MR. GROSSMAN: Let's see what, 581, well, there is
4 no -- you mean (a) and (b); is that what you're saying?
5 Well, the only trouble is, I guess it's been referenced here
6 before as 581. So maybe the simplest thing, if everybody's
7 agreeable, is just to substitute it. Is that --
8 MS. ROSENFELD: Yes.
9 MR. SILVERMAN: Right.
10 MS. ROSENFELD: Sure.
11 MR. GROSSMAN: -- an agreeable way to do it?
12 Okay. All right. So we'll substitute that 581. All right.
13 So now I'm looking at the same logarithmic wind profile.
14 All right. So is there a question pending, Mr. Goecke,
15 regarding --
16 MR. GOECKE: There is no question pending.
17 MR. GROSSMAN: Okay.
18 MR. GOECKE: So we may proceed?
19 MR. GROSSMAN: Yes.
20 BY MR. GOECKE:
21 Q And so at two meters then, what happens to the
22 air, Dr. Cole?
23 A Two meters of height?
24 MR. GROSSMAN: Two meters of height?
25 MR. GOECKE: Two meters of height.

Page 86

1 THE WITNESS: No, it's -- are you talking about
2 two meters of height or two meters of surface roughness
3 element? Which are you talking about?
4 BY MR. GOECKE:
5 Q Two meters of height. Two meters --
6 A I'm not clear on what you're saying. Are you
7 talking about -- if you look at the two-meter height, you
8 see three different curves with three different values of
9 wind speed.
10 Q No, I'm not talking about the graph, just two
11 meters, two meters above the surface of the gas station
12 queue.
13 A Are you talking about this?
14 Q Yes.
15 A Okay.
16 Q And on the right-hand side --
17 A Yeah.
18 Q -- you said for 10 meters of height, and z0 equals
19 two meters, right?
20 A Okay.
21 Q Okay. What's the 10 meters of height?
22 A That's to see what the speed is at the top of this
23 chart.
24 Q So this is to calculate the speed of the wind at
25 10 meters of height?

Page 87

1 A Well, it gives you more information. If you use
2 this equation, it gives you the way that the wind speed
3 changes with height. So that at different -- for each of
4 these different surface roughness elements, z sub naught,
5 you have three different profiles. The bigger the point is,
6 the bigger -- the choppy the air at the surface, the
7 bigger the surface roughness elements, the slower the wind
8 speed is going to be at any particular level, at least for
9 the --
10 Q Okay.
11 A -- at least for the first 10 meters here.
12 Q Okay. What's the wind speed at two meters?
13 A Well, it depends on the curve. Are you talking
14 about z sub naught, or are you talking about the height?
15 MR. GROSSMAN: If I understand correctly, is this
16 correct that the z sub zero doesn't refer to a height but
17 you have different curves --
18 THE WITNESS: Yeah.
19 MR. GROSSMAN: -- for different levels of z sub
20 zero --
21 THE WITNESS: Right.
22 MR. GROSSMAN: -- showing different results at
23 different heights?
24 THE WITNESS: Correct.
25 MR. GROSSMAN: Okay.

Page 88

1 MR. GOECKE: Okay. Thank you.
2 THE WITNESS: You're exactly right.
3 BY MR. GOECKE:
4 Q Okay. So based upon a z0 of two meters, what is
5 the wind speed at two meters above the --
6 A It's going to be zero.
7 Q -- above the ground?
8 A Right. It's going -- if you have at two meters z,
9 then the wind at that speed is going to be zero. The wind
10 speed will be zero.
11 Q Is that what you think is happening at the gas
12 station?
13 A I don't have exact values. I haven't gone out and
14 measured anything at the gas station. So it could be the
15 one-meter curve; it could be the one-meter z-naught curve or
16 the two-meter z-naught curve or -- I think the point is a
17 general point --
18 Q Okay.
19 A -- that the bigger your surface roughness
20 elements, the slower is the wind speed. It's, it's pretty
21 straightforward.
22 Q Okay. And you said you haven't taken actual
23 measurements. Have you reviewed Mr. Sullivan's measurements
24 at the site?
25 A Yes, I have.

Page 89

1 Q And do you remember what those are?
2 A Are you talking about the study that was done to
3 look at the slope factors south of the ring road? Is that
4 what you're talking --
5 Q Well, tell me what you recall.
6 A That's what I recall, that the issue was whether
7 there would be cold-air drainage. He used a CALPUFF model,
8 and in his view, he didn't see any evidence of drainage. In
9 my view, I saw evidence of, in the data, of cold-air
10 drainage from the ring road down to the, the nearby houses
11 there.
12 Q Okay.
13 A That's what I recall. I'm not sure that he --
14 what else you're driving at.
15 Q Okay. What I'm driving at is air measurements
16 he's taken above the surface on the mall site and how they
17 might compare to your calculations here. Have you compared
18 those at all?
19 A No.
20 Q Okay. Are you familiar, Dr. Cole, with the
21 Glossary of Meteorology?
22 A Well, I won't say I looked at it for many years,
23 but I certainly know what it is. I have a copy of it.
24 Q You have a copy? Where do you --
25 A I do.

Page 90

1 Q -- keep your copy?
2 A Over my desk.
3 Q And how long have you had a copy?
4 A For many years.
5 Q So it's a reliable treatise or text in the
6 industry?
7 A Pretty much so.
8 Q Okay. I'd like to show you an excerpt of that
9 document.
10 MR. GOECKE: Mr. Grossman, if we could have this
11 marked, please, as well.
12 MR. GROSSMAN: All right. I take it, these two
13 pages are together somehow?
14 MR. GOECKE: There's two pages. There's the --
15 MR. GROSSMAN: They're not stapled; that's why.
16 MR. GOECKE: They're not -- I'm sorry. Let me try
17 it this way. I gave you two duplicates instead of two.
18 MR. GROSSMAN: I'm sorry?
19 MR. GOECKE: You have copies, two copies of one
20 document.
21 MR. GROSSMAN: All right.
22 MR. GOECKE: So if you'd give that, one of those
23 to me.
24 MR. GROSSMAN: Because it looks like just two, two
25 different pages.

Page 91

1 MR. GOECKE: All right.
2 MR. GROSSMAN: I'm sorry. What am I supposed to
3 give you?
4 MR. GOECKE: I'm sorry. I'm sorry. We just made
5 copies this morning. So I'm trying to give everybody the
6 same thing. So we've got --
7 MR. GROSSMAN: Oh, I see.
8 MR. GOECKE: -- the title page and --
9 MR. GROSSMAN: So it's a --
10 MR. GOECKE: So you can use this --
11 MR. GROSSMAN: I see. I see. I didn't realize
12 that. Okay.
13 MR. GOECKE: But not all of them are double-sided.
14 MR. GROSSMAN: Okay.
15 MR. GOECKE: So you've got one.
16 MR. GROSSMAN: Okay.
17 MR. GOECKE: One for Dr. Cole.
18 MR. GROSSMAN: All right. So this will be Exhibit
19 612, which is page 655 of the 2000 Glossary of Meteorology.
20 Okay.
21 (Exhibit No. 612 was marked
22 for identification.)
23 MR. GOECKE: Okay.
24 BY MR. GOECKE:
25 Q And if I could, Dr. Cole, I'd direct your

Page 92

1 attention towards the bottom of page 655 of Exhibit 612 --
2 A Right.
3 Q -- for the definition of roughness length and then
4 the parenthetical: also called roughness coefficient. It
5 reads: A measure of the roughness of a surface over which a
6 fluid is flowing, defined as follows: z_0 equals --
7 A Epsilon.
8 MR. SILVERMAN: Epsilon.
9 BY MR. GOECKE:
10 Q Epsilon, thank you, over 30 --
11 A Right.
12 Q -- over 30 units, where z_0 is the roughness length
13 and epsilon is the average height of surface irregularities.
14 So on your slide show, you calculated z_0 to be two meters.
15 How high would the surface irregularities be at the proposed
16 gas station?
17 A Okay. Let me qualify --
18 MS. CORDRY: Can you tell us where he, where he
19 calculated z_0 as being two meters as opposed to simply
20 suggesting that as one --
21 MR. GOECKE: Where who calculated it?
22 MS. CORDRY: Well, I'm seeing four 10 meters
23 height and z_0 is two meters, but I don't see where he has
24 calculated the two meters as opposed to simply using that as
25 one, one of three inputs. Am I, am I missing something?

Page 93

1 MR. GOECKE: No. He hasn't shown his math.
2 MS. CORDRY: Well, I mean --
3 MR. GROSSMAN: No. I think --
4 MS. CORDRY: -- that's not a math. That's just an
5 input.
6 MR. GROSSMAN: I think what she's saying is, your
7 question implied that he had calculated z_0 to be two meters.
8 That was the implication of your question --
9 MR. GOECKE: Right.
10 MR. GROSSMAN: -- whereas -- what Ms. Cordry is
11 saying is that the witness didn't assume z_0 to be two
12 meters; he just gave that as one of the values --
13 MR. GOECKE: Okay. Let's try it --
14 MR. GROSSMAN: -- possible values of it, if I
15 understood the objection. Is that correct?
16 MS. CORDRY: Right. Right. I just see it as --
17 MR. GROSSMAN: And is that correct, Dr. Cole?
18 THE WITNESS: That's correct.
19 MR. GROSSMAN: Okay.
20 THE WITNESS: What I wanted to do --
21 BY MR. GOECKE:
22 Q Let me try it a different way.
23 A Excuse me. What I wanted --
24 Q There's no question pending.
25 MR. GROSSMAN: There's no question pending other

Page 94

1 than -- I just wanted to make sure I was accurately
2 understanding the objection, and he's going to rephrase his
3 question.
4 THE WITNESS: Okay.
5 BY MR. GOECKE:
6 Q And so the surface irregularities we're talking
7 about at the gas station queue are automobiles mostly,
8 correct?
9 A Automobiles, trucks, there are buildings. If you
10 put in a --
11 Q There are buildings in a gas queue?
12 A Excuse me. There are buildings in the area which
13 affect the turbulence regime in the gas station. There's a
14 wall, and there's two buildings surrounding this area. I'm
15 going to finish my statement. Also, also, when you build a
16 gas station, is there not a structure in a gas station? Are
17 there not trucks?
18 Now, let me clarify that this diagram was -- I
19 didn't make any representation of which surface roughness,
20 if any of these, represents the gas station. My reason for
21 putting in this diagram was to show the principle that wind
22 speeds decrease. So if you have a .1 meter and then you
23 compare it to one meter, you're going to see slower wind
24 speeds. That was the purpose of this.
25 Q If you were to apply the formula on page 655, what

Page 95

1 would epsilon be? What would be the average height of
2 surface irregularities be?
3 A I don't know. I haven't measured it. I don't
4 know how high that structure is. You got a wall. You got
5 buildings. You got big trucks.
6 Q If we assume two meters for zO, how high would
7 epsilon -- well, what number would epsilon need to be?
8 A So would be 60 meters, I believe.
9 Q And how many feet is that?
10 A It's 180 feet approximately.
11 Q Okay. So in order to get, for a height TM -- for
12 a 10-meter height and have a zO of two meters, you would
13 need an average height of surface irregularities of over 180
14 feet?
15 A Well, according to this equation --
16 Q According to this equation.
17 A -- and as I said, as I said, this is not meant to
18 replicate the gas station but to show the principle. So,
19 for example, at .1 meter, the height would be what? Point
20 one meter, .1 meter, how would that work? Someone do the
21 math. Point one meter equals 30. So that would be three
22 meters.
23 MR. GROSSMAN: What would be three meters?
24 THE WITNESS: The surface roughness, according to
25 this equation -- and there seems to be a footnote --

Page 96

1 MR. GROSSMAN: First of all, let's answer. What
2 would be three meters?
3 THE WITNESS: If you assumed a surface roughness
4 of .1 meter --
5 MR. GROSSMAN: Okay.
6 THE WITNESS: -- okay, according to this --
7 MR. GROSSMAN: A zO of .1 meter, yes.
8 THE WITNESS: Yes. According to this equation, z
9 naught would be 30 times .1 -- I'm sorry. That's not right.
10 Wait a minute. Wait. Wait. Wait. Wait. Epsilon would
11 be -- wait a minute.
12 MR. GROSSMAN: While he's calculating, it occurred
13 to me, does anybody recall from the testimony earlier
14 whether or not -- which page references were being used for
15 Exhibit 581? Were they the handwritten page references? So
16 before I just automatically substitute something, maybe I
17 should do an (a) and a (b) for 581, because I'm not sure
18 what you referenced --
19 MS. ROSENFELD: Oh, we were referencing the 581
20 that has the colored pictures on the front page --
21 MR. GROSSMAN: On the front. Well, that would
22 be --
23 MS. ROSENFELD: -- which is the exhibit that has
24 the --
25 MR. GROSSMAN: Typed --

Page 97

1 THE WITNESS: Okay.
2 MS. ROSENFELD: -- typed --
3 MR. GROSSMAN: -- numbers.
4 MS. ROSENFELD: -- numbers on the bottom
5 right-hand --
6 MR. GROSSMAN: So you're sure that all of the
7 testimony concerned 581 with the typed numbers --
8 MS. ADELMAN: Yes.
9 MR. SILVERMAN: Yes.
10 MR. GROSSMAN: -- as opposed to --
11 MS. ROSENFELD: Yes. We handed that out first
12 thing --
13 MS. ADELMAN: Yes.
14 MR. SILVERMAN: Yes.
15 MS. ROSENFELD: -- and used that as a reference.
16 MR. GROSSMAN: Okay. All right. So we can
17 substitute it then. Okay.
18 THE WITNESS: So with a, if this equation applies,
19 assuming that it's correct, the epsilon or the height of the
20 irregularity for a .1 meter would be three meters. So
21 you're dealing with a truck or maybe a big SUV or -- as I
22 said, there's going to be structures with this gas station.
23 MR. GROSSMAN: Mr. Goecke, where is this all
24 getting me?
25 MR. GOECKE: That he's overestimated the

Page 98

1 turbulence at the gas station, because the average surface
2 irregularity is not over 180 feet.
3 MR. GROSSMAN: That assumes that he was suggesting
4 a z0 value of two meters as opposed to suggesting a general
5 diagram of what the different lengths of z0 would result in,
6 which is what he's testified to now, because he does have --
7 one of the z0 values on his chart on page 4 of Exhibit 581
8 is z0 equals 0.1 meters. So it's not, they're not all --
9 his only reference is not to a z0 of two meters.
10 MR. GOECKE: Okay. We'll move along.
11 MR. GROSSMAN: Okay.
12 BY MR. GOECKE:
13 Q Dr. Cole, when you testified before, you predicted
14 that the 98th percentile for one-hour NO2 concentrations
15 near the gas station, the highest level would be 287
16 micrograms per cubic meter. Do you stand by that testimony?
17 A I'm not sure what testimony you're referring to.
18 You'd have to show me exactly where that was.
19 Q Do you have an opinion about what the 98th
20 percentile one-hour NO2 heights level would be near the gas
21 station?
22 A What I said last time was that there is a distinct
23 possibility or probability that it could exceed the
24 standard. I'll stand by that. What I said last time was
25 there's a distinct possibility that the gas station at peak

Page 99

1 periods could result in concentrations that were above the
2 one-hour NO2 standard. So it was a, not a definitive
3 answer. It was not a numerical answer. It was a statement
4 of distinct possibility, which I will stand behind. If
5 you're talking about --
6 Q And so you don't have a specific number that
7 you're, that you're estimating --
8 A No.
9 Q -- or modeling or calculating?
10 A The 287, if you're referencing something specific,
11 I don't know what it is.
12 Q Okay.
13 MR. GOECKE: Can we take a short break,
14 Mr. Grossman? I think I'm almost done.
15 MR. GROSSMAN: Okay. We'll break until 12:00
16 noon. I have good news for you, Mr. Silverman. They have
17 chicken livers for lunch.
18 MR. SILVERMAN: Oh, no.
19 (Whereupon, at 11:58 a.m., a brief recess was
20 taken.)
21 MR. GROSSMAN: Let's go back on the record then.
22 Mr. Goecke, the floor is yours.
23 MR. GOECKE: Thank you.
24 MR. GROSSMAN: By the way, are we going to be
25 making any more use of Exhibit 609?

Page 100

1 MR. GOECKE: No.
2 MR. GROSSMAN: Okay.
3 MR. GOECKE: No.
4 MR. GROSSMAN: All right. So let's return to that
5 objection issue. Do you still retain that objection given
6 the limited --
7 MS. CORDRY: Well, I suppose, reading it for those
8 three sentences, which, as Dr. Cole has indicated, are
9 somewhat of a truism, as qualified, if that's what they had
10 to put this whole exhibit in for, then fine, I don't object
11 to those three sentences.
12 MR. GROSSMAN: All right. Anybody else have any
13 objection at this point for me to rule on, or are we just --
14 no.
15 MR. SILVERMAN: Just so that --
16 MS. CORDRY: As long as it's admitted only for the
17 purpose of those sentences.
18 MR. SILVERMAN: Those three sentences.
19 MR. GROSSMAN: I presume that's correct. It was a
20 cross-examination exhibit. Is that correct, Mr. Goecke?
21 We're only -- your only reason for marking Exhibit 609 was
22 for that reference that you used already in
23 cross-examination, those few sentences?
24 MR. GOECKE: Yes.
25 MR. GROSSMAN: Okay. And so I would say the same

Page 101

1 applies to 610, as that limited purpose of -- well, I'm not
2 sure. All right. Let's leave 610 out there for a minute
3 and see if that has any bearing on this, but -- so the
4 objection essentially is, by the opposition, is withdrawn to
5 609.
6 MS. CORDRY: Well, it's withdrawn to the extent of
7 the sentences that were read into the record --
8 MR. GROSSMAN: Right.
9 MS. CORDRY: -- period.
10 MR. GROSSMAN: And that's the only purpose for
11 which they're seeking to use it.
12 MS. CORDRY: Yes, I understand.
13 MR. GROSSMAN: Right.
14 MS. CORDRY: I understand. I just want to be
15 clear that we are not agreeing to the admission of the
16 exhibit as a whole.
17 MR. GROSSMAN: Well, I wasn't going to just use
18 this exhibit as my entire report and just --
19 MS. CORDRY: Well, that would be good, although --
20 might not be entirely bad in some respects, but that's okay.
21 MR. GROSSMAN: All right. All right.
22 BY MR. GOECKE:
23 Q I'm handing you a copy of Exhibit 593. It's
24 already been marked.
25 MR. GOECKE: Would you like another copy?

Page 102

1 MR. GROSSMAN: I'm not sure what it is off the top
2 of my head.
3 MR. GOECKE: The 2013 --
4 MR. GROSSMAN: Oh, okay. Yes.
5 MR. GOECKE: Do you guys need copies?
6 MS. ROSENFELD: Yes, please.
7 BY MR. GOECKE:
8 Q So it's your testimony, Dr. Cole, that you say you
9 stand by today that the gas station is likely to exceed the
10 EPA National Ambient Air Quality Standard for one-hour NO2
11 concentrations, correct?
12 A I said it was a distinct possibility.
13 Q And when did you form this conclusion?
14 A When did I form that conclusion?
15 Q Yes.
16 A By looking at successive -- particularly by
17 looking at those reports that were done following the
18 correction of the conversion error that was made in
19 converting ppb to -- ppb to micrograms per cubic meter.
20 Q Yes.
21 A So that would have been looking at the evidence
22 that came in in the August report and then looking at
23 further evidence in the February rebuttal report.
24 Q Looking at the information included on Exhibit
25 593, are you familiar with the data shown here? In other

Page 103

1 words, have you looked at the EPA website, showing this
2 information?
3 A Yes, I have.
4 Q And did you look at that before you reached your
5 conclusion that the gas station is likely to exceed the
6 one-hour NO2 standard?
7 MR. GROSSMAN: He said distinct possibility. He
8 didn't say likely.
9 BY MR. GOECKE:
10 Q A distinct possibility.
11 A I'm sorry. Could you repeat your question --
12 Q Sure.
13 A -- your first question?
14 Q Sure. In terms of your conclusion that the gas
15 station has a distinct possibility of exceeding the one-hour
16 NO2 standards, when you made that determination, had you
17 reviewed the EPA data from the monitoring sites throughout
18 the country?
19 A I don't recall the exact sequence, but I will say
20 that nothing in this data precludes my statement.
21 Q Had you reviewed --
22 A In my opinion, the applicant has not shown that
23 the gas station, if built, would not, would not cause or
24 contribute a violation of the one-hour NO2 standard.
25 MR. GROSSMAN: And when you talk about a violation

Page 104

1 of it, you're actually talking about the 100-parts-per-
2 billion standard, not the, we'll call it the Breyse/Cordry
3 opinion that, that the EPA standard is actually, area-wide
4 standard, is actually 50 to 85 parts per billion for NO2
5 one-hour? You're talking about the actual NAAQS written-out
6 100-parts-per-billion standard, is that correct?
7 THE WITNESS: I'm talking about the standard and
8 the language in the various guidance which repeatedly uses
9 the term that an applicant must demonstrate that a proposed
10 facility will not cause --
11 MR. GROSSMAN: I'm just addressing the number.
12 THE WITNESS: -- or contribute to the exceedance
13 of a standard.
14 MR. GROSSMAN: Right, but I'm just -- my question
15 just addresses, which are you referring to as the standard,
16 because Dr. Breyse and Ms. Cordry have put forward a
17 postulate that you did not accept the last time, that the
18 EPA area-wide standard for NO2 one-hour is somewhere between
19 50 and 85 parts per billion, even though the actual NAAQS
20 written-out standard is 100 parts per billion, but you did
21 not accept that --
22 THE WITNESS: No, I --
23 MR. GROSSMAN: -- so I just want to make sure I
24 understand which you're saying will be exceeded or may be
25 exceeded.

Page 105

1 MS. ROSENFELD: Mr. Grossman --
2 THE WITNESS: I am not an attorney.
3 MR. GROSSMAN: Yes.
4 MS. ROSENFELD: Yes. If I may, I think he said he
5 didn't have an opinion on that. I don't think he said he
6 didn't accept it.
7 MR. GROSSMAN: No. I think he -- I don't agree
8 with that. That's not my recollection, but let's find out
9 now. He said, if I recall, he said he was afraid he was
10 going to be asked that question and he did not accept that
11 as a, as the standard.
12 MS. ROSENFELD: Okay.
13 MR. GROSSMAN: That's my recollection.
14 THE WITNESS: All right. I am going to state for
15 the record that I believe that is a legal question that I
16 feel is -- what I, what I testified to and what I'll testify
17 to clarify now is that when I look at these documents, what
18 I'm looking for is whether or not any of the receptors that
19 are modeled, or that, that it's likely that the air quality
20 will exceed --
21 MR. GROSSMAN: What?
22 THE WITNESS: -- 100 parts per billion.
23 MR. GROSSMAN: Right. That was my question.
24 Okay.
25 THE WITNESS: Okay. That is what I'm looking at.

Page 106

1 The other question is beyond, I'm going to just say, it's
2 beyond my expertise.
3 MR. GROSSMAN: Okay.
4 THE WITNESS: I think, I'm just -- you got a
5 proposed gas station. You got methods being used.
6 MR. GROSSMAN: Well, when you say beyond your
7 expertise, I'm not asking you --
8 THE WITNESS: Because it's a legal --
9 MR. GROSSMAN: -- I'm not asking you for health
10 impacts. I'm just asking for the way that, based on your
11 expertise, would the EPA, how it applies its standards. And
12 if I understood your testimony, you considered the EPA
13 standard for one-hour NO2 to be the 100-parts-per-billion
14 standard, is that correct?
15 THE WITNESS: For the purposes of this analysis.
16 Now, others may argue --
17 MR. GROSSMAN: I'm asking you what your opinion
18 is.
19 THE WITNESS: All right. What I'm saying is that
20 I'm doing the analysis, looking for the potential for
21 exceedances of 100 parts per billion.
22 MR. GROSSMAN: Right. Okay.
23 THE WITNESS: Now, it could be -- I'm going to
24 qualify this a little bit to say that it's possible that if
25 one place is 100, that doesn't exclude the possibility of

Page 107

1 health effects occurring at lower levels.
2 MR. GROSSMAN: Well, you're not an expert in
3 health effects.
4 THE WITNESS: I know.
5 MR. GROSSMAN: So I'm not asking you that
6 question. I didn't ask you that question. See, you didn't
7 have to -- you don't have to add that qualifier. I'm just
8 asking you what you're applying -- what's your understanding
9 of the way EPA applies its standards. That's all I'm asking
10 you about, because that's your area of expertise.
11 THE WITNESS: Correct. My area of expertise is to
12 look at the modeling, to look at the meteorology, to look at
13 the emissions --
14 MR. GROSSMAN: Right.
15 THE WITNESS: -- to look at the way the modeling
16 is done, all of the assumptions, to look at the guidance and
17 see if it's done according to the guidance, and to say,
18 well, either yea or nay, you didn't follow the guidance, you
19 did follow the guidance. And I said there's a distinct
20 possibility that somewhere, that this gas station either
21 causes or contributes to the exceedance of 100 parts per
22 billion, period. That's it.
23 MR. GROSSMAN: And I'm asking you, is that the way
24 the EPA applies its standards? They look at the -- in your
25 expert opinion, are they looking at the 100-parts-per-

Page 108

1 billion as the standard here --
2 THE WITNESS: This is --
3 MR. GROSSMAN: -- for NO2 one-hour?
4 THE WITNESS: In my opinion, when they do these --
5 when they look at applications, they're looking at 100 parts
6 per billion.
7 MR. GROSSMAN: Okay. All right. And to ease your
8 mind, Opposition, I'm not saying that I think that that's
9 absolutely the standard that applies in this case --
10 MS. CORDRY: Well --
11 MR. GROSSMAN: -- I am saying I want to understand
12 what this witness is saying about what I'll call the
13 Breyse/Cordry doctrine here --
14 MS. CORDRY: I am --
15 MR. GROSSMAN: -- which I understand, it's your
16 statement based on the EPA administrator's statement in -- I
17 recall the testimony very well.
18 MS. CORDRY: I understand. I understand.
19 MR. GROSSMAN: I understand. So don't, you don't
20 have to get all --
21 MS. CORDRY: Our position has always been it's the
22 peak anywhere in the area, whether the gas station is the
23 peak or not. So --
24 MR. GROSSMAN: I understand. Believe me, I
25 remember the testimony quite well, and I just want to make

Page 109

1 sure I understand this witness's position on it, and I
2 understand that now also. Go ahead.
3 MR. GOECKE: Thank you.
4 BY MR. GOECKE:
5 Q And, Dr. Cole, your opinion that --
6 A I want to -- wait. Before -- excuse me.
7 MR. GROSSMAN: There's no question pending now.
8 We've had enough on that.
9 BY MR. GOECKE:
10 Q Your opinion that there is a distinct possibility
11 of exceedances is not based on any actual modeling that you
12 conducted, correct?
13 A Correct.
14 Q And Mr. Sullivan provided you with the input data
15 that he relied on in his AERMOD analysis, correct?
16 A Correct.
17 Q And he also provided you with the AERMOD software,
18 correct?
19 A The AERMOD software?
20 Q Yes.
21 A The AERMOD software?
22 Q Yes.
23 A I'm not sure. I didn't see that, but it's readily
24 available, whether he had --
25 Q You weren't aware that it was provided to you in

Page 110

1 his data disks --
2 A The software? I didn't see it.
3 Q -- so that you could run the AERMOD program?
4 A I didn't see that.
5 Q Okay. But as you testified, it is readily
6 available?
7 A Right.
8 Q It's available for free, in fact?
9 A Yeah.
10 Q You can download it from EPA's website?
11 A Yeah, absolutely.
12 Q So, you could have taken the inputs that
13 Mr. Sullivan provided you and ran the modeling yourself?
14 A Yes, if I agreed with the inputs, which I don't.
15 Q And you could have changed the inputs if you
16 disagreed with them?
17 A I'm not the applicant.
18 Q You could have changed --
19 A I am not the applicant. It is --
20 Q I understand that, but --
21 A -- the burden of proof is not on me.
22 MR. GROSSMAN: No, no, you're not, but you're
23 not --
24 BY MR. GOECKE:
25 Q Thanks for your legal opinion.

Page 111

1 MR. GROSSMAN: -- you are not here to give a legal
2 opinion on who has the burden of proof. That's not your
3 question that he's posing to you.
4 THE WITNESS: I didn't do the modeling.
5 BY MR. GOECKE:
6 Q That's not my question. My question is, you could
7 have changed the inputs if you wanted to?
8 A Yes, if I could run -- I could have used different
9 backgrounds. I could have used -- I could have perhaps done
10 an uncertainty analysis, which I don't think was done by the
11 applicant. I could have done a lot of things. You have to
12 understand, my both time and resources --
13 MR. GROSSMAN: Well, I don't think we have to get
14 into that. You've answered the question.
15 MR. GOECKE: He's answered the question. He
16 hasn't done those things. No further questions.
17 THE WITNESS: No.
18 MR. GROSSMAN: Okay. Any redirect?
19 MS. ROSENFELD: There is. Could we take a lunch
20 break now, and --
21 MS. CORDRY: I think we can focus it tightly.
22 MS. ROSENFELD: -- I think we can, I think we can
23 pull some stuff out that we expected we might otherwise --
24 MR. GROSSMAN: You're just looking out for those
25 chicken livers for Mr. Silverman --

Page 112

1 MR. SILVERMAN: There you go.
2 MR. GROSSMAN: -- I can tell.
3 MS. ROSENFELD: That's right. I have
4 Mr. Silverman's interest in mind here.
5 MR. SILVERMAN: Always.
6 MR. GROSSMAN: All right. I don't see why not.
7 If it'll save some time, certainly so. It's -- well, that
8 clock is a little bit wrong. It's actually 12:25 now, more
9 or less. So we'll come back at 1:15.
10 MR. GOECKE: Okay. Thank you.
11 (Whereupon, at 12:25 p.m., a luncheon recess was
12 taken.)
13 MR. GROSSMAN: We're back on the record. Any
14 redirect?
15 MS. ROSENFELD: Yes, there is.
16 SURREBUTTAL REDIRECT EXAMINATION
17 BY MS. ROSENFELD:
18 Q Dr. Cole, Mr. Goecke asked you questions about
19 your selection of the First Street monitor as the background
20 monitor that you would recommend have been chosen and also
21 questioned, in part, why you hadn't raised that issue in
22 December, in your December testimony. Is there a reason, in
23 your mind, why you didn't raise it at that point in time?
24 A Well, it became particularly critical when --
25 after the rebuttal report was released, because that used

Page 113

1 the ozone limiting method. So it became particularly
2 critical with regard to the NO2 issue, which, of course, is
3 the purpose of the OLM.
4 MR. GROSSMAN: While you're on the topic, did we
5 ever figure out what the exhibit number was for the
6 protocol?
7 MS. HARRIS: I had asked my assistant to check.
8 She does not see protocol in the exhibit list at all. So I
9 don't know if it has a secret name, that we weren't able to
10 easily identify it.
11 MR. GROSSMAN: Does anybody recall if the protocol
12 was --
13 MR. GOECKE: It may not be an exhibit.
14 MR. GROSSMAN: -- I know it's been referenced by,
15 a number of times.
16 MS. ROSENFELD: I don't think it was ever entered.
17 MS. CORDRY: Yes, I don't know that it was. I
18 think we have talked about it different times and pieces of
19 it have shown up in other reports, but I'm not sure the
20 entire document has been put in.
21 MR. GROSSMAN: How big is the document, because I
22 don't think I've ever -- I don't recall seeing it.
23 MR. BRANN: Forty, 50 pages maybe, something like
24 that.
25 MS. CORDRY: Let me see if I have it. At

Page 114

1 different times I have brought it with me but may not have
2 brought it today, but --
3 MR. GROSSMAN: What do the parties feel about
4 having that protocol in the record?
5 MR. SILVERMAN: I think we've heard about it.
6 MR. GROSSMAN: Pardon me?
7 MR. SILVERMAN: I think we've heard all there is
8 to hear. I don't think that it's going to show anything
9 new.
10 MR. GROSSMAN: Mr. Goecke.
11 MR. GOECKE: I think it should be admitted as an
12 exhibit. We've talked about it a lot.
13 MR. GROSSMAN: That's true. I'd lean in that
14 direction as well, and everybody's known about it all along;
15 so it's no surprise to anybody.
16 MR. GOECKE: Right.
17 MS. CORDRY: I have about three pages from the
18 original version, and that looks like all I have of it at
19 the moment.
20 MR. GROSSMAN: Okay.
21 MR. GOECKE: We can submit a copy to you.
22 MR. GROSSMAN: Okay. Thank you. Just, you can
23 e-mail if it's short enough, or not, transfer big files and
24 then, you know, copy to the other side, and we can --
25 MR. GOECKE: Sure.

Page 115

1 MS. CORDRY: Yes. I mean, we may also want to
2 consider having the original one come in, and Dr. Cole's
3 response to it. We'll -- I think we should discuss that
4 with him off the record because there was an original
5 version, there were a number of changes made, there were --
6 some of them were in response to what Dr. Cole said, some
7 not, and so forth. So --
8 MR. GROSSMAN: All right. I mean, I don't want to
9 get too stuck in the weeds here as to that, just that it's
10 to explain what the references are to whether or not it was
11 agreed to in the protocol, the monitor location for the NO2.
12 I guess it's -- at least what's in my mind now as a
13 reference to it. I don't know if there's anything else
14 that's an issue, but -- so I think what's really critical is
15 what was the final document submitted, I suppose, as the
16 protocol, but okay. I'm sorry, Ms. Rosenfeld.
17 MS. ROSENFELD: No, that's quite all right.
18 BY MS. ROSENFELD:
19 Q Dr. Cole, going back to the four criteria that you
20 had come up with for purposes of selecting the most, what in
21 your opinion is the most appropriate background monitor, one
22 of those criteria, you testified it was important that
23 monitoring be available for both NO2 and ozone at the same
24 site. Would that have been a factor that would have been
25 important to your testimony in December of 2013?

Page 116

1 A No, because back then they were -- they hadn't
2 used the ozone limiting method.
3 Q And I would have the same question for the
4 criteria that relates to having ozone monitoring year-round.
5 Would that have been an important --
6 A I'm sorry. If you could repeat that?
7 Q Another factor that you considered was whether or
8 not the monitor would have ozone monitoring year-round.
9 Would that have been an important factor in December of 2013
10 when you testified?
11 A No, because the ozone limiting method was not
12 being used.
13 Q Okay.
14 MR. GOECKE: And if I could interrupt. He was
15 going to -- I believe Dr. Cole was going to check at a break
16 whether or not the Beltsville site had year-round monitoring
17 or not. He wasn't sure before. I don't know if he's had a
18 chance to do that.
19 MR. GROSSMAN: Have you had a chance to --
20 MS. ROSENFELD: And that was my next question.
21 MR. GROSSMAN: Ah, okay. He jumped the gun.
22 BY MS. ROSENFELD:
23 Q Did you have a chance to go back, and could you go
24 through the monitors?
25 A Yes. It has the, it has the full-year monitoring,

Page 117

1 but I consider that to be non-representative because it's
2 got a lot of rural area around it.
3 Q And with respect to Beltsville, how --
4 MS. CORDRY: That was Beltsville, I think.
5 MR. GROSSMAN: That was Beltsville.
6 BY MS. ROSENFELD:
7 Q I'm sorry, Beltsville. With respect to Rockville,
8 how did you classify that one?
9 A Well, that doesn't have NO2. It's rural as well.
10 MR. GROSSMAN: Wait a minute. Rockville doesn't
11 have NO2 monitoring at all, NO2 one-hour monitoring?
12 THE WITNESS: No NO2 at Rockville.
13 MR. GROSSMAN: Okay.
14 BY MS. ROSENFELD:
15 Q And, again, what was your view with respect to the
16 Arlington monitor?
17 A It only has part year for ozone.
18 Q And how about its proximity?
19 A It's located more than 12 miles away, and it's on
20 the opposite side of the metropolitan area.
21 Q And is there a reason -- I believe you had
22 testified that it was important for monitoring for NO2 and
23 ozone to come from the same monitoring location. Why, in
24 your opinion, is that important?
25 A Right, because what's, what's important is the

Page 118

1 mixture of those two things in the background air because
 2 that will affect the chemistry. So if you have things on
 3 the opposite side of the metropolitan area, for example,
 4 with a certain wind direction, you may have very different
 5 NO2 concentrations and ozone concentrations at a site
 6 located where the Wheaton Mall is.
 7 MR. GROSSMAN: Excuse me, Dr. Cole.
 8 THE WITNESS: Yeah.
 9 MR. GROSSMAN: Could you take your jacket off that
 10 chair for me, please? It's just distracting to my point of
 11 view. Thank you. You can put it on the other chair, if you
 12 want.
 13 THE WITNESS: You didn't want to borrow it?
 14 MR. GROSSMAN: I don't think it'll fit. Thank
 15 you.
 16 BY MS. ROSENFELD:
 17 Q We have spent a great deal of time talking about
 18 various dispersion effects and how that has implications for
 19 the mixing of the ozone and NO. Does EPA guidance factor in
 20 time or distance when computing that mixing under the ozone
 21 limiting method?
 22 A Well, Mr. Sullivan chose to use the ozone limiting
 23 method, and the ozone limiting method doesn't get into that.
 24 It just simply assumes that all of the, all of the ozone is
 25 available for conversion without any delay time or lag time.

Page 119

1 So if you're following that guidance for the OLM, there's no
 2 consideration of lag time between the emission and the
 3 mixing to the molecular level.
 4 Q And does that apply, as well, with respect to
 5 assuming no ozone within the tailpipe box that Mr. Sullivan
 6 identified?
 7 A Well, that's another departure from guidance, that
 8 close-in box which extends about 130 feet in all directions
 9 from the queue and the loading dock, and they assumed that
 10 there was no ozone reaction within that box and that's a
 11 departure from, from EPA's guidance on the ozone limiting
 12 method.
 13 Q And you testified that EPA guidance assumes
 14 instantaneous conversion under the ozone limiting method.
 15 Is there other -- are there other methodologies available if
 16 you were to --
 17 A Well, yeah.
 18 Q -- factor in dispersion?
 19 A I want to get these initials right. There's a
 20 model called the P, I always get the -- it's the plume
 21 molecular volume method. I'm trying to get the -- it's the
 22 PVMRM, plume volume molecular rate model, or something like
 23 that, and that, that does consider -- it gives you some
 24 information about the rate of mixing down to the molecular
 25 level, but Mr. Sullivan chose not to use that.

Page 120

1 Q And there has been a good bit of discussion about
 2 dispersion analysis. Is there a reason why you've spent
 3 time discussing that?
 4 A With regard to the ozone limiting?
 5 Q Yes.
 6 A The reason was that Mr. Sullivan, in his rebuttal
 7 report, presented information suggesting that it would take
 8 a very long time and a very long distance for the ozone and
 9 NO to mix at the molecular level but that's not covered at
 10 all in the ozone limiting method. The reason I commented on
 11 that was that the studies which -- upon which he drew those
 12 conclusions were for power plant plumes and do not apply to
 13 ground-level sources, where there's a lot more turbulent
 14 mixing at the scale that would disperse tailpipe emissions
 15 into the air.
 16 Q So do I understand your testimony correctly that
 17 regardless of whether that factor, the time factor for
 18 mixing and the distance factor for mixing, regardless of
 19 whether or not it's properly applied, it's not an
 20 application of the ozone limiting method itself?
 21 A No, it's not part of the guidance.
 22 Q You testified that in your opinion there's a
 23 distinct possibility that there would be an exceedance of
 24 the 100-parts-per-billion NO2 one-hour standard. Can you
 25 summarize the factors that support your conclusion in that

Page 121

1 regard?
 2 MR. GOECKE: Objection. Asked and answered. He's
 3 been over this.
 4 MR. GROSSMAN: I'm going to overrule it.
 5 THE WITNESS: Okay. First of all is the choice of
 6 background site. As I've testified earlier, had they used
 7 the closer First Street site, the values would have been
 8 about 10 micrograms per cubic meter higher.
 9 Secondly, they used this paired matching,
 10 hour-by-hour matching, and the values they were getting, I
 11 believe in Figure 2 of their rebuttal report, Figure 2 shows
 12 a background concentration in the range of 60 to 70. Had
 13 you used the 98th percentile value from, for example, from,
 14 from the First Street station, you would have had a number
 15 that was somewhere between, around 100, 90 to 100, somewhere
 16 in that ballpark.
 17 So right away you can see, just by looking at
 18 background and moving away from EPA's more conservative OLM
 19 and getting into this paired matching -- which EPA cautions
 20 against without a great deal of demonstration that it's
 21 appropriate, and I've testified that in my professional
 22 judgment this was not an isolated site and didn't, did not
 23 meet the criteria for hour-by-hour matching -- so if you
 24 take the background alone, were dealing with an addition of
 25 another 10 or maybe 15 or 20 parts per billion, which gets

Page 122

1 you up from their maximum value of about, I believe it's
2 almost 160 or 157 of what they're showing in their Phase II,
3 I mean, their Stage II.
4 Then I find it unbelievable that they actually
5 used a down-scale factor in their Stage II and Stage III to
6 get from MOBILE6 to MOVES based on one study, a
7 non-published paper. And I have described previously, and
8 in the handouts today I've shown additional information from
9 the Texas DEQ. Let's see. This was in today's -- the slide
10 number is -- all right. If we look at Slide No. 11 --
11 BY MS. ROSENFELD:
12 Q Dr. Cole, you're reviewing from your notes. We
13 haven't handed anything out today.
14 A Oh, we haven't handed this out?
15 Q No.
16 A I thought we did.
17 Q I can hand out a copy of the slide you're
18 referencing.
19 MR. GROSSMAN: Is that in his original package?
20 In --
21 MS. ROSENFELD: No. No.
22 MS. ADELMAN: Is this 603?
23 MS. ROSENFELD: No.
24 MS. ADELMAN: No?
25 MS. ROSENFELD: No.

Page 123

1 BY MS. ROSENFELD:
2 Q Dr. Cole, did you do some additional research on
3 MOVES versus MOBILE6 --
4 A I did, yes.
5 Q -- and the scale-up factor after your
6 cross-examination of last time?
7 A Yes, I did.
8 Q What did you learn?
9 A Well, the last time I testified, there was a study
10 from the North Central Texas COG --
11 MR. GOECKE: Mr. Grossman, I would object. This
12 goes beyond the scope of cross-examination. I didn't ask
13 him any questions about MOVES or MOBILE6.
14 MR. GROSSMAN: I'm trying to remember whether last
15 time you did, I mean, if it was part of your
16 cross-examination. Not today you did not, but --
17 MS. CORDRY: It's all on cross.
18 MS. ROSENFELD: There was extensive
19 cross-examination on the Texas COG report.
20 MR. GROSSMAN: There certainly was. I mean, there
21 certainly was discussion, a lot of discussion about that
22 Texas COG report.
23 MR. GOECKE: The PowerPoint presentation. It
24 wasn't -- we didn't have the actual report. Well,
25 Mr. Sullivan had a copy of it, but --

Page 124

1 MR. GROSSMAN: I'm trying to remember. Of course,
2 we don't have a transcript of that.
3 MR. GOECKE: Right.
4 MS. HARRIS: Yes, we didn't have the report. It
5 was just --
6 MR. BRANN: It wasn't a report.
7 MS. CORDRY: Well --
8 MS. HARRIS: -- the PowerPoint that was mistaken
9 for the report, and then I thought there was a conversation
10 about getting the report in, which --
11 MS. CORDRY: Okay.
12 MS. HARRIS: -- never was submitted.
13 MR. BRANN: It wasn't a report. The --
14 MR. GOECKE: That's right.
15 MR. BRANN: -- authors never created a report.
16 MS. CORDRY: Okay.
17 MS. ADELMAN: Well, is this not 603?
18 MR. GROSSMAN: I'm going to err on the side of
19 letting more in --
20 MS. CORDRY: Right.
21 MR. GROSSMAN: -- rather than less in here. So --
22 MS. CORDRY: Right.
23 MR. GROSSMAN: -- yes, it may be beyond the scope
24 of your cross, but I'm going to let them go into it. I
25 just --

Page 125

1 MS. CORDRY: Yes. Right.
2 MS. ADELMAN: Do you think it's 603?
3 MR. GOECKE: Yes.
4 MS. CORDRY: Is that the COG report?
5 MS. ADELMAN: It's the COG report, yes.
6 MS. CORDRY: Okay. Then that --
7 MR. GROSSMAN: Yes.
8 MS. CORDRY: -- then that exhibit is in. Okay.
9 MR. GROSSMAN: Right.
10 THE WITNESS: Is that the slides or the COG
11 report?
12 MR. SILVERMAN: It's the COG report.
13 MR. GROSSMAN: It's the COG. It's --
14 MS. ROSENFELD: It's the slides.
15 MR. GROSSMAN: -- Emission Inventories Development
16 Using MOVES Model: A Dallas-Fort Worth, Texas, area case
17 study by North Central Texas COG --
18 MS. CORDRY: Right. And then what I think he's
19 talking about now --
20 MR. GROSSMAN: -- September of 2010.
21 MS. CORDRY: -- is an additional study, similar to
22 when Mr. Sullivan talked on the stand about additional
23 studies that he had that were not in his report. So --
24 MR. GROSSMAN: Well, in any event --
25 MS. CORDRY: Right.

Page 126

1 MR. GROSSMAN: -- I overruled the objection to
2 give you a little more leeway --
3 MS. CORDRY: Okay. Okay.
4 MR. GROSSMAN: -- because I cannot, I cannot
5 recall if it's beyond, but even if it is a little bit beyond
6 the scope of the cross, I'm going to let you do it.
7 MR. GOECKE: Thank you.
8 BY MS. ROSENFELD:
9 Q And what did you learn?
10 A Well, I found another study from Texas, this one
11 from a Texas environmental quality agency, which was from
12 the Houston-Galveston area, different from the Dallas-Fort
13 Worth --
14 MR. GOECKE: Well, I would object to this,
15 Mr. Grossman. We haven't seen a copy of this report that
16 he's referring to now.
17 MS. CORDRY: Well, that's where I go back to,
18 Mr. Sullivan referred to a number of studies on the stand
19 that he had never provided to us, and at that point, it was
20 like, an expert doesn't have to provide everything he relies
21 on. So --
22 MR. GOECKE: No, that's not true.
23 MS. CORDRY: That is --
24 MS. ROSENFELD: That is true.
25 MR. GROSSMAN: Hold on one second, guys, one at --

Page 127

1 MS. CORDRY: -- that is exactly what was said
2 about his reports.
3 MR. GROSSMAN: -- one at a time. Yes --
4 MS. CORDRY: We have copies of it here we can give
5 to you.
6 MR. GROSSMAN: -- it is true that an expert
7 doesn't have to provide copies of everything he has relied
8 on. I guess the question is, were the additional -- were
9 the reports or studies that he relied on, were they
10 referenced to you before in materials?
11 MR. GOECKE: No.
12 MR. GROSSMAN: I'm not talking about --
13 MR. GOECKE: I'm sorry. No.
14 MR. GROSSMAN: -- I'm talking about what
15 Mr. Sullivan relied on.
16 MS. CORDRY: He spoke, for instance, about a
17 report by a Mr. Raynor or Dr. Raynor or something. That was
18 not referenced in his prior reports, as far as I'm aware.
19 It was not given to us before. It was just referenced on
20 the stand. There were other references that were made to --
21 MR. GROSSMAN: Toward text.
22 MS. CORDRY: -- to other studies. There were
23 other times -- he said, there are many more studies I've
24 looked at that were not in his material, and kind of like,
25 well, an expert doesn't have to put everything into his

Page 128

1 paper that he relies on. So I think --
2 MR. GROSSMAN: Yes, I know. I'm just wondering if
3 this -- I want to get back to the fairness --
4 MS. CORDRY: Right.
5 MR. GROSSMAN: -- issue if we're talking about
6 additional research --
7 MS. CORDRY: Right.
8 MR. GROSSMAN: -- that was now done, and I just
9 want to be fair to both sides here in terms of what we're
10 talking about. So let's hear what it is, and then we'll
11 decide whether or not it's something that should be
12 excluded. So what are you talking about that you have
13 found?
14 THE WITNESS: Okay. I'm talking about a study of
15 the Houston-Galveston area by the Texas air quality
16 commission or council; no, it's -- DEQ. I'm sorry. Let me
17 get this right.
18 MR. SILVERMAN: It's a commission.
19 THE WITNESS: Commission? And this time it was
20 for the --
21 MR. GROSSMAN: Well, let's identify it further,
22 and when did you find this and --
23 THE WITNESS: Okay. I actually came across this
24 somewhat earlier and had forgotten about it, but it's
25 parallel, it shows very similar results --

Page 129

1 MR. GROSSMAN: First, let's identify exactly what
2 it is. You just --
3 THE WITNESS: Okay. It's --
4 MR. GROSSMAN: -- so now you've just identified
5 it's from the Galveston area, but what is it?
6 THE WITNESS: All right. Hold on now. I'm sorry.
7 Pardon me for a second. I'm sorry.
8 MR. GROSSMAN: While he's looking, how's your
9 back, Mr. Sheveiko?
10 MR. SHEVEIKO: (No audible response.)
11 MR. GROSSMAN: That good, right? You've said
12 enough --
13 MR. SHEVEIKO: Thanks for asking.
14 MR. GROSSMAN: -- nonverbal communication.
15 MR. SHEVEIKO: Came here direct from my physical
16 therapist.
17 MR. GROSSMAN: Ah, okay.
18 THE WITNESS: Okay. I'm looking at -- all right.
19 The title of this is Texas Implementation of the Motor
20 Vehicle Emission Simulator MOVES Model.
21 MR. GROSSMAN: All right. Texas -- I see. Okay.
22 Texas Implementation of the Motor Vehicle Emission -- oh,
23 well, it's the MOVES model, okay, 9/29/10. Mr. Goecke, have
24 you ever seen this before since a part of it has been handed
25 out here?

Page 130

1 MR. GOECKE: No, we have not seen this document
2 before.
3 MR. GROSSMAN: Has this been referenced in
4 anything before?
5 MR. GOECKE: Not that I'm aware of.
6 MS. CORDRY: Well, again I'd go back to --
7 MR. GROSSMAN: Well, hold on a second. Hold on.
8 MS. CORDRY: Okay.
9 MR. GROSSMAN: I'm going to mark it as an exhibit
10 subject to objection here, but I'm going to mark it as an
11 exhibit so we have in the record what we're talking about.
12 Exhibit 613 is pages 10, 9, I'm sorry, pages 9 -- it's very
13 strange because the title appears to be on page 10 but then
14 there's a page 9.
15 MR. GOECKE: Right.
16 MS. CORDRY: They just got copied in reverse
17 order.
18 MR. GROSSMAN: No, but they're numbered.
19 MS. CORDRY: Right, I know. When we were putting
20 it together, it got put in that order, but the actual title
21 page is the one that's 10, and then it goes --
22 MR. GOECKE: So these aren't the numbers, the page
23 numbers for the exhibit; you numbered them?
24 MS. CORDRY: These are the page numbers for -- we
25 had put together a larger exhibit, which we decided not to

Page 131

1 put in. These are just -- those are page numbers from the
2 larger exhibit that Mr. Cole, Dr. Cole had put together.
3 MR. GROSSMAN: Texas Implementation.
4 (Exhibit No. 613 was marked
5 for identification.)
6 MS. ROSENFELD: And page 9 is in the record.
7 MS. CORDRY: Okay.
8 THE WITNESS: Yes, page --
9 MS. CORDRY: All right. So, actually, page 9 is
10 actually from the prior document. I stand corrected.
11 MR. GROSSMAN: Okay. From what prior document?
12 MS. CORDRY: That was the --
13 MS. ROSENFELD: That's the Texas COG --
14 MS. ADELMAN: It's in 603.
15 MR. GROSSMAN: Oh.
16 MS. ROSENFELD: -- exhibit.
17 MR. GROSSMAN: So you're saying page 9 is from the
18 Texas COG.
19 MS. CORDRY: Yes. Right.
20 MS. ROSENFELD: As an excerpt from Exhibit --
21 MR. GROSSMAN: An excerpt. The --
22 MS. CORDRY: I was confusing my Texas, which I
23 think Texas would never let me do.
24 MR. GROSSMAN: And then page 11 -- so when was
25 this put together?

Page 132

1 THE WITNESS: Which?
2 MR. GROSSMAN: This exhibit that's, that we now
3 have four pages of.
4 MS. ROSENFELD: Dr. Cole was preparing a larger
5 PowerPoint with the expectation that he would be showing it
6 today. He was discouraged from introducing a lengthy new
7 exhibit --
8 MR. GROSSMAN: Right.
9 MS. ROSENFELD: -- and this is an excerpt based on
10 his research in follow-up to cross-examination questions the
11 last time he was on the stand.
12 MR. GROSSMAN: I mean, I'm even, I'm a little
13 hinky about introducing an exhibit like this in the, during
14 the redirect of a surrebuttal witness.
15 MS. ROSENFELD: And I'm happy --
16 MR. GROSSMAN: I mean, that's, that's --
17 MS. CORDRY: I understand, but --
18 MR. GROSSMAN: -- what creates a problem for me.
19 It's a little bit different if you've got, when you've got
20 the opportunity to introduce your responsive witness after
21 it, but introducing a new, a new study that hasn't been
22 mentioned before makes me concerned. Let's hear what it is
23 that you're trying to bring out, and then we'll then
24 entertain the objection --
25 MS. CORDRY: Right.

Page 133

1 MS. ROSENFELD: I --
2 MR. GROSSMAN: -- so we have the exhibit in the
3 record here or, you know, marked in the record and then we
4 can decide.
5 BY MS. ROSENFELD:
6 Q Dr. Cole, could you please explain why you think
7 the information that you reviewed in the Texas
8 Implementation Motor Vehicle Emission Simulator Model, dated
9 September 2010, is important?
10 A Because it reinforces the evidence I did put in
11 the record, which is on page 9. Page 9 is for the
12 Dallas-Fort Worth area, and page 11 in this exhibit from the
13 Texas environmental quality commission gives further
14 evidence to support the contention that MOVES, for
15 light-duty -- and this is important because these last two
16 pieces of evidence are specific, specifically break down the
17 vehicle types -- so in the case of page 9, previously put
18 into the record, you're looking at passenger cars, and you
19 see that MOVES is approximately twice as high at this
20 2.5-mile-per-hour speed than MOBILE6, and now looking at
21 page 11, we see that the light-duty vehicles compares
22 MOBILE6 and MOVES, and again, MOVES is substantially higher
23 for the light-duty category for NX than is MOBILE6.
24 So I wanted to put into the record, the reason for
25 doing this is to put several reports, in addition to the

Page 134

1 Federal Highway Administration report by Claggett that I
2 testified about in December, those are three studies which
3 come to the opposite conclusion of the study that
4 Mr. Sullivan quoted where he showed that -- he used that
5 evidence from the, from the report, I'm going to pronounce
6 it wrong, Ozguven, the Ozguven report. That study had the
7 opposite finding in it, and he used it to apply a .7, what I
8 call a scale-down factor, to multiply by emissions.
9 MR. GROSSMAN: Right.
10 THE WITNESS: So the point here is that, taking
11 these three studies by government or quasi-government
12 bodies, this evidence to me is more compelling than the
13 evidence that Mr. Sullivan reported showing an opposite
14 result, and he -- it's the first time in the rebuttal report
15 that he used any correction factor.
16 MR. GROSSMAN: I'm having a little difficulty
17 determining, from looking at what you --
18 THE WITNESS: Okay.
19 MR. GROSSMAN: -- submitted here, as to whether or
20 not these actually are two different things. They appear to
21 be from the same conference, both of them from this 19th
22 International Emission Inventory Conference in San Antonio
23 on September 29, 2010, and how can I tell that what's on
24 page 11 is actually not from the data you previously
25 testified about?

Page 135

1 THE WITNESS: Because if you look at page 9, the
2 study by Mr. Venugopal, if I'm saying that right, is based
3 on the Dallas-Fort Worth study, whereas the study by Chris
4 Kite here on page 11 of the, of the environmental, Texas
5 environmental quality commission is for the
6 Houston-Galveston area.
7 MR. GROSSMAN: And where does it say that on this
8 exhibit?
9 THE WITNESS: That's a good question.
10 MS. ROSENFELD: And, Mr. Grossman, looking at
11 pages 10 and 11, you can see both of them have the same
12 logo, the Texas Commission on Environmental Quality, TCEQ,
13 in the upper left-hand corner of pages 10 and 11 --
14 MR. GROSSMAN: Right.
15 MS. ROSENFELD: -- and then if you look at the
16 bottom right-hand corner of page 9, it says, North Central
17 Texas Council of Governments. It's published by a
18 different --
19 MS. CORDRY: This was a --
20 MS. ROSENFELD: -- different entity.
21 MS. CORDRY: This was a conference. So there were
22 a number of papers, apparently --
23 MR. GROSSMAN: Right.
24 MS. CORDRY: -- presented at the same time. I've
25 actually got its little --

Page 136

1 THE WITNESS: Okay. Here's your answer.
2 MR. GROSSMAN: Here's my answer?
3 THE WITNESS: It's kind of cut off, but it says,
4 HGB.
5 MR. GROSSMAN: What page am I looking at?
6 THE WITNESS: Page 11.
7 MR. GROSSMAN: Page 11.
8 THE WITNESS: I'm sorry. It got cut off there.
9 It says, HGB, which is Houston-Galveston, a Spanish word
10 with B, but it's the Houston-Galveston area, whereas the,
11 page 9 is clearly the Dallas-Fort Worth, Texas, case. Now,
12 we can provide the report, the September 29th report in
13 full, which clearly shows that this is the Houston-Galveston
14 study and whereas the page 9 -- they may have been at the
15 same conference, but --
16 MR. GROSSMAN: All right. Let me --
17 THE WITNESS: -- probably were.
18 MR. GROSSMAN: -- hear from Mr. Goecke now.
19 MR. GOECKE: Sure. So we have several concerns in
20 support of our objection. I mean, as Dr. Cole says, they
21 could have provided it, but they didn't, and they obviously
22 were contemplating relying on this as evidenced by the fact
23 that they compiled a lot of other documents and numbered
24 them. So they absolutely could have provided it to us
25 earlier. They did not.

Page 137

1 On top of that, we don't have the full document;
2 so we can't properly cross-examine him, even if we were
3 allowed to by you today. In contrast, the Raynor report
4 that Ms. Cordry was referring to, they were provided that.
5 They had several days to review that, analyze it, and then
6 cross-examine Mr. Sullivan. So this is --
7 MS. CORDRY: Actually, we weren't ever provided
8 it.
9 MS. ROSENFELD: We haven't received it.
10 MS. CORDRY: You said you could provide it, and we
11 never got it and we never cross-examined on it. So -- it
12 was never sent over.
13 MS. ROSENFELD: No.
14 MR. GOECKE: I think, I think we did, I think we
15 did provide it to them.
16 MS. CORDRY: No. I think you asked us to send
17 you --
18 MR. GROSSMAN: There seems to be a disagreement.
19 MR. GOECKE: There is a --
20 MS. CORDRY: I think you asked us to send you
21 another list of what you had said you could do, and the
22 Raynor report, I think, was mentioned but it was never sent
23 over.
24 MR. GROSSMAN: Did you have any other concerns
25 that you --

Page 138

1 MR. GOECKE: Yes. You know, it's apples and
2 oranges what they're comparing on these two documents. On
3 page 9 it's the gasoline passenger vehicle; so it's gasoline
4 passenger vehicles. On page 11 it's the aggregate vehicle
5 category. That's a fleet mix. That includes both gas and
6 diesel. So the references here are apples and oranges, as I
7 said a moment ago.

8 To the extent they want to rely on the graph
9 that's on page 9, as Dr. Cole said, that's already in the
10 record. That was part of Exhibit 603, as Ms. Adelman points
11 out. So they already have that portion into it. I just
12 think it's prejudicial for us to have to respond to this at
13 this time. Even if we could cross-examine him, we don't
14 have the entire document, and we may want to then, you know,
15 further cross-examine him on the Fujita article that's
16 referenced here as well.

17 MR. GROSSMAN: All right. I'm going to get to the
18 fairness thing in a second, but I do want to hear -- I
19 hadn't noticed the aggregate category point before you
20 mentioned it. So that's an interesting thing. Do you have
21 a response to that, Ms. Rosenfeld? I mean, he's saying that
22 this doesn't actually show what it's purporting to show, in
23 any event, which is a light-duty non-diesel --

24 MS. ROSENFELD: That question is, I think, better
25 directed at Dr. Cole.

Page 139

1 MR. GROSSMAN: All right. Dr. Cole.
2 THE WITNESS: Okay. I will agree that it's not an
3 exact comparison. It's not light-duty, couldn't involve
4 light-duty trucks, for example, but I think that the fact
5 that you've got such a wide difference between the MOVES,
6 which is, in terms of grams per mile here, is 1.04 versus
7 the light-duty, which is .66, it must be -- it's partially,
8 at least, reflected by the large number of passenger cars
9 that are on roadways.

10 MR. GROSSMAN: All right.
11 THE WITNESS: So I would say it's not as good
12 evidence as perhaps the one that's on the record, but in my
13 judgment, it substantiates -- it helps to substantiate the
14 other one.

15 MR. GROSSMAN: Okay.
16 MR. SILVERMAN: And isn't that the crucial point?
17 It's really not the documents. It's Dr. Cole's judgment.
18 He said he -- he testified originally that the down-scaling
19 was improper. We had documents about that, and now he
20 reflected on it further, and he's doubling down on that
21 point of view.

22 MR. GROSSMAN: He's doubling down, but the crucial
23 point to me is the fairness issue, first of all, but also
24 taking into account the fact that it's not really going to
25 add much in terms of the specific issue we were addressing.

Page 140

1 I see little harm to excluding it, and I see potential
2 prejudice including it at this stage, this late stage in the
3 proceeding.

4 So I'm going to exclude this. It's marked as an
5 exhibit, but I'm writing down to it, not admitted. I don't
6 think it's going to really add to the evidence anyway given
7 the fact that it's an aggregate and we have the two
8 conflicting studies we already talked about. I think that's
9 sufficient to highlight the point, and there's no reason to
10 potentially do something unfair to the applicant here. So
11 I'm going to exclude it.

12 MR. GOECKE: Thank you.
13 MR. GROSSMAN: Okay.
14 THE WITNESS: I would comment on the Fujita --
15 MR. GROSSMAN: No, we're not, we're not -- we
16 don't have to get into Fujita until it's, until it's, it
17 comes up, if it comes up.

18 BY MS. ROSENFELD:
19 Q Dr. Cole, you said you, you, your opinion was
20 respect to the, whether or not the gas station would
21 contribute, would cause or contribute to National Ambient
22 Air Quality exceedances in the area. Would you consider the
23 major roadways around the mall to be part of the area to be
24 considered in that analysis?
25 A Yes, I would.

Page 141

1 MR. GROSSMAN: I'm sorry. Can you repeat that
2 question? I didn't quite follow that. Say that again.
3 MS. ROSENFELD: Dr. Cole's been expressing his
4 opinion as to whether or not the gas station would cause or
5 contribute to exceedances of the National Ambient Air
6 Quality.

7 MR. GROSSMAN: Okay.
8 BY MS. ROSENFELD:
9 Q And my question is, do you consider the major
10 roadways around the mall to be part of the area considered
11 in this analysis?
12 MR. GROSSMAN: And how far out are you defining
13 your question to go, because -- are you going outside of the
14 defined neighborhood here when you say the roadways?
15 MS. ROSENFELD: The roadways including Veirs Mill
16 Road, Georgia Avenue, and what's the other one?
17 MS. ADELMAN: University Boulevard.
18 MS. ROSENFELD: University Boulevard.
19 MR. GROSSMAN: I have to go back and look to
20 refresh my recollection as to whether or not they were,
21 those roadways were defined in, the ones that are
22 immediately adjacent to the --
23 MS. ROSENFELD: And that's, that --
24 MR. GROSSMAN: -- to the -- do you recall off the
25 top of --

Page 142

1 MS. CORDRY: But I think we're talking about the
2 EPA analysis of an exceedance, not necessarily,
3 specifically, the different question of what is the
4 neighborhood for the special exception process.
5 MR. GROSSMAN: No, but for --
6 MS. CORDRY: Well --
7 MR. GROSSMAN: -- my mind, I just want to know,
8 first of all, if we're talking about something outside
9 the --
10 MS. CORDRY: Well, I think --
11 MR. GROSSMAN: -- the defined neighborhood.
12 MS. CORDRY: I think we --
13 MR. GROSSMAN: If you can find it there,
14 Ms. Harris.
15 MS. HARRIS: Good luck, right?
16 MS. CORDRY: I'm not sure whether --
17 MR. GROSSMAN: I can go back to the original staff
18 report. I just can't recall whether the immediately
19 adjacent ones --
20 MS. HARRIS: It looks like the boundary is drawn
21 inborn of --
22 MS. CORDRY: Yes, I'm not sure we were trying --
23 since nobody was living in there, I don't think, in that
24 sense, we were trying to define that, but --
25 MR. GROSSMAN: I mean, it might have been -- the

Page 143

1 defined boundary might have been at the road, the roads, I
2 mean, included the mall and the area to the south and -- so
3 it's right at the roadways. Okay. So understanding that,
4 your question is, does he consider the roadways -- now, how
5 far out are you? When you use the term roadways, are you
6 just talking about those roadways immediately adjacent to
7 the mall, whether or not they're defined in the
8 neighborhood, or are you talking about roadways going out
9 100 feet, a mile, or what are you talking about?
10 MS. ROSENFELD: Generally, the roadways
11 surrounding the mall, and let me, let me ask the question a
12 little bit differently.
13 BY MS. ROSENFELD:
14 Q Did Mr. Sullivan model emissions levels on Georgia
15 or Veirs Mill or University Boulevard in his 2012 report?
16 A Which report?
17 MR. GROSSMAN: I don't recall that being within
18 the scope of the cross-examination. I mean, I don't want to
19 go back over all the testimony, but I just don't recall that
20 issue being an issue in cross-examination at all.
21 MS. ROSENFELD: Well, in terms of what is and is
22 not considered with respect to exceedances, I think that
23 that's within the scope of the, of redirect.
24 MR. GROSSMAN: What is and is not considered
25 within this -- I'm not sure I even understand that, that

Page 144

1 response.
2 MS. CORDRY: We're back to the same question again
3 about, when the EPA is looking at causing or contributing to
4 an exceedance and the way the standard applies and what's in
5 the standard, we're looking at -- it generally talks about
6 major roadways, and we're talking about, are these major
7 roadways -- we're not talking about going up, you know, 20
8 miles away and looking at major roadways, but --
9 MR. GROSSMAN: I don't know. That was part of my
10 question.
11 MS. CORDRY: Well, that's what we were asking him.
12 MR. GROSSMAN: What are we talking about, first of
13 all?
14 MS. CORDRY: Well, and that's where we're going
15 back to, what the original modeling was, which included
16 those roadways.
17 MS. ADELMAN: Which roadways?
18 MR. GROSSMAN: The original modeling, meaning the
19 November 2012 --
20 MS. ROSENFELD: In the November 2012.
21 MS. CORDRY: Yes. Yes.
22 MR. GROSSMAN: -- Sullivan report?
23 MS. CORDRY: Right. Right.
24 MR. GROSSMAN: Okay.
25 MS. ROSENFELD: This is a very short line of

Page 145

1 questioning and, I think, will quickly become clear.
2 MR. GROSSMAN: All right. Go ahead. You got,
3 I'll give --
4 MS. HARRIS: But it wasn't part of the
5 cross-examination, is what's our --
6 MR. GROSSMAN: Yes, I think that's true, but I'm
7 going to give them a little bit of leeway here just so I
8 understand. She's says very short. Let's keep it short.
9 MS. ROSENFELD: And I think part of it did go to
10 what was included in, in the levels, the final levels.
11 MR. GROSSMAN: I don't know. I don't -- I'm not
12 sure that I see that connection. It was a different area of
13 analytical rather than geographical, but go ahead, and what
14 is your question again, counsel?
15 BY MS. ROSENFELD:
16 Q I'm showing you Figure 1-16 on page 58 of the
17 November 19th, 2012 --
18 A Okay.
19 MR. GROSSMAN: Sullivan report?
20 BY MS. ROSENFELD:
21 Q -- Sullivan report. And in that --
22 MR. GOECKE: I'm sorry, Michele. Do you have a
23 copy of this?
24 MS. ROSENFELD: I'll show it to you. I'm going to
25 show --

Page 146

1 MR. GROSSMAN: This is the November 2012.
2 MR. GOECKE: November 2012?
3 MS. ROSENFELD: Yes.
4 MR. GOECKE: Okay.
5 MR. GOECKE: All right. Thank you.
6 BY MS. ROSENFELD:
7 Q And looking at the roadways, are there isopleths
8 that show the maximum levels of one-hour NO2?
9 A Yeah. This is the predicted 98th percentile
10 one-hour NO2. The highest isopleths, both along the
11 roadways and adjacent to the proposed gas station site,
12 are -- the highest isopleth here, was reported here, 175
13 micrograms per cubic meter. I would add, this is before the
14 correction was made in the background, which would raise
15 this substantially. On the other hand, to be fair, this was
16 the total conversion method. So -- but your question
17 relates to the roadways? Can you repeat your question?
18 BY MS. ROSENFELD:
19 Q Are the maximum levels on the roadways also
20 governed by the NAAQS?
21 A Yes.
22 Q And in subsequent reports did Mr. Sullivan include
23 maximum roadway --
24 MR. GOECKE: Objection. Leading.
25 BY MS. ROSENFELD:

Page 147

1 Q -- levels?
2 MR. GROSSMAN: Yes, that's, that is. Sustained.
3 THE WITNESS: Did you have another --
4 MR. GROSSMAN: No, you don't have -- there's no
5 question pending now.
6 BY MS. ROSENFELD:
7 Q Have you seen any further analysis of maximum
8 roadway concentrations in any subsequent reports?
9 A They're not in the -- I believe they're not in the
10 rebuttal report.
11 Q Is it contained in the August report?
12 MR. GOECKE: Objection. Leading.
13 MR. GROSSMAN: Well, where is this all going?
14 We've already gone over -- this seems to me to be a
15 rehashing of things that have been discussed at great length
16 previously and have not, was not really the subject of any
17 of the cross-examination. I --
18 MS. CORDRY: Well --
19 MR. GROSSMAN: -- gave you the leeway, but --
20 MS. CORDRY: Okay.
21 MR. GROSSMAN: -- I don't see how it's tying in to
22 anything on the cross-examination.
23 MS. CORDRY: Okay. It's actually trying to tie
24 into your questions about the way the EPA rule applies in
25 terms of is this part of the area, is this part where it

Page 148

1 could cause or contribute to, and if -- where are the
2 roadway levels.
3 MR. GROSSMAN: That wasn't really my question, but
4 I --
5 MR. GOECKE: No.
6 MS. CORDRY: Well, I thought it was your question.
7 I thought you were asking him about how he viewed the EPA
8 rule applying it and so forth.
9 MR. GROSSMAN: I did, yes, but that wasn't -- that
10 didn't deal with the kind of geographical thing. I used the
11 term area-wide because that was used in terms of
12 Dr. Breyse's testimony --
13 MS. CORDRY: Right, but --
14 MR. GROSSMAN: -- as a term. That was --
15 MS. CORDRY: -- area-wide concentrations and then
16 the peak anywhere in the area. So -- okay.
17 MR. GROSSMAN: I mean, this issue has gone --
18 MS. CORDRY: Okay.
19 MR. GROSSMAN: -- been gone over to a
20 fare-thee-well. You don't have to --
21 MS. CORDRY: All right.
22 MS. ROSENFELD: Mr. Grossman --
23 MR. GROSSMAN: -- go over it. It wasn't subject
24 to the cross-examination.
25 MS. ROSENFELD: -- could we take a five-minute

Page 149

1 break?
2 MR. GROSSMAN: I thought we took that over lunch.
3 MS. ROSENFELD: Well, we did, but just to wrap --
4 MS. CORDRY: Confirm that --
5 MS. ROSENFELD: -- up any final points. We're --
6 MR. GROSSMAN: Okay.
7 MS. ROSENFELD: -- we're just about done.
8 MR. GROSSMAN: All right. All right. Five-minute
9 break.
10 (Whereupon, at 2:12 p.m., a brief recess was
11 taken.)
12 MR. GROSSMAN: Back on the record. Ms. Rosenfeld.
13 MS. ROSENFELD: Yes. Thank you.
14 BY MS. ROSENFELD:
15 Q Dr. Cole, we were talking about the factors that
16 you thought supported your conclusion that there was a
17 distinct possibility that the NAAQS would be exceeded for,
18 in particular, one-hour NO2. Are there any additional
19 factors that support your conclusion in that regard?
20 A Yes, previously mentioned the background. In
21 terms of additional pieces -- and I raised this issue in a
22 submission to the Hearing Examiner in 2013 -- that there
23 were a lot of sources which, I believe, my judgment is,
24 which contribute to NOx concentrations, or emissions and
25 concentrations that were not included in the source

Page 150

1 inventory.

2 MR. GROSSMAN: When you say a submission to the

3 Hearing Examiner in 2013, what are you referring to?

4 THE WITNESS: I'd have to look at that document,

5 in particular, but it was, it was, it was a discussion of

6 the modeling reports and the pieces that I felt were either

7 inaccurate or missing from the --

8 MR. GROSSMAN: So it's one of your original --

9 THE WITNESS: Yes.

10 MR. GROSSMAN: -- letters or whatever --

11 THE WITNESS: Yes.

12 MR. GROSSMAN: -- on that? Okay.

13 THE WITNESS: I can get you the exact date that

14 I'm talking about.

15 MR. GROSSMAN: All right. Well, go ahead then.

16 THE WITNESS: Okay. So missing sources. This is

17 a big mall, and the sources that were looked at in terms of

18 vehicle emissions, for example, were the west parking lot,

19 the parking garage, the loading dock, the ring road, and the

20 queue and the roadways, but there are a lot of other

21 commercial establishments in the mall which have loading

22 docks and which also have parking lots. We heard testimony

23 about --

24 MR. GROSSMAN: You don't think those are subsumed

25 in general background?

Page 151

1 THE WITNESS: No. We don't have any measurements

2 of background. I advocated measurements of background.

3 MR. GROSSMAN: No, but I mean, the monitoring

4 reports of background. You don't think that these other

5 sources, other than the ones listed by Mr. Sullivan, are

6 covered by the background, inclusion of background

7 measurements?

8 THE WITNESS: No, I don't. These are very close

9 to the gas station --

10 MR. GROSSMAN: Okay.

11 THE WITNESS: -- queue. They should have been

12 added as sources, in my judgment.

13 MR. GROSSMAN: Okay.

14 THE WITNESS: Another factor is, there's been

15 testimony that the traffic at various intersections on the

16 ring road was underestimated. I believe there was

17 testimony. To the extent that traffic is underestimated,

18 the number of vehicles would be underestimated and the

19 emissions would be underestimated.

20 There's another problem, which I think is very

21 serious, which is the, what I call the congestion factor.

22 There's a concept in roadway parlance called the

23 volume-over-capacity ratio, and basically, it states that as

24 you, as you get near the limit, as you put more cars on the

25 road, there's a much greater probability that there are

Page 152

1 going to be backups and congestion, and the studies which --

2 all of the studies show that when you have slower speeds,

3 that increases the emission rate for things like oxides of

4 nitrogen but other pollutants as well, including particulate

5 matter.

6 MR. GROSSMAN: Isn't this, once again -- I don't

7 see this as responsive to the cross-examination. It's kind

8 of a rehashing of much of the testimony that's already been

9 in here.

10 MS. ROSENFELD: Okay. I just have one final

11 question then.

12 BY MS. ROSENFELD:

13 Q These factors that you've discussed -- and I'm not

14 going to go through them all -- but the monitor selection,

15 MOVES to MOBILE, et cetera, do those each act in isolation,

16 or is there a cumulative effect of those different --

17 A Well, they would be --

18 Q -- modeling issues?

19 A They would be, the factors I've discussed would be

20 additive, number one, and a certain of these effects

21 interact in a synergistic fashion -- i.e., the congestion

22 factor -- compounding the impact.

23 MS. ROSENFELD: I have no further questions.

24 MR. GROSSMAN: Any recross from the Coalition?

25 MR. SILVERMAN: Just one.

Page 153

1 SURREBUTTAL RECROSS EXAMINATION

2 BY MR. SILVERMAN:

3 Q The Fujita study, Dr. Cole, would you tell us

4 about that and why it's relevant?

5 MR. GROSSMAN: How is that part of the --

6 MR. SILVERMAN: I thought I --

7 MR. GROSSMAN: -- responsive to the redirect?

8 MR. SILVERMAN: I thought I heard a discussion of

9 Fujita. So I --

10 MR. GROSSMAN: I don't think that came up on

11 redirect.

12 MR. SILVERMAN: Well, in that case, I'll withdraw

13 the question.

14 MR. GROSSMAN: Did anybody cover Fujita on

15 redirect?

16 MS. CORDRY: No. Sorry.

17 MS. ROSENFELD: No.

18 MR. GROSSMAN: So that's outside the scope of

19 redirect.

20 MR. SILVERMAN: Okay.

21 MR. GROSSMAN: All right. Ms. Duckett, any

22 recross from you?

23 MS. DUCKETT: Sorry?

24 MR. GROSSMAN: Any recross from KVCA?

25 MS. DUCKETT: Oh, no. No, sir.

Page 154

1 MR. GROSSMAN: All right. Any recross from the
2 applicant?
3 MR. GOECKE: No.
4 MR. GROSSMAN: Okay. Well, congratulations.
5 THE WITNESS: Thank you.
6 MR. GROSSMAN: Have finished, and the final
7 witness, too, at that. So thank you very much. I hear
8 applause from the audience. All right. Shall we turn to
9 the objections?
10 MS. HARRIS: And, Mr. Grossman, before we get into
11 them, or I had intended to mention one as we go down the
12 list, but in reviewing the list, we realized that there was
13 one report that was submitted that was not a complete
14 report, and so I want to make sure, when we get to that,
15 that we have an opportunity to discuss adding the -- making
16 it a complete report.
17 MR. GROSSMAN: Okay. Well, let's get to that when
18 we get to it --
19 MS. HARRIS: Okay.
20 MR. GROSSMAN: -- and then you can raise the
21 issue. I guess the easiest way to do this is to go back to
22 the resubmitted objections, which I had probably put
23 together and should be able to put my fingers on
24 momentarily, theoretically. All right.
25 MS. ROSENFELD: And, Mr. Grossman --

Page 155

1 MR. GROSSMAN: Yes.
2 MS. ROSENFELD: -- in an abundance of optimism
3 here, Mr. Goecke said he would take another look at the list
4 and perhaps remove some, and --
5 MR. GROSSMAN: Well, he did and he submitted the
6 revised --
7 MS. CORDRY: Even after the revised one.
8 MS. ROSENFELD: After he --
9 MR. GROSSMAN: Oh.
10 MS. ROSENFELD: After he received KHCA's further
11 response, he --
12 MR. GOECKE: That's true. I took another look,
13 and Ms. Harris and I discussed it, and we think this is
14 going to be a very short conversation, actually.
15 MR. GROSSMAN: All right.
16 MR. GOECKE: We're content to allow the documents
17 into the record and trust you to give them the weight they
18 deserve with one exception.
19 MR. GROSSMAN: Okay.
20 MS. CORDRY: Okay. What's that?
21 MS. HARRIS: And the one exception, as I said, it
22 had to do with this --
23 MR. GROSSMAN: Except for what Ms. Harris is about
24 to tell me, you're withdrawing all of the objections to
25 proposed exhibits in Exhibit 563?

Page 156

1 MR. GOECKE: Correct.
2 MR. GROSSMAN: Okay.
3 MS. CORDRY: I actually would, not to be
4 difficult, but there was a couple -- there were two reports
5 that we, the Florida Pedestrian Planning, the Aging Driver,
6 that we did not -- we marked those, but we never actually
7 admitted those, and I had said all along that was fine for
8 those not to be admitted. So --
9 MR. GROSSMAN: Okay.
10 MS. CORDRY: -- that's fine.
11 MS. ADELMAN: What numbers are they?
12 MS. ROSENFELD: 367(b)?
13 MS. CORDRY: (B) and (e), yes.
14 MS. ROSENFELD: Okay. So are --
15 MS. CORDRY: So I don't --
16 MR. GROSSMAN: We'll put them in one of those
17 Florida sinkholes, right?
18 MS. CORDRY: Fine.
19 MR. GROSSMAN: All right.
20 MR. GOECKE: We have no objection to Ms. Cordry's
21 objection to her documents.
22 MS. HARRIS: Let the record reflect.
23 MR. GROSSMAN: Turnabout is fair play, right?
24 MS. HARRIS: Right.
25 MR. GROSSMAN: All right.

Page 157

1 MS. HARRIS: So then the only exhibit in question
2 or that I wanted to discuss briefly was Exhibit 353, which
3 is the Michigan State placemaking study.
4 MR. GROSSMAN: All right. Hold on one second.
5 Let me pull that out. That's Folder 5. Now, you realize,
6 Sarah is going to be mad at me because I've had her pulling
7 these folders out, because we thought we were going to
8 discuss the objections. So all the folders that have
9 objected-to documents in them, she's been putting out each
10 time, and of course, we never reach them until today. So --
11 MR. BRANN: You can tell her it's my fault.
12 MR. GROSSMAN: All right. Fair enough.
13 MS. CORDRY: We'll blame you, Erich. Thank you.
14 MR. BRANN: There you go. That's what I'm here
15 for.
16 MR. GROSSMAN: All right. So let's see.
17 MS. CORDRY: To take the blame. All right. Let's
18 see.
19 MR. GROSSMAN: File 4. File 5.
20 MS. CORDRY: So the placemaking document, all
21 right, which I think we were trying to spare you, because
22 that was a pretty long document, as I recall.
23 MR. GROSSMAN: I'm sorry. Which one was it? 3?
24 MS. HARRIS: 353.
25 MR. GROSSMAN: 353. Okay. Hold on. By George, I

Page 158

1 have located it. Okay. Building Prosperous Places in
2 Michigan --
3 MS. HARRIS: Right.
4 MR. GROSSMAN: -- Understanding Placemaking
5 Values, Perceptions, and Barriers.
6 MS. HARRIS: And, I mean, originally I was
7 intending to object -- that was on our original list --
8 MR. GROSSMAN: Right.
9 MS. HARRIS: -- because it's irrelevant and it has
10 to do with value of placemaking factors, not what a gas
11 station does for property values, but we won't make that
12 argument, but I do -- I want to note and I want to submit
13 that only a portion of that report was submitted, that the
14 entire report was not submitted. So, in fairness, I think
15 that the entire study should be submitted, and I have copies
16 here; so we can just submit the other, the narrative portion
17 of the report.
18 MR. GROSSMAN: You mean it's even fatter than this
19 thing, which is already --
20 MS. HARRIS: It is.
21 MS. CORDRY: Right, which was --
22 MR. GROSSMAN: -- pretty thick. It's a half-inch
23 thick anyway.
24 MS. HARRIS: It is 36 pages.
25 MS. ROSENFELD: Actually, I think the whole thing

Page 159

1 is in there.
2 MR. GROSSMAN: Well, then maybe we're talking
3 about --
4 MR. BRANN: Oh, no. She's talking about --
5 MS. HARRIS: No. Well, I mean, the new -- this is
6 what's in the record now --
7 MR. GROSSMAN: Right.
8 MS. HARRIS: -- and then, but it was only the
9 PowerPoint portion. The actual report --
10 MR. GROSSMAN: Okay. Yes.
11 MS. HARRIS: -- was not submitted.
12 MR. GROSSMAN: All right.
13 MS. HARRIS: So for completeness sake and in order
14 to take this report in full context, I think it's only fair
15 that the entire report be in the record. So --
16 MR. GROSSMAN: All right. Any objection to that?
17 Why don't you take a look.
18 MS. ROSENFELD: Let me take a look.
19 MS. CORDRY: Okay. Let me just look again because
20 I don't have it here right now.
21 MS. HARRIS: I have two copies.
22 MS. CORDRY: Okay. Great. So this is the
23 narrative portion that goes with all of the --
24 MS. HARRIS: Correct.
25 MS. CORDRY: -- there's more --

Page 160

1 MS. HARRIS: And it's from the link that's
2 referenced --
3 MS. CORDRY: Right.
4 MS. HARRIS: -- on the second page of the report.
5 MR. GOECKE: Right. So just to build on what
6 Ms. Harris said, Mr. Grossman --
7 MR. GROSSMAN: Yes.
8 MR. GOECKE: -- on the second page of Exhibit 353,
9 there's, there's one, two, three, four, five bullet points,
10 and the bottom one says, please see our website for more
11 information, and then it provides a link. And so this
12 document that Ms. Harris is submitting now is what you get
13 when you go to that link --
14 MR. GROSSMAN: Okay.
15 MR. GOECKE: -- and that document puts this
16 document in more context. And so --
17 MR. GROSSMAN: Okay.
18 MR. GOECKE: -- whereas we were originally
19 objecting to this document because Mr. Core was relying on
20 it to support his argument that the gas station could
21 devalue the properties in the neighborhood, we don't think
22 that that's what this document says --
23 MR. GROSSMAN: Careful. Your -- you have a cord
24 there. Okay.
25 MR. GOECKE: -- and we were objecting to it, but

Page 161

1 it probably goes more to the weight of supporting it than
2 its admissibility, and so we're okay with this document
3 coming in, with you giving it the weight it deserves,
4 provided that it's put in its complete context, which this
5 link provides.
6 MR. GROSSMAN: I understand.
7 MS. CORDRY: And this is actually --
8 MR. GROSSMAN: All right. So we're going to call
9 this document that's just been handed me, the narrative
10 portion of Exhibit 353, as Exhibit 353(a).
11 MS. CORDRY: Right, and we may need to look at
12 this again, because this document is dated March 30th; his
13 document was dated April 25th. So I think there are --
14 MR. GROSSMAN: The same year?
15 MS. CORDRY: Yes, in the same year, but I think --
16 my recollection was there were two, I found two different
17 pieces of it at different times. So let me --
18 MS. HARRIS: Trust me. If you look through
19 353(a), it particularly pertains to 353.
20 MS. CORDRY: Right, but there -- oh, I'm sure
21 they, I'm sure they pertain. What I'm saying is there are
22 things that I know we looked at -- there was much more in
23 the document than just this, too, but there was, for
24 instance --
25 MS. HARRIS: The website leads you to the Michigan

Page 162

1 State --
2 MS. CORDRY: But, in other words, this is also
3 part of the --
4 MS. HARRIS: -- Land Policy.
5 MS. CORDRY: -- you know, this is a document we
6 put in. This is another description of it, but this -- I
7 don't mind having them both come in, but I just want it to
8 be clear that this is not supplanting this document that we
9 had in.
10 MR. GROSSMAN: No --
11 MS. CORDRY: Okay.
12 MR. GROSSMAN: -- it's not supplanting it.
13 MR. GOECKE: It's not supplanting it.
14 MR. GROSSMAN: It's a narrative portion --
15 MS. CORDRY: Right.
16 MR. GROSSMAN: -- that pertains to Exhibit 353.
17 MS. CORDRY: Right.
18 MR. GROSSMAN: All right. So that's, this will be
19 called 353(a), and let me write this down on the exhibit
20 list. We'll say, narrative relating to PowerPoint in
21 Exhibit --
22 MS. DUCKETT: Mr. Grossman, I'm confused.
23 MR. GROSSMAN: Hold on one second. So narrative
24 -- 353(a) is narrative relating to PowerPoint in Exhibit
25 353. All right.

Page 163

1 (Exhibit No. 353(a) was marked
2 for identification.)
3 MS. DUCKETT: Okay. 353 was submitted by the
4 opposition --
5 MR. GROSSMAN: Yes.
6 MS. DUCKETT: -- and testified to by the
7 opposition, but 353(a) is what the applicant has picked out
8 as to what they think was those portions?
9 MR. GROSSMAN: No. 353 is a different document.
10 353(a) is a narrative, also called Building Prosperous
11 Places in Michigan, and 353 is the PowerPoint presentation
12 and various slides, but 353(a) is a narrative that discusses
13 that PowerPoint presentation.
14 MS. DUCKETT: That's also on the website, is
15 that -- it's a different section of the website?
16 MR. GROSSMAN: That's what I'm led to believe
17 by --
18 MS. CORDRY: Right.
19 MS. HARRIS: No. It says, if I recall correctly,
20 the website says, Building Prosperous Places in Michigan,
21 and right below it are, is the report and then this
22 document, which I forget what they called that document.
23 MS. DUCKETT: Oh, okay.
24 MS. HARRIS: It's all part of the same thing.
25 MS. CORDRY: Right.

Page 164

1 MS. DUCKETT: Okay. Thank you.
2 MS. CORDRY: Right. So there was an initial
3 report, and then there was a PowerPoint presentation done
4 about a month apart, and I can, I can send you a link to get
5 to both of them, though. And hold on. We're just looking
6 at this very quickly a moment. And how long is that
7 document?
8 MS. ROSENFELD: No, this is only --
9 MS. CORDRY: I think you may have the summary
10 document there.
11 MS. HARRIS: They call it the summary document --
12 MS. CORDRY: Okay.
13 MS. HARRIS: -- on the web, but it's not the
14 summary document.
15 MS. CORDRY: Well, okay, because when I pull up
16 the full report, it's 144 pages --
17 MS. ROSENFELD: Yes, it says, Summary Report.
18 MS. CORDRY: -- and then that's -- so we have a
19 full document that was 144 pages. The one you have there,
20 which is -- what did you say that was? Thirty-some-odd
21 pages?
22 MS. ADELMAN: Thirty-seven, yes.
23 MS. CORDRY: And then there's the presentation,
24 which was the PowerPoint. So I'm -- let's see. So let me
25 go back to the summary version. We're just trying to make

Page 165

1 sure whether -- I mean, I'm not, I'm not really sure what --
2 since I don't know why they're introducing this particular
3 version of it, I don't know whether it raises an issue for
4 us or not, but let me look at the summary version, see if
5 that's what --
6 MS. ROSENFELD: Is there a reason why you chose
7 the summary version instead of the full report?
8 MS. HARRIS: Actually, I was not aware that there
9 was -- I did not see the full report.
10 MS. ROSENFELD: There's a full report that's 144
11 pages long that's also dated March 30, 2012.
12 MS. CORDRY: Yes. So let me pull up the one
13 that's labeled Summary and see if that looks like this one,
14 and it probably does have the same cover on them. Right.
15 Yes. So the one they have is the summary report; then
16 there's a full report, which is exactly four times as long,
17 and then there was the PowerPoint presentation there. So --
18 The summary report, for instance, doesn't mention
19 gas stations; the full report does. So -- and if we really
20 want the full report in, which is the one that mentions gas
21 stations, then I think we need the full report, which is 144
22 pages, and I'm not sure it's really necessary to have that
23 in here, but it's up to them.
24 MS. ADELMAN: Does the PowerPoint have gas
25 stations in there too?

Page 166

1 MS. CORDRY: Yes.
2 MR. SILVERMAN: Yes.
3 MS. ROSENFELD: Yes. Mr. Core testified.
4 MS. CORDRY: Yes. That's why we put it in there,
5 because that's the part where it talks about it.
6 MS. ADELMAN: Okay.
7 MR. GROSSMAN: Do you want us to take a break
8 here, and you can look over the --
9 MS. CORDRY: Right. Yes. Why don't --
10 MR. GOECKE: Yes, please.
11 MR. GROSSMAN: -- full report since we've actually
12 truncated what we were going to have to do --
13 MS. HARRIS: Yes, my apologies. I --
14 MR. GROSSMAN: -- with regard to objections.
15 So --
16 MS. CORDRY: Right. Let's just take a couple
17 minutes, and we can look at this.
18 MR. GROSSMAN: Yes. I'll come back at, it's --
19 oh, we're way off now. That clock is now --
20 MS. SAVAGE: The clock is sick.
21 MS. ADELMAN: That's why I wondered if it had a
22 battery --
23 MS. SAVAGE: It's very sick.
24 MS. ADELMAN: -- because it's losing all the time.
25 MR. GROSSMAN: It needs help.

Page 167

1 MR. COLE: It's 2:42.
2 MR. GROSSMAN: Yes.
3 MS. CORDRY: Yes, 2:42, we'll buy that.
4 MR. GROSSMAN: So I'll come back in 10 minutes.
5 Is that --
6 MS. CORDRY: Okay. Yes, that should be fine.
7 MR. GROSSMAN: -- does that sound about right?
8 MR. GOECKE: Yes.
9 MR. GROSSMAN: Okay. All right. We're in recess.
10 (Whereupon, at 2:43 p.m., a brief recess was
11 taken.)
12 MR. GROSSMAN: All right. Back on the record.
13 Are we all ready to resolve this final little issue?
14 MR. GOECKE: I think so.
15 MS. HARRIS: I think they raise a good point, and
16 we're fine bringing in the full report as well as the
17 summary report --
18 MR. GROSSMAN: I knew it.
19 MS. HARRIS: -- so we're in agreement.
20 MS. CORDRY: Well, we certainly don't need --
21 MR. GROSSMAN: Why settle for a 30-page report
22 when you can have a 160-page report?
23 MS. HARRIS: Exactly.
24 MR. GOECKE: Right.
25 MS. CORDRY: Okay. Well, I certainly don't think

Page 168

1 we need both --
2 MS. ROSENFELD: And why have both if you only need
3 one?
4 MS. CORDRY: Yes. I don't think we need the
5 summary report in addition --
6 MR. GROSSMAN: Okay.
7 MS. CORDRY: -- to the full report.
8 MS. HARRIS: Well, I --
9 MR. GROSSMAN: All right. So --
10 MR. BRANN: No, the summary and the full report --
11 UNIDENTIFIED SPEAKER: You need both?
12 MR. BRANN: -- that's what she's saying. You want
13 both?
14 MS. HARRIS: I do want both.
15 MR. BRANN: Okay.
16 MS. HARRIS: I think we need it to put everything
17 in context.
18 MR. GROSSMAN: All right. So --
19 MS. CORDRY: I will have to say, though, that
20 these documents were available to them -- Mr. Core put in
21 the document in advance --
22 MR. GROSSMAN: We don't have to fight about this,
23 do we? I mean, what's the -- it is something that was put
24 in in this form by Mr. Core. I just, do you really, is it
25 really worth an argument about?

Page 169

1 MS. CORDRY: It probably isn't, but you know, it's
2 like --
3 MR. GROSSMAN: No but.
4 MS. CORDRY: But I must say, if it was, I wouldn't
5 have any way of knowing it until I went through 144 pages of
6 this, but I'm sure it's fine because I'm sure the summary
7 presentation that they did was an accurate reflection of
8 their report. So --
9 MR. GROSSMAN: Okay. So 3 --
10 MS. CORDRY: We'll expect full copies. We're not
11 printing it.
12 MR. GROSSMAN: -- oh, I must have marked it in
13 the -- okay. So 353(a) will be the summary, and then 353(b)
14 will be the full, the narrative full report. Right?
15 (Exhibit No. 353(b) was marked
16 for identification.)
17 MS. CORDRY: Correct.
18 MS. HARRIS: Yes.
19 MR. GROSSMAN: Good. All right. Do we have any
20 other issues that need to be resolved?
21 MR. GOECKE: Can we give our reply case now?
22 MS. ROSENFELD: The one --
23 MR. GROSSMAN: Don't scare me, Mr. Goecke. I
24 scare easily.
25 MS. ROSENFELD: The one remaining exhibit, of

Page 170

1 course, we have not rescinded our objection to the rebuttal
2 report, but we do have written motions --
3 MR. GROSSMAN: Oh.
4 MS. ROSENFELD: -- on those, and I assume you're
5 going to handle that separately. I just wanted the record
6 to be clear --
7 MR. GROSSMAN: Well, I'm glad you actually --
8 MS. ROSENFELD: -- that we have not --
9 MR. GROSSMAN: -- raised that. Let's discuss that
10 now, the challenge to the rebuttal report, which I said we
11 would wait until we heard from Dr. Cole before, before
12 ruling on that. Do you wish to argue that further, or are
13 you satisfied with your written presentations, which were
14 numerous?
15 MS. CORDRY: Would it make sense to just have a
16 no-more-than-five-page, just reference to the testimony, to
17 supplement the discussion, or something like that?
18 MR. GROSSMAN: I'm not sure I understand. A
19 five-page reference to the --
20 MS. ROSENFELD: Now, that we've had the benefit of
21 the testimony on the report, you said --
22 MR. GROSSMAN: You want to submit additional
23 writing on this?
24 MS. CORDRY: Yes.
25 MR. GROSSMAN: No --

Page 171

1 MS. CORDRY: No? All right.
2 MR. GROSSMAN: -- I don't think it's necessary.
3 You're going to have closing arguments, but as far as the --
4 MS. CORDRY: Well, then I think --
5 MR. GROSSMAN: -- as far as the objection is
6 concerned, you can orally state what you want to state now
7 or rely on the numerous papers that have been filed.
8 MS. CORDRY: Yes, I think the testimony that's
9 come in has amply supported what we have stated, which is
10 that this is not a report -- a methodology that has yet
11 obtained general scientific reliability, which is the
12 standard in Maryland for both court hearings and agency
13 proceedings. Dr. Cole's testimony, I think, has made clear
14 that the OLM method is a fairly simple method, in some
15 respects, to apply; but even if we assume that you get past
16 the point of saying this is something that should have to be
17 approved by the EPA office and if you can take that
18 position, the OLM method does not include these kind of
19 aspects of limiting the use of additional conversions within
20 a certain area and so forth.
21 So for the Stage II, it is not an EPA method, and
22 the Stage III, I think he has also, again, adequately
23 explained that there is, again, no justification for a
24 methodology that just arbitrarily cuts off the conversion
25 ratio at .50. That, again, that's a refinement that

Page 172

1 Mr. Sullivan has come up with on his own. It may have some
2 merit. It may not. It may as it goes through. If he put
3 it out in a peer-reviewed report, it might be something that
4 would be interesting. At this stage, it would appear to be
5 something similar to the kind of beta report that the API
6 was trying to submit and so forth. Obviously, Stage III
7 isn't even the OLM method. I think that's been conceded.
8 So we have two analyses that go beyond anything
9 that the EPA has stated is available for use in their
10 regulatory processes, and again, I would remind you that, as
11 our evidence -- as our argument indicated, what the Maryland
12 courts say is, they have retained the stricter standard for
13 admissibility of evidence and that they do not wish to have
14 these kind of issues debated and resolved, in the first
15 instance, by a court as opposed to debated and resolved in
16 the field of scientific analysis. And it seems to me that
17 the EPA's determination of which models it accepts is a
18 pretty good starting point for what is generally
19 scientifically reliable and generally scientifically
20 accepted.
21 MR. GROSSMAN: Well, in fairness, it hasn't said
22 that it won't accept the OLM method.
23 MS. CORDRY: No, no, but he is not using the OLM
24 method --
25 MR. GROSSMAN: Well --

Page 173

1 MS. CORDRY: -- that's the point. He --
2 MR. GROSSMAN: Well, no, I don't think that is the
3 point. It is one point you argue that --
4 MS. CORDRY: Well, okay.
5 MR. GROSSMAN: -- and certainly in Stage III --
6 MS. CORDRY: The point is --
7 MR. GROSSMAN: -- his Stage III uses --
8 MS. CORDRY: But also Stage II, because his Stage
9 II, he arbitrarily does not apply the OLM method within a
10 certain area and there's nothing in the OLM method, as
11 Dr. Cole pointed out again today, there's nothing in the OLM
12 method that says you don't apply it within some area in
13 which you think it doesn't work. That isn't the way the OLM
14 method works. It's a pretty simple method. You take the
15 amount of NOx you have, you take how much ozone you have,
16 and you compare the two and that's it. This tailpipe
17 box/exclusion zone and so forth is just simply not the OLM
18 method.
19 So based on the fact that Maryland law says you
20 don't start stepping outside the boundaries of what is
21 generally acceptable in the court proceeding to begin with,
22 we think it's clear that this rebuttal report is based on
23 two methods, neither one of which has yet obtained the
24 necessary scientific reliability. And it's not for this
25 Hearing Officer proceeding to be trying to make that

1 determination, in the first instance, precisely for, in some
2 respects, the point that we have done, which is we spent
3 three days with Mr. Sullivan and, you know, a day and a half
4 with Dr. Cole, essentially going over new methods of
5 analysis that, if they were not admitted, because they are
6 not EPA methods, we would not have been going through. So
7 that -- part of what they said is to save time, to save the
8 burden on the courts but also simply because it does not
9 want courts and juries and agencies to be making those
10 determinations, in the first instance.

11 So we think it's, we think it's very clear that
12 the report has not been able to show that it meets the
13 standard for Maryland law.

14 MR. GROSSMAN: All right. Ms. Duckett, do you
15 have anything to add to that?

16 MS. DUCKETT: No.

17 MR. GROSSMAN: Mr. Silverman or Ms. Adelman?

18 MS. ADELMAN: No.

19 MR. GROSSMAN: No? Okay. Applicant, do you wish
20 to respond?

21 MR. GOECKE: Yes. Thanks, Mr. Grossman. So --
22 and there were several motions to strike Mr. Sullivan's
23 report. I take it that this is only applying to the
24 Frye-Reed basis. I think you had denied all their other
25 motions, but we -- and we had not filed a response to their

1 Frye-Reed motion because you had said we would take it up at
2 the hearing. So my argument tailors to that, the bases, the
3 arguments they make in the Frye-Reed motion.

4 MR. GROSSMAN: All right. Well, they did have
5 other, other grounds in their earlier motions which, I
6 believe, I did formally act on, is that --

7 MR. GOECKE: I think you denied all of them.

8 MR. GROSSMAN: Yes.

9 MS. CORDRY: Right. I mean, we --

10 MR. GROSSMAN: Right. So this is --

11 MS. CORDRY: -- we retain our objection to that
12 result, but --

13 MR. GROSSMAN: Right.

14 MS. CORDRY: -- we're not rearguing that point at
15 this point.

16 MR. GROSSMAN: And by the way, we're talking about
17 Exhibit 466. That's the Sullivan rebuttal report dated
18 February 21, 2014.

19 MR. GOECKE: And so in the motion to strike based
20 on the Frye-Reed argument, they put forth three arguments.
21 The first was that Mr. Sullivan's report and his testimony
22 should be stricken because there was no EPA oversight that
23 allowed him to do this methodology, and as we've talked
24 about in prior hearings, this is not an air-permitting
25 process. The EPA is not involved. They do not have the

1 jurisdiction. You know, people have reached out to them.
2 Even if we wanted them to opine on this, they haven't done
3 it, they won't do it, and so that's not a basis to strike
4 his report or his testimony.

5 The second basis was that this is an improper
6 application of the OLM methodology because that only applies
7 to smokestack, emissions from power plants, not to vehicular
8 emissions, and I'll talk about that in a moment.

9 But then the third point was that there was no
10 peer-review process or scrutiny of Mr. Sullivan's report.
11 In terms of that, there's not a requirement that an expert
12 report be subjected to a peer-review process or be published
13 in order to be admitted or used in a quasi-judicial or
14 judicial hearing, and to the extent that there hasn't been
15 any scrutiny or review of that document, I think that's just
16 not correct.

17 As Ms. Cordry just said, there was five days of
18 testimony from Mr. Sullivan and/or Dr. Cole dealing a lot
19 with the OLM methodology. So it received a lot of
20 attention; it received a lot of scrutiny. As you pointed
21 out in one of the hearings, there's different benefits to
22 the different procedures, and whereas the EPA-permitting
23 process may require EPA guidance and oversight, here there's
24 the ability to cross-examine witnesses on the stand. So we
25 feel like there's been ample time and opportunity for them

1 to cross-examine Mr. Sullivan and for their expert to opine
2 on his methodology.

3 Taking that away, the last argument is whether or
4 not it's permissible for the OLM methodology to be applied
5 here. You know, at one point they argued that this is a
6 non-regulatory method and it should not be allow, but upon
7 closer inspection what we saw was it was a non-regulatory
8 default method, and so it's something that can be used, but
9 it's just not, it's just not one of the default methods.

10 It's discussed in Part 50, Appendix W, in the EPA
11 guidance on air modeling. It's discussed in the two Tyler
12 Fox memos. This is methodology that has been reviewed and
13 analyzed by the EPA. It is something that can be used when
14 your circumstances are appropriate, and Mr. Sullivan, very
15 methodically in his rebuttal report, stated all the
16 scientific literature upon which he relied to apply the
17 methodology to this situation.

18 If you go through Appendix B1, he cites about nine
19 different articles that he relies on, justifying his math in
20 the situation and why he applied it in the way that he did.
21 In contrast, Dr. Cole, while he disagrees with that, has not
22 cited any literature that says you cannot apply the OLM to a
23 situation like this. Everyone agrees that it was typically
24 created to deal with power plant plumes and stacks, but
25 there's no literature that says it cannot apply here. It

Page 178

1 has not been rejected by the scientific community in this
2 context.

3 In fact, when pressed today, you know, he
4 testified at first that the Environment Agency report said
5 that, based on Janssen, the plume, the dispersion,
6 characteristics of a plume in a power plant would not apply
7 to an urban environment, to this environment, but upon
8 closer inspection that report did not say that. It said
9 that it has, it's surprising, but it has similar
10 characteristics to an urban environment and it may be
11 appropriate provided you use other conservative methodology.

12 Mr. Sullivan has testified extensively about the
13 conservatism baked into his modeling process, and yes, that
14 conservatism has been reduced over time, but when we compare
15 the results that he's modeled for the proposed gas station
16 and compare them to the 411 monitoring sites that are out
17 there, it supports and corroborates his testimony. It shows
18 that his --

19 MR. GROSSMAN: That's not really the issue.
20 MS. ROSENFELD: This goes well beyond --
21 MS. CORDRY: That's --
22 MR. GROSSMAN: We're talking about whether or
23 not --
24 MS. ROSENFELD: That's closing argument.
25 MR. GROSSMAN: -- there's an evidentiary issue

Page 179

1 here as to whether or not it's appropriate to admit the use
2 of, well, the rebuttal report entirely, but the key is the
3 OLM method and the modified OLM methods that Mr. Sullivan
4 used. So the question here is, they raised an objection not
5 just to the use of OLM but also to the modified versions of
6 OLM that Mr. Sullivan used --

7 MR. GOECKE: Yes.
8 MR. GROSSMAN: -- do you want to respond to that?
9 MR. GOECKE: Right, and as I said before, he cited
10 the references in his report that support his application to
11 not using OLM within the first 40 meters, and as Dr. Cole
12 admitted today, it takes time and distance for the
13 conversion to take place. And whereas with a plume stack,
14 when you've got this forceful jet of air being emitted at
15 very high altitudes and causing much more turbulence and
16 much more mixing to the molecular level, the air on the
17 ground is nowhere near that speed, and the reports that
18 Mr. Sullivan relies on show that. So that contradicts what
19 Dr. Sullivan, or Dr. Cole, rather, had testified.

20 So to the extent that Dr. Cole disagrees, his
21 disagreement is not supported by the scientific literature,
22 and it most certainly doesn't establish that it's been
23 rejected by the scientific community to apply in this
24 situation. So the scientific community has adopted OLM. It
25 is something they apply. There's literature on this. The

Page 180

1 literature says it may be appropriate in this situation. My
2 point before about comparing it to the 2013 data was merely
3 to show, to the extent that conservatism is required when
4 applying it, he's demonstrated, he's testified the evidence
5 shows that he has still applied a conservative modeling
6 analysis here.

7 MR. GROSSMAN: Well, I'm not going to get into the
8 issue of whether or not it's conservative or not, just on
9 the evidentiary question.

10 MR. GOECKE: Yes.
11 MR. GROSSMAN: I'm satisfied, looking at what the
12 EPA has had to say and listening to the testimony of
13 Mr. Sullivan and Dr. Cole, that number one, that the
14 methodology of OLM is accepted by the EPA, as indicated in
15 their literature; moreover, their touchstone, as they have
16 said in their literature, is that the most accurate model
17 possible be developed. The question of whether or not
18 Mr. Sullivan's model is the most accurate model or not is a
19 question of legitimate controversy between the experts here.

20 I do not find that this is a situation under which
21 the case law in Maryland should bar the rebuttal evidence
22 and the rebuttal report by Mr. Sullivan. This is a
23 legitimate argument as to how this model, or a version of
24 it, should be applied to most accurately model the
25 situation.

Page 181

1 MS. CORDRY: But, Mr. Grossman, if the EPA says
2 you apply the OLM method in a particular way, which does not
3 include all of these refinements that Mr. Sullivan is coming
4 up with, and Mr. Sullivan wants to make an argument that his
5 way is better than that but that's not what the EPA says to
6 use, it seems to me that is precisely the kind of extension
7 of the law, the kind of novel argument that case law in
8 Maryland says, it fails to recognize that laymen should not
9 on a case-by-case basis resolve a dispute in the scientific
10 community concerning the validity of a new scientific
11 technique. And he is taking a method which the EPA simply
12 says here's how you do it, and he's saying that's not good
13 enough, I want to refine their method further, and it seems
14 to me that is not something that is without dispute.

15 MR. GROSSMAN: I don't find that this is a new
16 scientific technique. I find that this is an application to
17 the particulars of this particular situation. And one can
18 argue about the merits of that application, but that's what
19 it is. It's an argument between the experts as to the
20 merits of the application. Now, I'm not arguing back and --

21 MS. CORDRY: Okay.
22 MR. GROSSMAN: -- forth. I've already heard your
23 argument and your response to what I said, but that's my
24 ruling in the case. I am going to overrule that objection
25 to the admission of the rebuttal report.

Page 182

1 MR. GOECKE: Thank you.
2 MR. GROSSMAN: All right. Now --
3 MS. CORDRY: There is just -- okay, not talking
4 about that anymore.
5 MR. GROSSMAN: Thank you.
6 MS. CORDRY: There's just a couple of just, one
7 was the correction of that background argument report which
8 we gave you before, and I'll go over that now. One other
9 matter, and this was -- this is just substituting a couple
10 pages in, let's see, it would have been Exhibit -- it was
11 something that was put in as a black-and-white copy, and in
12 black and white, you can't tell what the exhibit is doing.
13 So I have the color pages to substitute there. This would
14 have been, let me see --
15 MR. GROSSMAN: While you're cogitating that, there
16 was something that was e-mailed to me. How did we finally
17 address this highway capacity analysis results? Did we say
18 that there wasn't a significant enough change that --
19 MR. GOECKE: I think that was the one I said that
20 it --
21 MR. GROSSMAN: -- I don't remember if this has
22 gotten an exhibit number. Let's --
23 MS. HARRIS: I don't think it does, has.
24 MS. CORDRY: Well, it's 607. That was --
25 MR. GROSSMAN: Let's see. 607, report submitted

Page 183

1 by Pat Harris, Intersection 16, yes. Okay.
2 MS. CORDRY: Right. Let me see.
3 MR. GROSSMAN: Okay.
4 MS. CORDRY: All right. Okay. Yes. This would
5 go in Exhibit 453(a).
6 MS. HARRIS: What number? I'm sorry.
7 MS. CORDRY: 453(a).
8 MR. GROSSMAN: Okay.
9 MS. CORDRY: They were excerpts from the Annual
10 Energy Outlook Early Release Overview.
11 MR. GROSSMAN: Okay.
12 MS. CORDRY: I believe it's (a). I think (b) --
13 MR. GROSSMAN: Yes, it's (a).
14 MS. CORDRY: Yes, right. And they were two -- let
15 me give you a few of these. They were two charts that we
16 had, and as I say, they were in black and white, and unless
17 you have the color, you can't tell which goes to which.
18 MR. GROSSMAN: All right.
19 MS. CORDRY: So with the color, this indicates
20 that the blue is the reference which is the 2014 case; the
21 red is the 2013 case. So it shows that the 2014 updated
22 case shows a little bit lower, again, a continuing drop in
23 the energy use. So that's what --
24 MR. GROSSMAN: Mine shows purple, not red.
25 MS. CORDRY: Okay. Well, one is --

Page 184

1 MR. GROSSMAN: It's the color purple, as -- you
2 can make a movie out of it.
3 MS. CORDRY: One is a reddish purple, and the
4 other is a bluish purple. The bluer purple -- in any case,
5 you can --
6 MR. GROSSMAN: All right.
7 MS. CORDRY: -- you can tell the difference
8 between the two of them. And then the --
9 MS. ROSENFELD: And what is this?
10 MR. GROSSMAN: So this is a substitute for --
11 MS. CORDRY: This would be a substitute for the
12 last two pages in 453(a).
13 MR. GROSSMAN: Okay. So let me, sub for last --
14 MS. CORDRY: Right.
15 MR. GROSSMAN: -- two pages of Exhibit 453 --
16 MS. CORDRY: So one is squares and one is
17 circles --
18 MR. GROSSMAN: -- (a).
19 MS. CORDRY: -- but until you see the reference at
20 the top --
21 MR. GROSSMAN: Right.
22 MS. CORDRY: -- reference at the top, it shows
23 squares for both of them; so you can't tell which was which.
24 MR. GROSSMAN: Right. I got you.
25 MS. CORDRY: All right. All right. Now, the

Page 185

1 other piece that I was going to do was to substitute in --
2 and I have shown this, the redlines and so forth to them.
3 Do you guys have any problem then with --
4 MS. HARRIS: With this?
5 MS. CORDRY: No, no. No, with the 431
6 substitution.
7 MR. GOECKE: I didn't have a chance to go
8 through --
9 MS. CORDRY: Okay.
10 MR. GOECKE: -- the entire document. I didn't see
11 any concerns with what I did review.
12 MS. CORDRY: Okay. Just, and I will give you the
13 redlines if you care to look at them, but I don't know that
14 they need to go in the exhibit. This was, again, the
15 original 431(b), which is in. This is the final version
16 that -- should probably just give it a new exhibit number
17 rather than try to do something, but --
18 MR. GROSSMAN: So --
19 MS. CORDRY: What happened -- and let me, let me
20 just be clear -- I e-mailed over to everyone on February 1 a
21 version of this document --
22 MR. GROSSMAN: Yes.
23 THE WITNESS: -- and that was the correct version
24 except for these three later minor changes that I made.
25 Unfortunately, Ms. Rosenfeld and I, in the rush of getting

Page 186

1 everything done, miscommunicated and she copied, and what
2 was placed into the record was an earlier version.
3 MR. GROSSMAN: Okay.
4 THE WITNESS: So I have given them both a redline
5 of the final version to the one that's in the record, which
6 has lots and lots and lots of changes, because it wasn't the
7 right one --
8 MR. GROSSMAN: Right.
9 MS. CORDRY: -- and I've also given them a redline
10 of just the couple, three changes that were made to the
11 version that was e-mailed around.
12 MR. GROSSMAN: Okay.
13 MS. CORDRY: So --
14 MR. GROSSMAN: So what I should be doing is taking
15 what's in the record as 431(b) --
16 MS. CORDRY: Yes.
17 MR. GROSSMAN: -- and substituting this summary
18 document --
19 MS. CORDRY: We can either substitute --
20 MR. GROSSMAN: -- or is that, is that --
21 MS. CORDRY: We can substitute. We can strike
22 that one. We can give it a new exhibit number, whichever
23 you feel is easiest to do.
24 MR. GROSSMAN: Well, this was referenced in the
25 course of --

Page 187

1 MS. CORDRY: Okay.
2 MR. GROSSMAN: -- of doing it; so maybe we should
3 just give it a new --
4 MS. CORDRY: Okay.
5 MR. GROSSMAN: -- and -- although, I mean, the
6 risk you run there, I guess, when it's being considered
7 later on and we all have forgotten this conversation and
8 certainly when the subsequent reviewers --
9 MS. CORDRY: Right.
10 MR. GROSSMAN: -- look at it, they're going to
11 look back at this, at 431(b), as it's in the record.
12 MS. CORDRY: Right. Let me --
13 MR. GROSSMAN: Now, I'm concerned about taking
14 anything out --
15 MS. CORDRY: Right.
16 MR. GROSSMAN: -- because page references and
17 things --
18 MS. CORDRY: Right.
19 MR. GROSSMAN: -- that might have been, may have
20 been made --
21 MS. CORDRY: Why don't we call it 431(c) then --
22 MR. GROSSMAN: All right.
23 MS. CORDRY: -- and then it will all be together.
24 We can list it as the corrected version of 431(b).
25 MR. GROSSMAN: So Exhibit 431(c) -- by the way,

Page 188

1 somebody's going to supply Sarah with the narrative full
2 report of 353(b)?
3 MS. HARRIS: We will.
4 MR. GOECKE: We'll do that.
5 MR. GROSSMAN: Okay. All right. Exhibit 431 --
6 oh, wait a minute. We may have had it already, 430. Let's
7 see.
8 MS. ROSENFELD: What number is this again?
9 MS. CORDRY: 431(c) it will now be.
10 MS. ADELMAN: (C).
11 MR. GROSSMAN: 431(c) is corrected version of
12 Exhibit 431(b). Okay.
13 (Exhibit No. 431(c) was marked
14 for identification.)
15 MS. CORDRY: I think that's all I have for that.
16 All these copies of other things I made just in case I
17 needed them, I don't need them. All right.
18 MR. GROSSMAN: Exhibit 453(a).
19 MS. CORDRY: And I believe you got copies of those
20 things that we, five pieces that we said would be, that are
21 our five that are coming in, and they had their three.
22 MR. GROSSMAN: I believe that yours are already in
23 there, and --
24 MS. CORDRY: Yes, I think so. I just want to
25 double-check and make sure --

Page 189

1 MR. GROSSMAN: -- and theirs are as well, I
2 believe. Is that --
3 MS. CORDRY: Right, I think so.
4 MR. GROSSMAN: -- do you guys want to check to
5 make sure?
6 MS. CORDRY: Because I have copies of that if
7 anybody needs those pieces.
8 MR. GROSSMAN: Yes, I see the 2009 article by
9 Hesterberg, Bunn, et cetera, is Exhibit 594, and then 595,
10 article about air quality at the Port of Long Beach. Were
11 those, those the two, Mr. Goecke, that we're talking about,
12 and --
13 MR. SILVERMAN: The Long Beach article I think I
14 put in.
15 MR. GROSSMAN: Okay. Well, I just want to,
16 which --
17 MS. CORDRY: The other one came in later in an
18 e-mail from Ms. Harris.
19 MR. GROSSMAN: Okay. Do you want to check to make
20 sure, Mr. Goecke, that your articles got in the record here,
21 are exhibitized?
22 MR. GOECKE: Yes.
23 MS. ADELMAN: Now, which number is this, Karen?
24 MS. HARRIS: So what number were you -- oh, the
25 Port -- 595?

Page 190

1 MR. GROSSMAN: Well, Mr. Silverman says that was
2 one of his, but we know that 594 was your Bunn article.
3 MS. HARRIS: Yes.
4 MR. GOECKE: Okay.
5 MS. HARRIS: And then subsequently, the other Bunn
6 article, that's 606.
7 MR. GROSSMAN: Okay.
8 MS. HARRIS: That's on a CD, which is, excuse me,
9 606(a).
10 MR. GOECKE: And then there was another one that
11 you submitted too.
12 MR. GROSSMAN: Well --
13 MR. GOECKE: 606(a) --
14 MR. GROSSMAN: 606(a) is just --
15 MR. GOECKE: -- has two --
16 MR. GROSSMAN: -- a CD.
17 MS. HARRIS: Right.
18 MR. GROSSMAN: Do you have a hard copy?
19 MS. HARRIS: No, I do have --
20 MR. GOECKE: Yes, I think we've got hard copies.
21 So altogether there were three articles --
22 MS. CORDRY: Right.
23 MR. GOECKE: -- two that Dr. Bunn co-authored and
24 then the --
25 MS. CORDRY: Right.

Page 191

1 MR. GROSSMAN: I don't remember seeing these to
2 hard copy. I remember seeing --
3 MS. HARRIS: No, I don't think I --
4 MR. GROSSMAN: -- it was on a CD.
5 MR. GOECKE: Yes, I don't think you've seen them
6 in hard copy.
7 MS. HARRIS: I had not -- no, you're right.
8 MR. GROSSMAN: Okay.
9 MS. HARRIS: And then --
10 MR. GOECKE: These came out over the weekend.
11 MR. GROSSMAN: All right.
12 MS. HARRIS: And then the other two articles that
13 were on that CD were the two articles that we used in
14 cross-examination of Dr. Cole, which I believe those were
15 submitted this morning.
16 MR. GROSSMAN: Okay. So why don't we call this
17 606 --
18 MS. HARRIS: (C) and(d)?
19 MR. GROSSMAN: Yes. 606(c) is --
20 MS. ROSENFELD: Do you have copies for us?
21 MS. HARRIS: Oh, yes. I'm sorry.
22 MR. GROSSMAN: -- research report on allergic
23 inflammation in the human lower respiratory tract affected
24 by exposure to diesel exhaust, and Exhibit 606(d) is
25 non-cancer health effects of diesel exhaust. Let's see.

Page 192

1 The date on that one is May 21, 2008, and what was the date
2 on this one? The other one, 606(c), was February 2012.
3 Okay.
4 (Exhibit Nos. 606(c) and
5 606(d) were marked for
6 identification.)
7 MS. DUCKETT: Mr. Grossman, I have a question.
8 MR. GROSSMAN: Yes, ma'am.
9 MS. DUCKETT: Are 594, 605, and 606 all the same
10 documents?
11 MS. HARRIS: No.
12 MR. GROSSMAN: No.
13 MS. DUCKETT: Are they --
14 MR. GROSSMAN: Well, wait a minute. 594? Let's
15 see.
16 MS. DUCKETT: 594.
17 MR. GROSSMAN: 594, received at hearing, 2009
18 article. That's the Bunn article, is 594, and --
19 MS. DUCKETT: 605 and 606.
20 MS. CORDRY: No. I think 594 and --
21 MR. GROSSMAN: Well, it might be that 605(a) might
22 be the same thing. It might have been that --
23 MS. CORDRY: Yes, 594 and 605 --
24 MR. GROSSMAN: -- that I just called it something
25 when I --

Page 193

1 MS. CORDRY: Right.
2 MR. GROSSMAN: -- and Sarah called it something
3 close but not --
4 MS. CORDRY: Right.
5 MR. GROSSMAN: -- exactly the same. So, yes, they
6 might be the same.
7 MS. CORDRY: Right, but 606 has two, the other two
8 articles. So there's three --
9 MS. DUCKETT: Yeah, that's what I --
10 MR. GROSSMAN: I won't give it twice as much
11 weight just because it's in there twice --
12 MS. HARRIS: Right.
13 MR. GROSSMAN: -- although it's possible.
14 MS. CORDRY: Well, if we did that, I have some
15 documents that may be in more than that, and at the risk of
16 confusing everybody at no end, I'm sorry, the -- those pages
17 I see were actually in 453(d), not 453(a).
18 MR. GROSSMAN: Ah. Okay. So the two pages that
19 are added on -- these two?
20 MS. CORDRY: The two color pages, yes.
21 MR. GROSSMAN: They should be added on to 453(d)?
22 MS. CORDRY: Right, or substituted. They're kind
23 of in the middle of 453(d).
24 MR. GROSSMAN: Oh, they're not at the end of
25 453(d)?

Page 194

1 MS. CORDRY: No. They're in the middle.
2 MR. GROSSMAN: Well, I see the two pages. I'm
3 just saying --
4 MS. CORDRY: Right. Yes.
5 MR. GROSSMAN: -- where do they fit into 453(d)?
6 MS. CORDRY: There's one, two -- three pages
7 behind them. They're in the middle of 453(d).
8 MR. GROSSMAN: Okay. So two pages sub for
9 middle -- they're just black and white? Is that the only --
10 MS. CORDRY: Yes --
11 MR. GROSSMAN: Middle --
12 MS. CORDRY: -- as I say, yes, the ones that I
13 printed out, they're printed out in black and white, and
14 then --
15 MR. GROSSMAN: -- B and W, two pages of Exhibit
16 453(d). Okay. We'll try to get that straight --
17 MS. CORDRY: Right.
18 MR. GROSSMAN: -- but you can always check to make
19 sure, but let me write that on here somewhere. 453(d),
20 substitute last -- substitute for two middle black-and-white
21 pages. All right. You realize that my staff is going to
22 hate you because I have now written this confusing thing
23 that even I can't read and certainly won't be able to read
24 after a couple of days.
25 MS. CORDRY: Right.

Page 195

1 MR. GROSSMAN: All right. And this is, just so I
2 don't get confused here, you gave me a copy of the old
3 431(b). So --
4 MS. CORDRY: Right.
5 MR. GROSSMAN: -- let me give that back to you --
6 MS. CORDRY: Okay. All right.
7 MR. GROSSMAN: -- because I don't need that.
8 MS. CORDRY: Okay.
9 MR. GROSSMAN: All right. All right. Any other
10 post-liminary matters?
11 MR. GOECKE: One. On Exhibit 352, this was an
12 excerpt -- this was received at the hearing on October 24th,
13 excerpted from the NCEE Working Paper on August 2010,
14 Preliminary Stated-Preference Research on the Impact of LUST
15 Sites on Property Values. It looks like there are --
16 MR. GROSSMAN: Wait a minute. Which one are you
17 on?
18 MR. GOECKE: I'm sorry, 352.
19 MR. GROSSMAN: Oh, let me find it. 3 --
20 MR. GOECKE: 352.
21 MR. GROSSMAN: Hold on. This is back there. 352.
22 Okay.
23 MR. GOECKE: So I think this is another one that
24 Mr. Core had testified about, and we had cross-examined him,
25 using other portions of the LUST site. And I think we were

Page 196

1 supposed to provide you with a full copy of that and never
2 did, and I don't have that today, but I will submit that to
3 you.
4 MR. GROSSMAN: Any problem with that, full --
5 MS. ROSENFELD: That's what the transcript says.
6 MR. GROSSMAN: -- full LUST?
7 MR. SILVERMAN: Full LUST.
8 MS. CORDRY: Full-bore LUST we need.
9 MR. GROSSMAN: All right. Anything else regarding
10 the exhibits?
11 MR. GOECKE: Not from the applicant.
12 MR. GROSSMAN: All right. So except as noted and
13 what will be supplemented in those two exhibits, and those
14 supplements and all the exhibits that have been submitted
15 except as previously noted are here by admitted. I presume
16 that nobody objects to that, is that correct?
17 (Exhibits 1 through 613,
18 except as previously noted,
19 were received in evidence.)
20 MS. CORDRY: I'm sure there must be a reason to
21 object --
22 MR. GROSSMAN: I'm sure --
23 MS. CORDRY: -- but I won't.
24 MR. GROSSMAN: -- but I hear no objections. So,
25 as I said, they're all admitted except as previously noted,

Page 197

1 and there will be two additional filings that have already
2 been given exhibit labels. Okay. Let me just -- you've all
3 got down the dates now when your submissions are due --
4 MS. HARRIS: Yes.
5 MR. GROSSMAN: -- for the briefs, and you know the
6 process.
7 All right. Since we're not going to see each
8 other for a couple of months, I just want to say, I truly
9 appreciate the professional way you have all approached
10 this, and we certainly have a fulsome record which to
11 consider, and I should add on, not just, not just
12 professional, but very courteous and civil in this process.
13 So that's greatly appreciated. I think that that makes the
14 best record, however this all turns out, for everybody's
15 review. So we should go on from there. I should also thank
16 our wonderful court reporter --
17 MS. CORDRY: Yes.
18 MR. GOECKE: Yes.
19 MR. GROSSMAN: -- who has spent a lot of time --
20 MS. CORDRY: Kathy, yea.
21 MR. GROSSMAN: Kathy, thank you very much.
22 MS. CORDRY: And to the extent we ever didn't get
23 anything 10 days in advance, it's because we're still trying
24 to --
25 MR. GROSSMAN: You're still working.

1 MS. CORDRY: We're still working. Believe me,
 2 that's all we do, is still work. We have never tried to
 3 hold anything back, and we've just been finding things,
 4 but --
 5 MR. GROSSMAN: I understand. No, I think
 6 everybody tried -- this is such a, this was such a
 7 voluminous case in terms of witness testimony and exhibits
 8 and so technical in parts of it that I think you all did
 9 remarkably well on this.
 10 So I think that's all. Once again, we are
 11 adjourned until August 14 at 9:30 a.m. in the Council Office
 12 Building, second floor hearing room, for closing oral
 13 arguments and discussion of potential conditions. Other
 14 than that, the record will not -- there will be no
 15 additional evidentiary submissions except for the two items
 16 that are going to be submitted that have already been
 17 labeled.
 18 MS. HARRIS: Thank you.
 19 MR. GOECKE: Thank you.
 20 MR. GROSSMAN: It's all understood? Thank you
 21 very much.
 22 MS. ROSENFELD: Thank you.
 23 MR. SILVERMAN: Thank you, sir.
 24 MR. GOECKE: Thanks a lot.
 25 MS. ADELMAN: Thank you.

1 MR. GROSSMAN: We'll see you in August.
 2 MR. BRANN: Thank you.
 3 (Whereupon, at 3:35 p.m., the hearing was
 4 adjourned.)
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C E R T I F I C A T E

DEPOSITION SERVICES, INC., hereby certifies that
 the attached pages represent an accurate transcript of the
 electronic sound recording of the proceedings before the
 Office of Zoning and Administrative Hearings for Montgomery
 County in the matter of:

Petition of Costco Wholesale Corporation
 Special Exception No. S-2863
 OZAH No. 13-12

By:

Wendy Campos, Transcriber

A	147:23;155:14;156:3; 6;158:25;161:7;165:8; 166:11;170:7;193:17	admissibility (3) 51:19;161:2;172:13	138:4,19;140:7	alpha (10) 52:5;60:4;73:14,15; 74:4,18,24,25;75:1,6
Abigail (1) 5:15	ad (1) 25:7	admission (2) 101:15;181:25	Aging (1) 156:5	alternative (1) 44:18
ability (1) 176:24	add (8) 10:13;75:12;107:7; 139:25;140:6;146:13; 174:15;197:11	admit (2) 7:25;179:1	ago (6) 23:1;40:12;54:7; 80:6;81:23;138:7	although (5) 22:22;23:24;101:19; 187:5;193:13
able (5) 5:25;113:9;154:23; 174:12;194:23	added (5) 39:16;48:2;151:12; 193:19,21	admitted (14) 25:14;32:3;33:1; 58:21;100:16;114:11; 140:5;156:7,8;174:5; 176:13;179:12;196:15, 25	agree (21) 8:6,7,9,10,11,22,23; 9:2,3;12:4;43:13; 45:11,13;47:12;49:23; 50:10;63:22;68:17; 75:5;105:7;139:2	altitudes (1) 179:15
above (5) 86:11;88:5,7;89:16; 99:1	addendum (5) 53:2,4,6;56:8;60:12	admitting (2) 9:5;10:17	agreeable (2) 85:7,11	altogether (1) 190:21
Absolutely (4) 67:16;108:9;110:11; 136:24	adding (4) 9:1;14:17;35:16; 154:15	adopted (1) 179:24	agreed (8) 7:24;15:8;16:8; 20:18;44:4;46:15; 110:14;115:11	always (4) 108:21;112:5; 119:20;194:18
abundance (1) 155:2	addition (4) 52:3;121:24;133:25; 168:5	advance (6) 23:25;24:18;26:8; 27:2;168:21;197:23	agreeing (1) 101:15	Ambient (7) 50:16;51:12;63:14, 15;102:10;140:21; 141:5
accept (9) 14:18;58:3;69:5; 74:7;104:17,21;105:6, 10;172:22	additional (24) 7:5;11:25;12:25; 14:11,17;30:11;43:20, 20,21;59:13;63:15,16; 122:8;123:2;125:21, 22;127:8;128:6; 149:18,21;170:22; 171:19;197:1;198:15	adverse (1) 34:3	agrees (1) 177:23	American (2) 21:5;57:7
acceptability (2) 52:10;58:8	additive (2) 38:24;152:20	advised (1) 69:4	agreement (3) 32:6;44:1;167:19	among (1) 15:11
acceptable (1) 173:21	address (1) 182:17	advocated (1) 151:2	agrees (1) 177:23	amount (1) 173:15
accepted (3) 57:3;172:20;180:14	addresses (1) 104:15	advocating (1) 39:18	Ah (4) 83:24;116:21; 129:17;193:18	amounts (1) 30:15
accepting (1) 10:24	addressing (2) 104:11;139:25	AERMOD (14) 51:13,22;52:22,24; 57:10;59:14,17,18,21; 109:15,17,19,21;110:3	ahead (8) 16:22;41:24;60:2; 65:5;109:2;145:2,13; 150:15	ample (1) 176:25
accepts (1) 172:17	ADELMAN (56) 5:15,16;8:6,8;9:16; 10:1,12;11:12;12:1,3; 13:3;14:7;15:18;20:1, 6,8;31:5;32:22;51:3,8, 11;65:6;70:14;80:8; 81:14,16,18;82:16,23; 83:1,9,16,20;84:8;97:8, 13;122:22,24;124:17; 125:2,5;131:14; 138:10;141:17;144:17; 156:11;164:22;165:24; 166:6,21,24;174:17,18; 188:10;189:23;198:25	A-E-R-M-O-D (1) 51:14	air (23) 8:17;21:2;63:14; 64:19;69:18;70:1; 74:15;77:6,14;85:22; 87:6;89:15;102:10; 105:19;118:1;120:15; 128:15;140:22;141:5; 177:11;179:14,16; 189:10	amply (1) 171:9
according (10) 29:20;73:8;75:5; 80:13;95:15,16,24; 96:6,8;107:17	adequately (1) 171:22	affected (1) 191:23	air-permitting (1) 175:24	AMS (4) 52:19,20;53:8;56:9
account (1) 139:24	adjacent (4) 141:22;142:19; 143:6;146:11	affects (1) 23:18	allergic (1) 191:22	analyses (4) 59:8,12,17;172:8
accuracy (1) 56:25	adjourn (3) 16:24;19:20;20:12	afraid (1) 105:9	Alliteration (1) 65:6	analysis (20) 22:24;55:5,6,8;57:9; 61:10;62:8;106:15,20; 109:15;111:10;120:2; 140:24;141:11;142:2; 147:7;172:16;174:5; 180:6;182:17
accurate (4) 38:10;169:7;180:16, 18	adjourned (2) 198:11;199:4	afterwards (1) 17:25	allow (6) 4:6;15:7;32:6;58:10; 155:16;177:6	analytical (1) 145:13
accurately (2) 94:1;180:24	Administration (1) 134:1	again (28) 14:11;15:14;17:12; 19:19;22:6;25:6;44:22; 59:12;61:23;78:19; 117:15;130:6;133:22; 141:2;144:2;145:14; 152:6;159:19;161:12; 171:22,23,25;172:10; 173:11;183:22;185:14; 188:8;198:10	allowed (6) 27:1,1;61:7,8;137:3; 175:23	analyze (1) 137:5
acknowledged (1) 58:18	administrator's (1) 108:16	against (3) 54:1;69:4;121:20	alone (2) 52:8;121:24	and/or (1) 176:18
across (1) 128:23		agencies (1) 174:9	along (5) 64:20;98:10;114:14; 146:10;156:7	andd (1) 191:18
act (2) 152:15;175:6		agency (10) 58:8;69:1;70:18,21; 72:9;74:7;79:1;126:11; 171:12;178:4		announce (1) 19:20
actual (7) 88:22;104:5,19; 109:11;123:24;130:20; 159:9		aggregate (3)		Annual (1) 183:9
actually (37) 7:18;14:1;17:23; 18:18;19:4;25:22;26:6, 6;29:3,18;31:18;44:9; 56:17;73:22;104:1,3,4; 112:8;122:4;128:23; 131:9,10;134:20,24; 135:25;137:7;138:22;				answered (6) 66:12,22;69:11; 111:14,15;121:2

<p>Antonio (1) 134:22 anymore (1) 182:4 apart (1) 164:4 API (1) 172:5 apologies (1) 166:13 apparently (3) 57:7;71:24;135:22 Appeals (4) 4:4,20,22;17:15 appear (2) 134:20;172:4 appears (2) 23:4;130:13 Appendix (6) 46:9,11,12,15; 177:10,18 applause (1) 154:8 apples (3) 74:23;138:1,6 applicable (3) 73:11,21,25 applicant (24) 7:5;9:8;10:15;13:22; 20:19;24:16;29:10; 30:9;31:21;32:8;43:16; 58:11;60:8,23;103:22; 104:9;110:17,19; 111:11;140:10;154:2; 163:7;174:19;196:11 applicants (1) 35:22 applicant's (5) 16:8,11,14,16;28:1 application (6) 120:20;176:6; 179:10;181:16,18,20 applications (3) 52:2;57:16;108:5 applied (7) 38:25;44:22;120:19; 177:4,20;180:5,24 applies (12) 16:2;65:14,16;97:18; 101:1;106:11;107:9, 24;108:9;144:4; 147:24;176:6 apply (20) 16:3;30:17;65:23,24; 66:11;75:5;94:25; 119:4;120:12;134:7; 171:15;173:9,12; 177:16,22,25;178:6; 179:23,25;181:2 applying (5) 66:7;107:8;148:8; 174:23;180:4 appreciate (3)</p>	<p>22:23;79:23;197:9 appreciated (1) 197:13 approach (3) 31:24;49:4;80:1 approached (1) 197:9 appropriate (12) 33:8;38:4,17;73:13; 74:4,17;115:21; 121:21;177:14;178:11; 179:1;180:1 approved (3) 59:9,13;171:17 approximately (2) 95:10;133:19 April (2) 4:11;161:13 arbitrarily (2) 171:24;173:9 area (35) 6:22;36:8,19;37:18; 38:8;39:1;45:18;46:21; 50:1;62:1;94:12,14; 107:10,11;108:22; 117:2,20;118:3; 125:16;126:12;128:15; 129:5;133:12;135:6; 136:10;140:22,23; 141:10;143:2;145:12; 147:25;148:16;171:20; 173:10,12 areas (2) 64:23;66:2 area-wide (4) 104:3,18;148:11,15 argue (4) 106:16;170:12; 173:3;181:18 argued (2) 10:22;177:5 arguing (1) 181:20 argument (23) 17:12;20:17,18; 25:22;26:8;27:2,3,11; 34:12;158:12;160:20; 168:25;172:11;175:2, 20;177:3;178:24; 180:23;181:4,7,19,23; 182:7 argumentative (1) 27:3 arguments (10) 4:12,14;16:18,25; 20:13,21;171:3;175:3, 20;198:13 arise (1) 43:22 Arlington (18) 36:15;37:24;40:20, 24;41:10;42:8,15;43:4, 14;44:16,25;45:4,13;</p>	<p>47:10,22;48:4,4; 117:16 ARM (1) 59:10 ARM2 (11) 21:5,7,15;22:16; 51:13;56:19,24;58:16; 59:9,16,19 around (10) 6:20;19:24;38:25; 42:23;57:4;117:2; 121:15;140:23;141:10; 186:11 arrived (2) 5:24;7:22 article (13) 7:13;11:5,9,10;65:3; 138:15;189:8,10,13; 190:2,6;192:18,18 articles (23) 7:12,25;8:24;11:1, 25;12:5,24,25;13:8; 23:23,24;30:11;31:15, 16;32:6,12,18;177:19; 189:20;190:21;191:12, 13;193:8 aspect (1) 32:16 aspects (1) 171:19 assistant (1) 113:7 Association (1) 32:8 assume (6) 17:15;72:18;93:11; 95:6;170:4;171:15 assumed (2) 96:3;119:9 assumes (3) 98:3;118:24;119:13 Assuming (3) 16:7;97:19;119:5 assumptions (1) 107:16 asymptotic (1) 73:6 Atlanta (1) 19:7 atmosphere (2) 74:21;82:6 attack (1) 15:5 attempt (2) 21:25;55:6 attempted (1) 21:20 attempting (1) 57:8 attention (3) 49:14;92:1;176:20 attorney (1) 105:2</p>	<p>audible (1) 129:10 audience (3) 64:4,5;154:8 August (15) 4:15;16:20;18:3,14; 19:7;20:4,6,7,15; 43:18;102:22;147:11; 195:13;198:11;199:1 authorized (1) 59:23 authorizing (1) 59:16 authors (1) 124:15 automatically (1) 96:16 automobile (1) 4:7 automobiles (2) 94:7,9 availability (1) 13:18 available (15) 14:15,15;18:16;39:8; 43:22;56:15;72:19; 109:24;110:6,8; 115:23;118:25;119:15; 168:20;172:9 avenue (3) 75:21;79:4;141:16 average (4) 92:13;95:1,13;98:1 avoid (2) 14:10,17 avoiding (1) 42:13 aware (8) 6:7,8;42:22;55:20; 109:25;127:18;130:5; 165:8 away (6) 77:2;117:19;121:17, 18;144:8;177:3 awful (1) 50:2</p>	<p>21;198:3 background (30) 25:23;35:4;37:2,5; 38:5;39:1,17;41:11; 42:9,15;43:5;47:9; 73:16;75:3;112:19; 115:21;118:1;121:6, 12,18,24;146:14; 149:20;150:25;151:2, 2,4,6,6;182:7 backgrounds (1) 111:9 backups (1) 152:1 bad (1) 101:20 baked (1) 178:13 balance (1) 13:21 balanced (1) 13:2 ballpark (1) 121:16 bar (1) 180:21 Barriers (1) 158:5 base (2) 9:24;10:2 based (21) 11:17;35:21;51:18, 20;59:1,8;61:24;64:16, 24;77:16;88:4;106:10; 108:16;109:11;122:6; 132:9;135:2;173:19, 22;175:19;178:5 bases (1) 175:2 basic (1) 36:7 basically (4) 47:15;67:5;74:20; 151:23 basis (6) 31:7;50:25;174:24; 176:3,5;181:9 battery (1) 166:22 Beach (2) 189:10,13 bearing (1) 101:3 bears (2) 73:9,23 became (2) 112:24;113:1 become (3) 42:22;61:13;145:1 becomes (1) 43:22 beer (2) 17:24;19:3</p>
B				
<p>B1 (1) 177:18 back (37) 11:22;15:14;17:2; 27:13;28:13;35:3;47:8; 60:16,17,22;70:13; 99:21;112:9,13; 115:19;116:1,23; 126:17;128:3;129:9; 130:6;141:19;142:17; 143:19;144:2,15; 149:12;154:21;164:25; 166:18;167:4,12; 181:20;187:11;195:5,</p>				

<p>begin (1) 173:21</p> <p>beginning (1) 72:17</p> <p>begins (1) 63:1</p> <p>begun (1) 4:11</p> <p>behalf (2) 4:19,25</p> <p>behind (3) 9:15;99:4;194:7</p> <p>below (3) 61:3;82:3;163:21</p> <p>Beltville (17) 37:13;38:14;46:25; 47:1,5,10,23;48:11,19; 49:22,23;50:1;116:16; 117:3,4,5,7</p> <p>Beltway (1) 6:25</p> <p>beneath (1) 61:2</p> <p>benefit (1) 170:20</p> <p>benefits (1) 176:21</p> <p>bent (1) 25:5</p> <p>best (2) 38:9;197:14</p> <p>beta (12) 51:23,24;52:3,11; 55:3;56:14,20;57:11; 58:7;59:2;61:4;172:5</p> <p>beta-test (1) 52:1</p> <p>better (7) 18:5;54:1;62:9; 70:15,15;138:24;181:5</p> <p>beyond (15) 57:25;58:19,20;59:3; 61:18,18;106:1,2,6; 123:12;124:23;126:5, 5;172:8;178:20</p> <p>big (6) 82:13;95:5;97:21; 113:21;114:23;150:17</p> <p>bigger (5) 23:7;87:5,6,7;88:19</p> <p>billion (13) 36:14;42:1,21;104:2, 4,19,20;105:22; 106:21;107:22;108:1, 6;121:25</p> <p>birthday (2) 17:16,20</p> <p>bit (12) 9:17;62:9;66:16; 81:22;106:24;112:8; 120:1;126:5;132:19; 143:12;145:7;183:22</p> <p>black (4)</p>	<p>182:12;183:16; 194:9,13</p> <p>black-and-white (2) 182:11;194:20</p> <p>blah (3) 28:23,23,23</p> <p>blame (2) 157:13,17</p> <p>blue (1) 183:20</p> <p>bluer (1) 184:4</p> <p>bluish (1) 184:4</p> <p>Board (4) 4:3,19,22;17:15</p> <p>bodies (1) 134:12</p> <p>borrow (1) 118:13</p> <p>both (25) 13:8;31:19,24;32:16; 35:25;48:8;49:14; 68:21;111:12;115:23; 128:9;134:21;135:11; 138:5;146:10;162:7; 164:5;168:1,2,11,13, 14;171:12;184:23; 186:4</p> <p>bottom (4) 92:1;97:4;135:16; 160:10</p> <p>Boulevard (3) 141:17,18;143:15</p> <p>boundaries (1) 173:20</p> <p>boundary (3) 76:23;142:20;143:1</p> <p>box (3) 119:5,8,10</p> <p>box/exclusion (1) 173:17</p> <p>brand-new (1) 9:1</p> <p>Brann (15) 5:21,21,22;80:20; 113:23;124:6,13,15; 157:11,14;159:4; 168:10,12,15;199:2</p> <p>break (17) 15:15;28:4;29:5,11; 47:18;48:12;56:5,6; 61:9;99:13,15;111:20; 116:15;133:16;149:1, 9;166:7</p> <p>Breyse (1) 104:16</p> <p>Breyse/Cordry (2) 104:2;108:13</p> <p>Breyse's (1) 148:12</p> <p>brief (12) 15:5;16:8,9,10,11,14,</p>	<p>15,16;60:20;99:19; 149:10;167:10</p> <p>briefing (1) 16:6</p> <p>briefly (1) 157:2</p> <p>briefs (4) 4:18;16:25;20:13; 197:5</p> <p>bring (6) 11:22;21:14,15,21; 55:6;132:23</p> <p>bringing (3) 9:17;12:19;167:16</p> <p>brings (1) 63:15</p> <p>British (2) 70:20;72:8</p> <p>brought (4) 12:20;72:2;114:1,2</p> <p>build (2) 94:15;160:5</p> <p>Building (6) 4:17;20:15;158:1; 163:10,20;198:12</p> <p>buildings (5) 94:9,11,12,14;95:5</p> <p>built (1) 103:23</p> <p>bullet (1) 160:9</p> <p>Bunn (9) 14:12,14;32:20,20; 189:9;190:2,5,23; 192:18</p> <p>burden (3) 110:21;111:2;174:8</p> <p>busy (1) 34:6</p> <p>buy (2) 17:24;167:3</p>	<p>151:21;161:8;164:11; 187:21;191:16</p> <p>called (10) 76:21;77:3;92:4; 119:20;151:22;162:19; 163:10,22;192:24; 193:2</p> <p>CALPUFF (1) 89:7</p> <p>came (14) 24:19;27:11,13;38:2; 42:17;58:5;72:7;84:15; 102:22;128:23;129:15; 153:10;189:17;191:10</p> <p>can (104) 6:1;10:2;14:15;15:5, 5,14;19:17;21:11,21; 22:1;23:8;25:17,18; 28:3;29:23;33:4;34:23; 39:11,11;40:1;44:5,7, 21;47:2;49:15,16; 53:11;55:15;56:5; 57:10,10,10,11,11,22, 25;58:1,7;60:5,6; 61:21;66:14,16;67:20; 70:9,13;71:17,18;74:9, 11;79:11,12,13;80:10, 19;91:10;92:18;97:16; 99:13;110:10;111:21, 22,22;112:2;114:21,22, 24;118:11;120:24; 121:17;122:17;127:4; 133:4;134:23;135:11; 136:12;141:1;142:13, 17;146:17;150:13; 154:20;157:11;158:16; 164:4,4;166:8,17; 167:22;169:21;171:6, 17;177:8,13;181:17; 184:2,5,7;186:19,21, 21,22;187:24;194:18</p> <p>Candidly (1) 61:16</p> <p>capacity (1) 182:17</p> <p>CAPCOA (1) 72:6</p> <p>car (1) 78:23</p> <p>care (4) 23:12;73:13;74:3; 185:13</p> <p>careful (2) 74:13;160:23</p> <p>Carolina (2) 18:23;19:5</p> <p>cars (6) 64:20;70:5,9;133:18; 139:8;151:24</p> <p>case (24) 4:23;15:1;19:2; 24:17;25:8;26:24; 30:24;31:12;64:25;</p>	<p>108:9;125:16;133:17; 136:11;153:12;169:21; 180:21;181:7,24; 183:20,21,22;184:4; 188:16;198:7</p> <p>case-by-case (1) 181:9</p> <p>category (4) 27:7;133:23;138:5, 19</p> <p>cause (5) 103:23;104:10; 140:21;141:4;148:1</p> <p>causes (2) 63:16;107:21</p> <p>causing (3) 69:18;144:3;179:15</p> <p>cautions (1) 121:19</p> <p>caveats (1) 15:3</p> <p>CD (6) 7:11,11;190:8,16; 191:4,13</p> <p>Central (3) 123:10;125:17; 135:16</p> <p>certain (6) 23:5;32:11;118:4; 152:20;171:20;173:10</p> <p>certainly (20) 10:16,20;24:1;32:9; 37:19;54:5;57:12;58:6; 61:17;89:23;112:7; 123:20,21;167:20,25; 173:5;179:22;187:8; 194:23;197:10</p> <p>cetera (2) 152:15;189:9</p> <p>chair (2) 118:10,11</p> <p>challenge (1) 170:10</p> <p>chance (5) 58:12;116:18,19,23; 185:7</p> <p>change (2) 34:8;182:18</p> <p>changed (7) 27:21;41:18,24,25; 110:15,18;111:7</p> <p>changes (6) 74:19;87:3;115:5; 185:24;186:6,10</p> <p>characteristic (1) 82:1</p> <p>characteristics (2) 178:6,10</p> <p>charge (1) 31:9</p> <p>charged (1) 34:1</p> <p>chart (2)</p>
		C		
		<p>C-2 (1) 4:10</p> <p>calculate (1) 86:24</p> <p>calculated (6) 75:25;92:14,19,21, 24;93:7</p> <p>calculating (2) 96:12;99:9</p> <p>calculation (3) 73:8;76:13;82:9</p> <p>calculations (4) 75:24;76:1;80:13; 89:17</p> <p>calendar (3) 17:9;19:12,18</p> <p>call (11) 7:6;19:17;34:8; 104:2;108:12;134:8;</p>		

<p>86:23;98:7 charts (1) 183:15 Chase (4) 9:10,12;11:1;12:14 Chase's (1) 9:13 check (11) 5:25;19:18;44:5,7; 47:11,18;113:7; 116:15;189:4,19; 194:18 checking (1) 48:12 chemistry (1) 118:2 chicken (2) 99:17;111:25 choice (2) 35:3;121:5 Choices (1) 26:22 choose (2) 35:19;36:5 chop (1) 78:20 choppier (1) 87:6 chose (6) 8:16;10:8;42:11; 118:22;119:25;165:6 chosen (4) 37:1,5,9;112:20 Chris (1) 135:3 circle (1) 6:20 circles (1) 184:17 circumstance (1) 65:2 circumstances (2) 65:21;177:14 cite (3) 28:10;46:10;53:13 cited (4) 12:14;65:22;177:22; 179:9 cites (1) 177:18 Civic (1) 32:8 civil (1) 197:12 Claggett (1) 134:1 claim (1) 35:22 clarify (6) 14:10;66:14;67:21; 82:8;94:18;105:17 class (1) 78:6</p>	<p>classify (1) 117:8 clear (13) 42:3;52:9;61:13; 67:8;86:6;101:15; 145:1;162:8;170:6; 171:13;173:22;174:11; 185:20 clearly (3) 59:22;136:11,13 climate (1) 34:7 clock (3) 112:8;166:19,20 close (7) 20:12;36:5;37:14,15; 74:15;151:8;193:3 close-in (1) 119:8 closer (5) 45:16;68:23;121:7; 177:7;178:8 closest (2) 36:16,17 closing (11) 4:13;15:5;16:18,25; 20:13,16;27:2,3;171:3; 178:24;198:12 cloud (1) 10:10 Coalition (6) 5:13,16;8:8,14;20:2; 152:24 co-authored (1) 190:23 COB (2) 4:16;16:19 coefficient (1) 92:4 COG (11) 123:10,19,22;125:4, 5,10,12,13,17;131:13, 18 cogitating (1) 182:15 cold-air (2) 89:7,9 Cole (68) 5:24;7:3,22;8:2; 17:20;21:4,6,11;24:3; 28:19;34:18,19,21; 39:13,18,23,25;40:11; 58:21;62:6,13;65:13; 70:18;72:16;76:25; 78:4,7;79:9;81:23; 84:6;85:22;89:20; 91:17,25;93:17;98:13; 100:8;102:8;109:5; 112:18;115:6,19; 116:15;118:7;122:12; 123:2;131:2,2;132:4; 133:6;136:20;138:9, 25;139:1;140:19;</p>	<p>149:15;153:3;167:1; 170:11;173:11;174:4; 176:18;177:21;179:11, 19,20;180:13;191:14 Cole's (8) 25:1;27:14;59:3; 79:21;115:2;139:17; 141:3;171:13 colleagues (1) 13:5 college (1) 18:14 co-located (1) 45:3 color (5) 182:13;183:17,19; 184:1;193:20 colored (2) 84:8;96:20 Columbia (1) 36:11 combination (1) 45:9 combined (1) 39:1 coming (16) 6:21;12:22;17:2; 21:24;22:18;23:20; 32:24;39:13;44:22; 67:14,24;70:8;77:6; 161:3;181:3;188:21 comment (6) 24:5,16,23;48:25; 74:10;140:14 commented (1) 120:10 comments (2) 60:12;61:1 commercial (1) 150:21 commission (6) 128:16,18,19; 133:13;135:5,12 communication (2) 6:10;129:14 community (5) 31:5;178:1;179:23, 24;181:10 compare (5) 89:17;94:23;173:16; 178:14,16 compared (3) 67:14;75:8;89:17 compares (1) 133:21 comparing (3) 74:23;138:2;180:2 comparison (1) 139:3 compelling (1) 134:12 compiled (1) 136:23</p>	<p>complain (1) 43:7 complained (3) 42:14;43:11,12 complaining (1) 42:16 complaints (1) 64:6 complete (3) 154:13,16;161:4 completed (2) 52:5;57:14 completeness (1) 159:13 complex (1) 9:15 complexity (1) 25:8 complicate (1) 28:5 compounding (1) 152:22 compromise (2) 14:1,16 computer (3) 48:25;52:11;80:18 computing (1) 118:20 conceded (1) 172:7 conceding (1) 10:16 concentration (1) 121:12 concentrations (12) 35:4;47:16;63:18; 98:14;99:1;102:11; 118:5,5;147:8;148:15; 149:24,25 concept (3) 21:10,14;151:22 concern (2) 13:15;47:16 concerned (5) 40:21;97:7;132:22; 171:6;187:13 concerning (1) 181:10 concerns (5) 42:18;61:9;136:19; 137:24;185:11 concessions (1) 10:18 conclusion (9) 38:16;102:13,14; 103:5,14;120:25; 134:3;149:16,19 conclusions (1) 120:12 conditions (7) 17:1;20:14,17;69:23, 25;70:3;198:13 conducted (2)</p>	<p>4:19;109:12 conference (4) 134:21,22;135:21; 136:15 Confirm (1) 149:4 confirming (1) 17:3 conflicting (1) 140:8 confused (3) 69:2;162:22;195:2 confusing (3) 131:22;193:16; 194:22 congestion (3) 151:21;152:1,21 congratulations (1) 154:4 connection (1) 145:12 conservancy (1) 35:21 conservation (1) 77:4 conservatism (4) 44:15;178:13,14; 180:3 conservative (12) 43:24;72:20;73:3,13; 74:4,17;75:6,22; 121:18;178:11;180:5,8 consider (8) 60:4;115:2;117:1; 119:23;140:22;141:9; 143:4;197:11 consideration (2) 75:2;119:2 considered (8) 52:13;106:12;116:7; 140:24;141:10;143:22, 24;187:6 considering (2) 7:5;11:18 consistent (3) 29:1;59:14;74:20 consistently (3) 16:3;31:24;36:14 constant (5) 73:16;75:1,3,22,22 constants (2) 75:24;79:6 construct (1) 4:6 consult (1) 36:2 consultation (2) 15:10;42:12 contact (2) 65:20;67:7 contained (1) 147:11 containing (3)</p>
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<p>7:11;63:1,12 contemplating (1) 136:22 contemplation (1) 25:12 content (1) 155:16 contention (1) 133:14 context (6) 22:3;159:14;160:16; 161:4;168:17;178:2 continued (1) 43:16 continuing (2) 35:24;183:22 continuous (2) 35:24;44:24 contradicts (1) 179:18 contrary (1) 73:19 contrast (2) 137:3;177:21 contribute (7) 103:24;104:12; 140:21,21;141:5; 148:1;149:24 contributes (1) 107:21 contributing (1) 144:3 controversial (1) 25:15 controversy (1) 180:19 convective (1) 77:16 conversation (3) 124:9;155:14;187:7 conversion (18) 42:20;63:16;68:12, 17;69:7;72:9,19,21,22; 73:1,2,6;102:18; 118:25;119:14;146:16; 171:24;179:13 conversions (1) 171:19 convert (1) 67:13 converting (2) 42:1;102:19 copied (3) 26:1;130:16;186:1 copies (17) 56:1,2,2;90:19,19; 91:5;102:5;127:4,7; 158:15;159:21;169:10; 188:16,19;189:6; 190:20;191:20 copy (30) 29:5,23;53:16;55:19; 71:16,17;72:4;79:16;</p>	<p>80:22;81:7;83:14; 84:24;89:23,24;90:1,3; 101:23,25;114:21,24; 122:17;123:25;126:15; 145:23;182:11;190:18; 191:2,6;195:2;196:1 cord (1) 160:23 CORDRY (320) 5:6,6;6:14,17,20; 8:18;10:25;11:4,11,17; 14:5,15,13,17,19; 17:11;19:9,11,14,21, 24;20:5;22:12,21,22; 23:1,4,14,16;24:24; 25:2,4,10,22;26:4,11, 13,16,21,25;27:8,10, 18,22,25;28:2,5,18,21; 29:3,8,12,15,19,22; 30:3;32:18,23;33:1; 34:9,12;44:11;50:24; 51:9,18;52:18,21,25; 53:2,5,7,10,14,18,23; 54:4,9,12,14,17,23; 55:2,13,17,20;56:13; 57:1,6,20;59:4,6; 61:23;64:5;65:8;66:12; 69:10,13;70:15;73:14; 92:18,22;93:2,4,10,16; 100:7,16;101:6,9,12, 14,19;104:16;108:10, 14,18,21;111:21; 113:17,25;114:17; 115:1;117:4;123:17; 124:7,11,16,20,22; 125:1,4,6,8,18,21,25; 126:3,17,23;127:1,4, 16,22;128:4,7;130:6,8, 16,19,24;131:7,9,12, 19,22;132:17,25; 135:19,21,24;137:4,7, 10,16,20;142:1,6,10, 12,16,22;144:2,11,14, 21,23;147:18,20,23; 148:6,13,15,18,21; 149:4;153:16;155:7, 20;156:3,10,13,15,18; 157:13,17,20;158:21; 159:19,22,25;160:3; 161:7,11,15,20;162:2, 5,11,15,17;163:18,25; 164:2,9,12,15,18,23; 165:12;166:1,4,9,16; 167:3,6,20,25;168:4,7, 19;169:1,4,10,17; 170:15,24;171:1,4,8; 172:23;173:1,4,6,8; 175:9,11,14;176:17; 178:21;181:1,21; 182:3,6,24;183:2,4,7,9, 12,14,19,25;184:3,7, 11,14,16,19,22,25; 185:5,9,12,19;186:9,</p>	<p>13,16,19,21;187:1,4,9, 12,15,18,21,23;188:9, 15,19,24;189:3,6,17; 190:22,25;192:20,23; 193:1,4,7,14,20,22; 194:1,4,6,10,12,17,25; 195:4,6,8;196:8,20,23; 197:17,20,22;198:1 Cordry's (1) 156:20 Core (5) 160:19;166:3; 168:20,24;195:24 corner (2) 135:13,16 Corporation (1) 4:3 corrected (5) 7:22;29:20;131:10; 187:24;188:11 correction (7) 25:13,18;43:18; 102:18;134:15;146:14; 182:7 corrections (3) 28:9;29:7,17 Corrective (1) 26:23 correctly (6) 28:12;63:20;68:5; 87:15;120:16;163:19 corridor (1) 50:2 corroborates (1) 178:17 Costco (8) 4:3;5:1,4,13,16,21; 43:16;73:21 Council (6) 4:16;20:15,20; 128:16;135:17;198:11 counsel (2) 28:1;145:14 counting (1) 24:18 country (1) 103:18 county (1) 33:15 couple (10) 35:6;54:6;61:1; 156:4;166:16;182:6,9; 186:10;194:24;197:8 course (10) 7:1;41:18,25;53:22; 81:19;113:2;124:1; 157:10;170:1;186:25 court (5) 8:25;171:12;172:15; 173:21;197:16 courteous (1) 197:12 courts (3)</p>	<p>172:12;174:8,9 cover (2) 153:14;165:14 covered (4) 70:10,11;120:9; 151:6 created (2) 124:15;177:24 creates (2) 70:6;132:18 credibility (2) 10:19;11:19 criteria (23) 35:18,23;36:9,13,21; 44:21,25;45:3,16,23, 24;46:1,5,12,25;47:5; 49:25;50:7;58:7; 115:19,22;116:4; 121:23 critical (4) 42:3;112:24;113:2; 115:14 criticism (1) 44:17 cross (3) 123:17;124:24;126:6 cross-examination (33) 7:2,20;9:23;12:23; 13:18;21:8,21;22:1,3; 24:20;25:6;32:10,14; 34:17;38:20;40:9; 60:10;70:12;100:20, 23;123:6,12,16,19; 132:10;143:18,20; 145:5;147:17,22; 148:24;152:7;191:14 cross-examine (10) 9:13;14:13;21:4; 24:3;137:2,6;138:13, 15;176:24;177:1 cross-examined (2) 137:11;195:24 cross-filed (1) 7:25 crucial (2) 139:16,22 cubic (6) 42:2,21;98:16; 102:19;121:8;146:13 cumulative (1) 152:16 curious (2) 47:4;49:9 current (1) 59:10 curve (6) 82:8,9;87:13;88:15, 15,16 curves (2) 86:8;87:17 cut (4) 41:21,21;136:3,8 cuts (1)</p>	<p>171:24 CV (1) 32:23</p> <hr/> <p style="text-align: center;">D</p> <hr/> <p>Dallas-Fort (5) 125:16;126:12; 133:12;135:3;136:11 dash (1) 52:21 data (15) 7:16;35:10;37:5; 43:22;48:14;73:10,24; 89:9;102:25;103:17, 20;109:14;110:1; 134:24;180:2 date (12) 16:9;17:3,4;18:14, 17,18;19:20;22:17; 72:10;150:13;192:1,1 dated (5) 133:8;161:12,13; 165:11;175:17 dates (2) 4:17;197:3 daughter (1) 18:14 day (7) 4:2;14:15;16:7; 22:19;23:1;30:24; 174:3 days (15) 16:9,10,11;23:15,25; 24:18;43:2,3;51:8; 54:7;137:5;174:3; 176:17;194:24;197:23 DC (8) 37:6;38:4,7;44:22; 47:20;48:6,8;50:11 deal (11) 6:24;15:17;21:11; 25:18,19;34:3;54:25; 118:17;121:20;148:10; 177:24 dealing (5) 21:5;82:6;97:21; 121:24;176:18 deals (1) 55:2 debated (2) 172:14,15 December (8) 42:25,25;43:1; 112:22,22;115:25; 116:9;134:2 decide (3) 19:17;128:11;133:4 decided (2) 11:17;130:25 decision (5) 4:23;9:10,24;10:3; 15:2</p>
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<p>decisions (1) 34:1</p> <p>declined (1) 21:16</p> <p>decode (1) 81:22</p> <p>decrease (1) 94:22</p> <p>decreased (1) 63:18</p> <p>default (5) 23:5;43:25;57:21; 177:8,9</p> <p>deference (1) 38:8</p> <p>define (1) 142:24</p> <p>defined (8) 74:24;75:6;92:6; 141:14,21;142:11; 143:1,7</p> <p>defining (1) 141:12</p> <p>definition (1) 92:3</p> <p>definitive (1) 99:2</p> <p>delay (1) 118:25</p> <p>demonstrate (1) 104:9</p> <p>demonstrated (1) 180:4</p> <p>demonstration (1) 121:20</p> <p>denied (2) 174:24;175:7</p> <p>density (1) 36:3</p> <p>departure (2) 119:7,11</p> <p>departures (1) 43:25</p> <p>depending (1) 46:22</p> <p>depends (1) 87:13</p> <p>DEQ (2) 122:9;128:16</p> <p>describe (1) 56:14</p> <p>described (1) 122:7</p> <p>describes (1) 56:18</p> <p>description (1) 162:6</p> <p>deserve (2) 32:16;155:18</p> <p>deserves (1) 161:3</p> <p>designated (1) 51:23</p>	<p>designation (1) 52:3</p> <p>designed (1) 33:14</p> <p>desk (1) 90:2</p> <p>detail (3) 23:17;42:5;46:19</p> <p>determination (3) 103:16;172:17;174:1</p> <p>determinations (1) 174:10</p> <p>determining (1) 134:17</p> <p>devalue (1) 160:21</p> <p>developed (4) 13:12;50:11;57:6; 180:17</p> <p>development (4) 45:9,14;49:24; 125:15</p> <p>diagram (3) 94:18,21;98:5</p> <p>diametrically (1) 6:18</p> <p>diesel (4) 12:16;138:6;191:24, 25</p> <p>difference (8) 13:14;23:9,12,17; 74:14;79:9;139:5; 184:7</p> <p>different (42) 22:14;25:13;46:21; 57:8;64:19;67:13; 74:12,22;77:12;82:6, 13;86:8,8;87:3,4,5,17, 19,22,23;90:25;93:22; 98:5;111:8;113:18; 114:1;118:4;126:12; 132:19;134:20;135:18, 20;142:3;145:12; 152:16;161:16,17; 163:9,15;176:21,22; 177:19</p> <p>differently (1) 143:12</p> <p>difficult (1) 156:4</p> <p>difficulty (1) 134:16</p> <p>dilute (1) 68:21</p> <p>direct (5) 33:24;58:20;61:18; 91:25;129:15</p> <p>directed (1) 138:25</p> <p>direction (5) 26:10;29:18;46:23; 114:14;118:4</p> <p>directions (1)</p>	<p>119:8</p> <p>directly (1) 71:16</p> <p>disagree (5) 43:14;66:3,6,8;68:15</p> <p>disagreed (1) 110:16</p> <p>disagreement (2) 137:18;179:21</p> <p>disagrees (2) 177:21;179:20</p> <p>disclosure (1) 21:23</p> <p>discouraged (1) 132:6</p> <p>discuss (11) 4:14,17;7:3;20:17; 33:11;40:25;115:3; 154:15;157:2,8;170:9</p> <p>discussed (10) 27:12;33:20;40:18; 71:12;147:15;152:13, 19;155:13;177:10,11</p> <p>discusses (1) 163:12</p> <p>discussing (4) 37:9;38:1;40:13; 120:3</p> <p>discussion (19) 15:19;16:25;20:13; 21:6;37:8,13,21,23; 38:15;41:4;42:11,17; 120:1;123:21,21; 150:5;153:8;170:17; 198:13</p> <p>discussions (2) 40:14,25</p> <p>disks (1) 110:1</p> <p>disperse (4) 66:4,5;70:9;120:14</p> <p>dispersion (8) 63:14,19;65:1;67:4; 118:18;119:18;120:2; 178:5</p> <p>dispute (2) 181:9,14</p> <p>dissent (1) 34:9</p> <p>distance (15) 36:15;65:18;66:23; 67:6,13;68:10,11,12, 17,19,22;118:20;120:8, 18;179:12</p> <p>distinct (11) 98:22,25;99:4; 102:12;103:7,10,15; 107:19;109:10;120:23; 149:17</p> <p>distinction (1) 66:25</p> <p>distinguished (1) 66:23</p>	<p>distracting (1) 118:10</p> <p>distributed (1) 50:19</p> <p>District (1) 36:11</p> <p>dock (2) 119:9;150:19</p> <p>docks (1) 150:22</p> <p>Doctor (1) 32:22</p> <p>doctrine (1) 108:13</p> <p>document (71) 12:7,9,11;21:13,18, 20,22;23:10;25:14,23, 24;49:1;50:15;51:11, 24;52:12,18;54:6,10; 55:21;56:3,15,23;57:1; 59:7;61:12;62:14,15; 69:1,11;74:6;76:2,5; 90:9,20;113:20,21; 115:15;130:1;131:10, 11;137:1;138:14; 150:4;157:20,22; 160:12,15,16,19,22; 161:2,9,12,13,23; 162:5,8;163:9,22,22; 164:7,10,11,14,19; 168:21;176:15;185:10, 21;186:18</p> <p>documentation (4) 26:25;55:9;59:18,24</p> <p>documents (33) 7:19;9:17,20;10:17; 13:12;14:21,21,25; 15:7,24;20:24;21:2,3; 22:6;24:1,2,18,20; 25:17;43:20;49:6; 76:12;105:17;136:23; 138:2;139:17,19; 155:16;156:21;157:9; 168:20;192:10;193:15</p> <p>done (19) 22:13;31:6;35:22; 39:3;89:2;99:14; 102:17;107:16,17; 111:9,10,11,16;128:8; 149:7;164:3;174:2; 176:2;186:1</p> <p>door (1) 31:12</p> <p>double-check (2) 19:11;188:25</p> <p>double-sided (1) 91:13</p> <p>doubling (2) 139:20,22</p> <p>down (16) 14:23;23:13;65:1; 66:24;68:21;70:4; 75:17;89:10;119:24;</p>	<p>133:16;139:20,22; 140:5;154:11;162:19; 197:3</p> <p>download (1) 110:10</p> <p>down-scale (1) 122:5</p> <p>down-scaling (1) 139:18</p> <p>downward (2) 65:18,19</p> <p>downwind (1) 63:13</p> <p>Dr (89) 5:24;7:3,22;8:2;9:10, 12,13;11:1;12:14;13:1, 10;14:12,14;15:24; 21:4,6,11;24:3;25:1; 27:14;28:19;32:20,20; 34:18,21;39:13,18,23, 25;40:11;58:21;59:3; 62:6,13;65:13;70:18; 72:16;76:25;78:4,7; 79:9,21;81:23;84:6; 85:22;89:20;91:17,25; 93:17;98:13;100:8; 102:8;104:16;109:5; 112:18;115:2,6,19; 116:15;118:7;122:12; 123:2;127:17;131:2; 132:4;133:6;136:20; 138:9,25;139:1,17; 140:19;141:3;148:12; 149:15;153:3;170:11; 171:13;173:11;174:4; 176:18;177:21;179:11, 19,19,20;180:13; 190:23;191:14</p> <p>draft (4) 12:8;41:9;52:1,4</p> <p>drainage (3) 89:7,8,10</p> <p>drawn (1) 142:20</p> <p>drew (1) 120:11</p> <p>driven (1) 30:25</p> <p>Driver (1) 156:5</p> <p>driving (2) 89:14,15</p> <p>drop (1) 183:22</p> <p>Drs (1) 14:12</p> <p>DUCKETT (30) 5:18,18;8:22,23;9:5, 6;14:8,9;20:4,9;24:8, 11,12;153:21,23,25; 162:22;163:3,6,14,23; 164:1;174:14,16; 192:7,9,13,16,19;193:9</p>
--	---	--	--	--

<p>due (7) 16:9,10,10,11,15,16; 197:3 duplicates (1) 90:17 during (6) 28:4;43:2;47:18; 48:12;56:5;132:13</p>	<p>114:23;189:18 e-mailed (4) 26:13;182:16; 185:20;186:11 e-mails (1) 7:7 emission (7) 119:2;125:15; 129:20,22;133:8; 134:22;152:3 emissions (11) 25:23;26:22;107:13; 120:14;134:8;143:14; 149:24;150:18;151:19; 176:7,8 emitted (2) 66:3;179:14 emitting (1) 69:9 emotional (2) 31:2,10 emotionally (1) 30:25 encountering (1) 67:3 end (4) 25:16;46:20;193:16, 24 endlessly (1) 22:18 endorsed (1) 52:14 endorsement (3) 52:1;57:15;61:4 endorsing (1) 57:17 energy (4) 77:2,4;183:10,23 engines (1) 12:16 enhancements (1) 52:4 enough (8) 8:25;60:3;109:8; 114:23;129:12;157:12; 181:13;182:18 ensure (1) 25:7 entered (2) 71:8;113:16 entertain (1) 132:24 entire (7) 101:18;113:20; 138:14;158:14,15; 159:15;185:10 entirely (5) 45:18;46:20;68:11; 101:20;179:2 entitle (1) 31:17 entitled (1) 52:19</p>	<p>entity (1) 135:20 entainment (2) 63:14,15 enumerated (1) 82:10 Environment (4) 178:4,7,7,10 Environmental (10) 69:1;70:18,20;72:9; 79:1;126:11;133:13; 135:4,5,12 EPA (52) 21:16;45:25;46:2; 51:22;52:14,17,19,21; 53:2,8,11;56:8,9,15,23; 57:9,18,23;59:10,14; 69:2;102:10;103:1,17; 104:3,18;106:11,12; 107:9,24;108:16; 118:19;119:13;121:19; 142:2;144:3;147:24; 148:7;171:17,21; 172:9;174:6;175:22, 25;176:23;177:10,13; 180:12,14;181:1,5,11 EPA-permitting (1) 176:22 EPA's (6) 21:16;43:23;110:10; 119:11;121:18;172:17 Epsilon (9) 92:7,8,10,13;95:1,7, 7;96:10;97:19 equal (1) 31:24 equals (5) 80:14;86:18;92:6; 95:21;98:8 equation (6) 87:2;95:15,16,25; 96:8;97:18 equations (1) 79:14 Erich (2) 5:21;157:13 err (1) 124:18 error (4) 26:18;42:1,20; 102:18 especially (1) 24:19 essentially (6) 12:6,9;13:11;39:19; 101:4;174:4 establish (1) 179:22 establishments (1) 150:21 estimate (3) 72:23;73:3;76:13 estimating (1)</p>	<p>99:7 et (2) 152:15;189:9 evaluate (2) 34:6,7 evaluated (2) 64:22,22 evaluation (2) 65:21,25 even (18) 13:11;21:14;30:6; 33:20;52:14;68:25; 104:19;126:5;132:12; 137:2;138:13;143:25; 155:7;158:18;171:15; 172:7;176:2;194:23 event (6) 7:22;19:8;29:10; 78:18;125:24;138:23 everybody (9) 7:24;18:7;19:19; 25:25;29:5;85:1;91:5; 193:16;198:6 everybody's (3) 85:6;114:14;197:14 everyone (4) 50:20;81:4;177:23; 185:20 evidence (25) 4:21;9:11;21:22; 25:9;33:12,13;43:20; 51:21;89:8,9;102:21, 23;133:10,14,16;134:5, 12,13;139:12;140:6; 172:11,13;180:4,21; 196:19 evidenced (2) 21:24;136:22 evidentiary (7) 4:13;16:7;25:24; 27:4;178:25;180:9; 198:15 ex (1) 42:17 exact (7) 43:8,23;46:10;88:13; 103:19;139:3;150:13 exactly (13) 10:11;57:12;69:17; 78:25,25;79:6;88:2; 98:18;127:1;129:1; 165:16;167:23;193:5 EXAMINATION (2) 112:16;153:1 Examiner (6) 4:21;33:10,20;65:11; 149:22;150:3 example (7) 30:17;47:13;95:19; 118:3;121:13;139:4; 150:18 exceed (4) 98:23;102:9;103:5;</p>	<p>105:20 exceedance (5) 104:12;107:21; 120:23;142:2;144:4 exceedances (5) 106:21;109:11; 140:22;141:5;143:22 exceeded (3) 104:24,25;149:17 exceeding (1) 103:15 Excel (3) 7:15,16,19 except (8) 20:13;155:23; 185:24;196:12,15,18, 25;198:15 exception (4) 4:5;142:4;155:18,21 excerpt (5) 90:8;131:20,21; 132:9;195:12 excerpted (1) 195:13 excerpts (1) 183:9 exclude (3) 106:25;140:4,11 excluded (1) 128:12 excluding (1) 140:1 Excuse (5) 93:23;94:12;109:6; 118:7;190:8 exercise (1) 15:6 exhaust (5) 66:24;67:25;78:23; 191:24,25 exhausts (3) 64:20;68:20;70:9 exhibit (93) 7:8;26:19;27:16; 30:4;44:3,6;51:1,6,7, 16;54:15;56:11,23; 70:19,25;71:8;72:8,12; 79:19;80:9;82:20; 83:19,19;84:13;91:18, 21;92:1;96:15,23;98:7; 99:25;100:10,20,21; 101:16,18,23;102:24; 113:5,8,13;114:12; 125:8;130:9,11,12,23, 25;131:2,4,16,20; 132:2,7,13;133:2,12; 135:8;138:10;140:5; 155:25;157:1,2;160:8; 161:10,10;162:16,19, 21,24;163:1;169:15, 25;175:17;182:10,12, 22;183:5;184:15; 185:14,16;186:22;</p>
--	--	--	---	--

187:25;188:5,12,13,18; 189:9;191:24;192:4; 194:15;195:11;197:2	extreme (1) 82:9	fault (3) 33:19,22;157:11	finish (5) 41:23;77:24;78:9,18; 94:15	132:10
exhibitized (3) 71:3,4;189:21	extremely (1) 24:17	February (4) 102:23;175:18; 185:20;192:2	finished (2) 34:16;154:6	footnote (1) 95:25
exhibits (11) 7:4,6;30:13,15,20; 155:25;196:10,13,14, 17;198:7	F	Federal (3) 53:12;56:16;134:1	first (37) 8:16;14:19;18:14; 22:20;24:8;30:24; 36:12,18;37:6;38:3; 42:22;52:16;63:7,8; 71:5;72:19;84:9,12; 87:11;96:1;97:11; 103:13;112:19;121:5, 7,14;129:1;134:14; 139:23;142:8;144:12; 172:14;174:1,10; 175:21;178:4;179:11	footnotes (2) 28:16,21
expect (3) 33:21;34:10;169:10	face (1) 10:24	feel (4) 105:16;114:3; 176:25;186:23	fits (1) 27:6	forbearance (1) 49:21
expectation (1) 132:5	facility (1) 104:10	feet (7) 64:18;95:9,10,14; 98:2;119:8;143:9	five (4) 160:9;176:17; 188:20,21	forceful (1) 179:14
expected (1) 111:23	fact (14) 25:25;29:1;37:17; 42:3;43:23;44:16; 76:22;110:8;136:22; 139:4,24;140:7; 173:19;178:3	felt (1) 150:6	five-minute (2) 148:25;149:8	forget (1) 163:22
experimental (1) 52:12	factions (1) 15:10	few (6) 14:22;50:15;60:14; 61:12;100:23;183:15	five-page (1) 170:19	forgetting (1) 40:24
expert (17) 9:15,17,18,21;10:4; 12:22;30:22;31:16; 32:9;33:2;107:2,25; 126:20;127:6,25; 176:11;177:1	factor (18) 68:10,17,19;115:24; 116:7,9;118:19; 119:18;120:17,17,18; 122:5;123:5;134:8,15; 151:14,21;152:22	field (2) 9:19;172:16	fixed-ratio (1) 59:10	forgiving (1) 24:17
expertise (5) 106:2,7,11;107:10, 11	Factors (9) 26:23;68:12;89:3; 120:25;149:15,19; 152:13,19;158:10	fight (2) 23:20;168:22	form (7) 51:20;52:13;58:3; 61:24;102:13,14; 168:24	forgotten (2) 128:24;187:7
experts (6) 10:7,7;12:6;14:11; 180:19;181:19	facts (1) 30:25	figure (5) 55:5;113:5;121:11, 11;145:16	formal (1) 19:19	formalities (1) 29:17
explain (4) 12:23;30:5;115:10; 133:6	fails (1) 181:8	file (6) 7:15,16,19;80:24; 157:19,19	formally (1) 175:6	format (1) 42:16
explained (1) 171:23	fair (9) 11:16;25:3,9;55:22; 128:9;146:15;156:23; 157:12;159:14	filed (3) 16:8;171:7;174:25	formed (1) 67:25	formula (3) 76:16,18;94:25
explains (1) 82:8	fairness (8) 24:22;31:24;32:16; 128:3;138:18;139:23; 158:14;172:21	files (1) 114:23	formula (1) 173:17;175:20;181:22; 185:2	forth (14) 9:23;25:24;31:1,4; 33:9;56:14;115:7; 148:8;171:20;172:6; 173:17;175:20;181:22; 185:2
explanation (1) 9:21	familiar (2) 89:20;102:25	filing (1) 7:5	Florida (2) 156:5,17	forty (1) 113:23
explore (3) 10:12;75:21;79:4	famous (1) 42:1	filings (1) 197:1	floating (1) 57:3	forward (2) 77:2;104:16
exposure (1) 191:24	far (12) 6:17;18:20;19:14,21; 57:21,25;60:6;127:18; 141:12;143:5;171:3,5	filling (1) 4:7	floor (5) 4:16;16:19;20:16; 99:22;198:12	found (6) 25:24;28:9;53:11; 126:10;128:13;161:16
express (1) 33:11	fare-thee-well (1) 148:20	final (16) 15:15;16:9;28:10,25; 29:24,24;30:4;44:4; 115:15;145:10;149:5; 152:10;154:6;167:13; 185:15;186:5	fluid (1) 92:6	four (10) 45:20,21,23;46:1; 49:24;92:22;115:19; 132:3;160:9;165:16
expressed (2) 37:16;38:6	farther (2) 68:21;69:18	finally (2) 36:4;182:16	focus (3) 49:19,22;111:21	Fox (1) 177:12
expressing (1) 141:3	fashion (2) 27:4;152:21	find (18) 18:3;33:19,22;49:2; 51:21;53:11,15;66:6; 74:9;81:6;105:8;122:4; 128:22;142:13;180:20; 181:15,16;195:19	focused (3) 37:11;46:15;69:23	framework (1) 74:12
extends (1) 119:8	fast (1) 63:17	finding (3) 33:10;134:7;198:3	Folder (1) 157:5	free (1) 110:8
extension (1) 181:6	faster (2) 68:21;69:18	fine (17) 9:10;12:15,17;19:9, 15;23:22;47:3;49:7,7, 7;100:10;156:7,10,18; 167:6,16;169:6	folders (2) 157:7,8	frequently (1) 72:22
extensive (1) 123:18	fatter (1) 158:18	fingers (1) 154:23	folks (1) 60:2	front (5) 49:6;79:17;84:8; 96:20,21
extensively (2) 64:17;178:12		fingerprints (1) 74:9	follow (3) 107:18,19;141:2	Frye-Reed (4) 174:24;175:1,3,20
extent (10) 12:14;25:6;30:13; 101:6;138:8;151:17; 176:14;179:20;180:3; 197:22			followed (1) 21:22	
extra (2) 55:19;80:22			following (4) 16:13;35:23;102:17; 119:1	
			follows (1) 92:6	
			follow-up (1)	

<p>Fujita (6) 138:15;140:14,16; 153:3,9,14 full (26) 63:7,8;136:13;137:1; 159:14;164:16,19; 165:7,9,10,16,19,20, 21;166:11;167:16; 168:7,10;169:10,14,14; 188:1;196:1,4,6,7 Full-bore (1) 196:8 fully (1) 56:25 full-year (1) 116:25 fulsome (1) 197:10 further (23) 8:1;10:13;11:22; 28:6;30:10;31:21; 34:13;51:25;64:16; 66:16,20;72:20; 102:23;111:16;128:21; 133:13;138:15;139:20; 147:7;152:23;155:10; 170:12;181:13 future (1) 33:18</p>	<p>Generally (5) 143:10;144:5; 172:18,19;173:21 geographical (2) 145:13;148:10 George (1) 157:25 Georgia (2) 141:16;143:14 germane (1) 14:23 gesture (2) 22:11,21 gets (2) 65:11;121:25 given (13) 12:13;23:24,24; 32:10,11,14;76:12; 100:5;127:19;140:6; 186:4,9;197:2 gives (4) 87:1,2;119:23; 133:13 giving (2) 84:24;161:3 glad (1) 170:7 global (3) 33:8,15;34:7 Glossary (2) 89:21;91:19 goals (1) 31:23 Goecke (221) 5:3,3,5;8:3;13:24; 14:6,9;15:22;16:2; 17:8;18:6;30:12;38:21, 22;39:7,10,16,22;40:2, 4,7,10;41:8;42:6;44:3, 5,13;48:23;49:4,9,12; 50:14,19;51:4;60:14, 18,24;61:1,7;62:11,12, 16,19;63:5,8,11;65:12; 66:17,20;67:9;68:8; 69:16;70:17,22,25; 71:17,21;72:1,4,14,15; 73:18;75:4;76:4,8,10; 78:1;79:8,20,24;80:1,3, 9,12,17,22,25;81:3,21; 82:15,22;83:5,7;85:14, 16,18,20,25;86:4;88:1, 3;90:10,14,16,19,22; 91:1,4,8,10,13,15,17, 23,24;92:9,21;93:1,9, 13,21;94:5;97:23,25; 98:10,12;99:13,22,23; 100:1,3,20,24;101:22, 25;102:3,5,7;103:9; 109:3,4,9;110:24; 111:5,15;112:10,18; 113:13;114:10,11,16, 21,25;116:14;121:2; 123:11,23;124:3,14;</p>	<p>125:3;126:7,14,22; 127:11,13;129:23; 130:1,5,15,22;136:18, 19;137:14,19;138:1; 140:12;145:22;146:2, 4,5,24;147:12;148:5; 154:3;155:3,12,16; 156:1,20;160:5,8,15, 18,25;162:13;166:10; 167:8,14,24;169:21,23; 174:21;175:7,19; 179:7,9;180:10;182:1, 19;185:7,10;188:4; 189:11,20,22;190:4,10, 13,15,20,23;191:5,10; 195:11,18,20,23; 196:11;197:18;198:19, 24 goes (7) 123:12;130:21; 159:23;161:1;172:2; 178:20;183:17 Good (26) 4:25;5:3,6,9,11,12, 14,15,17,18,21;8:5; 20:11;34:15;79:4; 99:16;101:19;120:1; 129:11;135:9;139:11; 142:15;167:15;169:19; 172:18;181:12 governed (1) 146:20 government (1) 134:11 Governments (1) 135:17 grams (1) 139:6 graph (2) 86:10;138:8 Great (7) 20:3;36:15;57:2; 118:17;121:20;147:15; 159:22 greater (3) 42:5;76:22;151:25 greatly (1) 197:13 GROSSMAN (731) 4:2,20;5:2,5,8,11,12, 14,15,17,20,22;6:2,6,9, 12,16,19,23;7:1,18,21; 8:5,11,13,21;9:4,6; 10:11,20;11:3,9,15,24; 12:2,21;13:7,15,17,20, 25;14:4,8;15:9,16,21; 16:1,5,23;17:5,9,14,18, 21,24;18:2,7,11,16,20, 22,24;19:4,7,13,16,23, 25;20:3,7,11,25;21:19; 22:20;23:2,13,15;24:4, 5,7,10,14,21;25:3,5,20; 26:3,9,12,15,24;27:9,</p>	<p>17,20,23;28:1,3,17,20; 29:2,6,9,13,16,20;30:1, 8,19;31:15,20;32:1,5, 21,25;33:3,6,21;34:11, 15,19,20;35:1,5,8,12, 15,20;36:20,24;37:4,8, 20;38:2,11,14,19;39:5, 9,15,21,23,25;40:3,5,8, 24;41:3,7,21,24;44:3,9, 12;47:19,22,25;48:2,6, 10,15,18,22;49:5; 50:14,18,21;51:1,5,12; 52:16,20,23;53:1,4,6,9, 12,16,22,24;54:1,8,11, 13,15,18,19,22,25; 55:11,14,18,22,24; 56:4,22;57:5,17;58:11, 23;59:1,5;60:7,15,19, 22,25;61:6,15,16,20; 62:3,15,17;63:3,6,10; 64:3,8,10,12,14;65:3, 10;66:14,19;67:18,22; 68:1,5,7;69:12,14; 70:11,17,20,23;71:10, 14,19,23;72:2,6;74:24; 76:1,6,9;77:19,23;78:2, 4,7,9,12,15,17;79:19, 21;80:2,16,19,21,23; 81:1,7,10,13,15,18; 82:12,17,19,23,25; 83:3,6,12,13,17,21,24; 84:3,7,10,13,17,21; 85:3,11,17,19,24; 87:15,19,22,25;90:10, 12,15,18,21,24;91:2,7, 9,11,14,16,18;93:3,6, 10,14,17,19,25;95:23; 96:1,5,7,12,21,25;97:3, 6,10,16,23;98:3,11; 99:14,15,21,24;100:2, 4,12,19,25;101:8,10, 13,17,21;102:1,4; 103:7,25;104:11,14,23; 105:1,3,7,13,21,23; 106:3,6,9,17,22;107:2, 5,14,23;108:3,7,11,15, 19,24;109:7;110:22; 111:1,13,18,24;112:2, 6,13;113:4,11,14,21; 114:3,6,10,13,20,22; 115:8;116:19,21; 117:5,10,13;118:7,9, 14;121:4;122:19; 123:11,14,20;124:1,18, 21,23;125:7,9,13,15, 20,24;126:1,4,15,25; 127:3,6,12,14,21; 128:2,5,8,21;129:1,4,8, 11,14,17,21;130:3,7,9, 18;131:3,11,15,17,21, 24;132:2,8,12,16,18; 133:2;134:9,16,19; 135:7,10,14,23;136:2,</p>	<p>5,7,16,18;137:18,24; 138:17;139:1,10,15,22; 140:13,15;141:1,7,12, 19,24;142:5,7,11,13, 17,25;143:17,24;144:9, 12,18,22,24;145:2,6, 11,19;146:1;147:2,4, 13,19,21;148:3,9,14, 17,19,22,23;149:2,6,8, 12;150:2,8,10,12,15, 24;151:3,10,13;152:6, 24;153:5,7,10,14,18, 21,24;154:1,4,6,10,17, 20,25;155:1,5,9,15,19, 23;156:2,9,16,19,23, 25;157:4,12,16,19,23, 25;158:4,8,18,22; 159:2,7,10,12,16; 160:6,7,14,17,23; 161:6,8,14;162:10,12, 14,16,18,22,23;163:5, 9,16;166:7,11,14,18, 25;167:2,4,7,9,12,18, 21;168:6,9,18,22; 169:3,9,12,19,23; 170:3,7,9,18,22,25; 171:2,5;172:21,25; 173:2,5,7;174:14,17, 19,21;175:4,8,10,13, 16;178:19,22,25; 179:8;180:7,11;181:1, 15,22;182:2,5,15,21, 25;183:3,8,11,13,18, 24;184:1,6,10,13,15, 18,21,24;185:18,22; 186:3,8,12,14,17,20, 24;187:2,5,10,13,16, 19,22,25;188:5,11,18, 22;189:1,4,8,15,19; 190:1,7,12,14,16,18; 191:1,4,8,11,16,19,22; 192:7,8,12,14,17,21, 24;193:2,5,10,13,18, 21,24;194:2,5,8,11,15, 18;195:1,5,7,9,16,19, 21;196:4,6,9,12,22,24; 197:5,19,21,25;198:5, 20;199:1 ground (9) 64:20;67:1;70:4; 74:16;75:10;77:13; 78:20;88:7;179:17 ground-level (4) 65:22;68:19;69:6; 120:13 grounds (1) 175:5 guaranteeing (1) 56:24 Guckert (1) 24:12 Guckert's (2) 22:6,13</p>
--	--	--	--	--

<p>guess (13) 10:12;12:24;13:9; 19:17;22:21;23:7; 30:12;72:6;85:5; 115:12;127:8;154:21; 187:6</p> <p>guidance (20) 10:3,4;43:23;46:1,2, 7;56:17;104:8;107:16, 17,18,19;118:19;119:1, 7,11,13;120:21; 176:23;177:11</p> <p>guide (7) 9:21;51:22;52:19,20; 53:7;56:8;60:12</p> <p>gun (1) 116:21</p> <p>guys (4) 102:5;126:25;185:3; 189:4</p>	<p>20;145:4;154:10,19; 155:13,21,23;156:22, 24;157:1,24;158:3,6,9, 20,24;159:5,8,11,13, 21,24;160:1,4,6,12; 161:18,25;162:4; 163:19,24;164:11,13; 165:8;166:13;167:15, 19,23;168:8,14,16; 169:18;182:23;183:1, 6;185:4;188:3;189:18, 24;190:3,5,8,17,19; 191:3,7,9,12,18,21; 192:11;193:12;197:4; 198:18</p> <p>hate (1) 194:22</p> <p>HCM (1) 22:24</p> <p>head (1) 102:2</p> <p>health (6) 12:16,25;106:9; 107:1,3;191:25</p> <p>health-related (1) 7:12</p> <p>hear (20) 8:13,21;13:22;20:16, 16;24:7;58:13;62:4,4, 5,8;64:5;70:13;114:8; 128:10;132:22;136:18; 138:18;154:7;196:24</p> <p>heard (9) 21:7;30:10;71:9; 114:5,7;150:22;153:8; 170:11;181:22</p> <p>hearing (30) 4:3,11,16,19,20; 14:17,19;15:19;16:9, 19;19:20;20:16;25:1; 33:10,20;42:24;46:15; 65:10;68:9;83:23;84:6; 149:22;150:3;173:25; 175:2;176:14;192:17; 195:12;198:12;199:3</p> <p>hearings (3) 171:12;175:24; 176:21</p> <p>height (22) 73:16;75:2;85:23,24, 25;86:2,5,7,18,21,25; 87:3,14,16,92:13,23; 95:1,11,12,13,19;97:19</p> <p>Heights (6) 5:7,10;10:23;32:7; 87:23;98:20</p> <p>help (1) 166:25</p> <p>helpful (2) 15:1;53:17</p> <p>helps (1) 139:13</p> <p>Hence (2)</p>	<p>73:10,24</p> <p>herein (1) 59:9</p> <p>here's (4) 31:7;136:1,2;181:12</p> <p>Hesterberg (1) 189:9</p> <p>HGB (2) 136:4,9</p> <p>high (7) 67:3;72:23;92:15; 95:4,6;133:19;179:15</p> <p>higher (4) 36:14;47:10;121:8; 133:22</p> <p>highest (3) 98:15;146:10,12</p> <p>highlight (1) 140:9</p> <p>highly (1) 14:25</p> <p>Highway (2) 134:1;182:17</p> <p>hinky (1) 132:13</p> <p>hitherto (2) 73:12;74:1</p> <p>hoc (1) 25:7</p> <p>hold (18) 13:22;18:10;52:20, 23;56:7,10;71:25; 84:21;126:25;129:6; 130:7,7;157:4,25; 162:23;164:5;195:21; 198:3</p> <p>holding (1) 55:16</p> <p>hope (2) 33:9,17</p> <p>hopefully (2) 4:12;6:2</p> <p>hot (1) 67:25</p> <p>hot-button (1) 41:16</p> <p>hour-by-hour (2) 121:10,23</p> <p>houses (1) 89:10</p> <p>Houston-Galveston (6) 126:12;128:15; 135:6;136:9,10,13</p> <p>How's (2) 61:22;129:8</p> <p>human (1) 191:23</p> <p>humanitarian (2) 22:11,21</p> <p>hundred (1) 69:25</p> <p>hurt (1) 22:9</p>	<p>husband (1) 17:3</p> <p style="text-align: center;">I</p> <p>idea (1) 22:9</p> <p>identification (10) 51:17;56:12;61:4; 72:13;91:22;131:5; 163:2;169:16;188:14; 192:6</p> <p>identified (3) 41:10;119:6;129:4</p> <p>identify (4) 4:23;113:10;128:21; 129:1</p> <p>ie (1) 152:21</p> <p>II (7) 21:16;122:2,3,5; 171:21;173:8,9</p> <p>III (7) 62:7,18;122:5; 171:22;172:6;173:5,7</p> <p>illuminated (1) 13:10</p> <p>illuminates (1) 12:12</p> <p>immediate (1) 34:4</p> <p>immediately (3) 141:22;142:18;143:6</p> <p>impact (3) 72:23;152:22;195:14</p> <p>impacts (1) 106:10</p> <p>implement (1) 59:15</p> <p>Implementation (4) 129:19,22;131:3; 133:8</p> <p>implication (1) 93:8</p> <p>implications (1) 118:18</p> <p>implied (1) 93:7</p> <p>imply (4) 52:1,4;57:13,14</p> <p>important (12) 19:16;21:13;64:25; 115:22,25;116:5,9; 117:22,24,25;133:9,15</p> <p>imposed (1) 25:7</p> <p>impression (1) 41:16</p> <p>improper (4) 15:25;62:6;139:19; 176:5</p> <p>improvement (1) 13:13</p>	<p>inaccurate (1) 150:7</p> <p>inborn (1) 142:21</p> <p>include (4) 4:7;146:22;171:18; 181:3</p> <p>included (8) 33:25;52:6;59:22; 102:24;143:2;144:15; 145:10;149:25</p> <p>includes (3) 59:19,21;138:5</p> <p>including (3) 140:2;141:15;152:4</p> <p>Inclusion (2) 51:25;151:6</p> <p>inconsistent (1) 30:17</p> <p>incorrect (1) 39:25</p> <p>incorrectly (1) 27:18</p> <p>increase (1) 75:14</p> <p>increased (5) 63:13,14,17,19; 75:13</p> <p>increases (2) 33:15;152:3</p> <p>indicate (1) 72:21</p> <p>indicated (5) 21:3;23:2;100:8; 172:11;180:14</p> <p>indicates (1) 183:19</p> <p>induces (1) 78:22</p> <p>indulge (1) 34:23</p> <p>indulgence (1) 61:12</p> <p>industrial (1) 66:1</p> <p>industry (1) 90:6</p> <p>inflammation (1) 191:23</p> <p>information (11) 12:10;25:11;79:14; 87:1;102:24;103:2; 119:24;120:7;122:8; 133:7;160:11</p> <p>initial (1) 164:2</p> <p>initially (1) 50:25</p> <p>initials (1) 119:19</p> <p>input (2) 93:5;109:14</p> <p>inputs (5)</p>
--	--	--	--	--

92:25;110:12,14,15; 111:7 inspection (2) 177:7;178:8 instance (6) 127:16;161:24; 165:18;172:15;174:1, 10 instantaneous (1) 119:14 instead (3) 28:11;90:17;165:7 Institute (2) 21:5;57:7 intelligently (1) 39:11 intended (1) 154:11 intending (1) 158:7 interact (1) 152:21 interest (1) 112:4 Interesting (3) 74:2;138:20;172:4 internal (4) 52:5;56:17;57:14; 60:3 International (1) 134:22 interrupt (1) 116:14 Intersection (3) 7:14,17;183:1 intersections (1) 151:15 into (28) 27:6;35:13,22;38:22; 62:2;63:15;65:20;75:1; 79:13;101:7;111:14; 118:23;120:15;121:19; 124:24;127:25;133:18, 24;138:11;139:24; 140:16;147:24;154:10; 155:17;178:13;180:7; 186:2;194:5 introduce (4) 22:7;54:2;56:1; 132:20 introduced (2) 22:8;71:15 introducing (4) 132:6,13,21;165:2 introduction (2) 21:9;59:8 Inventories (1) 125:15 Inventory (2) 134:22;150:1 invites (2) 43:20;44:15 involve (1)	139:3 involved (2) 9:18;175:25 irregularities (5) 92:13,15;94:6;95:2, 13 irregularity (2) 97:20;98:2 irrelevant (3) 21:12;22:2;158:9 isolated (1) 121:22 isolation (1) 152:15 isopleth (1) 146:12 isopleths (2) 146:7,10 issue (26) 33:20;34:7;39:12; 40:19;41:17;42:4; 43:16;67:6;89:6;100:5; 112:21;113:2;115:14; 128:5;139:23,25; 143:20,20;148:17; 149:21;154:21;165:3; 167:13;178:19,25; 180:8 issues (5) 11:18;15:1;152:18; 169:20;172:14 issuing (1) 19:19 items (2) 10:10;198:15 IV (2) 55:6;59:7	judicial (1) 176:14 July (3) 16:15,15,17 jumped (1) 116:21 June (7) 14:14;16:12,12,14; 19:5;42:23;43:17 juries (1) 174:9 jurisdiction (1) 176:1 justification (1) 171:23 justified (1) 57:23 justifying (1) 177:19	153:24 <p style="text-align: center;">L</p> label (1) 85:2 labeled (4) 26:21;82:19;165:13; 198:17 labels (1) 197:2 lag (2) 118:25;119:2 Land (1) 162:4 language (2) 58:4;104:8 large (2) 73:4;139:8 larger (3) 130:25;131:2;132:4 Larry (1) 5:12 last (30) 4:13;8:24;13:8;16:7; 25:12;28:14;34:24; 36:21;38:24;46:14; 48:25;57:7;66:21;68:9; 69:21;74:2,3;76:15; 98:22,24;104:17; 123:6,9,14;132:11; 133:15;177:3;184:12, 13;194:20 late (3) 22:17,19;140:2 later (4) 4:15;185:24;187:7; 189:17 latest (1) 33:9 law (7) 58:7;77:3;173:19; 174:13;180:21;181:7,7 layer (2) 76:23,23 laymen (1) 181:8 laywitnesses (1) 10:5 Leading (2) 146:24;147:12 leads (1) 161:25 lean (1) 114:13 learn (2) 123:8;126:9 learned (1) 10:5 learning (1) 28:13 least (9) 10:22;32:7;36:3;	54:2;85:1;87:8,11; 115:12;139:8 leave (3) 25:20;41:6;101:2 led (1) 163:16 leeway (3) 126:2;145:7;147:19 left (2) 7:4;82:10 left-hand (1) 135:13 legal (5) 54:21;105:15;106:8; 110:25;111:1 legislative (1) 34:1 legitimate (2) 180:19,23 length (8) 66:23;79:10,12; 80:15;82:1;92:3,12; 147:15 lengths (1) 98:5 lengthy (1) 132:6 less (6) 13:12;37:18;44:1; 54:20;112:9;124:21 lesser (1) 32:11 letters (1) 150:10 letting (1) 124:19 level (17) 36:4;65:2,19;66:25; 67:1;68:21;70:5;75:17; 77:13;78:20;87:8; 98:15,20;119:3,25; 120:9;179:16 levels (16) 25:23;26:22;41:11; 42:9,15;47:9;76:13; 87:19;107:1;143:14; 145:10,10;146:8,19; 147:1;148:2 lieu (3) 7:6;13:1;32:8 light-duty (7) 133:15,21,23; 138:23;139:3,4,7 likely (4) 102:9;103:5,8; 105:19 limit (2) 33:24;151:24 limitations (1) 9:23 limited (4) 34:5;55:25;100:6; 101:1
	<p style="text-align: center;">J</p> jacket (1) 118:9 Janssen (8) 64:16;69:5;73:4,11, 20,25;74:7;178:5 jet (1) 179:14 Jison (3) 13:1;14:12;15:24 Jison's (1) 13:10 join (1) 58:24 joins (1) 9:6 joke (3) 65:8,10,10 jokes (1) 65:11 judgment (8) 25:20;46:24;54:2; 121:22;139:13,17; 149:23;151:12	<p style="text-align: center;">K</p> Karen (4) 5:6;9:3;26:19; 189:23 Kathy (2) 197:20,21 keep (5) 22:18;30:6;34:6; 90:1;145:8 Kensington (6) 5:7,10,19;10:23,23; 32:7 key (1) 179:2 KHCA (1) 8:22 KHCA's (1) 155:10 kind (19) 13:2,13,21;22:16; 52:9;67:3;77:17,20; 78:20;127:24;136:3; 148:10;152:7;171:18; 172:5,14;181:6,7; 193:22 kinds (2) 42:11;57:11 kinetic (1) 77:2 Kite (1) 135:4 knew (2) 21:23;167:18 knowing (1) 169:5 known (3) 4:10;51:13;114:14 knows (1) 6:6 koshering (1) 30:22 KVCA (1)		

<p>limiting (12) 113:1;116:2,11; 118:21,22,23;119:11, 14;120:4,10,20;171:19</p> <p>line (1) 144:25</p> <p>lines (1) 33:15</p> <p>link (5) 160:19;111,13;161:5; 164:4</p> <p>list (10) 36:2;44:6;113:8; 137:21;154:12,12; 155:3;158:7;162:20; 187:24</p> <p>listed (4) 7:9;56:20;65:25; 151:5</p> <p>listening (3) 77:18,22;180:12</p> <p>literature (9) 45:25;177:16,22,25; 179:21,25;180:1,15,16</p> <p>little (21) 9:16;23:8;59:7,7; 62:9;66:16;81:22; 82:13;106:24;112:8; 126:2,5;132:12,19; 134:16;135:25;140:1; 143:12;145:7;167:13; 183:22</p> <p>live (2) 32:8,9</p> <p>livers (2) 99:17;111:25</p> <p>living (1) 142:23</p> <p>loading (3) 119:9;150:19,21</p> <p>located (7) 4:8;36:15,19;45:17; 117:19;118:6;158:1</p> <p>location (13) 41:10,14;42:8,15; 43:4,14;44:17,18; 47:22,23;50:12; 115:11;117:23</p> <p>locations (5) 40:12;44:23;47:12, 20;50:11</p> <p>logarithmic (5) 76:21;80:5;82:7,16; 85:13</p> <p>logo (1) 135:12</p> <p>long (10) 90:3;100:16;120:8,8; 157:22;164:6;165:11, 16;189:10,13</p> <p>longer (2) 23:8;78:24</p> <p>look (50)</p>	<p>17:9;28:3;29:24; 37:12;42:4;43:9;44:10; 47:8;48:25;49:3;51:21; 56:5,6,17;58:12;60:8, 11;62:22;65:20;69:20; 74:12;86:7;89:3;103:4; 105:17;107:12,12,12, 15,16,24;108:5; 122:10;135:1,15; 141:19;150:4;155:3, 12;159:17,18,19; 161:11,18;165:4; 166:8,17;185:13; 187:10,11</p> <p>looked (9) 26:17;36:9,25;47:3; 89:22;103:1;127:24; 150:17;161:22</p> <p>looking (41) 13:12;27:13;28:8,24; 48:24;49:2,2,10;54:9; 59:6;65:2;72:11;76:3; 82:12;84:3;85:13; 102:16,17,21,22,24; 105:18,25;106:20; 107:25;108:5;111:24; 121:17;129:8,18; 133:18,20;134:17; 135:10;136:5;144:3,5, 8;146:7;164:5;180:11</p> <p>looks (7) 79:4;84:12;90:24; 114:18;142:20;165:13; 195:15</p> <p>losing (1) 166:24</p> <p>Lot (25) 4:9;12:19;31:6; 46:19;50:1,3;64:20; 66:4;67:1;77:16;82:4; 111:11;114:12;117:2; 120:13;123:21;136:23; 149:23;150:18,20; 176:18,19,20;197:19; 198:24</p> <p>lots (5) 33:21;150:22;186:6, 6,6</p> <p>low (3) 23:20;41:17;73:6</p> <p>lower (6) 23:6;36:17;47:10; 107:1;183:22;191:23</p> <p>luck (1) 142:15</p> <p>lucky (1) 78:5</p> <p>lunch (3) 99:17;111:19;149:2</p> <p>luncheon (1) 112:11</p> <p>LUST (5) 195:14,25;196:6,7,8</p>	<p style="text-align: center;">M</p> <p>ma'am (2) 16:21;192:8</p> <p>mad (1) 157:6</p> <p>mailed (1) 25:25</p> <p>mainly (1) 37:11</p> <p>major (5) 140:23;141:9;144:6, 6,8</p> <p>makes (2) 132:22;197:13</p> <p>making (7) 10:17;15:2;34:1; 60:4;99:25;154:15; 174:9</p> <p>Mall (14) 4:10;36:6,18;50:3; 78:21;89:16;118:6; 140:23;141:10;143:2, 7,11;150:17,21</p> <p>manual (1) 46:2</p> <p>many (10) 10:5;14:21,21;22:12; 55:7;57:3;89:22;90:4; 95:9;127:23</p> <p>March (2) 161:12;165:11</p> <p>mark (6) 51:5;54:13;71:23; 72:8;130:9,10</p> <p>marked (16) 51:1,16;56:11;72:12; 90:11;91:21;101:24; 131:4;133:3;140:4; 156:6;163:1;169:12, 15;188:13;192:5</p> <p>marking (1) 100:21</p> <p>Marlboro (1) 6:22</p> <p>Martin (1) 4:20</p> <p>Maryland (9) 4:9;51:21;58:7; 171:12;172:11;173:19; 174:13;180:21;181:8</p> <p>master (1) 28:18</p> <p>matching (4) 121:9,10,19,23</p> <p>material (1) 127:24</p> <p>materials (1) 127:10</p> <p>math (4) 93:1,4;95:21;177:19</p> <p>matter (6)</p>	<p>4:3;10:3;33:23; 38:23;152:5;182:9</p> <p>matters (6) 6:16;9:9;20:21,22; 34:16;195:10</p> <p>maximum (5) 122:1;146:8,19,23; 147:7</p> <p>may (44) 31:9;44:7;49:4,5; 51:22;53:3,4;56:8,13; 58:5,6;60:25;62:5,5,6; 67:2;73:11,25;75:6; 77:15;80:1;85:18; 104:24;105:4;106:16; 113:13;114:1;115:1; 118:4;124:23;136:14; 138:14;161:11;164:9; 172:1,2,2;176:23; 178:10;180:1;187:19; 188:6;192:1;193:15</p> <p>maybe (13) 15:14;60:4;71:10; 75:21;84:23;85:2,6; 96:16;97:21;113:23; 121:25;159:2;187:2</p> <p>mean (53) 9:22,22;10:11;11:16, 24;12:21;15:13;17:14; 18:3;21:10;22:12,13, 17;23:12;24:25;31:11; 33:12;35:9;37:1;38:11; 39:25;44:9;58:4;59:25; 62:1,8;67:18;68:11; 71:15;82:4;85:4;93:2; 115:1,8;122:3;123:15, 20;132:12,16;136:20; 138:21;142:25;143:2, 18;148:17;151:3; 158:6,18;159:5;165:1; 168:23;175:9;187:5</p> <p>meaning (1) 144:18</p> <p>means (1) 4:21</p> <p>meant (2) 72:25;95:17</p> <p>measure (1) 92:5</p> <p>measured (2) 88:14;95:3</p> <p>measurements (6) 88:23,23;89:15; 151:1,2,7</p> <p>medical (7) 8:16,19,20;9:9,11; 12:6;14:11</p> <p>meet (9) 19:3;36:13;45:3,15; 46:25;50:7;51:19;58:7; 121:23</p> <p>meeting (1) 17:15</p>	<p>meets (4) 44:25;45:13;49:23; 174:12</p> <p>memo (1) 7:10</p> <p>memorandum (1) 59:15</p> <p>memos (1) 177:12</p> <p>mention (3) 33:17;154:11;165:18</p> <p>mentioned (7) 37:25;40:12;48:7; 132:22;137:22;138:20; 149:20</p> <p>mentioning (2) 58:16,17</p> <p>mentions (1) 165:20</p> <p>merely (1) 180:2</p> <p>merit (1) 172:2</p> <p>merits (2) 181;18,20</p> <p>met (1) 47:5</p> <p>Meteorology (3) 89:21;91:19;107:12</p> <p>meter (15) 42:2,21;94:22,23; 95:19,20,20,21;96:4,7; 97:20;98:16;102:19; 121:8;146:13</p> <p>meters (41) 64:19;67:3;69:25; 77:14;85:21,23,24,25; 86:2,2,5,5,11,11,18,19, 21,25;87:11,12;88:4,5, 8;92:14,19,22,23,24; 93:7,12;95:6,8,12,22, 23;96:2;97:20;98:4,8, 9;179:11</p> <p>Method (48) 50:17;51:12,23,23, 24;52:9;57:24;59:10, 11,13;69:5;73:9,11,25; 74:7;75:20;79:3;113:1; 116:2,11;118:21,23,23; 119:12,14,21;120:10, 20;146:16;171:14,14, 18,21;172:7,22,24; 173:9,10,12,14,14,18; 177:6,8;179:3;181:2, 11,13</p> <p>methodically (1) 177:15</p> <p>methodologies (1) 119:15</p> <p>methodology (11) 171:10,24;175:23; 176:6,19;177:2,4,12, 17;178:11;180:14</p>
---	--	---	---	---

<p>methods (8) 42:11;72:9;106:5; 173:23;174:4,6;177:9; 179:3</p> <p>metropolitan (7) 36:7,19;38:8;45:18; 46:21;117:20;118:3</p> <p>Michele (3) 5:9;71:1;145:22</p> <p>Michigan (5) 157:3;158:2;161:25; 163:11,20</p> <p>micrograms (6) 42:2,21;98:16; 102:19;121:8;146:13</p> <p>middle (7) 28:8;193:23;194:1,7, 9,11,20</p> <p>might (14) 70:23;79:4,5;89:17; 101:20;111:23;142:25; 143:1;172:3;187:19; 192:21,21,22;193:6</p> <p>Mike (2) 5:3;17:7</p> <p>mile (2) 139:6;143:9</p> <p>miles (3) 70:2;117:19;144:8</p> <p>Mill (3) 4:8;141:15;143:15</p> <p>mind (6) 108:8;112:4,23; 115:12;142:7;162:7</p> <p>mine (3) 82:13;83:9;183:24</p> <p>minimal (1) 45:9</p> <p>minimum (2) 45:14;49:23</p> <p>minor (2) 28:9;185:24</p> <p>minute (7) 96:10,11;101:2; 117:10;188:6;192:14; 195:16</p> <p>minutes (6) 20:19,20;60:14,16; 166:17;167:4</p> <p>miscommunicated (1) 186:1</p> <p>misplaced (1) 61:9</p> <p>missing (4) 50:3;92:25;150:7,16</p> <p>mistake (1) 83:16</p> <p>mistaken (2) 71:11;124:8</p> <p>mistakes (1) 22:13</p> <p>misunderstanding (1) 39:2</p>	<p>misunderstood (1) 68:16</p> <p>mix (5) 65:18,19;75:17; 120:9;138:5</p> <p>mixing (13) 65:1;70:1;75:14; 78:22,22;118:19,20; 119:3,24;120:14,18,18; 179:16</p> <p>mixture (1) 118:1</p> <p>MOBILE (1) 152:15</p> <p>MOBILE6 (6) 122:6;123:3,13; 133:20,22,23</p> <p>model (29) 52:3,7,21,23;53:8; 55:3,9;56:14;57:2,6, 16;58:7;59:19;60:4; 64:22;69:5;89:7; 119:20,22;125:16; 129:20,23;133:8; 143:14;180:16,18,18, 23,24</p> <p>Model-AERMOD (1) 56:9</p> <p>modeled (2) 105:19;178:15</p> <p>modeling (19) 44:15;51:14,22; 57:19;59:17;61:24; 99:9;107:12,15; 109:11;110:13;111:4; 144:15,18;150:6; 152:18;177:11;178:13; 180:5</p> <p>models (2) 57:3;172:17</p> <p>modest (1) 73:7</p> <p>modification (2) 21:15;58:19</p> <p>modified (2) 179:3,5</p> <p>molecular (11) 65:2,19;66:25;68:21; 75:17;119:3,21,22,24; 120:9;179:16</p> <p>molecules (1) 67:7</p> <p>moment (7) 40:12;80:6;81:23; 114:19;138:7;164:6; 176:8</p> <p>momentarily (1) 154:24</p> <p>Monday (1) 16:13</p> <p>Monitor (10) 26:22;36:15;37:14; 112:19,20;115:11,21;</p>	<p>116:8;117:16;152:14</p> <p>monitored (1) 36:1</p> <p>monitoring (26) 35:4;37:5,21,24; 38:5,17;40:12,13,19; 41:1,10;43:5;44:17; 50:10;103:17;115:23; 116:4,8,16,25;117:11, 11,22,23;151:3;178:16</p> <p>monitors (3) 37:13;45:2;116:24</p> <p>month (1) 164:4</p> <p>months (1) 197:8</p> <p>more (44) 37:18;38:23;39:11; 40:21;43:17,17,22,24, 24,25;44:1,15;46:15; 50:11;54:20;60:2;66:4, 5;69:8,19;73:11,25; 75:16;77:6;78:22;87:1; 99:25;112:8;117:19; 120:13;121:18;124:19; 126:2;127:23;134:12; 151:24;159:25;160:10, 16;161:1,22;179:15, 16;193:15</p> <p>moreover (1) 180:15</p> <p>morning (16) 4:25;5:3,6,9,11,12, 14,15,17,18,21;6:14, 15;83:23;91:5;191:15</p> <p>most (14) 14:23;38:4,7,10,10; 68:2;73:2;78:17; 115:20,21;179:22; 180:16,18,24</p> <p>mostly (2) 67:24;94:7</p> <p>motion (3) 175:1,3,19</p> <p>motions (5) 74:22;170:2;174:22, 25;175:5</p> <p>motor (6) 64:23;65:22;66:25; 129:19,22;133:8</p> <p>move (2) 16:5;98:10</p> <p>moved (1) 9:11</p> <p>move-in (3) 18:14,17,18</p> <p>moves (14) 16:12;29:18;122:6; 123:3,13;125:16; 129:20,23;133:14,19, 22,22;139:5;152:15</p> <p>movie (1) 184:2</p>	<p>moving (2) 69:18;121:18</p> <p>Mrs (4) 9:16;10:12;31:5; 81:18</p> <p>much (20) 23:21;46:21;60:13; 68:23;70:5,15,15; 78:24;90:7;139:25; 151:25;152:8;154:7; 161:22;173:15;179:15, 16;193:10;197:21; 198:21</p> <p>multiple (1) 56:2</p> <p>multiply (1) 134:8</p> <p>multiyear (1) 44:24</p> <p>must (8) 65:16,20;82:12; 104:9;139:7;169:4,12; 196:20</p> <p>myself (3) 30:6;31:11;35:18</p>	<p>50:6;142:2</p> <p>necessary (3) 165:22;171:2;173:24</p> <p>need (22) 25:19;29:13;30:1; 60:13;61:20;62:1;95:7, 13;102:5;161:11; 165:21;167:20;168:1, 2,4,11,16;169:20; 185:14;188:17;195:7; 196:8</p> <p>needed (1) 188:17</p> <p>needs (5) 63:23;84:24,24; 166:25;189:7</p> <p>neighbor (1) 34:5</p> <p>neighborhood (5) 141:14;142:4,11; 143:8;160:21</p> <p>neighbors (1) 34:4</p> <p>neither (1) 173:23</p> <p>new (27) 7:9;11:4;12:19,19, 24;15:23;21:10;22:6, 10;23:23;43:22;61:10, 10,24;83:23;84:16; 114:9;132:6,21,21; 159:5;174:4;181:10, 15;185:16;186:22; 187:3</p> <p>new-attempt (1) 57:2</p> <p>news (2) 79:4;99:16</p> <p>newspapers (1) 33:9</p> <p>next (5) 4:12;16:6,17;50:2; 116:20</p> <p>nice (1) 75:18</p> <p>nine (1) 177:18</p> <p>nitrogen (1) 152:4</p> <p>NO2 (67) 35:4;36:1;37:2,21, 23;38:5,18;39:17; 40:13,19,22;41:1,11, 16;42:3,3,9,15;43:5,24; 45:2;47:9,14,17,24; 48:8;51:14;59:12; 63:16,18;67:13,25; 68:13,18,23;72:9,23, 25;73:10,17,24;75:24; 76:13;98:14,20;99:2; 102:10;103:6,16,24; 104:4,18;106:13; 108:3;113:2;115:11,</p>
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23;117:9,11,11,12,22; 118:5;120:24;146:8, 10;149:18 nobody (2) 142:23;196:16 nobody's (1) 26:6 no-more-than-five-page (1) 170:16 non-cancer (1) 191:25 non-default (3) 51:25;52:14;57:22 non-diesel (1) 138:23 none (2) 23:18;32:24 non-published (1) 122:7 non-regulatory (4) 52:2;57:15;177:6,7 non-representative (1) 117:1 nonverbal (1) 129:14 noon (1) 99:16 north (5) 36:19;38:7;123:10; 125:17;135:16 Northeast (1) 36:11 Northwest (4) 36:12,18;37:6;38:4 Nos (1) 192:4 note (2) 10:25;158:12 noted (4) 196:12,15,18,25 notes (1) 122:12 notice (2) 59:6;75:19 noticed (2) 48:24;138:19 notices (1) 19:19 novel (1) 181:7 November (7) 42:10;72:11;144:19, 20;145:17;146:1,2 nowhere (1) 179:17 NOx (13) 39:17;63:1,12,18,18; 65:19;66:5;67:18;68:3; 72:24;73:1;149:24; 173:15 nuance (1) 9:21 number (32)	23:6;35:23,24,25; 44:4;48:5;59:2,2; 70:19;71:12;84:14; 95:7;99:6;104:11; 113:5,15;115:5; 121:14;122:10;126:18; 135:22;139:8;151:18; 152:20;180:13;182:22; 183:6;185:16;186:22; 188:8;189:23,24 numbered (6) 61:2;83:7;84:1; 130:18,23;136:23 numbers (16) 7:8;23:19;27:5; 41:17;83:9,10;84:1,2; 97:3,4,7;130:22,23,24; 131:1;156:11 numerical (2) 79:12;99:3 numerous (3) 23:19;170:14;171:7 NX (1) 133:23 <hr/> <p style="text-align: center;">O</p> <hr/> O3 (3) 73:16,16;75:3 oath (1) 34:20 object (10) 11:21;29:14;50:22, 24;61:22;100:10; 123:11;126:14;158:7; 196:21 objected (1) 41:13 objected-to (1) 157:9 objecting (6) 14:2,5;24:1;51:6; 160:19,25 objection (38) 11:7,13,18;12:18,22; 14:12,19;21:24;22:2; 30:10;51:15,18;54:21; 59:1;60:23;62:5;69:14; 93:15;94:2;100:5,5,13; 101:4;121:2;126:1; 130:10;132:24;136:20; 146:24;147:12;156:20, 21;159:16;170:1; 171:5;175:11;179:4; 181:24 objections (10) 7:4;25:17;58:25; 60:11;154:9,22; 155:24;157:8;166:14; 196:24 objects (1) 196:16 obstacles (1)	77:14 obtained (2) 171:11;173:23 obviously (4) 39:12;54:6;136:21; 172:6 occasionally (1) 26:9 occurred (2) 42:2;96:12 occurring (1) 107:1 o'clock (1) 60:17 October (1) 195:12 off (12) 7:4;13:22;28:7; 41:22;102:1;115:4; 118:9;136:3,8;141:24; 166:19;171:24 offensive (1) 29:9 offer (1) 14:19 Office (4) 4:16;20:15;171:17; 198:11 Officer (1) 173:25 official (1) 12:10 old (1) 195:2 OLM (26) 57:24;113:3;119:1; 121:18;171:14,18; 172:7,22,23;173:9,10, 11,13,17;176:6,19; 177:4,22;179:3,3,5,6, 11,24;180:14;181:2 once (5) 19:18;25:6;43:3; 152:6;198:10 one (144) 7:19,19;9:14;10:25; 11:1,9,10,11,12;12:6; 21:4;23:1,11,17,19,20, 23;26:18,21;27:6,8,10; 28:6,10,10,12,15,21; 29:18;30:3,12,14,16; 31:23;33:4;35:23; 36:11;38:9,23;41:19; 44:24;45:2,7,8;46:11; 48:5;49:16,19,24; 54:25;56:19,20;59:2; 60:8;61:1;64:25;65:16, 17,20;67:7;70:23; 71:17,18;82:24;83:11; 84:1,3,20,21;90:19,22; 91:15,17;92:20,25,25; 93:12;94:23;95:20,21; 98:7;106:25;115:2,21;	117:8;122:6;126:10, 25,25;127:3;130:21; 139:12,14;141:16; 150:8;152:10,20,25; 154:11,13;155:7,18,21; 156:16;157:4,23; 160:9,10;162:23; 164:19;165:12,13,15, 20;168:3;169:22,25; 173:3,23;176:21; 177:5,9;180:13; 181:17;182:6,8,19; 183:25;184:3,16,16; 186:5,7,22;189:17; 190:2,10;192:1,2,2; 194:6;195:11,16,23 one-hour (23) 37:2;42:3;43:24; 51:14;59:12;75:24; 76:13;98:14,20;99:2; 102:10;103:6,15,24; 104:5,18;106:13; 108:3;117:11;120:24; 146:8,10;149:18 one-meter (2) 88:15,15 ones (8) 7:9,9;13:13;56:19; 141:21;142:19;151:5; 194:12 one-second (1) 23:9 only (35) 7:2;14:3;16:24; 23:15;27:11;36:9,10; 47:14,19;48:20;49:16; 53:23,23;54:6;65:14; 67:5;71:17;75:13;82:9; 85:5;98:9;100:16,21, 21;101:10;117:17; 157:1;158:13;159:8, 14;164:8;168:2; 174:23;176:6;194:9 open (1) 16:24 opened (1) 31:12 opening (1) 31:11 operate (1) 4:6 opine (2) 176:2;177:1 opinion (22) 31:8;33:11;50:5; 59:25;62:7;79:9;98:19; 103:22;104:3;105:5; 106:17;107:25;108:4; 109:5,10;110:25; 111:2;115:21;117:24; 120:22;140:19;141:4 opportunity (7) 9:9;21:13;43:7,13;	132:20;154:15;176:25 opposed (9) 6:18;46:16;62:7; 67:18;92:19,24;97:10; 98:4;172:15 opposite (8) 45:18;46:20;73:22; 117:20;118:3;134:3,7, 13 opposition (15) 11:25;12:25;15:10; 16:9,14;20:19;30:15, 21,25;31:10;32:7; 101:4;108:8;163:4,7 opposition's (1) 12:5 optimism (1) 155:2 optimistic (1) 75:19 option (6) 51:25;52:14;56:19; 59:19,22;72:19 options (5) 52:1,4;56:21;57:22, 22 oral (10) 4:12,13;16:18,25; 17:12;20:13,16,18,21; 198:12 orally (1) 171:6 oranges (3) 74:23;138:2,6 order (5) 95:11;130:17,20; 159:13;176:13 Ordinance (2) 4:5;33:24 original (14) 29:22;53:7;54:6; 84:1;114:18;115:2,4; 122:19;142:17;144:15, 18;150:8;158:7;185:15 originally (3) 139:18;158:6;160:18 others (1) 106:16 otherwise (1) 111:23 out (57) 13:25;18:3,11;19:21; 21:9;26:6;28:22;29:10; 36:10;39:9,13;40:1; 47:11;48:12;53:1,18; 54:5;55:5;57:3;58:5; 60:1,5;66:6;67:24; 70:8;77:6;88:13;97:11; 101:2;105:8;111:23, 24;113:5;122:13,14, 17;129:25;132:23; 138:11;141:12;143:5, 8;157:5,7,9;163:7;
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<p>172:3;173:11;176:1, 21;178:16;184:2; 187:14;191:10;194:13, 13;197:14 Outlook (1) 183:10 outside (5) 50:23;141:13;142:8; 153:18;173:20 over (29) 28:13;36:25;56:6; 58:12,18;63:13,19; 66:4,5;90:2;92:5,10, 12;95:13;98:2;121:3; 137:12,23;143:19; 147:14;148:19,23; 149:2;166:8;174:4; 178:14;182:8;185:20; 191:10 overestimated (1) 97:25 overrule (3) 69:14;121:4;181:24 overruled (1) 126:1 oversight (2) 175:22;176:23 Overview (1) 183:10 own (1) 172:1 oxidation (1) 63:17 oxides (1) 152:3 OZAH (1) 4:4 Ozguven (2) 134:6,6 ozone (38) 35:25;36:1;45:2; 47:13,16,16,25;48:1,5, 9,20;63:15;65:20;68:3; 75:2;113:1;115:23; 116:2,4,8,11;117:17, 23;118:5,19,20,22,23, 24;119:5,10,11,14; 120:4,8,10,20;173:15</p>	<p>133:11,11,12,17,21; 134:24;135:1,4,16; 136:5,6,7,11,14;138:3, 4,9;145:16;160:4,8; 187:16 pages (42) 43:8,10;53:19,20,21; 54:3,5,10,11;55:25; 56:1,10,13;90:13,14, 25;113:23;114:17; 130:12,12;132:3; 135:11,13;158:24; 164:16,19,21;165:11, 22;169:5;182:10,13; 184:12,15;193:16,18, 20;194:2,6,8,15,21 paired (2) 121:9,19 paper (4) 79:3;122:7;128:1; 195:13 papers (2) 135:22;171:7 paragraph (5) 62:22;63:7,8;72:17; 74:25 paragraphs (1) 61:2 parallel (1) 128:25 paraphrased (1) 28:11 Parcel (1) 4:9 Pardon (2) 114:6;129:7 parens (1) 56:9 parentheses (1) 84:16 parenthesis (1) 59:11 parenthetical (1) 92:4 parking (4) 66:4;150:18,19,22 parlance (2) 52:11;151:22 part (26) 12:21;47:14,19; 48:20;50:20;56:17; 74:2;112:21;117:17; 120:21;123:15;129:24; 138:10;140:23;141:10; 144:9;145:4,9;147:25, 25;153:5;162:3; 163:24;166:5;174:7; 177:10 parte (1) 42:17 partiality (1) 11:19 partially (1)</p>	<p>139:7 particular (10) 23:20;51:23;64:23; 65:20;87:8;149:18; 150:5;165:2;181:2,17 particularly (7) 37:24;65:4;78:21; 102:16;112:24;113:1; 161:19 particulars (1) 181:17 particulate (1) 152:4 parties (5) 4:23;8:1;16:18; 24:22;114:3 parts (12) 36:14;42:1,21;104:4, 19,20;105:22;106:21; 107:21;108:5;121:25; 198:8 passenger (4) 133:18;138:3,4; 139:8 past (1) 171:15 Pat (2) 4:25;183:1 patient (1) 24:17 pay (1) 49:14 peak (4) 98:25;108:22,23; 148:16 Pedestrian (1) 156:5 peer-review (2) 176:10,12 peer-reviewed (1) 172:3 pending (6) 85:14,16;93:24,25; 109:7;147:5 people (7) 11:20;31:4,5;33:21; 60:5;64:9;176:1 per (18) 36:14;42:1,2,21,21; 98:16;102:19;104:4, 19,20;105:22;106:21; 107:21;108:6;121:8, 25;139:6;146:13 percent (4) 72:19,21,22;73:2 percentage (1) 23:6 percentile (4) 98:14,20;121:13; 146:9 Perceptions (1) 158:5 performing (1)</p>	<p>59:12 Perhaps (7) 15:14;19:17;68:16; 73:7;111:9;139:12; 155:4 period (6) 24:16;76:24;78:24; 79:7;101:9;107:22 periods (1) 99:1 permissible (1) 177:4 permission (1) 35:2 person (1) 9:18 perspective (1) 73:2 persuaded (1) 33:13 pertain (1) 161:21 pertains (3) 65:4;161:19;162:16 pertinence (1) 21:19 pertinent (2) 21:18;60:10 perusal (1) 43:21 petition (1) 4:4 petitioner (1) 4:6 Petroleum (2) 21:5;57:7 Phase (1) 122:2 photolysis (1) 73:17 photostationary (2) 72:20;73:7 physical (1) 129:15 physics (2) 74:21;77:3 pick (1) 14:22 picked (2) 36:16;163:7 picking (1) 59:12 picture (3) 69:24;84:8,17 pictures (3) 69:22;70:8;96:20 piece (1) 185:1 pieces (8) 13:10;113:18; 133:16;149:21;150:6; 161:17;188:20;189:7 place (4)</p>	<p>4:15;68:24;106:25; 179:13 placed (1) 186:2 placemaking (4) 157:3,20;158:4,10 Places (3) 158:1;163:11,20 Planning (1) 156:5 plant (20) 64:17,18,25,25;65:4, 15;67:15,23;68:25; 69:9,21,24;75:8,9;77:6, 13;78:24;120:12; 177:24;178:6 plants (1) 176:7 play (4) 57:10;58:1;60:6; 156:23 Plaza (1) 4:9 please (8) 4:24;72:16;90:11; 102:6;118:10;133:6; 160:10;166:10 plenty (2) 10:7;34:6 plugged (1) 79:13 plume (35) 63:1,12,13,15;64:18; 65:18;66:3,24;67:2,14, 15,24;68:25;69:9,22, 24,24;70:1,2,3,8;73:16; 74:15;75:2,8,9,10;77:7, 13;78:24;119:20,22; 178:5,6;179:13 plumes (11) 64:17;65:4,15;70:6; 72:10;73:4,12,25;74:8; 120:12;177:24 plume's (1) 63:19 plus (2) 73:16;75:3 pm (4) 112:11;149:10; 167:10;199:3 PM2.5 (3) 37:12,14;40:22 point (67) 8:14;10:14,22;14:10; 16:6;21:12;22:3;23:12, 16,23;25:12,13;30:12; 31:21;33:5;39:19; 40:22;41:15;42:4; 43:23;55:10;57:12,21; 58:13;59:20,24;60:3,5, 11;62:5;64:24;66:1; 67:5;68:25;69:4,8;82:2, 3,3,5;87:5;88:16,17;</p>
P				
<p>package (1) 122:19 page (63) 28:10;51:24;56:18; 59:7;61:2;62:13;63:3; 65:14;71:21;72:11,14; 80:8;82:11,23,25; 83:16,17,25;84:1,4,9, 12;85:1;91:8,19;92:1; 94:25;96:14,15,20; 98:7;130:13,14,21,22, 24;131:1,6,8,9,17,24;</p>				

<p>95:19,21;100:13; 112:23;118:10;126:19; 134:10;138:19;139:16, 21,23;140:9;167:15; 171:16;172:18;173:1, 3,3,6;174:2;175:14,15; 176:9;177:5;180:2 pointed (3) 13:25;173:11;176:20 points (6) 23:19;24:11;25:11; 138:10;149:5;160:9 policy (2) 33:22;162:4 pollutants (2) 75:17;152:4 pollution (1) 8:17 Port (2) 189:10,25 portion (11) 27:2;32:7;66:6; 77:23;138:11;158:13, 16;159:9,23;161:10; 162:14 portions (3) 33:23;163:8;195:25 posing (1) 111:3 position (7) 13:9;15:6;16:4;58:9; 108:21;109:1;171:18 positions (1) 31:14 possibility (12) 98:23,25;99:4; 102:12;103:7,10,15; 106:25;107:20;109:10; 120:23;149:17 possible (7) 16:25;36:6;73:3; 93:14;106:24;180:17; 193:13 possibly (1) 47:14 posted (2) 59:19,21 posting (1) 59:15 post-liminary (1) 195:10 postpone (1) 17:18 postulate (1) 104:17 potential (4) 34:3;106:20;140:1; 198:13 potentially (1) 140:10 power (20) 64:17,18,25;65:4,14; 67:15,23;68:25;69:9,</p>	<p>21,24;75:8,9;77:6,13; 78:24;120:12;176:7; 177:24;178:6 PowerPoint (14) 79:21;81:6;123:23; 124:8;132:5;159:9; 162:20,24;163:11,13; 164:3,24;165:17,24 ppb (2) 102:19,19 precise (1) 34:25 precisely (2) 174:1;181:6 precludes (1) 103:20 predicted (2) 98:13;146:9 predominantly (1) 27:10 prefer (2) 13:7;49:5 preferable (1) 17:22 preference (3) 32:3;36:4;38:6 prejudice (1) 140:2 prejudicial (1) 138:12 preliminarily (1) 22:4 Preliminary (6) 6:16;20:22;33:4; 34:16;38:23;195:14 prepared (1) 76:4 preparing (1) 132:4 presentation (8) 25:9;123:23;163:11, 13;164:3,23;165:17; 169:7 presentations (1) 170:13 presented (3) 59:9;120:7;135:24 pressed (1) 178:3 presumably (1) 67:19 presume (5) 27:5,5;37:1;100:19; 196:15 presumed (1) 10:24 pretend (1) 22:15 pretty (7) 70:10;88:20;90:7; 157:22;158:22;172:18; 173:14 previous (3)</p>	<p>37:17;42:19;70:10 previously (12) 25:14;34:22;35:8,11; 122:7;133:17;134:24; 147:16;149:20;196:15, 18,25 principle (2) 94:21;95:18 print (2) 53:19;54:5 printed (4) 27:18;53:18;194:13, 13 printing (1) 169:11 prior (9) 21:23;26:2;38:11,16; 52:6;127:18;131:10, 11;175:24 privilege (1) 48:12 probability (2) 98:23;151:25 probably (11) 17:14;18:13,21; 53:14;57:20;136:17; 154:22;161:1;165:14; 169:1;185:16 problem (6) 17:13;20:1;132:18; 151:20;185:3;196:4 problematic (2) 11:21;65:4 problems (1) 15:4 procedural (1) 20:22 procedures (1) 176:22 proceed (2) 60:25;85:18 proceeding (7) 12:17;30:18;32:15; 51:20;140:3;173:21,25 proceedings (2) 33:19;171:13 process (19) 7:24;8:25;32:14; 33:19;43:21;44:2,15; 55:6;68:17;69:8,18; 142:4;175:25;176:10, 12,23;178:13;197:6,12 processes (2) 63:17;172:10 produced (1) 27:1 professional (4) 46:23;121:21;197:9, 12 proffer (3) 61:17,21;62:10 profile (5) 76:21;79:14;80:5;</p>	<p>82:8;85:13 profiles (1) 87:5 program (2) 16:13;110:3 prolong (1) 11:22 prolonging (1) 14:17 pronounce (1) 134:5 proof (2) 110:21;111:2 properly (2) 120:19;137:2 properties (1) 160:21 property (2) 158:11;195:15 proposal (1) 14:2 propose (1) 4:14 proposed (8) 12:25;73:21;92:15; 104:9;106:5;146:11; 155:25;178:15 proposing (1) 16:17 Prosperous (3) 158:1;163:10,20 protocol (23) 28:14,15,17,18,23, 25,25;37:10,12,22,25; 40:14,25;41:9;42:10; 44:4,10;113:6,8,11; 114:4;115:11,16 provide (8) 14:14,20;126:20; 127:7;136:12;137:10, 15;196:1 provided (16) 24:25;73:12;74:3; 75:21;76:12;109:14, 17,25;110:13;126:19; 136:21,24;137:4,7; 161:4;178:11 provides (2) 160:11;161:5 proximity (6) 45:16,16;46:11,16; 50:7;117:18 PTP (1) 65:9 public (3) 4:2;33:22;52:6 published (4) 53:9;56:16;135:17; 176:12 pull (5) 53:14;111:23;157:5; 164:15;165:12 pulling (1)</p>	<p>157:6 pumps (1) 4:7 purple (5) 183:24;184:1,3,4,4 purporting (1) 138:22 purpose (6) 61:11;94:24;100:17; 101:1,10;113:3 purposes (2) 106:15;115:20 pursuant (1) 4:5 pursue (3) 34:13;66:15,20 put (49) 8:16;10:5;11:25; 12:15;13:13;23:17; 25:23;26:1;28:7;35:17; 54:15;55:21;56:9;57:9; 60:1;71:18;72:4;80:10, 17,19;94:10;100:10; 104:16;113:20;118:11; 127:25;130:20,25; 131:1,2,25;133:10,17, 24,25;151:24;154:22, 23;156:16;161:4; 162:6;166:4;168:16, 20,23;172:2;175:20; 182:11;189:14 puts (2) 53:1;160:15 putting (4) 9:11;94:21;130:19; 157:9 PVMRM (1) 119:22</p>
Q				
				<p>qualified (4) 63:24;66:8;79:1; 100:9 qualifier (1) 107:7 qualify (7) 64:15;65:1,17;74:13; 77:10;92:17;106:24 qualitative (1) 79:12 Quality (10) 102:10;105:19; 126:11;128:15;133:13; 135:5,12;140:22; 141:6;189:10 quasi-government (1) 134:11 quasi-judicial (1) 176:13 queue (11) 39:1;66:4;67:14; 69:8,19;86:12;94:7,11;</p>

<p>119:9;150:20;151:11 quickly (4) 69:8,19;145:1;164:6 quiet (1) 64:12 quite (5) 9:14;55:7;108:25; 115:17;141:2 quotable (1) 12:10 quote (4) 12:8;28:11;52:5; 75:20 quoted (1) 134:4 quoting (1) 28:12</p>	<p>63:17;68:24;119:10 read (9) 33:23;58:6;63:19; 65:14;72:16;74:2; 101:7;194:23,23 readers (1) 33:18 readily (2) 109:23;110:5 reading (7) 33:8;52:17,18;58:4, 5;60:1;100:7 reads (2) 63:12;92:5 ready (1) 167:13 realize (3) 91:11;157:5;194:21 realized (3) 27:15;28:24;154:12 really (29) 12:5,19;13:10,22; 22:19;23:11,21;27:1, 12,13;31:2,10;36:9; 40:5;54:6;82:4;83:3; 115:14;139:17,24; 140:6;147:16;148:3; 165:1,19,22;168:24,25; 178:19 rearguing (1) 175:14 reason (15) 19:18;58:22;77:1; 84:22;94:20;100:21; 112:22;117:21;120:2, 6,10;133:24;140:9; 165:6;196:20 reasonableness (1) 31:13 reasonably (1) 19:21 reasons (1) 28:6 rebuttal (23) 9:2,9;21:14;22:8,9; 26:12;43:19;58:20; 102:23;112:25;120:6; 121:11;134:14;147:10; 170:1,10;173:22; 175:17;177:15;179:2; 180:21,22;181:25 recall (30) 7:17;21:6;23:4;26:7; 36:20;37:23,25;41:4; 43:6;48:14;57:21; 58:15,16,17;89:5,6,13; 96:13;103:19;105:9; 108:17;113:11,22; 126:5;141:24;142:18; 143:17,19;157:22; 163:19 received (9) 14:21;52:10;137:9;</p>	<p>155:10;176:19,20; 192:17;195:12;196:19 recent (1) 59:14 receptors (2) 68:23;105:18 recess (7) 60:19,20;99:19; 112:11;149:10;167:9, 10 recognize (2) 74:14;181:8 recognized (2) 73:12;74:1 recollection (14) 36:24;40:13,15,16, 17,18,20,23;47:17; 49:1;105:8,13;141:20; 161:16 recommend (1) 112:20 recommendation (2) 4:22;38:15 recommended (2) 20:14;59:9 record (52) 5:24;10:10;16:24; 18:2;20:12;26:1,5,16, 18;29:21,23;34:13; 35:24;37:19;39:4; 44:25;50:20;53:17; 60:22;61:19;77:20,21; 99:21;101:7;105:15; 112:13;114:4;115:4; 130:11;131:6;133:3,3, 11,18,24;138:10; 139:12;149:12;155:17; 156:22;159:6,15; 167:12;170:5;186:2,5, 15;187:11;189:20; 197:10,14;198:14 recorded (2) 47:14,19 records (1) 48:20 recross (5) 152:24;153:1,22,24; 154:1 red (2) 183:21,24 reddish (1) 184:3 redirect (9) 111:18;112:14,16; 132:14;143:23;153:7, 11,15,19 redline (7) 27:20;29:3,14;30:3, 5;186:4,9 redlines (4) 29:25;30:2;185:2,13 reduced (2) 44:15;178:14</p>	<p>redundant (1) 14:24 refer (3) 35:7;56:21;87:16 reference (12) 11:5;71:7;76:16; 97:15;98:9;100:22; 115:13;170:16,19; 183:20;184:19,22 referenced (12) 9:12;71:6;85:5; 96:18;113:14;127:10, 18,19;130:3;138:16; 160:2;186:24 references (8) 11:2;96:14,15; 115:10;127:20;138:6; 179:10;187:16 referencing (8) 55:25;59:17,23; 61:11;71:24;96:19; 99:10;122:18 referred (4) 51:24;56:19;70:19; 126:18 referring (15) 26:20;39:6;42:20; 46:7;55:12,15;71:21; 76:2;79:23;80:6;98:17; 104:15;126:16;137:4; 150:3 refers (1) 64:16 refine (1) 181:13 refinement (3) 59:10,15;171:25 refinements (1) 181:3 refineries (1) 64:24 reflect (1) 156:22 reflected (2) 139:8,20 reflection (1) 169:7 refresh (2) 49:1;141:20 regard (7) 22:5;35:3;113:2; 120:4;121:1;149:19; 166:14 regarding (9) 7:13,14,16;34:2; 37:21;38:16;62:7; 85:15;196:9 regardless (2) 120:17,18 regards (1) 24:17 regime (1) 94:13</p>	<p>region (1) 73:5 regional (1) 47:16 Register (2) 53:12;56:16 regular (2) 62:18,20 regulatory (8) 52:2,21,23;53:8; 56:9;57:15;73:2; 172:10 reshashing (2) 147:15;152:8 reinforces (1) 133:10 rejected (2) 178:1;179:23 rejects (1) 57:18 relates (2) 116:4;146:17 relating (3) 7:19;162:20,24 relationship (2) 36:7;70:7 relationships (1) 46:22 relative (1) 41:17 release (2) 52:6;183:10 released (2) 53:3;112:25 relevance (1) 10:18 relevant (7) 12:5,17;14:25;53:19, 25;54:5;153:4 reliability (3) 15:4;171:11;173:24 reliable (2) 90:5;172:19 relied (5) 109:15;127:7,9,15; 177:16 relies (4) 126:20;128:1; 177:19;179:18 rely (3) 11:6;138:8;171:7 relying (2) 136:22;160:19 remain (2) 16:24;24:15 remaining (1) 169:25 remains (3) 10:21;44:16;68:3 remarkably (1) 198:9 remember (12) 27:5;41:2,5;43:10;</p>
R				
<p>raise (7) 22:1;25:21;33:4; 112:23;146:14;154:20; 167:15 raised (8) 11:19;13:17;38:23; 42:18;112:21;149:21; 170:9;179:4 raises (1) 165:3 ran (1) 110:13 range (1) 121:12 ranges (1) 72:10 rapid (2) 78:22,22 rapidly (2) 70:9;73:6 rate (8) 65:1;73:16,17;75:3, 14;119:22,24;152:3 rather (7) 27:3;47:17;56:1; 124:21;145:13;179:19; 185:17 ratio (7) 38:25;39:13,17; 50:16;51:12;151:23; 171:25 ratios (1) 63:18 Raynor (4) 127:17,17;137:3,22 reach (2) 82:5;157:10 reached (4) 14:16;38:16;103:4; 176:1 react (2) 68:3,20 reaction (3)</p>				

84:17;89:1;108:25; 123:14;124:1;182:21; 191:1,2 remembers (1) 6:3 remind (1) 172:10 remove (1) 155:4 repeat (5) 79:2;103:11;116:6; 141:1;146:17 repeatedly (2) 69:13;104:8 repetitive (1) 14:24 rephrase (1) 94:2 replicate (1) 95:18 reply (4) 7:6;16:10;16;169:21 report (114) 4:22;7:13;26:12; 28:22;41:9;43:18,19; 59:17,24;61:11;64:15, 23;66:1;70:18;71:8,22; 73:20;79:1;101:18; 102:22,23;112:25; 120:7;121:11;123:19, 22,24;124:4,6,9,10,13, 15;125:4,5,11,12,23; 126:15;127:17;134:1, 5,6,14;136:12,12; 137:3,22;142:18; 143:15,16;144:22; 145:19,21;147:10,11; 154:13,14,16;158:13, 14,17;159:9,14,15; 160:4;163:21;164:3, 16,17;165:7,9,10,15, 16,18,19,20,21;166:11; 167:16,17,21,22;168:5, 7,10;169:8,14;170:2, 10,21;171:10;172:3,5; 173:22;174:12,23; 175:17,21;176:4,10,12; 177:15;178:4,8;179:2, 10;180:22;181:25; 182:7,25;188:2;191:22 reported (2) 134:13;146:12 reporter (1) 197:16 reports (17) 10:24;33:9;43:17,17, 25;102:17;113:19; 127:2,9,18;133:25; 146:22;147:8;150:6; 151:4;156:4;179:17 represent (1) 81:24 representation (1)	94:19 representative (8) 35:19;36:3;37:16; 38:10;45:12;46:6,23; 50:6 representativeness (2) 46:3,16 represents (1) 94:20 requested (1) 16:19 require (1) 176:23 required (2) 67:13;180:3 requirement (2) 49:24;176:11 rescinded (1) 170:1 research (6) 31:7;123:2;128:6; 132:10;191:22;195:14 resolve (3) 15:11;167:13;181:9 resolved (3) 169:20;172:14,15 resources (2) 10:8;111:12 respect (8) 11:19;32:19;117:3,7, 15;119:4;140:20; 143:22 respectfully (1) 34:9 respects (3) 101:20;171:15;174:2 respiratory (1) 191:23 respond (5) 10:15;60:23;138:12; 174:20;179:8 response (8) 115:3,6;129:10; 138:21;144:1;155:11; 174:25;181:23 responsibility (1) 33:25 responsive (4) 12:23;132:20;152:7; 153:7 rest (1) 78:17 resubmitted (1) 154:22 result (5) 63:17;98:5;99:1; 134:14;175:12 results (4) 87:22;128:25; 178:15;182:17 resume (2) 20:14;38:20 Resumed (1)	40:9 resumption (1) 34:17 retain (2) 100:5;175:11 retained (1) 172:12 return (2) 13:1;100:4 reverse (1) 130:16 re-version (1) 23:10 review (6) 27:12;72:9;137:5; 176:15;185:11;197:15 reviewed (6) 52:12;88:23;103:17, 21;133:7;177:12 reviewers (1) 187:8 reviewing (2) 122:12;154:12 revised (2) 155:6,7 revision (1) 23:10 re-zoning (1) 20:21 rides (1) 19:2 right (299) 5:20,23;6:2,9,12,16; 7:1,21,23;8:5,5,18;9:6; 11:3,12;12:1,3;13:3; 15:9,16;16:1,5;19:8,16, 25;20:9,9,17;22:20; 24:21;26:11,11,15; 27:9,17,25;29:6,12,12, 12,19,19;30:6,8,8,9; 31:6,20;32:1,5,19,25; 33:3;34:11,15;35:1,17, 20;36:20;38:2,6,13,19, 20;39:22,24;40:2,4; 43:1;45:21;48:13,16, 18;49:11,19,22;50:21; 51:14;52:16;53:4;54:4, 4,8,12,14,23;55:14,14, 17,23;56:4,22;57:5; 58:23;59:4;60:15,22, 25;61:3,6;64:13;65:11; 68:1;71:19,23;72:7; 75:9,22;78:8;81:13,17; 82:10,14;83:13,19,20; 84:19,23,23,25;85:9, 12,12,14;86:19;87:21; 88:2,8;90:12,21;91:1, 18;92:2,11;93:9,16,16; 96:9;97:16;100:4,12; 101:2,8,13,21,21; 104:14;105:14,23; 106:19,22;107:14; 108:7;110:7;112:3,6;	114:16;115:8,17; 117:25;119:19;121:17; 122:10;124:3,14,20,22; 125:1,9,18,25;128:4,7, 17;129:6,11,18,21; 130:15,19;131:9,19; 132:8,25;134:9;135:2, 14,23;136:16;138:17; 139:1,10;142:15; 143:3;144:23,23; 145:2;146:5;148:13, 21;149:8,8;150:15; 153:21;154:1,8,24; 155:15;156:17,19,23, 24,25;157:4,12,16,17, 21;158:3,8,21;159:7, 12,16,20;160:3,5; 161:8,11,20;162:15,17, 18,25;163:18,21,25; 164:2;165:14;166:9, 16;167:7,9,12,24; 168:9,18;169:14,19; 171:1;174:14;175:4,9, 10,13;179:9;182:2; 183:2,4,14,18;184:6, 14,21,24,25,25;186:7, 8;187:9,12,15,18,22; 188:5,17;189:3; 190:17,22,25;191:7,11; 193:1,4,7,12,22;194:4, 17,21,25;195:1,4,6,9,9; 196:9,12;197:7 right-hand (3) 86:16;97:5;135:16 rigorous (2) 52:5;60:3 ring (4) 89:3,10;150:19; 151:16 risk (2) 187:6;193:15 Road (8) 4:8;89:3,10;141:16; 143:1;150:19;151:16, 25 roads (1) 143:1 roadway (4) 146:23;147:8;148:2; 151:22 roadways (23) 66:2;139:9;140:23; 141:10,14,15,21;143:3, 4,5,6,8,10;144:6,7,8,16, 17;146:7,11,17,19; 150:20 Rockville (5) 37:13;38:14;117:7, 10,12 Roman (1) 62:18 room (4) 4:16;16:19;20:16;	198:12 ROSENFELD (154) 5:9,9;6:1,5,10,13,15, 21,24;8:4;10:15,16,21; 14:1;15:8;18:9,13,18, 21,23;19:3,6,10;53:21, 25;55:24;58:24;61:16; 71:2,5,7,12;81:7,9,11, 16;83:2,22,25;84:5,9, 12,15;85:2,8,10;96:19, 23;97:2,4,11,15;102:6; 105:1,4,12;111:19,22; 112:3,15,17;113:16; 115:16,17,18;116:20, 22;117:6,14;118:16; 122:11,21,23,25;123:1, 18;125:14;126:8,24; 131:6,13,16,20;132:4, 9,15;133:1,5;135:10, 15,20;137:9,13;138:21, 24;140:18;141:3,8,15, 18,23;143:10,13,21; 144:20,25;145:9,15,20, 24;146:3,6,18,25; 147:6;148:22,25; 149:3,5,7,12,13,14; 152:10,12,23;153:17; 154:25;155:2,8,10; 156:12,14;158:25; 159:18;164:8,17; 165:6,10;166:3;168:2; 169:22,25;170:4,8,20; 178:20,24;184:9; 185:25;188:8;191:20; 196:5;198:22 Rosenfeld's (2) 14:18;15:3 roughness (28) 67:2;70:6;75:11,12, 13,25;76:22;77:11; 78:21;79:10,10,11; 80:15;81:25,25;82:1,2; 86:2;87:4,7;88:19; 92:3,4,5,12;94:19; 95:24;96:3 route (2) 10:9;50:2 rule (8) 21:23;22:4;25:5,7; 58:12;100:13;147:24; 148:8 rules (1) 30:17 ruling (3) 32:5;170:12;181:24 run (3) 110:3;111:8;187:6 rural (5) 37:18;50:1,3;117:2,9 rush (3) 9:17;10:12;185:25
--	---	--	---	--

S	58:8;74:10;171:11; 172:16;173:24;177:16; 178:1;179:21,23,24; 181:9,10,16	62:10;142:24;170:15	shown (6) 93:1;102:25;103:22; 113:19;122:8;185:2	129:20;133:8
S-2863 (1) 4:4	scientifically (2) 172:19,19	sent (3) 26:5;137:12,22	shows (11) 23:10;76:12;121:11; 128:25;136:13;178:17; 180:5;183:21,22,24; 184:22	sinkholes (1) 156:17
sake (1) 159:13	scope (16) 21:9;33:24;34:3,5; 50:23;58:19,20;59:3; 61:18,19;123:12; 124:23;126:6;143:18, 23;153:18	sentence (8) 61:3;62:24;63:6,7; 74:3;77:25;78:10,18	sick (2) 166:20,23	site (40) 4:8;34:4;35:4,19; 36:1,5,7,16,17,22;37:1, 4,5,6,9,15,24;38:4,17; 40:25;41:1;44:25;45:4, 12,17,17;46:3;49:1; 50:8;75:25;88:24; 89:16;115:24;116:16; 118:5;121:6,7,22; 146:11;195:25
same (38) 12:10,24;13:15;26:9; 31:17;36:1,7;39:20; 49:15;52:11;58:4;72:7; 74:11,21;77:11;79:6,6; 83:19;85:1,13,91:6; 100:25;115:23;116:3; 117:23;134:21;135:11, 24;136:15;144:2; 161:14,15;163:24; 165:14;192:9,22; 193:5,6	SCRAM (1) 59:16	sentences (6) 100:8,11,17,18,23; 101:7	side (8) 6:18;45:18;82:10; 86:16;114:24;117:20; 118:3;124:18	sites (12) 36:11,13;37:19;38:7; 40:13,19;45:3;48:6,8; 103:17;178:16;195:15
San (1) 134:22	S-C-R-A-M (1) 59:16	separately (1) 170:5	sides (4) 13:8;31:25;32:17; 128:9	situation (9) 75:7;177:17,20,23; 179:24;180:1,20,25; 181:17
Sarah (3) 157:6;188:1;193:2	screen (5) 71:18;72:4;80:10,17, 19	September (4) 125:20;133:9; 134:23;136:12	significant (1) 182:18	situations (1) 73:21
satisfied (2) 170:13;180:11	screening (1) 59:13	sequence (1) 103:19	silent (1) 24:15	six (1) 49:15
Saturday (1) 16:12	scrutiny (5) 44:1,16;176:10,15, 20	serious (1) 151:21	Silver (1) 4:8	skipped (1) 58:18
SAVAGE (2) 166:20,23	second (32) 4:16;7:23;16:19; 17:10;20:15;23:11,17; 34:24;36:12,12;40:25; 45:2;52:23;56:10; 62:22,24;63:6,7;64:21, 21;71:25;84:21; 126:25;129:7;130:7; 138:18;157:4;160:4,8; 162:23;176:5;198:12	seriously (1) 31:10	SILVERMAN (82) 5:12,13;6:7;8:7,10, 12,15,20;9:7,8;10:2; 11:7,10,13,16;12:4; 13:4,9,16,19;14:6; 15:22;18:1;19:2;20:23; 21:1;22:5,23,25;30:20, 23;31:18;32:2;33:4,7; 39:24;41:23;50:16,22; 54:18,19,20,24;58:13, 15,24;71:4,6;80:10,16; 81:10,12,17,19;85:9; 92:8;97:9,14;99:16,18; 100:15,18;111:25; 112:1,5;114:5,7; 125:12;128:18;139:16; 152:25;153:2,6,8,12, 20;166:2;174:17; 189:13;190:1;196:7; 198:23	slash (5) 52:19,21,24;53:8; 56:9
save (3) 112:7;174:7,7	Secondly (3) 65:21;74:10;121:9	session (5) 4:12,13;16:17;78:11, 15	slide (17) 79:16,21;80:4,5,9,24, 25;81:1;82:13,14,15; 83:3,25;92:14;122:9, 10,17	slides (7) 35:6,8,13;76:15; 125:10,14;163:12
saw (3) 41:9;89:9;177:7	seconds (2) 73:8;75:10	set (1) 35:18	slope (1) 89:3	slower (8) 23:7;75:15,16;76:23; 87:7;88:20;94:23; 152:2
saying (32) 10:4;18:17;29:1; 36:25;37:20;44:14; 56:23,24;57:1,12;58:6; 65:3;79:3;81:23;83:4; 85:4;86:6;93:6,11; 104:24;106:19;108:8, 11,12;131:17;135:2; 138:21;161:21;168:12; 171:16;181:12;194:3	secret (1) 113:9	settle (1) 167:21	slows (1) 75:14	small (1) 74:7
scale (2) 70:7;120:14	Section (2) 4:5;163:15	several (6) 66:12;69:25;133:25; 136:19;137:5;174:22	slightly (3) 28:6,11;36:17	smaller-scale (1) 70:8
scale-down (1) 134:8	seeing (6) 71:14,15;92:22; 113:22;191:1,2	Shall (1) 154:8	slope (1) 89:3	smokestack (1) 176:7
scales (4) 69:20;74:12,22; 77:12	seeking (1) 101:11	shape (3) 51:20;52:13;58:3	slower (8) 23:7;75:15,16;76:23; 87:7;88:20;94:23; 152:2	software (4) 109:17,19,21;110:2
scale-up (1) 123:5	seems (10) 9:1;21:8,15;22:17; 95:25;137:18;147:14; 172:16;181:6,13	Share (1) 19:2	slows (1) 75:14	somebody (2) 6:3;26:24
scare (2) 169:23,24	seconds (2) 73:8;75:10	sharing (1) 81:10	small (1) 74:7	somebody's (1) 188:1
scheduled (1) 7:2	secret (1) 113:9	Sheveiko (4) 129:9,10,13,15	smaller-scale (1) 70:8	
schemes (2) 72:17,18	Section (2) 4:5;163:15	short (7) 72:10;99:13;114:23; 144:25;145:8,8;155:14	smallest (1) 85:6	
science (1) 15:4	seeing (6) 71:14,15;92:22; 113:22;191:1,2	shorter (1) 68:22	similarity (2) 73:10,23	
scientific (21) 31:4,16;32:12;43:21; 45:25;52:9,10;54:20;	select (1) 14:22	shortly (1) 4:18	simple (4) 77:3,4;171:14; 173:14	
	selected (3) 36:22;38:3,9	show (23) 21:11;25:17;27:20; 47:2;61:14;77:21; 79:17,22;90:8;92:14; 94:21;95:18;98:18; 114:8;138:22,22; 145:24,25;146:8; 152:2;174:12;179:18; 180:3	simplest (1) 85:6	
	selecting (1) 115:20	showed (5) 69:22,24;70:8;75:13; 134:4	simply (10) 44:2;58:1;59:25; 78:19;92:19,24; 118:24;173:17;174:8; 181:11	
	selection (2) 112:19;152:14	showing (7) 83:18;87:22;103:1; 122:2;132:5;134:13; 145:16	Simulator (2)	
	send (3) 137:16,20;164:4			
	sense (6) 9:21;10:14;11:4;			

<p>somehow (1) 90:13</p> <p>someone (2) 31:2;95:20</p> <p>somewhat (2) 100:9;128:24</p> <p>somewhere (7) 53:9;74:6;104:18; 107:20;121:15,15; 194:19</p> <p>soon (1) 24:25</p> <p>sorry (30) 16:22;65:24;66:17; 73:5;81:23;90:16,18; 91:2,4,4;96:9;103:11; 115:16;116:6;117:7; 127:13;128:16;129:6, 7;130:12;136:8;141:1; 145:22;153:16,23; 157:23;183:6;191:21; 193:16;195:18</p> <p>sort (4) 9:16;15:23;31:13; 37:18</p> <p>sound (2) 29:6;167:7</p> <p>sounds (1) 29:16</p> <p>source (4) 12:15,15;74:16; 149:25</p> <p>source-receptor (1) 46:22</p> <p>sources (15) 32:12;64:24;65:23; 66:1,1;68:20;69:6,6; 74:8;120:13;149:23; 150:16,17;151:5,12</p> <p>South (4) 18:23;19:5;89:3; 143:2</p> <p>space (1) 50:3</p> <p>Spanish (1) 136:9</p> <p>spare (1) 157:21</p> <p>speak (4) 6:3;17:4;39:11;64:2</p> <p>SPEAKER (1) 168:11</p> <p>speaking (1) 22:23</p> <p>speaks (1) 31:22</p> <p>special (2) 4:5;142:4</p> <p>specific (7) 27:5;76:2;82:2;99:6, 10;133:16;139:25</p> <p>specifically (9) 40:19;46:8;47:17;</p>	<p>56:10,18,20;57:23; 133:16;142:3</p> <p>speed (19) 67:6;73:15;75:2,15, 15,16;82:4;86:9,22,24; 87:2,8,12;88:5,9,10,20; 133:20;179:17</p> <p>speeds (4) 76:24;94:22,24; 152:2</p> <p>spent (4) 118:17;120:2;174:2; 197:19</p> <p>spoke (1) 127:16</p> <p>Spring (1) 4:9</p> <p>squares (2) 184:16,23</p> <p>stability (1) 77:11</p> <p>stable (3) 69:23,25;70:3</p> <p>stack (5) 67:15,24;69:9,22; 179:13</p> <p>stacks (1) 177:24</p> <p>staff (2) 142:17;194:21</p> <p>Stage (17) 21:16;55:6,7;62:7; 122:3,5,5;140:2,2; 171:21,22;172:4,6; 173:5,7,8,8</p> <p>stages (1) 55:7</p> <p>stand (12) 7:22;13:1;98:16,24; 99:4;102:9;125:22; 126:18;127:20;131:10; 132:11;176:24</p> <p>standard (28) 41:18;51:19;76:19; 98:24;99:2;102:10; 103:6,24;104:2,3,4,6,7, 13,15,18,20;105:11; 106:13,14;108:1,9; 120:24;144:4,5; 171:12;172:12;174:13</p> <p>standards (5) 51:21;103:16; 106:11;107:9,24</p> <p>standing (1) 52:8</p> <p>stapled (1) 90:15</p> <p>start (2) 12:18;173:20</p> <p>started (1) 42:4</p> <p>starting (1) 172:18</p>	<p>state (7) 72:21;73:7;105:14; 157:3;162:1;171:6,6</p> <p>stated (6) 36:21;68:5;78:19; 171:9;172:9;177:15</p> <p>Stated-Preference (1) 195:14</p> <p>statement (13) 31:2;63:22,23;65:14; 68:14;73:19;74:11; 79:1;94:15;99:3; 103:20;108:16,16</p> <p>statements (2) 52:8;77:24</p> <p>states (1) 151:23</p> <p>station (36) 4:7;67:14;69:8,19; 73:22;77:5;86:11; 88:12,14,92:16;94:7, 13,16,16,20;95:18; 97:22;98:1,15,21,25; 102:9;103:5,15,23; 106:5;107:20;108:22; 121:14;140:20;141:4; 146:11;151:9;158:11; 160:20;178:15</p> <p>stations (5) 33:14;36:10;165:19, 21,25</p> <p>status (1) 59:2</p> <p>stays (1) 26:4</p> <p>step (1) 57:25</p> <p>stepping (1) 173:20</p> <p>still (11) 34:12,20;41:19; 42:13;77:19;100:5; 180:5;197:23,25; 198:1,2</p> <p>stood (2) 9:9;36:10</p> <p>Stop (4) 5:13,16;30:19;58:22</p> <p>straight (1) 194:16</p> <p>straighten (1) 40:1</p> <p>straightforward (1) 88:21</p> <p>strange (1) 130:13</p> <p>Street (8) 36:11,12,18;37:6; 38:4;112:19;121:7,14</p> <p>stricken (1) 175:22</p> <p>stricter (1) 172:12</p>	<p>strike (4) 174:22;175:19; 176:3;186:21</p> <p>struck (1) 13:8</p> <p>structure (2) 94:16;95:4</p> <p>structures (1) 97:22</p> <p>stuck (1) 115:9</p> <p>studies (14) 64:16;65:21,25; 120:11;125:23;126:18; 127:9,22,23;134:2,11; 140:8;152:1,2</p> <p>study (18) 73:20;89:2;122:6; 123:9;125:17,21; 126:10;128:14;132:21; 134:3,6;135:2,3,3; 136:14;153:3;157:3; 158:15</p> <p>stuff (5) 8:16,17;9:1;22:16; 111:23</p> <p>sub (8) 79:13;82:2;87:4,14, 16,19;184:13;194:8</p> <p>subject (9) 4:8;32:10,13;46:21; 61:25;66:22;130:10; 147:16;148:23</p> <p>subjected (1) 176:12</p> <p>submission (2) 149:22;150:2</p> <p>submissions (2) 197:3;198:15</p> <p>submit (8) 30:5;71:18;114:21; 158:12,16;170:22; 172:6;196:2</p> <p>submittals (1) 37:17</p> <p>submitted (27) 7:13;8:24;11:1; 14:22;22:24;24:18; 30:14,15,21;32:19; 35:9,11;115:15; 124:12;134:19;154:13; 155:5;158:13,14,15; 159:11;163:3;182:25; 190:11;191:15;196:14; 198:16</p> <p>submitting (6) 7:11,15;8:24;31:15; 61:10;160:12</p> <p>subsequent (4) 84:5;146:22;147:8; 187:8</p> <p>subsequently (1) 190:5</p>	<p>substance (1) 13:5</p> <p>substantially (2) 133:22;146:15</p> <p>substantiate (1) 139:13</p> <p>substantiates (2) 31:13;139:13</p> <p>substitute (12) 85:7,12;96:16;97:17; 182:13;184:10,11; 185:1;186:19,21; 194:20,20</p> <p>substituted (3) 84:18,25;193:22</p> <p>substituting (2) 182:9;186:17</p> <p>substitution (1) 185:6</p> <p>subsumed (1) 150:24</p> <p>suburban (5) 36:3;45:9,10,14; 49:24</p> <p>successive (1) 102:16</p> <p>suddenly (1) 42:2</p> <p>sufficient (1) 140:9</p> <p>sufficiently (1) 11:21</p> <p>suggest (4) 25:16;72:18;73:11, 24</p> <p>suggested (4) 14:1;43:3;44:18; 55:4</p> <p>suggesting (6) 56:22;57:18;92:20; 98:3,4;120:7</p> <p>suggests (1) 73:4</p> <p>Sullivan (56) 5:22;21:6;28:19,22; 29:1;37:10;38:25;39:4; 40:6,14;41:13;42:8,14, 17;43:15;58:15,17; 59:3;62:8;69:23;75:11; 78:3;109:14;110:13; 118:22;119:5,25; 120:6;123:25;125:22; 126:18;127:15;134:4, 13;137:6;143:14; 144:22;145:19,21; 146:22;151:5;172:1; 174:3;175:17;176:18; 177:1,14;178:12; 179:3,6,18,19;180:13, 22;181:3,4</p> <p>Sullivan's (8) 27:14;43:14;71:7; 88:23;174:22;175:21;</p>
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176:10;180:18 summarize (1) 120:25 summary (18) 7:16;23:3;164:9,11, 14,17,25;165:4,7,13, 15,18;167:17;168:5, 10;169:6,13;186:17 summer (2) 47:15;57:7 Sunday (1) 16:16 supplanting (3) 162:8,12,13 supplement (1) 170:17 supplemented (1) 196:13 supplements (1) 196:14 supply (1) 188:1 support (7) 15:6;120:25;133:14; 136:20;149:19;160:20; 179:10 supported (3) 149:16;171:9;179:21 supporting (3) 59:18,24;161:1 supports (1) 178:17 suppose (2) 100:7;115:15 supposed (4) 7:20;84:18;91:2; 196:1 sure (61) 6:3;7:7;10:11;13:4, 24,24;18:9,10;19:21; 21:11;26:2;30:1;39:5; 44:5;46:9,13;48:13; 55:7;56:5;67:22;71:2, 4;72:1;74:11;77:23; 85:10;89:13;94:1; 96:17;97:6;98:17; 101:2;102:1;103:12, 14;104:23;109:1,23; 113:19;114:25;116:17; 136:19;142:16,22; 143:25;145:12;154:14; 161:20,21;165:1,1,22; 169:6,6;170:18; 188:25;189:5,20; 194:19;196:20,22 surface (33) 67:2;70:6;75:11,12, 13,25;76:22,23;77:11; 78:21,22,23;79:10,11; 81:25;82:2;86:2,11; 87:4,6,7;88:19;89:16; 92:5,13,15;94:6,19; 95:2,13,24;96:3;98:1	surprise (2) 12:12;114:15 surprising (1) 178:9 surrebuttal (6) 7:3;34:18;40:9; 112:16;132:14;153:1 surrounding (2) 94:14;143:11 Sustained (1) 147:2 SUV (1) 97:21 sworn (1) 34:22 synergistic (1) 152:21 system (1) 61:4 <hr/> <p style="text-align: center;">T</p> <hr/> tailors (1) 175:2 tailpipe (4) 39:14;119:5;120:14; 173:16 talk (9) 7:23;8:16;11:5; 15:14;19:2;65:17; 75:23;103:25;176:8 talked (9) 15:13;38:12;46:14; 51:9;113:18;114:12; 125:22;140:8;175:23 talking (47) 8:18;11:9;27:6;31:3; 47:20;74:17;80:24; 83:18;86:1,3,7,10,13; 87:13,14;89:2,4;94:6; 99:5;104:1,5,7;118:17; 125:19;127:12,14; 128:5,10,12,14;130:11; 142:1,8;143:6,8,9; 144:6,7,12;149:15; 150:14;159:2,4; 175:16;178:22;182:3; 189:11 talks (3) 46:2;144:5;166:5 tall (1) 67:15 TCEQ (1) 135:12 technical (1) 198:8 technique (2) 181:11,16 term (4) 104:9;143:5;148:11, 14 terms (22) 15:3;16:6;25:5;	27:14;37:21;39:1; 44:16;64:1;66:7;74:21; 79:10;103:14;128:9; 139:6,25;143:21; 147:25;148:11;149:21; 150:17;176:11;198:7 test (5) 52:3,11,11;57:11; 58:7 tested (1) 56:25 testified (39) 13:11;15:23,24;23:3, 16;26:7;30:14,16; 42:18,24;43:2;64:17; 66:22;68:10;69:21; 75:11;84:6;98:6,13; 105:16;110:5;115:22; 116:10;117:22;119:13; 120:22;121:6,21; 123:9;134:2,25; 139:18;163:6;166:3; 178:4,12;179:19; 180:4;195:24 testify (4) 14:11,13;38:3; 105:16 testifying (2) 9:16;23:5 testimony (54) 9:13;12:12;13:10; 14:18;21:14;25:1; 27:15;31:17;32:9,10; 36:21;42:19;43:3,8; 58:16,17,21;59:3; 61:18;64:1;65:13;69:7, 15;70:10;76:7,8;77:5; 96:13;97:7;98:16,17; 102:8;106:12;108:17, 25;112:22;115:25; 120:16;143:19;148:12; 150:22;151:15,17; 152:8;170:16,21; 171:8,13;175:21; 176:4,18;178:17; 180:12;198:7 testing (3) 52:6;57:14;60:4 Texas (22) 122:9;123:10,19,22; 125:16,17;126:10,11; 128:15;129:19,21,22; 131:3,13,18,23;133:7, 13;135:4,12,17;136:11 Texases (1) 131:22 Thanks (4) 110:25;129:13; 174:21;198:24 theirs (1) 189:1 theoretically (1) 154:24	theories (2) 22:14,18 therapist (1) 129:16 thereafter (1) 16:10 therefore (2) 16:11;22:10 thereto (1) 13:20 thermal (1) 77:16 thick (2) 158:22,23 third (5) 22:15;28:12;29:17; 45:8;176:9 Thirty-seven (1) 164:22 Thirty-some-odd (1) 164:20 though (4) 13:11;104:19;164:5; 168:19 thought (19) 8:25;11:21;13:2; 21:12;23:6;28:14; 37:14;38:9;71:10; 84:23;122:16;124:9; 148:6,7;149:2,16; 153:6,8;157:7 three (27) 11:11,12;28:9;32:18; 86:8,8;87:5;92:25; 95:21,23;96:2;97:20; 100:8,11,18;114:17; 134:2,11;160:9;174:3; 175:20;185:24;186:10; 188:21;190:21;193:8; 194:6 threshold (1) 45:14 throughout (1) 103:17 Thursday (1) 18:8 tie (1) 147:23 Tier (14) 21:16,17,17,17;55:3, 3,8;57:9,24;58:18,19; 59:11,13;62:7 tightly (1) 111:21 times (11) 10:5;22:12;66:13; 71:13;96:9;113:15,18; 114:1;127:23;161:17; 165:16 timing (2) 11:20;16:6 title (4) 91:8;129:19;130:13,	20 TM (1) 95:11 today (25) 7:2;16:7,24;20:12; 34:14;38:3,11,16; 41:14;42:7,14;44:19; 45:24;102:9;114:2; 122:8,13;123:16; 132:6;137:3;157:10; 173:11;178:3;179:12; 196:2 today's (1) 122:9 together (9) 35:17;68:2;90:13; 130:20,25;131:2,25; 154:23;187:23 told (4) 9:3;14:20;30:24; 42:7 tomorrow (1) 19:12 tons (1) 30:20 took (4) 26:7;61:8;149:2; 155:12 top (6) 86:22;102:1;137:1; 141:25;184:20,22 topic (1) 113:4 total (2) 48:14;146:16 touch (1) 49:8 touching (1) 40:11 touchstone (1) 180:15 Toward (1) 127:21 towards (1) 92:1 town (1) 18:11 track (1) 30:6 tract (1) 191:23 trade-off (1) 11:24 traffic (6) 36:4;37:18;64:23; 66:2;151:15,17 trained (1) 77:24 transcript (4) 39:6,7;124:2;196:5 transfer (1) 114:23 transparent (1)
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81:19 transported (2) 63:2,13 travel (1) 73:7 treated (1) 27:4 treatise (1) 90:5 treatises (1) 10:6 tree (1) 9:20 tried (4) 10:5;14:22;198:2,6 trouble (1) 85:5 truck (1) 97:21 trucks (6) 23:6,7;94:9,17;95:5; 139:4 true (8) 17:21;63:23;114:13; 126:22,24;127:6; 145:6;155:12 truism (1) 100:9 truly (1) 197:8 truncated (1) 166:12 trust (2) 155:17;161:18 try (13) 6:1;15:11;24:2,2; 53:19;64:2;67:12; 81:22;90:16;93:13,22; 185:17;194:16 trying (22) 7:6;30:17;34:7;47:1; 49:17,19;55:5;64:11; 66:6;91:5;119:21; 123:14;124:1;132:23; 142:22,24;147:23; 157:21;164:25;172:6; 173:25;197:23 Tuesday (1) 16:20 tuning (1) 26:25 turbulence (13) 69:21;70:7;74:12,14; 77:2,15,16,17;79:15; 82:5;94:13;98:1; 179:15 turbulent (3) 77:6,12;120:13 turn (4) 10:14;22:20;62:13; 154:8 Turnabout (1) 156:23	turning (1) 34:17 turns (1) 197:14 twice (4) 22:13;133:19; 193:10,11 two (93) 7:11;21:3;22:14; 29:3,16,24;30:1,7; 35:25;36:10,10,16; 37:19;43:2,2;44:22; 45:3,15;48:6,8;50:10; 59:2;68:2;85:21,23,24, 25;86:2,2,5,5,10,11,19; 87:12;88:4,5,8;90:12, 14,17,17,19,24,24; 92:14,19,23,24;93:7, 11;94:14;95:6,12;98:4, 9;118:1;133:15; 134:20;138:2;140:7; 156:4;159:21;160:9; 161:16,16;172:8; 173:16,23;177:11; 183:14,15;184:8,12,15; 189:11;190:15,23; 191:12,13;193:7,7,18, 19,20;194:2,6,8,15,20; 196:13;197:1;198:15 two-meter (2) 86:7;88:16 tying (1) 147:21 Tyler (1) 177:11 Typed (3) 96:25;97:2,7 types (1) 133:17 typically (1) 177:23	39:10;185:25 UNIDENTIFIED (1) 168:11 units (1) 92:12 Univac (1) 48:13 University (3) 141:17,18;143:15 unless (2) 10:13;183:16 unlimited (1) 10:8 unquote (1) 52:5 unrealistically (1) 72:20 unusual (1) 76:18 up (37) 12:20;19:3;21:14,15, 21;22:10;40:20;44:22; 45:23;46:1;51:21; 53:14;57:8;59:12;64:2, 19;69:25;72:4,7;74:15; 77:14;79:2,6;113:19; 115:20;122:1;140:17, 17;144:7;149:5; 153:10;164:15;165:12, 23;172:1;175:1;181:4 update (1) 12:7 updated (5) 59:18;83:23;84:5,14; 183:21 updates (1) 59:14 upon (8) 20:18;40:11;46:22; 88:4;120:11;177:6,16; 178:7 Upper (2) 6:21;135:13 urban (10) 45:10;72:17,18; 73:10,24;74:8;75:7,7; 178:7,10 use (39) 15:5;21:17;22:1; 41:1;42:8,14;43:14; 51:13,19;52:2;56:24; 57:10,15,18,22;58:3, 10;59:16;60:6;73:13; 74:3,11;79:6;84:20; 87:1;91:10;99:25; 101:11,17;118:22; 119:25;143:5;171:19; 172:9;178:11;179:1,5; 181:6;183:23 used (40) 7:20;21:21;23:5; 39:13;41:11;43:4,4; 55:4,9;57:24;59:23;	60:10;61:25;76:16; 79:11;89:7;96:14; 97:15;100:22;106:5; 111:8,9;112:25;116:2, 12;121:6,9,13;122:5; 134:4,7,15;148:10,11; 176:13;177:8,13; 179:4,6;191:13 useful (1) 15:6 user (1) 60:12 User's (5) 51:22;52:19,20;53:7; 56:8 uses (3) 73:15;104:8;173:7 using (8) 41:13;69:5;73:8; 92:24;125:16;172:23; 179:11;195:25 Usually (1) 21:21	26:1,2,4,5,14,16; 27:15,16,19;28:10,14, 15,24,25;29:14,23,24; 30:4,4;50:17;51:13; 59:18,21;83:5;84:14; 114:18;115:5;164:25; 165:3,4,7;180:23; 185:15,21,23;186:2,5, 11;187:24;188:11 versions (2) 29:4;179:5 versus (3) 67:2;123:3;139:6 View (7) 5:19;10:23;89:8,9; 117:15;118:11;139:21 viewed (1) 148:7 violation (2) 103:24,25 voiced (1) 44:17 volume (3) 25:8;119:21,22 volume-over-capacity (1) 151:23 voluminous (3) 9:14;30:15;198:7
		V		
				W
				wait (16) 15:14;18:9,9;21:25; 96:10,10,10,10,10,11; 109:6;117:10;170:11; 188:6;192:14;195:16 waiting (1) 81:4 wall (2) 94:14;95:4 Wang (1) 7:16 wants (2) 10:13;181:4 warming (3) 33:8,15;34:7 Washington (2) 6:18;45:3 wave (1) 64:4 way (34) 22:10;32:3;33:14; 43:21;44:2;51:20; 52:13;57:8;58:3;67:12; 74:15;75:19;79:12; 85:11;87:2;90:17; 93:22;99:24;106:10; 107:9,15,23;144:4; 147:24;154:21;166:19; 169:5;173:13;175:16; 177:20;181:2,5; 187:25;197:9 ways (1)

31:19 web (2) 53:10;164:13 website (9) 56:15;59:16;103:1; 110:10;160:10;161:25; 163:14,15,20 wedding (1) 19:5 Wednesday (2) 17:11,13 weeds (1) 115:9 weekend (1) 191:10 weight (10) 10:18;11:20;24:23; 32:11,11,15;155:17; 161:1,3;193:11 Welcome (3) 7:23;73:9,23 well-known (2) 76:22;82:7 well-noted (1) 15:3 weren't (5) 23:24;83:7;109:25; 113:9;137:7 west (1) 150:18 Westfield (1) 4:10 whatnot (1) 77:17 what's (26) 44:3;48:18;51:15; 67:24;69:18;71:19,19; 77:13;82:19;83:13,18; 86:21;87:12;107:8; 115:12,14;117:25,25; 134:23;141:16;144:4; 145:5;155:20;159:6; 168:23;186:15 whatsoever (1) 42:12 Wheaton (8) 4:9,10;45:12,17; 50:3,8,11;118:6 whereas (7) 93:10;135:3;136:10, 14;160:18;176:22; 179:13 Whereupon (6) 60:20;99:19;112:11; 149:10;167:10;199:3 whichever (1) 186:22 whirls (2) 82:13,14 white (4) 182:12;183:16; 194:9,13 whole (13)	12:19;13:20;14:10; 21:10;22:10,14;46:19; 48:9,10;53:18;100:10; 101:16;158:25 Wholesale (1) 4:3 wide (2) 69:22;139:5 wife (1) 49:15 wind (25) 46:22;73:15;75:2,14, 15,16;76:24;77:3; 79:14;80:5;82:4,16; 85:13;86:9,24;87:2,7, 12;88:5,9,9,20;94:21, 23;118:4 wish (5) 30:9;60:23;170:12; 172:13;174:19 withdraw (1) 153:12 withdrawing (1) 155:24 withdrawn (2) 101:4,6 within (10) 29:4;119:5,10; 143:17,23,25;171:19; 173:9,12;179:11 without (8) 14:23;21:2;31:16; 34:6;42:12;118:25; 121:20;181:14 Witless (1) 20:25 witness (149) 7:2,6;9:2;11:22; 14:13;34:22,23;35:2,6, 10,14,17,21;36:23; 37:3,7,11,23;38:6,13, 18;41:2,4,25;47:21,24; 48:1,4,8,11,16,20;49:6, 7,11;50:15;62:18;64:6, 9,11,13,15;65:7,9; 66:21;67:20,23;68:2,6; 69:15;70:13;73:15; 75:1;77:21;78:1,3,5,8, 11,14,16,19;79:22; 80:11;81:2,8;82:18,21, 24;83:11,15;84:20; 86:1;87:18,21,24;88:2; 93:11,18,20;94:4; 95:24;96:3,6,8;97:1, 18;104:7,12,22;105:2, 14,22,25;106:4,8,15, 19,23;107:4,11,15; 108:2,4,12;111:4,17; 117:12;118:8,13; 121:5;125:10;128:14, 19,23;129:3,6,18; 131:8;132:1,14,20; 134:10,18;135:1,9;	136:1,3,6,8,17;139:2, 11;140:14;147:3; 150:4,9,11,13,16; 151:1,8,11,14;154:5,7; 185:23;186:4;198:7 witnesses (3) 8:1;21:2;176:24 witnessless (3) 20:23,25;21:1 witness's (1) 109:1 wonder (1) 80:17 wondered (1) 166:21 wonderful (1) 197:16 wondering (2) 60:9;128:2 word (1) 136:9 words (3) 36:6;103:1;162:2 work (16) 17:4,6,8;18:7,21; 19:10,11,24;29:4,10; 43:16;60:2;73:3;95:20; 173:13;198:2 worked (1) 28:19 Working (3) 195:13;197:25;198:1 works (4) 18:6;43:22;44:2; 173:14 world (1) 34:2 worn (1) 23:13 Worth (6) 125:16;126:13; 133:12;135:3;136:11; 168:25 wrap (1) 149:3 write (4) 4:21;56:7;162:19; 194:19 writing (2) 140:5;170:23 written (3) 170:2,13;194:22 written-out (2) 104:5,20 wrong (5) 28:10,23;76:11; 112:8;134:6	47:14,20;48:9,10,21; 117:17;161:14,15 year-round (3) 116:4,8,16 years (3) 35:25;89:22;90:4	95:12 11 (12) 60:17;122:10; 131:24;133:12,21; 134:24;135:4,11,13; 136:6,7;138:4 11:00 (1) 60:16 11:58 (1) 99:19 11160 (1) 4:8 1-16 (1) 145:16 12 (3) 4:15;16:20;117:19 12:00 (1) 99:15 12:25 (2) 112:8,11 12th (1) 17:3 130 (1) 119:8 13-12 (1) 4:4 13th (2) 17:6,11 14 (5) 18:4;20:5,8,15; 198:11 144 (5) 164:16,19;165:10, 21;169:5 14th (8) 17:6,22;18:17,21; 19:10;20:6,7,9 15 (1) 121:25 150 (1) 54:2 157 (1) 122:2 159 (1) 53:21 159-page (1) 56:3 15th (4) 18:12,15,19;19:8 16 (4) 4:7;7:14,17;183:1 160 (1) 122:2 160-page (1) 167:22 16th (3) 20:4;58:5,6 17 (4) 51:24;54:10,11; 56:10 175 (1) 146:12 18 (5)
Z				
z0 (17) 81:23,24;86:18;88:4; 92:6,12,14,19,23;93:7, 11;96:7;98:4,5,7,8,9 zero (6) 79:13;87:16,20;88:6, 9,10 z-naught (2) 88:15,16 zO (4) 80:13;81:23;95:6,12 zone (1) 173:17 zoned (1) 4:10 Zoning (3) 4:5;20:21;33:24				
0				
0.1 (1) 98:8				
1				
1 (11) 21:17;50:2;94:22; 95:19,20;96:4,7,9; 97:20;185:20;196:17 1.04 (1) 139:6 1:15 (1) 112:9 10 (22) 4:9;16:10;23:25; 24:18,18;36:14;51:8; 60:16;86:18,21,25; 87:11;92:22;121:8,25; 130:12,13,21;135:11, 13;167:4;197:23 10:52 (1) 60:20 100 (14) 67:3;72:18,21,22; 73:2;104:20;105:22; 106:21,25;107:21; 108:5;121:15,15;143:9 100-parts-per- (2) 104:1;107:25 100-parts-per-billion (3) 104:6;106:13;120:24 10-day (1) 24:16 10-meter (1)				
Y				
yea (2) 107:18;197:20 year (8)				

54:10,11;56:10,18; 61:2 180 (3) 95:10,13;98:2 1988 (1) 73:4 19th (2) 134:21;145:17	26 (1) 4:11 287 (2) 98:15;99:10 28th (1) 16:12 29 (1) 134:23 29th (1) 136:12 2nd (1) 42:10	178:16 430 (1) 188:6 431 (2) 185:5;188:5 431b (8) 26:21;27:6;185:15; 186:15;187:11,24; 188:12;195:3 431c (5) 187:21,25;188:9,11, 13 453 (1) 184:15 453a (5) 183:5,7;184:12; 188:18;193:17 453d (8) 193:17,21,23,25; 194:5,7,16,19 466 (1) 175:17 47 (3) 71:21;72:11,14 49 (1) 23:12 49.6 (1) 23:18	43:1 6 6 (1) 14:14 60 (2) 95:8;121:12 603 (5) 122:22;124:17; 125:2;131:14;138:10 605 (3) 192:9,19,23 605a (1) 192:21 606 (7) 7:10,10;190:6; 191:17;192:9,19;193:7 606a (3) 190:9,13,14 606c (3) 191:19;192:2,4 606d (2) 191:24;192:5 607 (3) 7:13;182:24,25 608 (2) 7:10,14 608a (2) 7:15,18 609 (13) 51:7,16;55:12,13,16, 21;59:7;62:15,16;63:5; 99:25;100:21;101:5 610 (9) 54:16;55:15,16,23; 56:11,23;60:12;101:1, 2 611 (2) 72:8,12 612 (3) 91:19,21;92:1 613 (3) 130:12;131:4;196:17 631 (1) 4:9 655 (3) 91:19;92:1;94:25 66 (1) 139:7 6th (1) 43:1	8 8 (1) 39:19 85 (2) 104:4,19 9 9 (15) 130:12,12,14;131:6, 9,17;133:11,11,17; 135:1,16;136:11,14; 138:3,9 9/29/10 (1) 129:23 9:30 (4) 4:17;16:20;20:15; 198:11 90 (1) 121:15 98th (4) 98:14,19;121:13; 146:9
2	3	5		
2 (13) 21:16,17;50:17; 51:13;55:3,3,9;57:9; 58:18,19;59:11; 121:11,11 2.5-mile-per-hour (1) 133:20 2:12 (1) 149:10 2:42 (2) 167:1,3 2:43 (1) 167:10 20 (4) 16:10,15;121:25; 144:7 200 (2) 73:8;75:9 2000 (1) 91:19 2007 (1) 72:11 2008 (1) 192:1 2009 (2) 189:8;192:17 2010 (4) 125:20;133:9; 134:23;195:13 2011 (2) 7:16;43:23 2012 (8) 143:15;144:19,20; 145:17;146:1,2; 165:11;192:2 2013 (11) 4:11;42:23,25;43:18; 102:3;115:25;116:9; 149:22;150:3;180:2; 183:21 2014 (11) 4:15;16:15,17,20; 51:22;53:3,4;56:8; 175:18;183:20,21 21 (3) 16:15;175:18;192:1 24th (1) 195:12 25 (1) 39:13 25th (1) 161:13	3 (14) 21:17;57:24;59:13; 62:7,13,18,20;63:3; 65:14;82:23,25; 157:23;169:9;195:19 3:35 (1) 199:3 30 (8) 16:9,14;64:18;92:10, 12;95:21;96:9;165:11 300 (2) 64:19;77:14 30-page (1) 167:21 30th (2) 16:12;161:12 31 (1) 16:17 34th (1) 36:11 352 (4) 195:11,18,20,21 353 (11) 157:2,24,25;160:8; 161:10,19;162:16,25; 163:3,9,11 353a (9) 161:10,19;162:19, 24;163:1,7,10,12; 169:13 353b (3) 169:13,15;188:2 36 (2) 23:15;158:24 367b (1) 156:12 36th (3) 4:2;78:11,15 4 4 (15) 59:7;80:4,9,25;81:1; 82:14,15,19;83:2,3,16, 17;84:4;98:7;157:19 40 (3) 20:19,20;179:11 411 (1)	5 (4) 39:16;61:3;157:5,19 50 (5) 104:4,19;113:23; 171:25;177:10 50.63 (1) 23:18 563 (1) 155:25 567 (1) 72:6 58 (1) 145:16 581 (16) 79:20;80:4,9,24; 83:19,22,23;84:16; 85:3,6,12;96:15,17,19; 97:7;98:7 581b (1) 85:2 587 (1) 83:21 593 (2) 101:23;102:25 594 (9) 189:9;190:2;192:9, 14,16,17,18,20,23 595 (2) 189:9,25 59-G-2.06 (1) 4:6 5th (1)	7 7 (1) 134:7 70 (1) 121:12 75 (1) 39:17	