OFFICE OF ZONING AND ADMINISTRATIVE HEARINGS

FOR MONTGOMERY COUNTY

PETITION OF COSTCO WHOLESALE CORPORATION	:	**Case No. S-2863** **OZAH No. 13-12**

A hearing in the above-entitled matter was held on May 1, 2014, commencing at 9:42 a.m., at the Stella B. Warner Council Office Building, 100 Maryland Avenue, Rita Davidson Memorial Hearing Room, Rockville, Maryland 20850 before:

Martin L. Grossman

Hearing Examiner

A P P E A R A N C E S

On Behalf of the Petitioner:
Patricia Harris, Esq.
Michael Goecke, Esq.

On Behalf of Kensington Heights Civic Association (KHCA):
Michele Rosenfeld, Esq.
Lerch Early & Brewer
3 Bethesda Metro Center, Suite 460
Bethesda, Maryland 20814

Karen Cordry, Esq.

On Behalf of Stop Costco Gas Coalition (SCGC):
Larry Silverman, Esq.
Abigail Adelman

Also Present:
Erich Brann, Costco Representative
Davis Sullivan, Expert Witness

C O N T E N T S

P R O C E E D I N G S

MR. GROSSMAN: This is the 31st day of the public hearing in the matter of Costco Wholesale Corporation, Board of Appeals No. S-2863, petition for a special exception pursuant to Zoning Ordinance Section 59-G-2.06 to allow petitioner to construct and operate an automobile filling station which would include 16 pumps. Subject site is located at 11160 Veirs Mill Road, Silver Spring, Maryland, Lot N-631, Wheaton Plaza, Parcel 10, also known as Westfield Wheaton Mall, and is zoned C-2.

The hearing was begun on April 26th, 2013, and the next session will be May 8, 2014, here in the second floor hearing room of the COB at 9:30 a.m. My name is Martin Grossman. I'm the Hearing Examiner which means I take evidence and write a report and recommendation to the Board of Appeals which will make the decision in this case. Will the parties identify themselves, please?

MR. BRANN: Good morning. Erich Brann with Costco.

MR. GROSSMAN: You look familiar.

MS. HARRIS: Good morning. Pat Harris on behalf of Costco.

MR. GOECKE: Good morning. Mike Goecke for Costco.

MS. CORDRY: Karen Cordry for Kensington Heights.

MR. GROSSMAN: Ms. Cordry.

MR. ROSENFELD: Good morning. Michele Rosenfeld for Kensington Heights.

MR. GROSSMAN: Dr. Cole.

MR. COLE: Dr. Henry Cole.

MR. SILVERMAN: Larry Silverman for Stop Costco Gas Coalition.

MS. ADELMAN: Abigail Adelman, Stop Costco Gas Coalition.

MR. GROSSMAN: Ms. Adelman. Is your husband okay? He looked a little bit out of sorts after the last hearing? Doing okay?

MS. ADELMAN: He's fine.

MR. GROSSMAN: Okay. All right. Let's proceed to some preliminary matters. Since our last session on April 29, I'm happy to say there are no new exhibits. I think that's the first time I could say that --

MS. CORDRY: I think you're right.

MR. GROSSMAN: -- or very, it's been a long time at least since then. All right. The witness scheduled for today is Mr. Sullivan's direct and cross on applicant's rebuttal, and surrebuttal if the parties are prepared to go forward in that fashion if time permits. We can also discuss applicant's objections to exhibits.

Mr. Goecke, have you --

MR. GOECKE: I have not called down that list yet.

MR. GROSSMAN: Okay. All right.

MS. CORDRY: Mr. Grossman, at the risk of shattering your joy about no more exhibits, I think it was on April 11th, I put in a preliminary pedestrian crash data report, and that is now a finalized one. We won't get to that today, but I just want to distribute it now so that just by some miracle if we got to my testimony on March 8th -- this only came out yesterday, so I --

MS. ROSENFELD: May 8.

MR. GROSSMAN: You mean May 8.

MS. CORDRY: May 8th, so I'm distributing it as soon as we can. We would actually introduce it --

MR. GROSSMAN: Okay.

MS. CORDRY: -- whenever I come in, but I'll --

MR. GROSSMAN: We can --

MS. CORDRY: It could --

MR. GROSSMAN: We can, you want me to mark it as an exhibit?

MS. CORDRY: You can at this point. It would probably be 512A, perhaps, if you'd want to do it that way. 512 was the original exhibit. Probably when I introduce it, we'll try to get it done in color because there are some, some of the numbers that are, for the 2014 that show up in red on this one.

MR. GROSSMAN: So that was March 6, 2014 briefing by the County -- oh, that's right, we didn't -- received the hearing report of February 11, 2014 by Montgomery County Police Department regarding pedestrian crash data?
MS. CORDRY: Correct. Correct.
THE COURT: And this is, what is the difference?
MS. CORDRY: This is the next month, so this one now actually is finalized for the year 2013, and it starts 2014.
MR. GROSSMAN: I see.
MS. CORDRY: This is the, the one before that was still preliminary for 2013.
MR. GROSSMAN: Does that make a difference?
MS. CORDRY: It adds 29 more accidents. It gives you a finalized number. I don't yet have from them whether or not they have updated the parking lot subset of this. It was going to be a County stat report done at the end of April, and I checked yesterday, and they said that it's actually been pushed back to June, so I'll attempt to find out if they do have any more data on parking lots, in particular, but this is the overall pedestrian safety data.
MR. GROSSMAN: Okay.
MS. HARRIS: Ms. Cordry, can you send in electronically so we--
MS. CORDRY: Sure.

MS. HARRIS: -- can see the red --
MS. CORDRY: Sure.
MS. HARRIS: -- since that indicates that those are still preliminary numbers?
MS. CORDRY: Right. I will tell, right now, it's just the ones for 2014, but I will get the electronic printout that shows it actually in red.
MR. GROSSMAN: Okay. Thank you, ma'am.
MS. CORDRY: So I just wanted to give this to you preliminarily so you could start the countdown of things.
MR. GROSSMAN: All right. This is two pages, right?
MS. CORDRY: Yes.
MR. GROSSMAN: So, all right, so this is Exhibit 512A, and on the exhibit list, let's say updated, so this is through December of 2013?
MS. CORDRY: It goes through December and actually starts into 2014. So it's final through December of 2013.
MR. GROSSMAN: Okay.
MS. CORDRY: And preliminary for 2014. And the other part, last time, I said I would provide you a corrected version of the background exhibit, or that, difference between the 312 and the 300, so I have that as well, which I think can just be substituted for the --
MR. GROSSMAN: I'm sorry. I didn't catch that.

MS. CORDRY: The background exhibit I did where the, I had written down inadvertently 312 instead of 300, and I said I would correct that.
MR. GROSSMAN: Oh, okay.
MS. CORDRY: Okay. Yes, I don't know if you want to correct it, or if you're going to correct your version, or just substitute it.
MR. GROSSMAN: What was the number of that exhibit?
MS. CORDRY: 554.
MR. GROSSMAN: 554. Okay. Hold on a second.
MS. CORDRY: Instead of having your handwritten scribbles on it, it's, it would be the clean version of it.
MR. GROSSMAN: Okay.
MS. CORDRY: And last but not least, as I was looking at --
MR. GROSSMAN: Oh, before you get to that, hand me whatever you're, so I can -- it's not yet 10 o'clock, so my brain is not ready to receive multiple things simultaneously. All right. So this is 554, we'll say, A, corrected version. 554.
By the way, regarding the objections, I note that Ms. Rosenfeld pointed out that you had objected to one of your own exhibits, and she teased you about it, I think, but I think it was very fair-minded of you --

MR. GOECKE: It was very fair?
MR. GROSSMAN: Yes. Fair-minded of you.
MR. GOECKE: I'm trying to be consistent.
MS. CORDRY: And the last thing here we'll do --
MR. GROSSMAN: Yes.
MS. CORDRY: -- on the passenger analysis, we did 553. I was going over it again after I left and I realized one number had been omitted back on the entrance, morning, peak hour count, the actual count had been, there was just a blank there as opposed to the number, so I filled that number in there. It's the 1565 number there on the top right-hand corner -- I'm sorry -- top left-hand corner.
MR. GROSSMAN: Now, you've thrown all my calculations off --
MS. CORDRY: I know that.
MR. GROSSMAN: -- for the entire year.
MS. CORDRY: Exactly.
MR. GROSSMAN: All right. So this'll be 553A?
MS. CORDRY: Yes.
MR. GROSSMAN: Corrected version.
MS. CORDRY: Yes, but haven't spent much time on that intersection so it escaped my notice that that number had not gotten provided.
MR. GROSSMAN: 553. I suspect that nobody else would have caught it but you, Ms. Cordry, so --

MS. CORDRY: Yes, I try to correct everything before it gets --
MR. GROSSMAN: The reason I'm actually attaching a new exhibit number, the A, is people testified regarding the other thing --
MS. CORDRY: Sure.
MR. GROSSMAN: -- so we want to make sure --
MS. CORDRY: Sure.
MR. GROSSMAN: -- the record is clear as to the, you know, when testified about the previous --
MS. CORDRY: Right.
MR. GROSSMAN: -- version.
MS. CORDRY: Then they don't have to subtract another 12 off the numbers that I have.
MR. GROSSMAN: Right. Okay. All right. Are there any other preliminary matters?
MR. SILVERMAN: I have a very small point. I don't think --
MR. GROSSMAN: I always indulge you, Mr. Silverman.
MR. SILVERMAN: Thank you, sir. The, yesterday, the Supreme Court decided the interstate air pollution case, and Justice Ginsburg, who was, wrote the majority opinion, quoted something from the New Testament, which I think is relevant to dispersion of coefficients.

MR. GROSSMAN: But I'll -- well, hold on one second. First of all, I wasn't aware. My basement was flooded last night, so I didn't get a chance to look up all the Supreme Court stuff.
MS. CORDRY: As with the rest of ours.
MR. GOECKE: Mine too.
MR. GROSSMAN: So what did they decide exactly?
MR. SILVERMAN: They decided that the EPA had a lot of discretion and tried to curb interstate air pollution, and they didn't have to use any particular formula because they had, they were not bound by that so that they could stop the big power plants in Ohio from polluting the air around us.
But in defending the decision, which I think was 6 to 3, she quote the bible, and it said -- and I just want to read this for the record of stuff --
MR. GROSSMAN: All right. Yes.
MR. SILVERMAN: Thank you.
MR. GROSSMAN: Very small.
MR. SILVERMAN: Very small. "The wind bloweth where it listeth, and thou hearest the sound thereof but canst not tell whence it cometh and whither and goeth."
MR. GROSSMAN: I see. Well, Dr. Cole disagrees with you. He's, he testified at great length that he could tell, he could tell about these turbulent consequences.

DR. COLE: No, I agree with that statement. Is that the Old Testament?
MR. SILVERMAN: That's the New Testament.
DR. COLE: I see.
MR. GROSSMAN: All right.
MR. SILVERMAN: Ginsburg quoted it.
MS. ADELMAN: You don't know the New Testament.
MR. SILVERMAN: Yes, I do. I know the --
MR. GROSSMAN: Any other preliminary matters? All right. Then I think we're, it's time for Mr. Sullivan to retake the stand.
MR. SULLIVAN: Okay.
MR. GROSSMAN: I'm sorry that you have to follow the bible in this, Mr. Sullivan.
MR. SULLIVAN: I try.
MR. GROSSMAN: And let me remind you, Mr. Sullivan, you are still under oath.
MR. SULLIVAN: Yes, sir.
MR. GROSSMAN: All right. All right. So this is Mr. Sullivan's direct testimony on rebuttal.
MR. GOECKE: Thank you, Mr. Grossman.
FURTHER DIRECT EXAMINATION
MR. GOECKE: Mr. Sullivan, I'd like to start talking to you today about the rebuttal report you prepared, which is Exhibit 466. And I believe you've got a copy of

that on the screen here.
Would you like a hard copy, Mr. Grossman, or can you see that okay?
MR. GROSSMAN: The rebuttal report? I have it with me.
MR. GOECKE: Yes.
MR. GROSSMAN: I did have it with me. Hold on. Here it is. Thank you. That's Exhibit 466?
MR. GOECKE: 466, that's correct.
Mr. Sullivan, why did you prepare this report?
MR. SULLIVAN: This report was prepared to clarify some of the statements that Dr. Cole had made during his direct testimony, and to also show the results of applying the ozone limiting method, which we'll refer to today as OLM, as Dr. Cole requested be considered to apply this kind of methodology. And it also responded to some, some past requests by the opposition that we show, based upon urban dispersion coefficients concentration maps inside the mall area, the southern mall area, which, which we did. So that was, that was the, the, in a big picture, the general objectives of this particular report.
MR. GROSSMAN: Let me just interrupt for one second regarding the OLM. My recollection of Dr. Cole's testimony is that he referred, he didn't refer to it as OLM, I don't think; I think he referred to it as tiered approach

to analyzing it. That's my recollection. Does anybody have a different recollection? Is that, a statement in Dr. Cole's testimony where he actually refers to it as the ozone limiting method?

MS. CORDRY: There's nothing --

MR. GROSSMAN: The reason, I just bring it up, just so that everybody understands what we're talking about, and that's correct, Dr. Cole, that we're talking about what you referred to as tiered approach to analyzing conversion of NO to NO2?

DR. COLE: In EPA's terminology, there are two tier-three models that they recommend with many conditions and restrictions. One of them is the --

MR. GROSSMAN: Well, no, I didn't want you to get into it --

DR. COLE: Okay.

MR. GROSSMAN: -- testimony or anything. I just want to make sure I understand what you're referring to when you testified on December 5 and 6 --

DR. COLE: Yes, just --

MS. ADELMAN: Oh, Mr. Grossman, I think he's making a legitimate point about tier 3, and I don't think it would take him long.

DR. COLE: You asked --

MR. GROSSMAN: No, no, I don't want -- he's going

to have an opportunity to get back on the stand and make any legitimate points he wants in surrebuttal --

DR. COLE: I don't know, I don't --

MR. GROSSMAN: Hold on, Dr. Cole. Hold on. My interruption was just so I made sure that we're talking about the same thing. When you talk about ozone limiting method, OLM, I, my recollection is that the first time I saw that term was in connection with the discussion after he had testified in, and after the rebuttal report, Mr. Sullivan's rebuttal report was filed, and that in the December 5 and December 6 testimony, that the actual term hadn't been used. And I'm, that's why I'm raising it to see if I'm incorrect about that. I know the, and I just want to make sure that we're talking about the same thing in terms of the methodology that Dr. Cole had discussed to which this rebuttal report is, in part, addressed. Let me see.

MR. SILVERMAN: I think that's incorrect, Mr. Grossman. I'm looking for the citation right now. But he did refer to the ozone limited method at one point in his testimony.

MR. GROSSMAN: Okay. So let's, actually, I'm going to look at the index here to see if the term, limiting, is in here, or limited. Limited, 130, and limiting, maybe that is right, 2820. Let's see. Yes, actually, I, well, I developed something called the ozone

limiting method. Okay. I stand corrected.

DR. COLE: Well --

MR. GROSSMAN: No, no. It's not necessary for you to, you're going to get an opportunity to testify again if you're called in surrebuttal. I just wanted to make sure I understood correctly what the record had as far as ozone limiting method, and that's correct, he did reference it. All right. I'm sorry for the interruption. Go ahead --

MR. SULLIVAN: No problem.

MR. GROSSMAN: -- Mr. Sullivan.

MR. GOECKE: But just to be clear, Mr. Sullivan, you applied the ozone limiting method in your analysis as set forth in your rebuttal report?

MR. SULLIVAN: I did.

MR. GOECKE: Okay. And what were the ultimate conclusions of your modeling for the rebuttal report?

MR. SULLIVAN: Well, well the overall conclusions were, in particular, with respect to the ozone limiting method, if we go to that level of detail in model NO2 instead of analects in a very conservative way --

MR. GOECKE: Uh-huh.

MR. SULLIVAN: -- that we found that the concentrations, as expected, were much lower, and in fact, much more consistent with what's being measured around the country. The values we are showing on the very conservative

screen were way above typical levels measured near major roadways.

MR. GOECKE: Okay.

MR. GROSSMAN: I'm sorry. The values you were showing were above their --

MR. SULLIVAN: They --

MR. GROSSMAN: Could you repeat that?

MR. SULLIVAN: The concentrations we've showed, for example, in our, in my August 2013 report, we were showing, as I recall, in the order of 160 microgram peak concentrations. The actual 98th percentile values being measured --

MR. GROSSMAN: 90th or 98th?

MR. SULLIVAN: 98th, being measured near major highways are lower than that. And so it, it certainly points out the fact -- and we said we were being very conservative -- the measured data clearly supports that, that fact. Relatively local data, as well as, as more distant data round the country, show that the levels near, even highways, and major highways, are generally in the order of 98th percentile, in the order of 85 to 90 micrograms per cubic meter. Nothing like 160, unless you go to extreme cases, which we will describe later in my, in my testimony.

MR. GROSSMAN: And that's for NO2?

MR. SULLIVAN: NO2, one hour, 98th percentile --
MR. GROSSMAN: Okay.
MR. SULLIVAN: -- concentrations.
MS. CORDRY: I'm sorry. Did you, again to say 98th, because I thought I heard you say 90th again?
MR. SULLIVAN: 98th.
MR. GROSSMAN: He did and he corrected. That's why I asked him. He corrected it.
MS. CORDRY: Well, but I, again, I thought I heard him just now say 90th again. Are you saying 98th?
MR. SULLIVAN: Well, I said 90, I, I certainly thought I said 98th. If I didn't, I should have.
MR. GOECKE: So it's your testimony that there are real-world samples being taken that show levels higher than what you've modeled here?
MS. ADELMAN: Objection. Objection. Leading question.
MR. GROSSMAN: Sustained.
MR. GOECKE: Okay. And just to clarify again -- let me back up a step. You testified that the levels for NO2, in your rebuttal report, are lower. Lower than what?
MR. SULLIVAN: Lower than we, we previously showed them. They're more conservatively modeling NOX.
MR. GOECKE: Okay.
MR. SULLIVAN: It's just in the higher percent

NO2, the current modeling, which is more, or accurate, less conservative, is showing numbers, the most refined numbers, stage 3, of 120 micrograms per cubic meter, which still contain a fair degree of conservatism in overstatement.
MR. GOECKE: Okay. And specifically, what conservatism did you reduce in the rebuttal report compared to your earlier reports?
MR. SULLIVAN: For the, the main one is that before, we were assuming that all NOX is NO2, but it's not. I mean, in this, this time, we assumed, still conservatively, that the idling emissions were at 25 percent NO2, and that the, when you use that same ratio for the, for the ring road and other roadways, which is, is clearly overstated, because actually running roadways, the ratio is more on the order of .05 to .10. I showed references in my data disc and I described in my report that clearly show that traveling cars emit much less NO2 in the ratio than with models.
So my point is that the 25 percent that we're using is, is conservative, but closer for idling cars. The cars that are actually in movement, the ratio of NO2 analects is much, much lower. It's typically 5 to 10 percent in the literature. So that assumption would affect the ring road modeling as well as all other roadways. We're containing a lot of conservatism, which is why the 120 I'm

showing, the 121 I'm showing now, that's still high compared to measured data at major highways. I mean, it's an overstatement, but we're, we've applied the ozone limiting method in a conservative fashion to try to respond to the questions that were raised. It doesn't change my conclusions from before. The modeling I did initially of NOX was extremely conservative, and the modeling I've done now confirms that fact.
MR. GOECKE: Okay. And when you say the model levels are high compared to measured data, what are you referring to specifically?
MR. SULLIVAN: Well, I mean, for example, I'll give you examples. If we look at I-95, which we all know is a pretty busy highway, congested traffic happens there a lot, the Virginia DEQ has a monitor in Richmond near --
MR. GROSSMAN: What does DEQ stand for?
MR. SULLIVAN: I'm sorry. Department of Environmental Quality.
MR. GROSSMAN: Okay.
MR. SULLIVAN: The state of Virginia's air quality agency, regulatory agency, they have a monitor near I-95 in Richmond. The 2013 98th percentile value was 86 micrograms per cubic meter.
Another example would be in Las Vegas, as I, as I showed in the CRC report I referenced. Las Vegas has a

monitor for NO2 that is approximately 100 feet from a major highway. They have measured 92 micrograms per cubic meter.
And perhaps the most telling of all, if anyone has been to Los Angeles, is I-710. Interstate 710 services the Port of Long Beach, California, a major port for many Asian, Asian imports to the United States. That road has 190,000 cars and trucks a day, 32,000 of which are heavy-duty diesel trucks servicing the port primarily. That monitor is located almost right next to the roadway, it's 15 meters from the highway, and it's downwind of the flow. That measured, measured, the most recent year, 153 as its 98th percentile.
So my point, primary point in this report is, if extreme examples like that in L.A., with lots of ozone, adverse meteorology, and some of the highest congestion in the country, are showing, next to the highway, 156, how could, how could anyone argue that the ring road and cars at a gas station are going to be higher than that? My, my point is, logic would say it has to be much, much lower than that. A more recent modeling does confirm that fact.
MS. ADELMAN: Just a question. Was it 153 or 156? I heard both numbers.
MR. SULLIVAN: 156 was the one, the one, the most, the second year; the more recent year is 153.
MR. GOECKE: And if I can, Mr. Grossman, I'd like

to hand out copies of what's been marked as the HE Exhibit 342. Here's one for Mr. Sullivan and one for you.

And Mr. Sullivan, is this the study that you were just testifying about?

MR. SULLIVAN: Yes, it is.

MR. GOECKE: Okay.

MR. GROSSMAN: This is a copy of an exhibit that's already in the record, you said?

MR. GOECKE: That's correct.

MR. GROSSMAN: Exhibit?

MR. GOECKE: 342.

If I could direct your attention, Mr. Sullivan, to the executive summary that's labeled as ES-1. It's about 15 pages into the document.

MR. SULLIVAN: Yes.

MR. GOECKE: And if you could just briefly read to yourself the second paragraph on that page.

MR. SULLIVAN: What page are we on?

MR. GOECKE: We're on ES-1. It's the executive summary. It's about 15 pages into the document.

MR. SULLIVAN: I see. Okay.

MR. GOECKE: Have you had a chance to look that over, Mr. Sullivan?

MR. SULLIVAN: Yes, I have.

MR. GOECKE: And in your opinion, the model

emissions that you come up with for the proposed cluster of gas station, how would they compare to the levels that are being measured in Las Vegas and at the Port of Los Angeles?

MR. SULLIVAN: I didn't quantify the, the difference, but it's much more than an order of magnitude difference, more than a factor of 10, much more than a factor of 10, lower emissions in the ring road and the associated gasoline station operations as compared to I-710 in L.A.

MR. GOECKE: Are you aware of any study or report discussing measured levels of one-hour NO2 concentrations that, where the levels exceeded the EPA max?

MR. SULLIVAN: I've not seen any.

MR. GOECKE: Uh-huh.

MS. ADELMAN: Was that NOX or NO2?

MR. GOECKE: NO2.

DR. COLE: Can you repeat that question? I didn't quite understand it.

MR. GOECKE: I don't remember exactly what I said, but I asked Mr. Sullivan whether he was aware of any studies or reports that found actual measure levels of one-hour NO2 that exceeded the EPA max?

MR. SULLIVAN: And to clarify my response, I was referring to 98th percentile data point, but I don't recall seeing any studies or measured data sets that show a

violation of that level.

MR. GOECKE: Thanks.

MR. GROSSMAN: And just, when Dr. Cole was asked how he understood you arrived at 98th percentile, as I recall, he described the process in which you took all of the hours, you looked at all of the hours, hourly measurements over a multi-year period, and then you picked the 98th percentile hour, and that, I think, was the 175th or 174th hour, or something. Was that an accurate statement of how you arrive at 98th percentile in your -- how did you arrive at that?

MR. SULLIVAN: Well, in terms, if you're modeling NOX, the model isn't designed to output the 98th percentile of the maximum one-hour value. And as Dr. Cole and I both recognized, we used the 98, used the 98th percentile of all the hourly values as a, a basis to get a comparison. And my point was, because we were modeling NOX, that we were grossly overstating what the concentrations were for any distribution. But clearly, it's a different distribution than using the 98th percentile of the one-hour given maximum.

MR. GROSSMAN: Well, that still doesn't explain to me, I guess, my -- it may explain to you, but not to me -- what that, you did. What was the process you used to arrive at a 98th percentile?

MR. SULLIVAN: In the, in the previous report modeling NOX, as Dr. Cole indicated, he took the 175th value, 175th highest rank hour each year and then averaged the five years of those numbers, each receptor, to estimate 98th percentile.

MR. GROSSMAN: And why was it the 175th hour?

MR. SULLIVAN: Well, if you take 8760 hours per year and multiply it times, you know, 2 percent, .02, you get 175.

MR. GROSSMAN: Okay. All right. Now, why is the 98th percentile significant? Why not the 97th percentile or the 99th percentile?

MR. SULLIVAN: What EPA is trying to do is, and over time, is get away from the concept that you can only exceed a number, you can, once a year or some extreme like that, because the details of the model distribution tend to be very unreliable. So they're going to some selected arbitrarily percentile, whether it be the 98th or the 95th or the 97th, they're avoiding those extremes in detail.

MR. GROSSMAN: All right.

MR. SULLIVAN: But the 98th is, I would, in my judgment, is, is it's just trying to balance those issues and saying, well, 98 avoids a lot of detail, and it's still a pretty high number.

MR. GROSSMAN: And that's the EPA guideline amount

that you, quantity that is 98th percentile of what EPA guidelines suggest you use?

MR. SULLIVAN: The AERMOD model, if you're modeling NOX, allows you to do any, the same, any, any number up to the 999 highest each year. If you're modeling NO2, the standard output to the, the 98th percentile with maximum one-hour guides.

MR. GROSSMAN: Why will a standard output do that? I mean, what, who, why is 98th percentile the figure selected? Where does that, who decided that 98th percentile would be the figure selected is my question?

MR. SULLIVAN: That was decided by EPA.

MR. GROSSMAN: Okay.

MR. SULLIVAN: New standard.

MR. GROSSMAN: All right.

MR. GOECKE: So is it fair to characterize that as the policy determination, or is there, is it a scientific or mathematical determination?

MR. SULLIVAN: It was a, it was a regulatory decision that EPA made.

MR. GOECKE: Mr. Sullivan, were there any other factors or changes in your rebuttal report that caused the levels of one-hour NO2 to decline, or to be lower than your prior report?

MR. SULLIVAN: Background levels have dropped over

the years, and we did update the background. That, that, that changed. We, we did model, in last August, the gas queue considering the fact that the maximum queue wasn't at the gas station every hour they are open, based on sales data. That was carried through here. So those, those factors are, I could attest to, but the main, the main issues were we, we refined how we, how we treated NO2 versus NOX; that was the most, I'd say, significant change.

MR. GOECKE: Did you retain any conservative assumptions in your rebuttal report?

MR. SULLIVAN: Oh, yes, we did.

MR. GOECKE: And what were they?

MR. SULLIVAN: Well, one, one, one example would be that the, we're using, assuming 25 percent ratio for, we're using a 25 percent NO2 versus NOX for idling vehicles at the gas station. That, that still contains conservatism. Actually, if you look at the, the raw studies that support that number, 20 percent would have been probably more applicable. We used 25 percent for that.

For the ring road and the other roadways, we retained the 25 percent. As I mentioned, most of the studies that I referenced are showing that free-flowing cars, the NO2 level is more like 5 to 10 percent. Most of them are in the range of 5, 8 percent, so it's, it's an overstatement probably five-fold on the ring road and other

roadways.

So there's, there's issues like that -- and frankly, our number is still conservative because the, we're using background data for NO2, for example, up to 2012. The trend is dropping for NO2, as most are, and this, that's an overstatement as well. If you add those all up, my expectation is that by, that the numbers are probably at least 20 micrograms too high and probably a lot more than that in reality.

MR. GOECKE: That, the what is 20 micrograms too high? Your model numbers?

MR. SULLIVAN: If we say it's 121, I would be, I'd be very surprised if the, if the actual numbers, if they were ever between measured, which I'm not advocating, would be, would be, would approach 100 micrograms per cubic meter as 98th percentile value.

MR. GOECKE: And why do you think there is that 20 microgram difference between what you've modeled and what you anticipate there to be in reality?

MR. SULLIVAN: Well, the issues of the, the NO2 and NOX ratios, the trend in, the trend line going down, those factors are part of that discussion, but also, considering measured concentrations. The directly measured concentrations at much busier locations shows that if you're not getting high values like that next to I-95, why would

you expect that that kind of values near a gas station? It just doesn't, to me, make sense.

MR. GOECKE: Uh-huh.

MR. SULLIVAN: So my judgment, my judgment is, if it was to be measured, which there's no indication that it should be, the numbers would probably be in the order of 80 micrograms less as 98th percentile, just, just any objective review of the available measured data that exists today for NO2.

MR. GROSSMAN: I have a question where you're saying the trend is that it's the one-hour NO2 background is going down. As I recall in Dr. Cole's testimony, in his cross-examination by Mr. Goecke, the question was asked about exactly that, that the Arlington monitor was showing a decrease over the three- or five-year period of NO2 background, but then I had noticed in the course of that, that the Beltsville monitoring station, the opposite trend appeared to be shown; that is, that the measurement, the background measurements were higher for recent times than lower. So is there evidence of this trend other than those two stations that back up what your statement is?

MR. SULLIVAN: I believe that when you're referring to Beltsville versus Rockville, are you referring to PM 2.5?

MR. GROSSMAN: Well, it was actually Beltsville

versus Arlington in that examination, and I think the discussion was about NO2.

Am I incorrect, Mr. Goecke? That's my recollection of that. Well, we could look back at the transcript of December 6th, pages 72 to 86.

MR. SULLIVAN: My recollection is that the Arlington was, but it was the most representative location for a suburban Maryland location in Wheaton, in that there was insufficient data available from Beltsville or Rockville to serve as an alternative.

MR. GOECKE: But putting aside the local monitoring levels, to answer Mr. Grossman's question, are there, is there any other evidence or sampling out there that's showing a trend of, a downward trend of NO2 and NO2 levels?

MR. SULLIVAN: Yes. And actually, the trend is dropping as it, as it should, because as the fleet turns over of vehicles, that newer cars have better controls, and that trucks, especially, have better controls, and the numbers are going to drop based upon that fleet turnover. But I show the trend for Arlington on page 24 of my rebuttal report.

MR. GOECKE: Okay. Let's go there.

MR. SULLIVAN: So as you can see for Arlington -- I mean, Mr. Grossman, a trend like this is not going to

be a straight line; it's going to have bumps and wiggles in it.

MR. GROSSMAN: Right.

MR. SULLIVAN: And there'll be times, even if a trend is generally going down, you may have a year when it goes up; that's not unexpected in the, in the random nature of things. But the trend line going, is clearly going down, including the most recent three-year period, in the year of 2011 to 2013. So this is happening here, it's happening in other states, it's happening nationally due to the fleet, primarily due to the fleet turnover of vehicles, cars and trucks.

MR. GROSSMAN: Now, as I recall, we were looking at a particular exhibit.

MS. ROSENFELD: Mr. Sullivan, what page are you looking at in your report?

MR. SULLIVAN: Page 24 of my February 14th rebuttal report. In fact, the most recent year, 2013, 98 percentile value from Arlington was 81 micrograms per cubic meter.

MR. GROSSMAN: Exhibit 404F is what I had noted that the readings in the Beltsville monitor increased over that same period. That's actually pages 86 to 100 of the December 6th transcript. Do we have 404F handy?

MS. HARRIS: I'm not sure. I'm looking.

MR. GROSSMAN: You have it in there, right?

MS. HARRIS: Let me look over here.

MR. GROSSMAN: Yes, we do have it in there if you --

MS. HARRIS: Is there a method to the madness of this question?

MR. GROSSMAN: Yes. There, in, they're chronologically the latest on top, so I was, just take a look and see what the -- let's see. It's probably in file folder 6 -- no, it would be on top, I think -- file folder 6 or 7 probably.

MS. HARRIS: Is this it?

MR. GROSSMAN: Sure. It's a good thing you're agile. All right. Here's 404E, so F can't be too far away. 404F.

MS. CORDRY: I'm looking at the transcript. It is referring to there. It's going to be page 96.

MR. GROSSMAN: So -- I'm not sure whether it was actually listed out or it's just looking at the particular pictures.

MS. CORDRY: I think it, I think you were looking at the pictures. It looks like on page 99, you're talking about looking at the photographs in --

MR. GROSSMAN: Right.

MS. CORDRY: -- 404F, the Beltsville monitor, and

it has, I think, some values on each picture.

MR. GROSSMAN: But I can't see on the particular pictures that are in here, I can't see the label of which -- oh, it does say -- Alexandria, all right, let me see if I found the Beltsville. There's Arlington. Beltsville. I don't know. This one also shows a decline on the picture that I'm seeing, so maybe I was, maybe I was just incorrect in my observation because it does show a decline from 80 micrograms per cubic meter in the 2008 to 73 in 2013.

MS. CORDRY: I think what you were saying was that in 2012, it was 67 and then went back up in 2013 --

MR. GROSSMAN: Oh, I see. Yes.

MS. CORDRY: -- to 73.

MR. GROSSMAN: That's, I see that. Right. So it was, yes, in 2012, on that photograph, it says it was 67.68 micrograms per cubic meter, and then it went down to, it went up to 73.32 in 2013. So I just wondered, having seen that observation I made at the time, I wondered whether there was more consistent data to show whether there truly is a trend down in NO2 observed concentrations.

MR. SULLIVAN: And Mr. Grossman, if we were to look at each monitor in the Metropolitan Area and look at the trend line over the last 10 years, there's going to be bouncing up and down, and sometimes some'll go up and some'll go down a lot, but the trend lines, I would expect,

are, are all going down for NO2. And the logic is that the newer vehicles, especially the trucks, have a lot lower NOX and NO2 emissions, so logic would say, over time, is those, old trucks come off the road and newer trucks come on the road, they're at, the expectation would be that the NO2 would drop because of that. Most of the NOX is being emitted from automobiles.

MR. GROSSMAN: No, I understood the logic; I just, I was a little concerned when I was reading that testimony that, as to whether or not, in fact, there was a showing and trend in the data as opposed to the logic of it. But okay, go ahead. I interrupted you.

MR. GOECKE: And I'll just go down, Mr. Grossman, on page 92 of that transcript, at lines 16 to 18, Dr. Cole testified, well, it's my opinion on the evidence that's been provided in this case, and in my opinion, there's some evidence that regional levels are dropping.

You testified a moment ago about air monitoring, Mr. Sullivan. In your opinion, do you think air monitoring is a good idea, or is required for this site if the gas station were to be built, to make sure that the emission levels are below the EPA max?

MR. SULLIVAN: I don't think it would be appropriate.

MR. GOECKE: And why is that?

MR. SULLIVAN: Well, several reasons. The, the first reason is, especially looking at the, my latest rebuttal report which provides, you know, more realism, less conservatism, none of the model values are approaching any standard. There'd be no reason to have a concern in putting a monitor here.

The second reason would be that, you know, and I don't, I don't think there's any monitors, by industry, in the State of Maryland that are required for anybody, I think Costco would be the first one.

MR. GOECKE: Are --

MR. SULLIVAN: Well, the only one, I won't say it wasn't every, now, right at this point in time, I don't believe anybody in the state is required to monitor air pollution for their steel mill, power plant, whatever, it's not required.

MR. GOECKE: Are you aware of any industrial or any use facility that's required to monitor their emissions?

MR. SULLIVAN: There are no industrial facilities in the State of Maryland that are required to monitor ambient air quality.

MR. GOECKE: And what have you done to investigate that issue?

MR. SULLIVAN: I contacted the Maryland Department of the Environment to ask them.

MR. GOECKE: Who'd you talk to there?

MR. SULLIVAN: I talked to the manager of the air monitoring programs, David Krask.

MR. GOECKE: Uh-huh. And what is Mr. Krask's role at the Maryland Department of the Environment?

MS. ROSENFELD: Could you spell that last name?

MR. SULLIVAN: K-R-A-S-K.

MS. ROSENFELD: Thank you.

MR. SULLIVAN: Mr. Krask is responsible for Maryland's air quality monitoring network operations.

MR. GOECKE: And what did you ask Mr. Krask about?

MR. SULLIVAN: I asked if he could provide me a listing of facilities in the State of Maryland that are required to conduct ambient air monitoring programs.

MR. GOECKE: Uh-huh. And after speaking with Mr. Krask, what is your opinion about whether or not Maryland requires any facilities to monitor emissions?

MR. GROSSMAN: Well, I'm going to stop you there. Of course, nobody's objected, but it is clearly a hearsay issue here, assuming you're offering his recollection of what Mr. Krask said as, to prove the truth of what's asserted by Mr. Krask; that is, that there are no -- if I understood his testimony correctly -- that there are no requirements for monitoring within the State of Maryland. I assume that's the reason you were --

MR. GOECKE: I haven't asked him specifically what Mr. Krask has said. I'm just asking him his --

MR. GROSSMAN: No, you asked him what --

MR. GOECKE: -- his opinion.

MR. GROSSMAN: -- how, what opinion he reached as a result of talking or listening to Mr. Krask, so it's a thinly-veiled hearsay thing --

MR. GOECKE: I'm --

MR. GROSSMAN: -- if you're --

MR. GOECKE: I'm respecting the bounds of hearsay. I'm trying to delicately walk around it.

MR. GROSSMAN: So the, and although nobody objected, I just raise the issue --

MR. SILVERMAN: We object.

MS. CORDRY: Mr. Silverman.

MR. GOECKE: -- all right, a belated objection pops forth from Mr. Silverman, you know, as to the truth of what's asserted therein. Now, it may be, you know, I have indicia of reliability, at least it has, there's the ability to confirm it, so I'm going to allow it in, subject to striking it later after the opposition has had an opportunity to further investigate that; that is, to talk to Mr. Krask and see if this is correct.

MR. SILVERMAN: Thank you.

THE COURT: And therefore, I think that under our

administrative evidence requirements, that that particular hearsay would be allowable under those circumstances.

MR. SILVERMAN: Thank you.

MR. GOECKE: You may answer the question. So did you arrive at an opinion, or you can more directly say, what did Mr. Krask tell you?

MR. SULLIVAN: Mr. Krask told me that there was no facility in the State of Maryland that was required to conduct monitoring at this point at time.

MR. GOECKE: Let's move along to your selection of the monitoring sites that you used to calculate the background levels in this case. Are you familiar with Ms. Cordry's submissions or testimony in this case criticizing the monitoring selections that you used in your reports?

MR. SULLIVAN: Yes, I am.

MR. GOECKE: And do you have any response to her criticisms?

MR. SULLIVAN: I didn't agree. More specifically, a lot of Ms., Ms. Cordry's criticism related to the fact that we didn't use the highest, the air be monitored at the highest concentrations in the Metropolitan Area, but we used ones that were lower than the highest. And my, my response was, well, we put together a modeling protocol, and in the monitoring protocol, we had, we had discussions, and we identified locations that would be representative of a

suburban location such as Wheaton, Maryland. That doesn't mean we go to the middle of Washington, D.C. to pick a monitor, and it doesn't mean they go to a location in Alexandria that has special issues going on to get a monitor. Our goal was to be conservatively representing a suburban location such as Wheaton, which was very different than the thrust of her, her report that I reviewed previously. That was one point. Let me see what else I had.

MR. GOECKE: And did you discuss which monitoring locations to use with Dr. Cole or any members of the opposition in your protocol meetings?

MR. SULLIVAN: We, we did discuss the monitors that we, monitoring sites that we intended to use, Beltsville, Rockville, and Arlington.

MR. GOECKE: Did Ms. Cordry participate in those meetings?

MR. SULLIVAN: No.

MR. GOECKE: So in terms of Ms. Cordry's argument that you should have used Washington, D.C. to you, to establish NO2 background levels, specifically, how do you respond to that?

MR. SULLIVAN: Well, if my objective was to be representative of the core central business district, I would have used a site that represented that type of

location, but this gas station was located in suburban Maryland, so I identified a more suburban location. The goal is to be representative; the goal is not to identify the most highest model concentration as possible.

MR. GOECKE: And what about Alexandria, Virginia? Why was that location not appropriate for NO2?

MR. SULLIVAN: Well, that, that was a good location if you are affected by a, a major bus depot, which was the Dash, Alexandria Dash facility. Maintenance is right, very close to that location. It also has a, a major rail, rail line very close to that location. And it's right next to where the monitor is, and it pretty much near the same building as where they park buses that will, I presume, warm up in the morning. So that particular location tells us nothing about the background levels at Wheaton that don't have a rail, major rail line, don't have a major bus diesel motor, a diesel bus facility, or school busses idling right next to it, which was a reason why that particular location, the Colvin Street location in Alexandria, had such elevated values. And the goal is not to pick the highest one; the goal is to be representative.

MR. GOECKE: And does that apply to PM2.5 as well?

MR. SULLIVAN: It applies to all pollutants.

MR. GOECKE: Why did you select the monitors that you did for PM2.5?

MR. SULLIVAN: We, we selected Beltsville and Rockville because they were the, the closest suburban locations with PM2.5 data available.

MR. GOECKE: The next thing I'd like to talk about is the discussion we've had about urban versus rural characteristics of the mall site. Were you here when Dr. Cole testified about this issue?

MR. SULLIVAN: Yes, I was.

MR. GOECKE: And do you recall what his characterization was of how the air at the mall site itself should be treated?

MR. SULLIVAN: I recall Dr. Cole saying two things. One, one, he did say that the conditions with the mall area were urban when they were --

MR. GOECKE: Which conditions?

MR. SULLIVAN: The land use conditions would be classified as urban. But in fairness, he also said that, in his judgment, that there was transition going on between rural and urban, and that using 50 percent urban and 50 percent rural was how he elected to do his calculations that he showed during his testimony.

MR. GOECKE: And do you agree with that 50/50 breakdown of the air characteristics?

MR. SULLIVAN: I do not.

MR. GOECKE: Why not?

MR. SULLIVAN: I agree in principle. Dr. Cole is correct that when, when air flows from one land use to another, there is a transition zone. It takes time for the air to adjust. Air adjusts next to the ground very closely, and it takes more time for it to adjust to higher, higher enough levels above the ground.

In a case of, of this gas station, we have a situation where the, the urban area begins at the start of the parking, the paved area near the ring road. We have approximately 60 to 70 feet of travel before the air would even get to the start of the queue. And 70 feet of, 60, 65, 50, or 40, 30 of feet of travel, you get, the air will adjust to the level of concern with modeling at 1.5 meters above the ground, which is five feet. The sources are all low-level sources.

The, the typical rules of thumb early on in a, in a transition zone like that, it's usually about a one- to three-, one- to four-feet ratio, which means if we go four feet in, in traverse, the adjustment goes up approximately a foot. We would be way, way, way past the point of transition up to 1.5 meters by the time the start of the queue was encountered. By midpoint in the queue, at the end of the queue, it would be, it would be way past that particular value.

MR. GOECKE: Uh-huh.

MR. SULLIVAN: So it's going to be, it's going to be urban modeling by the time it gets to the, to the queue area.

MR. GOECKE: And does your report address the air characteristics at the mall site?

MR. SULLIVAN: I had sections in the report that discuss this issue and provided some calculations and references to support what I've just said.

MR. GOECKE: Uh-huh. Can you show us the slide that does the calculations or that shows the work in which you calculated why the air would be treated as urban?

MR. SULLIVAN: I can find the page, yes.

MR. GOECKE: It may be on page 35.

MR. SULLIVAN: Page 35? May I get up, Mr. Grossman, to --

MR. GROSSMAN: Certainly.

MR. SULLIVAN: -- explain?

MR. GROSSMAN: You want to use my vaunted laser pointer?

MR. SULLIVAN: What we're talking about here is, this, this area that we're referring to is around the neighborhood, is what the air will experience when it's coming from the south, the point that Dr. Cole was making, the flow from the south would be a transition zone. We, we agree with that statement, there is a transition zone.

But what happens is that it encounters the paved surface right where this parking area is. It has to traverse, I'm showing 50 feet of travel, prior to it reaching the starting point for this queue. The issue is that the, the queue itself is being the model that .75 meter height, meaning the emissions are being contained within the, within a, within a mark another five feet above the ground. The receptors are at five feet, so that what we care about here, and the main issue is, what's going on at five feet. Well, the transition zone, if I go 50 feet, I'll use the one-to-four ratio, it's gone up four feet; we only need to go five. So the transition's going to be met somewhere mid ring road for the emissions we have here.

The other point is, the reference I used is for what's called neutral conditions, but we've already shown that the monitoring done at the mall, that this mall is, is what creates the unstable environment. An unstable environment will tend to have a faster signal than normal.

So my, my point is, I, I agree in principle with Dr. Cole's statement, but in practice, for this application, this, the air that's, that we're worried about in here is where the queue is located, and on the ring road. This, these emissions are affected by urban air quality, urban dispersion characteristics, not rural.

MR. GOECKE: And remind us, why is it important

whether you treat the air having urban or rural characteristics?

MR. SULLIVAN: Urban characteristics have greater degree of dispersions than due rural due to the heating of the sources. In this case here, it's from the heating of the fact it's asphalt, creates a warmer surface. Also, you can, during urban, you can be affected by buildings and structures that tend to produce more, more mixing as compared to a, a moral rural area. So based upon the literature, and I've showed several, and there's more, the transition would have occurred prior to the time when this, the, the gas queue would have been encountered.

MR. GOECKE: Uh-huh. And based on those urban dispersion characteristics, how will that affect emission levels at, I'd say the Stephen Knolls School, the nearest home, or the pool?

MR. SULLIVAN: Well, I think you mean, you said emissions earlier, you mean air concentration?

MR. GOECKE: Air concentration levels, thank you.

MR. SULLIVAN: Well, the, the urban treatment will provide lower, lower concentrations than the rural treatment will.

MS. ADELMAN: Mr. Grossman --

MR. GROSSMAN: Yes.

MS. ADELMAN: -- may I ask a question? Are you on

page 35, Mr. Sullivan?
MR. SULLIVAN: I believe that I am.
MS. ADELMAN: Because my copy says 70 feet of travel rather than 50 feet of travel over the asphalt ring road.
MS. CORDRY: Yes, so does mine.
MR. SILVERMAN: That's what mine says too.
MR. SULLIVAN: Okay. We're going to have to measure, I could measure -- I don't know why this version is, is different. I mean, I could bring up a different, I don't know why this says 50 and your said 70. It could be confirmed with a, with a Google Earth or by going to the site, but it's, on the order, it's more than, still more than 50 feet if you go up and measure Google Earth.
MS. ROSENFELD: Well, is it 50 or more?
MS. ADELMAN: Which number --
MR. SULLIVAN: I'm saying it's 50 or more. We --
MS. ADELMAN: My question is which number are you using?
MR. SULLIVAN: Well, I guess --
MR. GROSSMAN: Let's save that kind of questioning for cross-examination.
MR. SULLIVAN: Well, I mean, I, Mr. Goecke, I could confirm that the version I have is the exact same version submitted, and it may be this, this was modified at

some point by a more accurate measurement. I don't know.
MR. GOECKE: Would it make a difference if there were 70 feet and not 50 feet?
MR. SULLIVAN: Not at all. But my, the actual, my hard copy version does say 50, so it was, it was modified.
MR. GOECKE: So why wouldn't it make a difference if it were 70 feet and not 50 feet?
MR. SULLIVAN: Well, the conversion's going to occur much closer than 50 feet so it wouldn't matter. I mean, if it's 50 or 70 feet, the main point is the conversion will equilibrate much closer than, than 50 feet, so it wouldn't make any difference.
MR. GOECKE: So --
DR. COLE: Conversion of what?
MR. SULLIVAN: The equilibration of the, of the wind and turbulence from a rural to an urban setting would, would occur well within 50 feet.
MR. GOECKE: So if it's longer than 50 feet, it has more time to convert from rural to urban dispersion characteristics?
MR. SULLIVAN: It would have more time, correct. The front would be higher above the ground.
MR. GOECKE: Turning to the time it takes for NO to convert to NO2, do you remember Dr. Cole's testimony about how long it takes?

MR. SULLIVAN: I believe he said seconds to tens of seconds.
MR. GOECKE: And do you agree with that testimony?
MR. SULLIVAN: Well, it depends. I mean, it depends on context. If we're talking about a, a well-ventilated, well-mixed smog chamber in the laboratory, I believe he's correct; if we're talking about the atmosphere, and the gas queue and the atmosphere turbulence, it's not correct.
MR. GOECKE: And why is there a difference between the rate at which NO converts to NO2 in a chamber as opposed to in the atmosphere?
MR. SULLIVAN: The smog chamber, they have fans that are running that are mixing the air up, to a large extent, so they can measure conversion rates. In the atmosphere, we don't have the fans; we have turbulence and atmospheric diffusion, and these processes take much more time to completely mix to the molecular level. The ozone that's outside the plan would be with the NO that's inside the plan. It takes, takes time, takes lots of time. So it's, he's, he's not incorrect in a sense that the reaction is fast, but in order for the reaction to happen, there has to be contact to the molecular level. That takes a lot of time. Atmospheric turbulence is not mixing things molecular right away; atmospheric turbulence is moving chunks around

of, of exhaust gas, in this case, and it's, it's spreading it around, but it's not mixing it to the molecular level until it gets into really fine-scale turbulence and, and actually, atmospheric diffusion, which is an extremely slow process. So that's why the literature shows, you know, kilometers of travel, not a lot of conversions taking place.
MR. GOECKE: And talk about that, and make sure that conversion process with the, what is actually required to transform NO to NO2? How does that process work?
MR. SULLIVAN: They, there are several mechanisms. You know, NO2 can do some conversions of very high levels of NO, but the primary mechanism is NO, NO and ozone reacting to form NO2. That's the primary, primary reaction. But again, that reaction can only take place if there is intimate contact with the molecules, at the molecular level. That, that's the key issue.
MR. GOECKE: Which leads us to the OLM. Tell us what OLM is generally.
MR. SULLIVAN: The ozone limited method, limiting method is a, a procedure that's acknowledged in the, in our community, to be very conservative, in this --
MR. GOECKE: In which community?
MR. SULLIVAN: In the modeling community, it's conservative treatments that attempts to -- well, it does, it allows the conversion of NO to NO2 by have, by first

inputting what the initial ratio from the point of release is in a stack, or the exhaust pipe in this case, what is the initial ratio of NO2 to NOX, and then it allows conversion of the remaining NO on a one-to-one basis with how much ozone is in the air.

It assumes that there's complete mixing right away, which we all know doesn't happen, which makes it a conservative procedure; assumes it's completely mixed in the, there's contact between the ozone and the plume right away, and it, what converts does convert. But if there's less ozone than NO, it can't convert it all, and so we'll, you'll only convert what's available in the atmosphere at that point in time.

MR. GOECKE: Okay. When would a modeler apply the OLM method?

MR. SULLIVAN: In the past, it hasn't been required a lot because the, the standard was an annual standard for NO2, but generally, it was pretty, it was relatively easy to meet. 2010, when they, they brought in the one-hour standard, the OLM became more necessary, as did many other refinements because what was found in the modeling community is that modeling, were using conservative assumptions, was producing concentrations that far exceeded what you could make. So there was way too much conservatism with the one-hour NO, NO2. And the ozone limiting method

helped to some degree, and it helps more if you're talking about a power plant stack, but for a, a location like a gas queue, would be, where you have receptors inside the source, yeah, it doesn't help. It's, it helps to some degree but not a lot.

MR. GOECKE: And when might a modeler apply OLM then?

MR. SULLIVAN: Well, it's a tier process that Dr. Cole and I both discussed. I mean, you, we started with tier 1, assuming it's 100 percent NO, NO2 simplicity -- good thing when you can do it. But this case here, you know, we had more and more discussion, we went to stage 2, now we're going to stage 3. You go to the higher level of resolution as necessary, and in this case, we concluded, based upon Dr. Cole's points and testimony, that we'll, well, we'll go, we'll apply the OLM.

MR. GOECKE: Uh-huh.

MR. SULLIVAN: We didn't really think it was necessary, but just for completeness, we, we ran it.

MR. GOECKE: And in your opinion, is the OLM commonly accepted in the air modeling community?

MR. SULLIVAN: With the reservations that I've given, but yes, it is acceptable.

MR. GOECKE: And what do you base that opinion on?

MR. SULLIVAN: Well, EPA certainly has put that

option into the AERMOD dispersion model. So in that context, they, they've accepted it as a tier 3 approach.

MR. GOECKE: Are there any peer review articles that discuss using OLM?

MR. SULLIVAN: Yes, there are.

MR. GOECKE: And have you cited any of them in your rebuttal report?

MR. SULLIVAN: I, I certainly cited a lot of literature regarding ratios to use in the OLM and so forth, and I cited Fox, a Fox, Mr. Fox memo, which describes the OLM method. Not published, but it was an EPA memorandum.

MR. GOECKE: Uh-huh. And what was the significance of that memo? Why did you refer to that in your report?

MR. SULLIVAN: EPA produced that memo because of the outcry from, from industry, industry --

MS. ROSENFELD: Could you identify the memo by date or is it an exhibit so I know what he's talking about?

MR. SULLIVAN: Fox 2011, I believe it was.

MR. GROSSMAN: And identify Mr. Fox too. I think we have previously identified him, but just --

MR. SULLIVAN: It's my reference, it's in reference here. I'm referring to a memorandum dated March 1st, 2011, Tyler Fox, leader, air quality modeling group, to regional air division directors, entitled, additional

clarification regarding application of Appendix W modeling guidance for the one-hour NO2 national ambient air quality standard.

MS. ROSENFELD: Thank you.

MR. SILVERMAN: What is that? My recollection is that is an exhibit, actual recollection.

MR. GOECKE: I think it is, Mr. Silverman. It's also listed on page 21 of the rebuttal report for a full citation.

MR. GROSSMAN: And I'm sorry, what is Mr. Fox's position?

MR. SULLIVAN: He is the -- let me get the exact title here -- Mr. Fox is the leader of the air quality modeling group, U.S. EPA, office air quality planning standards.

MR. GROSSMAN: Okay.

MR. GOECKE: And Mr. Sullivan, how did you apply the OLM method in your rebuttal report?

MR. SULLIVAN: In our rebuttal report, we needed to deal with a situation where there were receptors inside the source. We have a gas queue, we have receptors inside the gas queue and adjacent to the gas queue where it would not be feasible to have complete mixing to the molecular level between the outside ozone and the NO2 from the source itself. So what we, what we did is we applied the, the

method and we set a, a boundary of 40 meters based upon the period of reviewed literature, 40 meters outside the gas queue where we would very, very conservatively allow the OLM to begin. We, we write references to justify that, and, and also, it's, it's certainly, it's only 10, basically, it's 10 dilutions away from the gas queue itself, which is very little compared to getting down to molecular contact.

So we, we, in my judgment, it'd be, it'd be a kilometer or more before you'd actually have that kind of contact. We conservatively set it at 40 based upon the literature as a way of being able to apply the method to this particular application.

MR. GOECKE: 40 what?

MR. SULLIVAN: 40 meters.

MR. GOECKE: Uh-huh. And when you say you cited to references to support that, what references are you referring to?

MR. SULLIVAN: Appendix B of my rebuttal report where I believe we provided the, all, for the references. For example, I, as referenced in the Janssen et al. 1986, that's one, one reference.

MR. GROSSMAN: This is at page 21, references.

MR. SULLIVAN: I was referring to page 27, Appendix B of the --

MR. GROSSMAN: Okay.

MR. SULLIVAN: -- I called it out, but let me see. Was page 21 the references.

MR. GROSSMAN: List is Jenson, the, or Janssen.

MR. SULLIVAN: Janssen 86, that would be, that would be one of the, an example referenced, environment agency 2007 --

MS. ROSENFELD: I'm sorry.

MS. CORDRY: Wait a minute.

MS. ROSENFELD: Did --

MS. CORDRY: Wait, wait, wait.

MS. ROSENFELD: Did you say page 27?

MS. ADELMAN: Page 28.

MR. GROSSMAN: Page 20, we're looking at reference list on page 21, there where we list references.

MR. SULLIVAN: And Janssen 86 was one of the references I've just mentioned. Environmental, environment agency 2007 was another example, a reference.

MS. ROSENFELD: And that is --

MR. GROSSMAN: That's the first reference on page 21.

MS. ROSENFELD: It, you're talking about the one titled, mixing of ambient air in a plume?

MR. SULLIVAN: Well, I, so I just read it, two references, environment agency, review of methods of NO, NO2 conversion --

MS. ROSENFELD: Got it.

MR. SULLIVAN: -- in plumes, and Janssen et al, which would be mixing of ambient air in a plume and its effects on the oxidation of NO, 1986, that's the, another example that I've provided.

MS. CORDRY: And just a question. This says environment agency. Is this the EPA or is this some other environmental agency?

MR. SULLIVAN: It's a different environmental agency.

MS. CORDRY: Okay. Do we know which one?

MR. SULLIVAN: The report was provided. I have the copy of it here. It's not a U.S. agency. It's an Australian regulatory agency.

MR. GOECKE: Mr. Sullivan, when you testified about putting, where to locate the receptor, would it be appropriate to put the receptor right in the queue itself?

MR. SULLIVAN: No, it's not standard procedure to do that. We did in this case because that's what being discussed, but when EPA, we do modeling for EPA or states, we put receptors on sidewalks; we don't put receptors in the roadways.

MR. GOECKE: And why not?

MR. SULLIVAN: It's a transient source. I mean, that's, if, the EPA guidance doesn't recommend putting

receptors in transient sources.

MR. GOECKE: And that's what --

MR. GROSSMAN: Well, isn't there a distinction there because people aren't standing in the middle of the roadway, but they are going to be located, for some period of time, in the middle of queue. Is there a distinction there?

MR. SULLIVAN: We, there is a distinction in that context because they will be waiting while they're getting gas --

MR. GROSSMAN: Right.

MR. SULLIVAN: -- but the other point we made, we showed that they'll only be there on a 40-queue day or hour for, for at least 20 minutes. So it, they, they're not there even for a full, a full hour, which the standard is based upon. So, and that, that's been discussed in the past as well. But it's not standard procedure to model inside transient areas like a loading dock or a gas queue, it's not, not a standard procedure.

MR. GOECKE: Does the time and distance it takes for NO to convert to NO2 have anything to do with where you locate receptors?

MR. SULLIVAN: Not in this case. We would locate the receptors where the points of concern were raised. I mean, the opposition raised concerns about the gas queue.

We, we put, we put receptors there to address the, the issue, by the loading dock, recognizing that's not a typical place that we model for, but in this case, to, for completeness of the record, we, we put receptors there. But it's not, that was not related to conversion time.

MR. GOECKE: One of Dr. Cole's criticisms was that you underestimated exposure levels for folks in the queue by assuming 20 minutes in a queue and then 40 minutes at background levels. How do you respond to that criticism?

MR. SULLIVAN: Well, the hard numbers were showing, including the February report. We're, we had them there for a whole hour. And we're, we're not, we didn't take credit for that fact; we just used that as, as a point of context, as a background. But the reality is, they'll be there 20 minutes on a bad, high queue day, and then they'll get away from that, that zone. And as you can see with any of the figures in my report, once you get away from the gas queue area, if you go to the mall, you drive away, your concentration is going to go down substantially.

MR. GROSSMAN: You're saying that your actual figures that you calculated were not based on dividing the one-hour exposure level by a third because it was only 20 minutes? That was just a side observation?

MR. SULLIVAN: That's a side observation for context. And one of the ways it's conservative, that they

aren't, they are not there for the full hour to experience that full exposure.

MR. GROSSMAN: Well, I understand the point; I'm just saying that Dr. Cole was put out by the fact that he felt that that was a, as I recall his testimony, an improper procedure or way to apply the EPA one-hour standard. But you're telling me that you didn't apply it that way; you actually just made the observation, but your actual figures were based on the full one-hour standard.

MR. SULLIVAN: That is correct.

MR. GROSSMAN: Okay.

MR. GOECKE: Mr. Sullivan, does your report make any final conclusions for maximum one-hour NO2 concentrations?

MR. SULLIVAN: Yes, it does.

MR. GOECKE: And would you mind taking us to that page of your report on the slide?

MR. SULLIVAN: Well, actually, my, my conclusion is very short, it's one sentence and it's rather general, but it would apply to NO2 one-hour in any, any conclusion of discussion. And my statement was, it is Mr. Sullivan's expert opinion, within a reasonable degree of scientific certainty, that the proposed Costco gas station will not violate any applicable federal or state ambient air quality standards, and I stand behind that statement.

MR. GOECKE: And in terms of the one-hour NO2 level, can you remind us what the EPA national ambient air quality standard is?

MR. SULLIVAN: 98th percentile value is 190 micrograms per cubic meter.

MR. GOECKE: And what do you model locating the concentrations based on the activities from the proposed Costco gas station?

MR. SULLIVAN: The most accurate assessment we have, we've done with the least amount of overstatement would be stage 3 NO2 one-hour, which showed a maximum of 121 micrograms per cubic meter.

MR. GOECKE: I'd like to turn to some of the points that Dr. Breysse made in his testimony. Were you here when Dr. Breysse testified?

MR. SULLIVAN: Yes, I was.

MR. GOECKE: All right. And do you recall his testimony about the uncertainty that's involved in air modeling?

MR. SULLIVAN: I do.

MR. GOECKE: Uh-huh. And do you have any comments and response to his testimony?

MR. SULLIVAN: Well, Mr., I mean, Dr. Breysse testified that for publishing technical papers in environmental journals, for example, that the uncertainty

generally addressed by Monte Carlo methods with a, with a 95th percentile value explained to provide an uncertainty range for, for values. That, that was his position.

MR. GOECKE: And can you explain what a Monte Carlo method is again?

MR. SULLIVAN: Monte Carlo means really, if you have a, an input parameter that, that has uncertainty or has variability, you can, you can basically spin the roulette wheel and you're going to come up with an open number to pick from among that distribution, and you model with that number. And you'll run it, you'll simulate many years of operation, and you can come up with an idea of the distribution; how you're going to get the best estimate might be 121, you might show as a range from 80 to 160. It allows you to come up with that range by, by kind of perturbing that variable and putting all the range that you would into it and see what you got. I don't disagree with that. I've done that. We developed a model to do that, called FEMS.

MR. GOECKE: Called what?

MR. SULLIVAN: FEMS, F-E-M-S, is an agricultural model that does Monte Carlo and comes up with distributions.

MR. GROSSMAN: You say we developed one. You mean you yourself developed one?

MR. SULLIVAN: My firm, Sullivan Environmental,

developed a model that, that does just what Dr. Breysse was talking about.

MR. GROSSMAN: And when was that developed?

MR. SULLIVAN: That was, that was developed in 2004, went before the EPA Science Advisory Panel, it was accepted late 2004.

MR. GOECKE: Accepted by whom?

MR. SULLIVAN: The U.S. EPA. But the, the fundamental difference is the air quality standards are not percentile driven, their best estimate standards. So while I don't disagree with him in, in context in showing uncertainty -- you know, we do it for different contexts and we do it for scientific papers, which I have done -- but for evaluation next to the standards, it's a best, it's the best-fit number. There is not a, there's not a place to put that distribution in -- not required, not done. So it was more academic, in my opinion, it was not -- interesting information, but it was not applicable to this matter at hand.

MR. GROSSMAN: I don't, I really don't understand your answer. You said that these standards are not percentile driven, and we talked before about 98th percentile for background levels as the EPA standard, so would you explain that difference to me? I don't understand.

MR. SULLIVAN: Yeah. What, what we're doing with, with the 98th percentile means, we're modeling, we're taking five views of meteorological data --

MR. GROSSMAN: Right.

MR. SULLIVAN: -- and we're modeling it separately, and we're determining what the average 98th percentile is from that hard data set.

MR. GROSSMAN: Right.

MR. SULLIVAN: We ran it 100 times with the same exact answer. What Dr. Breysse was referring to is looking at Monte Carlo distributions to see, well, let's say the emission rate, we say it's, it's 100 units, but there's an uncertainty range in that; it could be anywhere from 50 to 150. Well, let's vary it from 50 to 150. Each time you do it, you're modeling an hour, let's go into that distribution and pull a number. Maybe now it's going to be 79, next time it's 142.

That, that approach is quite different where it'll show you, here's my 98th percentile value, but here's the range around that value. We say it's 121, it could be 80 to 160. It's, it's a different concept, it has a, it's considering uncertainty in the input variables.

MR. GROSSMAN: Okay. And why is it that this uncertainty factor is not appropriate for your kind of modeling?

MR. SULLIVAN: Well, it's actually, EPA's guideline models do not require or even recommend that uncertainty be part of the analysis. Their procedure is to run the dispersion model, such as AERMOD, and put in appropriate emissions information, representative meteorological data, and rely upon that result.

For example, when I, when I submitted permits to the EPA on behalf of, of applicants, for the air quality permit to construct, for example, the EPA doesn't say, well, I see you say you're under the standard, but what would happen if you considered uncertainty in your analysis. I mean, that's, that's a question that does not come up in regulatory modeling that I've ever seen. I'm not saying it has never happened, but I've never seen it applied that way.

MR. GROSSMAN: But let's say in this case; that is, this application for special exception, I'm not, even if I utilize EPA standards as a guideline, they're not directly within the statute. The statute here talks about adverse impacts on health. And so wouldn't uncertainty, in terms of the projection, be a factor I'd have to consider?

MR. SULLIVAN: You, you certainly could, but in, in considering that, I've made points all along, that for example, when the NO2 one-hour value, let's say it's, we're modeling 121, the measurements next to major highways are like in the 80s and 90s, so I can make the, I think I can

make the argument persuasively that it's pretty unlikely that the ring road's going to be higher, and that gas station is going to be higher than I-95, so there's still a residual uncertainty. If you're considering uncertainty, most of it's in the upper end, and the actual, actual realistic number is likely to be much lower than 121. So I think if you consider uncertainty, really, it's going to lower the number, have a much less probability of increasing it.

MR. GROSSMAN: But of course, I also have to factor in the other evidence that you presented earlier in the case -- I mean, the 121 figure is based on your rebuttal report -- but there were earlier figures that were considerably higher.

MR. SULLIVAN: We showed 160 earlier, and that's based on modeling NOX, 100 percent NOX and using that, that procedure, and I'll stand behind that as being a conservative representation. But would there be a need to scale that if they hit higher? I'd say, well, well no, I mean, it's, it's already very conservatively addressing NO2, but going to a higher tier at this point in response to context.

MR. GROSSMAN: All right. Well, I'll let you continue, counsel.

MR. SULLIVAN: Generally, a higher tier will trump

the lower tier, lower tier analysis.
MR. GROSSMAN: We may be playing no trump.
MR. SULLIVAN: What's that?
MR. GROSSMAN: We may be playing no trump in this hand -- for bridge players.
MR. SULLIVAN: Right.
MR. GOECKE: So building on what Mr. Grossman was just asking you, how would you compare the assumptions that you made in conducting your air modeling with another that might include a range or a percentage of uncertainty?
MR. SULLIVAN: I mean, my, my expectation, if I was trying to remove all conservatism completely and identify uncertainty in different parameters, as Dr. Breysse mentioned, my expectation is that the upper bound of that analysis would be more like the 121 I have right now, and the best fit or number would be more in the order of 80 micrograms or less. The lower bound could be much lower than that. And many assumptions that have been made are highly conservative.
MR. GOECKE: And I believe I asked Dr. Breysse about that, with the different assumptions that you use, whether or not that would sort of accomplish the same goal as establishing a range of anticipated emission levels. What's your opinion on that?
MR. SULLIVAN: Well, I think by, by having

embedded conservatism in a principle, you're, you're responding to that issue because you're saying, look, I know there's some uncertainty, I'm going to be conservative, and you put that conservatism in. But at the end of the day, you look at your modeling, you look at reality, people measuring it, you say, well, this is pretty high, and you can use some judgment then to interpret that model. The modeling is, is a tool, but it has to be interpreted relative to the other, other facts at hand here. And the measured data are extremely relevant where they exist. And they're, they're a lot lower than this thing, than we're modeling here.
MR. GOECKE: And by measured data, you're referring to what?
MR. SULLIVAN: Measured one-hour NO2 98th percentile data.
MR. GOECKE: At where?
MR. SULLIVAN: Well, the examples I gave was of the I-710 in L.A., a highway in Las Vegas, and I-95 in, in Richmond, Virginia.
MR. GOECKE: Uh-huh. And so to Mr. Grossman's point, if there is concern that the conservative assumptions you made in your earlier reports produce numbers that are closer to the EPA max than where you're at now, how is he or anyone to know that those numbers are, aren't, in reality,

going to be higher?
MR. SULLIVAN: I, there's two answers. One is, that we have done a higher tier analysis. Standard EPA procedure is you go from tier 1 to tier 2 to tier 3, relying upon the more refined analysis as being more definitive. But secondly, the earlier analysis would show 160 micrograms as the, as the value. That's higher than I-710 in L.A. What are the odds of that being, being correct, accurate? It's conservative. It's an overstatement. Monitor would never reach that value on a 98th percentile basis at that mall or near the mall. It wouldn't happen. I mean, you could ask, you could ask anybody in the profession. You expect to see an exceedance at Wheaton Mall? They'd say no. Based upon the measured data that exists --
MS. CORDRY: Can we object to that --
MS. ADELMAN: Yes.
MR. SILVERMAN: Object.
MS. CORDRY: -- please? Ask anybody that --
MR. GROSSMAN: You can object to, you don't have to ask me permission to object.
MS. CORDRY: Well --
MR. GROSSMAN: You --
MS. CORDRY: -- then I will object to that. I think it goes a long way beyond speculation to have Mr. Sullivan decide what everybody else in the industry is going

to say.
MR. GROSSMAN: Yes. I'm going to sustain that objection. Even though I recognize that's kind of his opinion, he's an expert, he's giving his opinion, but phrased in the way of asking anybody and they'll tell you is problematic, so I'm going to sustain that objection.
MR. SULLIVAN: I reword my statement?
MS. CORDRY: Because we have someone else in the industry who does not have that impression, so --
MS. ROSENFELD: We proffer.
MR. GROSSMAN: They proffer they have somebody else who disagrees. But in any event --
MR. SULLIVAN: Well, I'll --
MR. GROSSMAN: -- yes, you can reword that.
MR. SULLIVAN: I'll reword to saying that if, in my judgment, if you would ask most state regulators involved in air quality, if they would expect the violation of the one-hour NO2 standard at the Wheaton Mall, based on this gas station, you'd have a hard time finding one that would say yes.
MS. CORDRY: Well, I think you would have a hard time finding --
MS. ADELMAN: Uh-huh.
MS. CORDRY: -- any of them that would have had --
MS. ADELMAN: Uh-huh.

MS. CORDRY: -- any involvement in this --
MS. ADELMAN: I disagree.
MS. CORDRY: -- so I think --
MR. GROSSMAN: Well, okay, we're not, this is not the debating society.
MS. CORDRY: No. Objection to speculation.
MR. GROSSMAN: This is his -- I understand.
MS. CORDRY: Objection to speculation.
MR. GROSSMAN: I think that it's a fair objection. On the other hand, it is an expression of his opinion as an expert on this as to what, based on his experience in the industry as to what regulators would say. So I'm going to allow it and give it the weight it deserves.
MS. CORDRY: Which is nothing.
MR. GOECKE: So moving on, given the amount of modeling that you and your firm have performed for the site, in your opinion, has there been a sufficient, has the modeling been sufficient, or do you think there's more modeling that needs to be done?
MR. SULLIVAN: Well, I don't think more modeling needs to be done. It's sufficient.
MS. CORDRY: We would agree with that. No more modeling.
MR. GOECKE: Dr. Breysse, for example, suggested that the hearing examiner should consider the synergistic

effects of the chemicals that are, the concentration of chemicals. Do you have any response to that?
MR. SULLIVAN: I do. The, in theory, it would be nice to address synergistic effects on air pollution, but the EPA doesn't know how to do it. It's not required by EPA, they, they really don't have a handle on that.
MR. GROSSMAN: I think, wasn't he talking more about health, the synergistic effects of these combined pollutants in terms of health, not within this witness's expertise. I don't know that he was saying that -- and maybe I'm remembering it incorrectly -- but I don't know that he was saying that the synergistic effects of the various molecules in the air would have on each other; I think he was talking about the synergistic effects of NO2 plus PM2.5, etcetera, on health.
MR. GOECKE: I think that's correct. I think one of his criticisms of Mr. Sullivan's report were that it didn't address the, do any analysis of the synergistic effects in terms of identifying what levels there might be.
MS. CORDRY: I don't think he --
MR. GOECKE: Let me ask it this way.
MR. GROSSMAN: I don't know. Well, he can --
MR. GOECKE: Let me --
MR. GROSSMAN: -- ask the question.
MR. GOECKE: Let me ask it this way. And it

sounds like you may have already answered this, but does EPA have any thresholds that applicants must meet in terms of measuring synergistic levels?
MR. SULLIVAN: No. An EPA, for example, in the Clean Air Act, has national ambient air quality standards. Each one is reviewed separately. So the PM2.5 is reviewed, then SO2 is reviewed, and so forth. There's no combination. What it, you don't add up CO --
MR. GOECKE: Thank you.
MR. SULLIVAN: -- and SO2. It's not, it's not part of the requirements.
MR. GOECKE: Right.
MR. SILVERMAN: Can we take a short break at some point?
MR. GROSSMAN: Well, let's see how much, how many, how much more do you figure is in your direct examination, Mr. Goecke?
MR. GOECKE: I think I'll be done in 15 to 20 minutes.
MR. GROSSMAN: All right. Do you want to continue until you're finished or take a break now?
MR. GOECKE: We can take a break.
MR. GROSSMAN: Okay. Let's do that then. We'll take a five-minute break.
(Whereupon, at 11:18 a.m., a brief recess was

taken.)
MR. GROSSMAN: All right. Are you ready to proceed, Mr. Goecke?
MR. GOECKE: I am. Just wait one moment for Ms. Harris. May I begin?
MR. GROSSMAN: You may.
MR. GOECKE: Thank you.
Mr. Sullivan, in terms of PM2.5, Dr. Cole testified that the PM2.5 levels off the mall site are not likely to be significant, but still thinks that the levels on the mall site itself may be significant. Do you agree with him?
MR. SULLIVAN: I agree with the concentrations off the mall are not significant; I don't agree with the latter statement. We have specifically modeled it in the rebuttal report and showed the concentrations were within the standards.
MR. GOECKE: And do, can you tell us what the anticipated emissions of PM2.5 from the COSTCO gas station activities might be?
MR. SULLIVAN: The reports shows, showed the culpability review for the 98th percentile value, and it showed that the -- I'll find the page number in a minute.
MR. GROSSMAN: For the 90th percentile value or --
MR. SULLIVAN: 98th percentile. Let me find it

here. I'm sorry -- the annual average, I should say, PM2.5 annual average value -- let me find the page that's it on now. It's on page 14 of the February 14th rebuttal report.
MS. CORDRY: That is, looks like --
MR. SULLIVAN: 14.
MS. CORDRY: Looks like --
MR. SULLIVAN: I'm sorry. That's NO2, I know. It's on page 16.
MR. GROSSMAN: Page 16 of the February 21, 2014 rebuttal report?
MR. SULLIVAN: Yes, sir.
MR. GROSSMAN: Okay.
MR. GOECKE: And so you're bringing slide, or page 16 up on the --
MR. SULLIVAN: Yeah, yes I am.
MR. GOECKE: -- on the screen right now. And can you tell us what your model contributions to the PM2.5 levels are on the various gas station activities?
MR. SULLIVAN: Well, the first line that I'm showing, the gas station contribution, all sources was .92 micrograms per cubic meter and --
MR. GOECKE: And when you say all sources, what does that include?
MR. SULLIVAN: Well, that would primarily be the combustion sources, which would be the, the queue and

delivery trucks. But you see the maximum is occurring right in the gas queue itself, the maximum total contribution from the gas is .92 micrograms from the gas station. The total value there, model value is 10.8 micrograms, which is under the standard, but again, this is a location that no one would spend a year in the middle of a gas queue. The values shown towards the neighborhood and so forth are quite a bit lower than that; in fact, they're under 10 micrograms a cubic meter.
MR. GOECKE: Okay. And so the highest concentration is 10.77 micrograms per cubic meter? Do I read that correctly?
MR. SULLIVAN: Yes, you do.
MR. GOECKE: And that's for the one-hour average, or what's the time period?
MR. SULLIVAN: That's an annual average.
MR. GOECKE: Right. I meant to say annual average. Thank you. And what is the standard, the EPA standard?
MR. SULLIVAN: The standard is 12 micrograms.
MR. GOECKE: 12.0 micrograms?
MR. SULLIVAN: Correct.
MR. GOECKE: And the total contribution from the gas station activities are 0.92?
MR. SULLIVAN: That is correct for that particular

location in the middle of the gas queue itself.
MR. GOECKE: Okay. And so I see you've got different categories in the blue box there, including the warehouse, parking, roads. Are those contributions only related to traffic for the gas station, or is that all traffic at the mall, or what do those numbers represent?
MR. SULLIVAN: That's from all, all traffic, and the ring road, and the, and then specific roads to be modeled in the parking lots from the warehouse operations, and especially, background. As you can see, 9.8 micrograms of the 10.77 is background.
MR. GOECKE: And where did you get your background number from?
MR. SULLIVAN: The background was based upon the higher of the Rockville or Beltsville site, which was, my recollection was Rockville had the higher.
MR. GROSSMAN: And that's using urban dispersion rates?
MR. SULLIVAN: Yes, that's correct. Because this modeling all is, these receptors are inside the, the ring road area, they're in the, they're in that zone that would be urban.
MR. GOECKE: In terms of the contributions from traffic to the gas station, where did you get the number of vehicles that you used in your modeling?

MR. SULLIVAN: We, we got our, our basic data from the traffic group, Mr. Guckert.
MR. GOECKE: Okay. And have you been here for some of the hearings when Mr. Guckert has testified?
MR. SULLIVAN: Yes, I have.
MR. GOECKE: You're familiar then that the opposition has suggested that Mr. Traffic, Mr. Guckert found the traffic levels are lower than what they might actually be?
MR. SULLIVAN: Well, what I heard was that the point of contention was that Mr. Guckert's numbers, the peak numbers are based on weekday analysis, and the point of contention was that weekends could have higher, or did have higher traffic volumes at the mall.
MR. GROSSMAN: Well, that's one of many things they contended.
MR. SULLIVAN: Correct.
MR. GROSSMAN: Okay.
MR. SULLIVAN: I heard that.
MR. GOECKE: In terms of the contribution from the traffic and the ring road, let's start with PM2.5, what is the anticipated, the model concentrations from ring road traffic?
MR. SULLIVAN: Well, the ring road is showing 0.028, or about .03 micrograms per cubic meter.

MR. GOECKE: Okay. And we've talked a lot with Mr. Guckert about intersection 16, which I'll point to on the screen, the northwest area of this photograph here. Did you do modeling for that specific intersection?

MR. SULLIVAN: That would be considered as part of our -- find the right category -- roads. The roads category would include all those roadways other than the ring road, so it would have included intersection 16 and 20, University, Veirs Mill, and Georgia Avenue.

MR. GOECKE: Okay. So the roads line item on the blue box on page 16 includes the nearby roads, including intersection 16?

MR. SULLIVAN: It does.

MR. GOECKE: Okay. And can we go to your slide for the one-hour NO2 levels, please?

MR. SULLIVAN: Stage 3 is what we consider the most accurate to least conservative, extra conservatism built into it.

MR. GOECKE: Okay.

MR. GROSSMAN: What page is that?

MR. GOECKE: And this is --

MR. SULLIVAN: I'm on page 13.

MR. GOECKE: This is page 13 of your report?

MR. SULLIVAN: Page 13.

MR. GOECKE: Okay.

MR. SILVERMAN: States what? Where?

MS. ROSENFELD: Page 13.

MR. SULLIVAN: Page 13.

MR. GOECKE: And the total concentrations model that is shown on page 13 are what?

MR. SULLIVAN: Approximately 121 micrograms per cubic meter at a location inside the gas queue.

MR. GOECKE: Okay. And that's again for the one-hour NO2 levels?

MR. SULLIVAN: That's correct. Figure 3 of my February 14th, 2014 rebuttal report.

MR. GOECKE: Okay. If the traffic levels that you based your modeling on were lower than the amount of cars that are actually going to be traveling to the site, what effect might that have on these calculations?

MR. SULLIVAN: Well, my traffic number that we used, the most significant one is for the ring road, the southern ring road, and in that location, we used 639 vehicles. The updated information from Mr. Guckert was, it was actually 783, which is a higher number than what we had.

MR. GOECKE: And what was the number you used?

MR. SULLIVAN: 639.

MR. GOECKE: Okay.

MR. SULLIVAN: So it's approximately 23 percent difference. So if I went to the ring road, for example, 7.6

micrograms, multiplied that times 23 percent increase, I'd be at 9.29, 9.3, it would go up approximately one, one and a half micrograms per cubic meter, from 121 to maybe 122, 122 and a half.

The other, the other issue is roads. So roads 1.43 -- the two issues I, as I recall though, if I remember Mr. Guckert's testimony, I believe he said that the mall traffic was higher in the weekends like I just described, but that the traffic on other roads like Veirs Mill and Georgia Avenue and University was lower in the weekday peak. So there's some kind of balancing going on here.

But bottom line, if I were to take the highest value, the weekend highest peak hour and assume it happened all the time, every hour the mall is open, that I would come up with a number in the order of maybe 2 micrograms higher, maybe it's 123, counting other roads, counting the parking lots, counting the ring road. So it's, it's a fact that it, it's, the actual peak is higher, it's not, doesn't significantly affect what I am doing, but clearly, the number went up about 23 percent.

MR. GOECKE: And just refresh our recollection, did you, when you used the traffic numbers, did you use peak hour or did you use the average? What level traffic did you use in your modeling?

MR. SULLIVAN: For all, all sources, it's, from

the ring road in, which would be the ring road and the parking lot, we used the peak weekday hour to represent all hours the mall is open. And I'll contend that that's much more, much more conservative than if we had used scalers to show how that varied weekend, weekday throughout the, the week.

MR. GOECKE: And why is that?

MR. SULLIVAN: Well, because the peak Saturday value occurs for an hour or two, and the mall is open, what, 15 hours every day? Generally, the five days of the week, the numbers are significantly lower than that peak value. By fixing the modeling to the peak value, it simplifies the modeling, but obviously, it overstates it. The bottom line is Mr. Guckert's change did not have the material effect on our bottom line estimates for NO2, PM2.5, or for carbon monoxide.

MR. SILVERMAN: May I ask a question for clarification? Is stage 3 tier 3?

MR. SULLIVAN: There, yes, it is, it is considered stage, tier 3.

MR. SILVERMAN: All right. All right.

MR. GOECKE: One of the other points raised by Dr. Cole is that the MOVES versus Mobile6.1 in terms of estimating motion levels. How did you address that in your rebuttal report?

MR. SULLIVAN: Well, we, we clarified, I mean, we, we agree with Dr. Cole on the fleet average basis -- that statement is correct, the literature shows that's correct -- but the fleet is not going through the COSTCO gas station. What's going through the COSTCO gas station are gasoline vehicles.

And the bottom line is, for, for gasoline vehicles, Mobile6 is higher than MOVES, not lower. And so we made, we properly adjusted for that in this modeling based upon literature that shows, shows that fact. The reason the fleet is so much higher is due to diesels, standard heavy-duty diesels, passenger diesels, which are underestimated by Mobile6 by factors shown to be 20 to 30-fold. That weights the fleet average quite a bit.

MR. GROSSMAN: So you're saying that this distinction of Mobile6 versus MOVES -- MOVES10, I guess it's called -- where Dr. Cole testified that the values, I guess for PM2.5, should be 10 times higher in MOVES than they would be in Mobile6, but that's not correct when you're considering only gasoline vehicles?

MR. SULLIVAN: No, we, we didn't disagree on PM2.5. I accepted Dr. Cole's position. We factored up, on the rebuttal report, we factored up the queue, for example, to add an extra safety factor to get it up to 10. This issue is specific to NO, to NO2.

MR. GROSSMAN: Oh, okay, so you're not talking about NO2 now.

MR. SULLIVAN: Well, we might be --

MR. GROSSMAN: You're not talking about PM2.5 now?

MR. SULLIVAN: No.

MR. GROSSMAN: Where there was that 1 to 10 factor difference between Mobile6 and MOVES?

MR. SULLIVAN: I think we're in agreement on that point. It was, it was the NO2, I just made the clarification. We're actually in disagreement, on the fleet basis, we do agree, but the issue -- maybe we don't -- but the issues on the actual numbers themselves, the literature shows, by category, what's going on, and Mobile6 is higher, higher than MOVES and higher than measured values.

MR. GROSSMAN: Well, hold on a second. Let me just, I just want to eliminate the PM2.5. So you're, what you just, the statements you just made have nothing to do with the PM2.5 measurements in which it's been testified there was a 10 to 1 difference between MOVES and Mobile6, is that correct?

MR. SULLIVAN: It did not address that, no.

MR. GROSSMAN: Okay. Now, you're addressing NO2, and you're saying, where there was testimony that there was a 2 to 1 difference, MOVES showing twice the amount of NO2 compared to Mobile6. What you're saying now is, that's not

correct when you're talking about gasoline vehicles alone. Is that what you're saying? That it's actually reversed? I just want to understand you.

MR. SULLIVAN: It's not a factor to reverse, but it's, it's, maybe on the order of 30 percent, 40 percent, depending on which literature you look at, that MOVES is maybe 30 or 40 percent higher than, than MOVES. Mobile6 is higher than MOVES by 30 to 40 percent.

MR. GROSSMAN: Well, that's the reverse of what, I think the prior testimony was, that for NO2, MOVES would show twice the level of NO2 compared to Mobile6.

MR. SULLIVAN: And that statement is --

MR. GROSSMAN: And you're saying it's more than the reverse of that, it's not, now, it's not, it's no longer MOVES being, showing twice as much NO2 as Mobile 6, but now, you're saying Mobile6 would show 20, 30, 40 percent more than MOVES.

MR. SULLIVAN: That's correct on a specific gasoline vehicle basis, but I, the issue, the previous statement, I believe, was reasonably correct on a fleet average. This was --

MR. GROSSMAN: I understand. I just want to make sure I understand what you're saying. I understand the fleet versus the gasoline vehicles, but all right. I don't know if I've heard that difference before. Go ahead.

MR. GOECKE: What did you apply in your rebuttal report? MOVES or Mobile6?

MR. SULLIVAN: We used, we used Mobile6. We, we did it just for MOVES, like we did for PM2.5, but in this case, it reduced by 20 percent.

MR. GOECKE: And that's PM2.5 or NO2?

MR. SULLIVAN: That's for NO2.

MR. GOECKE: Uh-huh. And so the scaling effect between Mobile6 and MOVES depends on which contaminant you're talking about, doesn't it?

MR. SULLIVAN: Which pollutant, yes.

MR. GOECKE: Which pollutant, all right. You mentioned that using the fleet average overstates the application at this site. Can you elaborate on that, why that is?

MR. SULLIVAN: Well, the basic issue is that the fleet average is quite a bit affected by the diesels. Even though diesels aren't a large fraction of the mix, you know, they're underestimated by 20- to 30-fold, which literature says that are with Mobile6. Well, that has a big effect on the overall emissions from the fleet. So by, by specifically looking at gasoline, which is what they're selling here, we can refine the treatment. And we're, we're adjusting for MOVES like was suggested, but for NO2, it goes down a little bit. We adjusted it 20 percent down. And for

PM2.5, we factored it up to, to 10, try to reach consensus on, well, if they used MOVES, here's what we would come up with.

MR. GOECKE: Thank you.

MR. GROSSMAN: Well, how does that take into account the fact that there are diesel trucks that are running along the ring road, and that are delivering goods at the warehouses, and so on?

MR. SULLIVAN: Well, these numbers pertain to the gas queue itself, would be gasoline only. The other, you know, we applied the fleet mix to those in Mobile6. You can look at the culpability. It's a pretty small number, but I think that that, you, you multiply them by, by the factor of 10, the particulates, you still wouldn't have a high, a high value.

MR. GROSSMAN: All right.

MR. GOECKE: Going back to what we talked about a bit before about the levels of conservatism and uncertainty percentages, one of the points that Dr. Breysse made was that conservatism is in the eye of the beholder. Were you here when he testified that?

MR. SULLIVAN: I was.

MR. GOECKE: And how do you respond to that comment?

MR. SULLIVAN: Well, I mean, conservatism really

is, is relative to the, to the facts at hand here. If, if we know, for, for example, that you know, that vehicles that are traveling on a ring road have, have 5 or 10 percent NO2 in the mix, we're modeling at 25 percent for simplicity, I mean, do the same as the, the queue, well, there's no, should be no disagreement that that's the conservative treatment. It's five times more than the NO2.

You know, we, where we could be, we tried to be conservative in this analysis, and I think it's just based on the facts, not just, it's not emotion, it's facts that the, those, those numbers are overstated, as are the trends I mentioned, those are coming down, and we're modeling for when the gas station's open, we're using trends that go back to 2012 in some cases; that this is just, this is an overstatement. So I mean, I think you have to look at it in the context of the facts.

MR. GOECKE: One of the other points that Dr. Breysse made was that efforts being undertaken to monitor NO2 levels near roadways could include roadways such as University Boulevard. Are you aware of any such efforts currently being undertaken to monitor NO2 levels near roadways like University Boulevard?

MR. SULLIVAN: Well, I think, there are, there are NO2 monitors that have been sitting in environments. I think he was referring to, though, the near-road monitors.

MR. GOECKE: Uh-huh.

MR. SULLIVAN: And the near-road monitors, the state has a limited number of monitors, which they do, they'll tend to put them near I-95, the Beltway, and places like that, rather than University Boulevard, looking at what's been shown so far in literature.

MR. GOECKE: Is there data available for what those monitors are measuring so far?

MR. SULLIVAN: For most of them, the answer is no because they're just getting started right now. Maryland started April 1st of 2014. They were supposed to start January 1st, but I think most of the states just are, have had delays.

MR. GOECKE: Uh-huh. And -- I'm sorry.

MR. GROSSMAN: Is there any data available for monitoring of gas stations of the proposed size here?

MR. SULLIVAN: You mean a monitor near a proposed gas station of this size?

MR. GROSSMAN: Yes.

MR. SULLIVAN: I don't, I don't know the answer to that. I, I have not seen that. That'd be pretty specific.

MR. GOECKE: Going back to Mr. Grossman's point from earlier this morning about the levels of modeled contaminants in your various reports, why should he have confidence that the actual levels are going to be below what

you've modeled in your report, in your earlier reports?

MR. SULLIVAN: Well, I mean, we've explained the, two ways. One, we've explained, the initial modeling that included the assumption that 100 percent of the NOX was NO2, and that modeling, you know, conservatively applied, showed well under the standard. And then you compare the modeling to available measurements that exist, and there aren't a lot of locations right now that come online with near road, that look at those as an extreme example. And you find that those values, with the exception of Port of Long Beach, are, are half of what that early modeling was.

MR. GROSSMAN: Wait a minute. You say your initial modeling, after corrected for the mathematical errors, showed NO2 one-hour levels below the standard?

MR. SULLIVAN: Yes. It was, it was 160 as I recall, in the August 2013 supplemental report. So if you put the couple, that fact and the more recent higher tier modeling that shows more accurate, and still conservative numbers at 120, you compare those to the values being measured at I-95 and other places along major highways, and conclude, you know, this, this conversion of NO2, NO rather to NO2 is happening slowly; otherwise, those highways would have a lot more NO2 measurements next to them --

MR. GOECKE: Uh-huh.

MR. SULLIVAN: -- but they don't. So you put, you

put, I'd say put the whole package together, conservative modeling coupled with a linkage to available measured data in extreme locations even, you find that the modeling tends to be higher than those, those measurements, you conclude the modeling is quite conservative.

MR. GROSSMAN: And I guess I asked my question wrong. Are you saying that your NO2 one-hour levels, after mathematically correcting, but without changes in other assumptions made from your November 2012 report, showed NO2 one-hour levels below the standard?

MR. SULLIVAN: I think that is correct. But when I just, may, in my August report 2013, I first just corrected that error.

MR. GROSSMAN: Right.

MR. SULLIVAN: And then I, then I showed the more refined treatment.

MR. GROSSMAN: Right. And before you do the more refined treatment, but just correcting the error --

MR. SULLIVAN: Correct. That --

MR. GROSSMAN: Then --

MR. SULLIVAN: That is correct.

MR. GROSSMAN: Then the NO2 level, one-hour levels were above the max standard, is that correct?

MR. SULLIVAN: That is correct.

MR. GROSSMAN: Okay.

MR. SULLIVAN: It would have been well above any measured values that I've seen near anything for NO2.

MR. GOECKE: And in your initial report, what were some of the levels of conservatism that you employed there, that you're not employing, or that you may be have not employed in the rebuttal report?

MR. SULLIVAN: Well, early, earlier we assumed that the 40-hour peak queue occurred all the time.

MR. GOECKE: Uh-huh.

MR. SULLIVAN: And we assumed 100 percent NO2 was, 100 percent of the NOX was NO2.

MR. GOECKE: You treated all NOX as NO2?

MR. SULLIVAN: Correct. We, we're using, of course, earlier trend, well, up the trend curve, higher background values you would apply when the gas station's open. And that's the example of factors that would tend to make it an overstatement.

MR. GOECKE: Have you made any changes in your assumptions about the trucks at the loading dock?

MR. SULLIVAN: We refined the trucks. I mean, the initial modeling of the trucks, we had a tremendous overstatement of their emissions. We, we made it more realistic. But even to more current assessment, to be conservative with the one-hour NO2, we had 72 trucks a day in our model going there, but there's only 10 heavy-duty

diesel trucks going there a day. And this, so it's still quite a conservative treatment, but a lot less than the treatment we had before when we had, you know, a lot of trucks that created that peak that Mr. Grossman was referring to that was higher than the standard at that, for that, for those model runs at that point in time.

MR. GOECKE: And was the loading dock a significant contributor of emissions?

MR. SULLIVAN: Well, that, that was the dominant source. It affected that particular peak that he's referring to.

MR. GOECKE: For which contaminants?

MR. SULLIVAN: That, well, that was for NO2.

MR. GOECKE: Uh-huh. And we testified, or you testified a bit before about some of the levels of the conservatism that still remain in your modeling analysis. Can you just refresh us as to what those are?

MR. SULLIVAN: Well, when I was referring to NO2, one-hour, for example, I mentioned the fact that the idling ratio, we used 25 percent, but the more, a period of the literature shows that the midpoint value of prior idle in that queue would be more like 20 percent, so there's some conservatism built into the queue number itself right there.

I mentioned that the traveling cars along the ring road and other roadways, we had 25 percent as initial ratio

of NO2 to NOX; it's really, literature shows it's more like 5 to 10 percent issue. Those, there, I mean, those are two examples of where the conservatism was still embedded in the analysis.

And, and frankly, the trend line. I mean, we're using, for the, this stage 3 modeling, we're using 2010 to 2012 background, but if you look at the curve, at the trend line, it's going quite a bit down in 2012. And when the gas station is open, it'll be lower.

So we have, we have the trend line, we have the idling, we have the ring road, 20, 25 percent versus 5 to 10, and other railways, the same, the same thing. These are all added up. As I indicated earlier, at least a 20-microgram or so difference overstatement relative to what we'd expect to see. But I wouldn't expect to see 100 micrograms. If you had a monitor there, 98th percentile, why would it be higher than 995? It doesn't make sense to me.

MR. GOECKE: Is it fair to say that these conservative assumptions address some of the inherent uncertainty in the process that Dr. Breysse was talking about?

MR. SULLIVAN: That was the intent.

MR. GOECKE: You testified earlier that the EPA has guidelines for the methodology to apply in air modeling.

In your opinion, why does the EPA not require a Monte Carlo methodology?

MR. SULLIVAN: It'd be difficult for them to implement the regulations that way. I mean, where do you draw the line? It's much more consistent and simpler to say, you know, run, run a regulatory model and run it in a way that's accurate. They don't cookie-cutter tell you exactly how to do it, but run it in an accurate way and we'll rely upon those results.

It promotes standardization and consistency. And if they got in Monte Carlo in that kind of a standard, where do you draw the line? You got to 99.99 percentile, you got with the 75th percentile? It becomes much, much more subjective and much more difficult to implement. And that's a policy call that they've made. I mean, it's not my call; it's EPA's call.

MR. SILVERMAN: I object. Are there facts in evidence that indicate the EPA has not looked at uncertainty in making their analysis?

MR. GROSSMAN: Well, he's testified to what he's testified, and you can, and I don't think that's objectionable, so I'll overrule on the objection.

MR. SILVERMAN: Did he, he testified to that, the EPA doesn't look at uncertainty.

MR. SULLIVAN: I never said that.

MR. GROSSMAN: No, he didn't say that; he had, he said something, but I'm not going to review his testimony.

MR. SILVERMAN: All right. Thank you.

MR. GROSSMAN: I'll overrule the objection.

MR. GOECKE: One moment, please.

MR. GROSSMAN: Sure.

MR. GOECKE: When you met with the opposition to discuss the modeling protocol, did Dr. Cole or anyone else suggest that a Monte Carlo type approach should be used here?

MR. SULLIVAN: I don't recall that, no.

MR. GOECKE: I have no further questions.

MR. GROSSMAN: Okay. Shall we break for lunch before cross-examination or -- I see a lot of shaking heads, so I'll take it as yes. And I guess we'll give you a little bit more time this time so we'll come back at 1 o'clock. Does that work for everybody? 1 o'clock to resume with cross-examination of Mr. Sullivan.

(Whereupon, at 12:04 p.m., a luncheon recess was taken.)

MR. GROSSMAN: Alrighty. Ready to go back on the record? Okay. Who wishes, in the opposition, to begin the cross-examination? Unless you don't have any cross-examination.

MS. CORDRY: I --

MR. GROSSMAN: They're just laughing at me. You're not answering, just --

MS. CORDRY: You know, you do, you bring levity, which is sorely needed from time to time. Thank you.

MR. SILVERMAN: Mr. Grossman, there's a possibility that Mr., that Dr. Cole will go on on the 8th, and I was wondering if we'll have a transcript, you know, of today's proceeding.

MR. GROSSMAN: No. I don't think there is a possibility unless you directly order it. Usually, it takes a week to 10 days. 10 days, I guess, is the official --

COURT REPORTER: Seven days.

MR. GROSSMAN: Pardon me?

COURT REPORTER: Seven.

MR. GROSSMAN: Seven days, but that's, is that seven business days I think, so that probably means there won't be a transcript by the 8th.

MR. SILVERMAN: Well, that causes us some concern, but I'll need to confer about that.

MR. GROSSMAN: Okay.

MS. ADELMAN: Is there a way for you to ask them to expedite it?

MR. GROSSMAN: I think if more money is paid. You want to pay the extra money?

MS. ADELMAN: No. You're advertising your rate.

You're, all that money --

MR. GROSSMAN: We, you can discuss it offline afterwards.

MS. ADELMAN: I'll see what I can do.

MR. GROSSMAN: All right. Thank you. All right. Ms. Rosenfeld, if you --

MS. ROSENFELD: Yes, thank you.

CROSS-EXAMINATION

MS. ROSENFELD: Mr. Sullivan, first, I just have some preliminary questions. You said you had spoken with Mr. David Krask. Do you have his contact information, his e-mail and his phone number?

MR. SULLIVAN: Yes, I do. Mr. Krask's phone number is 410-537-3756.

MS. ROSENFELD: Okay.

MR. GOECKE: I think Mr. Silverman may have it too. I think they've met before.

MS. ROSENFELD: Okay. And looking at your February 21, 2014 report, if we could go through figures 1 through 8. And I have the same series of questions for each of these, so it'd probably just be most efficient if we go through them one by one. First, for the background number on figure 1, what monitor or monitors did you use to get your background number?

MR. SULLIVAN: For NO2, it was Arlington.

MS. ROSENFELD: And what date did you get that, get your data?
MR. SULLIVAN: This would have been the current as of the report we did in 2013. I don't remember the, I guess I don't recall the exact dates that that might have pertained to, but the most current at that point in time. Presumably, it would have pertained to 2010 to 2012, based on the footnote, but I, I would, I would have to check to confirm that.
MS. ROSENFELD: It says for all sources using urban dispersion plus 90 background 2006 to 2010. Is that, would those be the dates or should they be updated?
MR. SULLIVAN: Well, actually, this was concurrent background, so if it was, if this one is not concurrent background, so this is based upon one background number for the analysis, so it would have been, the 90 would be representative of the period I'm showing, 2006 to 2010. I don't remember, I don't remember which years exactly used the 90. I'd have to check my records.
MS. CORDRY: So, I'm sorry, so you say the 2006 to 2010, the 90 does pertain to that time period? It's from that time period?
MR. SULLIVAN: I'd have to check. Yeah, I believe it does, but I'd have to check to see what year, what particular year that 90 pertains to. I just don't recall.

I can see the 98, the 98 we used, I mentioned, in the August report, was 2009 to 2011, so actually, I'd have to, I would have to assume, as an assumption, that this would be an update from that. It could have been actually at the end of that period; it could have been 2010 to 2012, because it is a, certainly lower than the 98 that was shown there.
MS. ROSENFELD: Could you confirm that for us tomorrow --
MR. SULLIVAN: Sure.
MS. ROSENFELD: -- after you get back to your office? And how did you calculate that background number?
MR. SULLIVAN: My recollection of the average and the period that we used, the average concentration, background concentration of that monitor, based upon the 98th percentile -- I'm sorry -- yeah, 98th percentile values that it, that it reported.
MS. ROSENFELD: Okay.
MR. SULLIVAN: But I'll, I'll confirm that for you.
MS. ROSENFELD: Okay. And I would have the next question for figure 2. What monitor or monitors did you use to get your background numbers?
MR. SULLIVAN: It'd be the, this would have been for Arlington. All the NO2 are based on Arlington.
MS. ROSENFELD: And again, what date or dates did

you derive your data from?
MR. SULLIVAN: The background for these runs were concurrent background 2006 to 2010.
MS. ROSENFELD: And by concurrent, do you, is this the hourly match that your, your hourly analysis?
MR. SULLIVAN: It's a paired --
MS. ROSENFELD: It's not based on an annual?
MR. SULLIVAN: It's a paired analysis, so it is hourly-based, yes.
MS. ROSENFELD: And I'm sorry, you said it's a paired analysis done hourly?
MR. SULLIVAN: The, on the, on this, on this run, we're talking about a figure number 2, it is done hourly, and we have real time ozone and real time NO2 in the calculations. And it was for that five-year period of 2006 to 2010.
MS. ROSENFELD: Okay. And did you get the ozone and the NO2 both from Arlington?
MR. SULLIVAN: The, we got the, the NO2 certainly -- we're talking about NO2 here, yes, the NO2 was from Arlington.
MS. ROSENFELD: And where would you have gotten your hourly ozone data?
MR. SULLIVAN: Ozone was from, it was closer data for that, and that was the higher of Rockville or

Beltsville, as I recall. Well, actually, I'm not sure on that point actually. I, I have to check.
MS. ROSENFELD: And okay, would you provide that information tomorrow as well?
MR. SULLIVAN: You want to know the basis for the figure 2, and that would pertain to figure 3, the, the basis for the, the ozone?
MS. ROSENFELD: That's right. And if they're paired hourly, I assume that would have been done on a particular date?
MR. SULLIVAN: It's paired hourly for all dates, some of the rates, we're talking about figure number 2, we're modeling 2006 to 2010, using concurrency for each of those, each of those hours.
MS. ROSENFELD: And which date would have been the highest?
MR. SULLIVAN: I'd have to look them all up to tell you which of the years had the highest. We, we would be averaging. It would have run five years, the paired data, you'd take the average of those five to represent your model value.
MR. GROSSMAN: You use the term paired data. What do you mean by that?
MR. SULLIVAN: Paired in time, so in other words, if we're modeling January 1st, 2006, we will, we will have,

1 o'clock in the morning, we will have meteorological data for that period, we'll have a representative ozone concentration for that period, and representative NO2 value for that, that particular hour.

MR. GROSSMAN: Okay. And what is, so what's the difference between that and the use of the term concurrent?

MR. SULLIVAN: There really isn't a difference. I think paired and concurrent are synonyms in this context.

MR. GROSSMAN: Okay.

MS. ROSENFELD: And so, for example, if you modeled January 1st, would you model January 1st in 2006, and January 1st in 2007, and January 1st in 2008, and January 1st in 2009, and January 1st in 2010?

MR. SULLIVAN: We modeled every, every hour of every day from January 1st, 2006 to December 31st, 2010.

MS. ROSENFELD: Okay. And based on that date, how did you determine the background number in figure 2, for example, for the loading dock?

MR. SULLIVAN: We --

MS. ROSENFELD: How did --

MR. SULLIVAN: Well, we had, as I mentioned, we had paired hour by hour --

MS. ROSENFELD: Uh-huh.

MR. SULLIVAN: -- and representative NO2 data.

MS. ROSENFELD: Uh-huh.

MR. SULLIVAN: -- from Arlington, and that was used as a, as a background value consistent with Fox 2011 for this application, and you know, with, if the background or the measured values in Arlington were, you know, 20 micrograms per cubic meter, we would add that to the, to the modeled values, so that would have been used. And the ozone would have been used for the OLM contribution, so the OLM would have pulled that number from the file as well.

MS. ROSENFELD: And so this background, 68.82 for the loading dock on figure 2, is that 365 days a year times five divided by your highest number? What formula, how do you come up with that number, 68.82?

MR. SULLIVAN: Well, this, what this, what this block is showing us -- and it's common to all of these figures --

MS. ROSENFELD: Uh-huh.

MR. SULLIVAN: -- it's looking at, well, what is the, what is the average, if you look at each of those five years, and each year, we compute 98 percentile concentration, what is the average of those five concentrations, and it's showing, it's showing the typical background, roads, and gasoline. So it's related to those, those five hours that produced these, these 98th percentile values in each case.

MS. ROSENFELD: Again, I'm, this is an average of

the five 98th percentile numbers, you're saying?

MR. SULLIVAN: Correct.

MR. GROSSMAN: For a one-hour period?

MR. SULLIVAN: Correct. For example, 2006, for the loading dock, we have, we have a receptor there, a culpability run. And we, we know what the, what the maximum, what the 98th percentile was for the hour when we had the, the peak value, the 98th percentile occurred in the modeling. We'd pull that value out to see what the contribution was for that particular hour, it defined that 98th percentile for that year, we'll pull that out. And do the same thing for the warehouse, the ring road, and so forth.

MS. ROSENFELD: The 98th percentile at the loading dock, but not the 98th percentile at the monitor?

MR. SULLIVAN: It's referring, what this is referring to, you're talking about what are we, how are we doing this culpability. It's only for one hour, for example, so it's the, if it's 2006 for the loading dock, we model that one hour that corresponded to the 98th percentile modeled concentration for that particular location, and we're showing what the contribution is for that hour in each particular source category. We did that for 2006, 2007, through 2010, and this is the average of those five numbers. So in the block on the right side, that's loading dock --

MS. ROSENFELD: Uh-huh.

MR. SULLIVAN: -- culpability number 1.

MS. ROSENFELD: Uh-huh.

MS. ROSENFELD: Culpability number 2 is on the left side, and that's showing to, the, at the queue area, but it's the same procedure.

MR. GROSSMAN: I take it that when you say you calculate it, I take it that this is a model readout; in other words, you have the receptors, for example, at the loading dock or wherever you are, at the ring road, you have a receptor and you can then pull the information regarding what that receptor is telling you for that particular location on that average.

MR. SULLIVAN: In that time.

MR. GROSSMAN: In that time.

MR. SULLIVAN: So in other words, there's a whole lot of numbers modeled here --

MR. GROSSMAN: Right.

MR. SULLIVAN: -- but each year comes down to one number, what is the 98th percentile defining the time period for that number, and what was happening at all these sources at that point in time that contributed.

MR. GROSSMAN: Right.

MR. SULLIVAN: We, we had a finer breakdown for those particular hours. That's what's showing in these

boxes.
MR. GROSSMAN: Right. Okay.
MS. ROSENFELD: Okay. And so for each of these years, there would be one day that would have been modeled as the highest, as the 98th percentile?
MR. SULLIVAN: No. For the culpability runs, we would, we would have, we'd have, we have two runs for each year, and one run would be for the loading dock, one run would be for the gas queue --
MS. ROSENFELD: Uh-huh.
MR. SULLIVAN: -- and we would only model one hour, the modeling, the 98th percentile hour that defined that particular concentration for that year. All we're doing is breaking it down into its part.
MS. ROSENFELD: So out of 24 hours, you're only modeling one hour?
MR. SULLIVAN: That's correct.
MS. ROSENFELD: Which hour did you model?
MR. SULLIVAN: Well, it's shown, it's shown in each of the output files, but for example, if we're talking about 2006, the loading dock, the question would be, what, when did it, when did 98th percentile occur for that receptor in that year. And let's say it's July 3rd, at 8:00 a.m. Well, we want to know, well, what happened, what's going on July 3rd, 8:00 a.m.; what's contributing to that

value. So we do a special run so as to pull out each, as a source group, separately at the output, which we don't do for all the runs, it'd be too much data. We say, what is the gasoline station contributing, what is the warehouse contributing. We'd break that out for that particular defining hour.
MR. GROSSMAN: But it's always the 98th percentile hour?
MR. SULLIVAN: Yes. Yes. We do it for each of the years.
MS. ROSENFELD: And do you, if you could let me know what those days were that would, there would be five days for each of the five years, is that correct?
MR. SULLIVAN: All the, yeah, I just have to --
MS. ROSENFELD: That were the 98 --
MR. SULLIVAN: I'm sorry.
MS. ROSENFELD: That would be the 98th percentile?
MR. SULLIVAN: Yes. All I'd have to do is, is for Dr. Cole to refer to the date of this and go to the files that show culpability runs, like culp 1, culp 2, and those runs, if you go to the meteorological section of the file, they show you what day and what hour was modeled. Look at --
MS. ROSENFELD: Do they show which --
MR. SULLIVAN: -- the start and stop --

MS. ROSENFELD: Do they --
MR. SULLIVAN: -- times. They're on there. They're on there.
MS. ROSENFELD: Do they show which is the highest? I mean, do they pull out the highest?
MR. GROSSMAN: By the highest, you mean the 98th percentile?
MS. ROSENFELD: I'm sorry. The 98th percentile.
MR. SULLIVAN: They, what they do is they show the contribution for that particular hour --
MS. ROSENFELD: Uh-huh.
MR. SULLIVAN: -- from each of the sources. It's shown in those runs. The culp 1 and culp 2 runs. There's one for each, like I say, for each year, there's one for each, receptor for each year. You'll find the year, the actual hour is shown there, and the results.
MS. ROSENFELD: So under culp 1, for example, for the loading dock, would there be one set of data that shows that 98th percentile day, or is it going to show me 365 days and I have to read the whole thing and find the 98th percentile?
MR. SULLIVAN: It's going to show, it's going to show you one hour --
MS. ROSENFELD: Okay.
MR. SULLIVAN: -- of data. The start hour and the

stop hour are the same, same day, same hour. It's only modeling one hour.
MS. ROSENFELD: One more question on, just generically, did you look at the wind direction, did your modeling protocols take into account wind direction as, when evaluating the background?
MR. SULLIVAN: We did not do a quadrant analysis or wind direction analysis. That's one option. We did not. The earlier modeling was based on the maximum either way. This analysis is based upon the paired approach as discussed in Fox 2011.
MS. ROSENFELD: Going to figure 3, if you could tell me what monitor you used for the queue. There's a, this would be, this is for NO2 again, for ozone and NO2.
MR. SULLIVAN: This run was based on Arlington and concurrent data 2010 through 2012.
MS. ROSENFELD: And that was for both NO2 and ozone? Both were derived from the Arlington monitor?
MR. SULLIVAN: No. As I mentioned, I will, I'll get that to you about the basis -- I know for ozone, we had two stations we looked at, and one was generally higher, which we relied upon. We sometimes filled with the other one, and I'd have to check my files to give you a, a complete answer on that, which I will do.
MS. ROSENFELD: And would one of those stations be

the Hayes monitor and --
MR. SULLIVAN: I'd just rather look at my records and tell you. I don't believe it was. I, I will get back to you.
MS. ROSENFELD: Okay.
MR. GROSSMAN: What, just out of curiosity, why, for example, in figure 3, did you use years 2010 through 2012, whereas, in figure 2 and I think it's in your 1, you used 2006 through 2010?
MR. SULLIVAN: When we did, when we did figure 2, we relied upon the five-year data set, the same data set that we modeled all along, which is 2006 to 2010, but concerning the trend line, how much the NO2 is decreasing, we elected to do a, a stage 3 run that went as far as we could into the data set, the hour data set for NO2, which went up to 2012.
MR. GROSSMAN: Okay.
MR. SULLIVAN: So basically updated the, and made the background more current.
MR. GROSSMAN: All right.
MS. ROSENFELD: And for figure 4, you'll provide me with the monitors?
MR. SULLIVAN: This would be Arlington?
MS. ROSENFELD: On -- okay. And did this also include ozone or just NO2?

MR. SULLIVAN: This is NO, this was NO2.
MS. ROSENFELD: And then for figure 5?
MR. GROSSMAN: So now we've switched from NO2 to PM2.5?
MS. ROSENFELD: Yes. PM2.5.
MR. SULLIVAN: What is your question for figure 5?
MS. ROSENFELD: Which monitor or monitors did you use?
MR. SULLIVAN: This would be based upon Rockville.
MR. GROSSMAN: So why switch from Arlington to Rockville from, you go from NO2 to PM2.5?
MR. SULLIVAN: When we, when we started this process, the, the only source of suburban NO2 data was Arlington. Sometime mid to late 2011, Beltsville came along with NO2. It has lower NO2 than Arlington, so we continued to use Arlington for NO2. But for PM2.5, Rockville and Beltsville are closer to the site, arguably more representative, and we used the higher of the two which ends up being Rockville.
MR. GROSSMAN: Okay.
MS. ROSENFELD: And do you know what, for figure 5, was that averaged over a period of years, or was that a one-year specific calculation?
MR. SULLIVAN: Figure 5 would be a, a five-year run.

MS. ROSENFELD: And which five years?
MR. SULLIVAN: 2006 to 2010.
MS. ROSENFELD: And the same question for figure 6, which monitor or monitors? This, again, is, this is annual PM2.5.
MR. SULLIVAN: That, that's correct. That would be, that'd be Rockville, 2006 to 2010.
MS. ROSENFELD: Going back for a moment to figure 5, looking at the background, so am I reading this correctly that the background at 23, that's the 98th percentile concentration --
MR. SULLIVAN: That's, that's right, yes --
MS. ROSENFELD: -- for PM, 24?
MR. SULLIVAN: -- that's correct.
MS. ROSENFELD: And is that a one year, or is that an average of the five?
MR. SULLIVAN: My recollection is an average of five.
MS. ROSENFELD: And could you confirm that for me --
MR. SULLIVAN: Sure.
MS. ROSENFELD: -- tomorrow? Thank you. And so figure 6, would that also be an average of five years?
MR. SULLIVAN: Correct.
MS. ROSENFELD: Okay. And figure 7, this is now

CO, which monitor was the CO number derived from?
MR. SULLIVAN: It would have been, it would have been the higher of the representative monitors. I'd have to refer to the protocol to tell, we didn't change anything in the protocol, it's the same as the process we used previously.
MS. ROSENFELD: Okay.
MR. SULLIVAN: Most likely it was either Rockville or Beltsville. I don't remember which.
MS. ROSENFELD: Okay. And was this also from 2006 to 2010?
MR. SULLIVAN: 2006 to 2010, that's correct.
MS. ROSENFELD: And would it have been an average or a peak year?
MR. SULLIVAN: It would have been an average, as I recall.
MS. ROSENFELD: Okay. And if you could just confirm that. And then the same questions for figure 8.
MR. SULLIVAN: Same answer.
MR. GROSSMAN: And now we've switched to carbon monoxide.
MS. ROSENFELD: Uh-huh, right. And that was figure 7 as well. And same answer means the higher of the representative monitors and you'll let me know which ones?
MR. SULLIVAN: Yes.

MS. ROSENFELD: And it was an average then from 2006 to 2010?
MR. SULLIVAN: Correct.
MS. ROSENFELD: And then if we could go to page 26 of your report. Are these, let's go, for example, to the Rockville number. Is that an average number over the period of three years?
MR. SULLIVAN: Yes, we're showing running averages, that's, that's correct. So the very first set, it says 2007-2009, will be the running average for that particular three-year period, and the same for 2008-2010, and so forth.
MS. ROSENFELD: And in, and so Rockville is the, is the Rockville monitoring site that we've seen in exhibits earlier in this case, I assume?
MR. SULLIVAN: Yes.
MS. ROSENFELD: And Beltsville, is this one monitor or, or is there more than one?
MR. SULLIVAN: We have three PM10 monitors in Beltsville.
MS. ROSENFELD: And so is this the average of one of those monitors, or two of them, or average of all three?
MR. SULLIVAN: I showed it two ways. First, I showed it, the average at Beltsville 1 and 2, which are the reference method monitors; and I show the average of

Beltsville 1, 2, and 3 where, where one of the monitors, I guess, it's 3, was called a TEOM, which is not a reference method monitor, it's an alternative method monitor.
MS. ROSENFELD: And when you say a reference monitor, what do you mean by that?
MR. SULLIVAN: EPA has what they define as reference monitors that are definitives, the definitive monitors that relate to the standards. They also define alternatives, which are equivalents, which can be used. In the case of the TEOM versus the filter approach used for the, the reference method, they're quite different, and in some cases, the TEOM has data that's in conflict and incorrect. In this case, there were, there were dual reference monitors in Beltsville that matched, and there was a TEOM that had very different values for some of the years that were investigated here. In our, in my judgment, the TEOM was not representative; it conflicted with two gold standard methods at the same spot.
MR. GROSSMAN: How do you spell TEOM?
MR. SULLIVAN: All caps, T-E-O-M.
MR. GROSSMAN: What does it, it's an acronym, I take it?
MR. SULLIVAN: It, I hope you don't ask me what it stands for.
MR. GROSSMAN: What's it stand for?

MR. SULLIVAN: I don't, I don't recall.
MR. GROSSMAN: All right.
MR. SULLIVAN: I knew at one time.
MR. GROSSMAN: Well, why do they include it if it's not the referenced standard and it has such a wide variance from the gold standard as you've said?
MR. SULLIVAN: It has some value. I mean, they have reported, the literature shows bias in the instrument, but the value it has is, it, it tells you hour by hour what the PM levels are, where the, where the, the filter method, you take a, a weight, pre-weight filter, you put it on, on a unit, and you, you draw air with a vacuum through it for 24 hours, and you reanalyze it. That may, is more accurate, but it doesn't tell you hour by hour what's going on.
MR. GROSSMAN: I see. Okay.
MS. ROSENFELD: And did I hear you reference a gold standard?
MR. SULLIVAN: I referred to the reference standard as a gold standard. If there's a conflict between a reference standard and an equivalent method, like a TEOM, I would rely upon the reference method.
MS. ROSENFELD: And is that a defined term in the EPA, or you're just using that as --
MR. SULLIVAN: No, it's a defined term by EPA.
MS. CORDRY: Gold standard?

MS. ROSENFELD: Gold standard?
MR. SULLIVAN: I've heard it called that. I mean, it won't be, the Federal Register won't call it a gold standard, but if you have one method that's considered the reference, it's like going to the NIST to get, you know, something calibrated. If you have, you go up against the NIST-certified calibrated --
MR. GROSSMAN: NIST being an acronym for?
MR. SULLIVAN: National Institute for Standards and whatever the --
MS. CORDRY: Technology.
MR. SULLIVAN: -- T stands for.
MR. SILVERMAN: Technology.
MR. GROSSMAN: Right.
MR. SULLIVAN: The -- thank you. And so they have an official meter there, well, this is how long our meter is, and you have your yardstick that doesn't match it, theirs is going to win. Well, it's a similar argument here. If you have a reference method versus a non-reference method, and there's a conflict, especially when there's two reference methods at the same spot, you're going to rely upon the two reference methods.
MS. ROSENFELD: And do you recall where in EPA guidance that hierarchy is set forth?
MR. SULLIVAN: It's set forth in various in

various Federal Register notices, it's shown for each of the criteria pollutants. I don't remember the citations.

MS. ROSENFELD: All right. Just to keep the record straight as I move forward through my questioning, the report dated February 21st of 2014, which is Exhibit 466, I'm just going to refer to that as the new report.

MR. GROSSMAN: Okay.

MS. ROSENFELD: And if I have questions or --

MR. GROSSMAN: Why don't you call it the rebuttal report because that's what it is.

MS. ROSENFELD: We could call it the rebuttal report.

MR. GROSSMAN: That's what we've referred to it before as.

MR. SULLIVAN: And Ms. Rosenfeld, if I could just clarify too. I referred to this at one point today as a February 14th report. It is dated the 21st of February.

MR. GROSSMAN: Right.

MR. SULLIVAN: So clarify that --

MR. GROSSMAN: I actually corrected it then to say February, I thought, I assumed you mean February of 2014, so I clarified it, February 21, 2014. That's --

MS. ROSENFELD: Okay. And then Exhibit 15A, I'm, which was the original November 2012 report, I'll just refer to that as the November 2012 report, for clarity. Mr.

Sullivan, to start with, could you just give me a general overview as to how you developed the OLM methodology in your rebuttal report?

MR. SULLIVAN: Well, I, I didn't develop the OLM methodology. I, I used the, you know, applied the OLM methodology. Is that what you mean?

MS. ROSENFELD: In applying the OLM methodology, you need to make certain modeling assumptions, is that correct?

MR. SULLIVAN: That's correct.

MS. ROSENFELD: Okay. Could you explain how you came up with the modeling assumptions that you used?

MR. SULLIVAN: Yes, I will. Basically, the OLM method, which was devised for primarily stacks, needed to be applied in this case to a ground-based area source. One of the constraints of the OLM method is that there needs to be enough plume travel time to produce complete mixing to the molecular level between the ambient ozone that's outside the plume with the NO that's inside the plume.

Since I'm modeling a, an application where there are receptors, and the ones the, perhaps, the most defined receptors are inside the source, by definition, I can't have complete mixing of the ambient ozone. It's impossible. And one meter from that location, I can't complete mixing of the ambient air; there's not sufficient travel time.

I reviewed the literature and looked at the travel times to produce significant conversion for the plumes of various locations, and the data clearly shows that -- literature would show maybe 300 meters in some cases, usually a kilometer or more is required before you get substantial conversion because of the fact that you need to get to the molecular level. It's not just dispersion or plume; it's down to the molecular level. I looked at the references, and particularly Janssen 86 and in the other report I referenced earlier.

MR. GROSSMAN: Fox?

MR. SULLIVAN: Not the, not the, not for this pairing, not the Fox one, but there was environment agency 2007. Those reports provided, based upon empirical data, a formula to compute the ratio of NO2 to NOX, to function of travel distance, and ozone concentration.

Looking at the concentrations ozone, we have the peak periods, I could use that equation and compute at different distances how much NO2 would be in that mix. And what I found is, at 40 meters, travel distance, that the ration was shown to be .06 for the, for this particular power plant plume. Power plant plumes typically start with 5 to 10 percent NO2/NOX ratios to begin with, so there's no significant conversion happening in 40 meters.

Also found that 40 meters was all, only allowed

for 10-fold dilution, which is pretty small relative to the molecular diffusion level, so my conclusion was, although the amount of time required to, to get enough dilution, enough contact were probably more on the lines of a kilometer, I used 40, 40 meters as a, extremely conservative basis to start applying the OLM for this ground-based source, and that's, that's the basic procedure that we followed, and that's the derivation for the, the approach that I've taken.

MS. ROSENFELD: Is there any diagram in your report that shows that, I assume 40 meters would be a circumference around whatever --

MR. GROSSMAN: A radius or a circumference?

MS. ROSENFELD: A radius around whatever central point you've chosen. Do you have a figure that shows that 40-meter circle?

MR. SULLIVAN: It's not a circle. It's, if the actual queue itself is a rectangle --

MS. ROSENFELD: Uh-huh.

MR. SULLIVAN: -- this 40-meter rectangle outside that particular zone.

MS. ROSENFELD: Okay. So your 40 meters doesn't start from the center point of the queue; it starts at the boundary of the special exception?

MR. SULLIVAN: It starts at the edge of the -- no,

it starts at the edge of queue source.
MS. ROSENFELD: And do you have any figure that shows what that perimeter is?
MR. SULLIVAN: No, just, I've just defined it in our report, and defined it -- no, we don't have a figure that shows that, no.
MS. ROSENFELD: Okay. So visually, I can't tell from -- do you have anything that's to scale that I could figure out where that 40 meters begins and ends?
MR. SULLIVAN: Well, the modeling files will show where the source is, where the gas queue is located. That could be plotted and you could add 40 meters onto that, and you can see the exact diagram. I don't have that diagram here.
MS. ROSENFELD: Okay. But there's --
MR. GROSSMAN: I think there are lots of things in the record that show the queue, the, I presume you're talking about the gas queue at the station --
MR. SULLIVAN: Yes.
MR. GROSSMAN: -- or station, and you could just measure 40 meters off of that, I mean, if you want to do a --
MS. ROSENFELD: Well, I, my, I, Mr. Sullivan, is there anything that is scaled in your report, or would it have to, that distance have to be scaled on one of the

engineering drawings?
MR. SULLIVAN: No. The most accurate way to do what you're asking would be to go to the model files and look at the coordinates for the gas queue, and add 40 meters all around it to come up with a larger rectangle. That's how I would approach it if I was trying to do the figure you're describing.
MS. ROSENFELD: Okay. I'm just asking whether that's in this report, the rebuttal report itself?
MR. SULLIVAN: No, it's not.
MS. ROSENFELD: Okay. And this is the first time in this case that you have used the ozone limiting methodology, is that correct?
MR. SULLIVAN: That's correct.
MS. ROSENFELD: And in the rebuttal report, do you cite to any EPA values that applies OLM to a negative gas station?
MR. SULLIVAN: As you know, EPA's guidance isn't that specific to how to apply OLM to a negative gas station or very specific sources like that.
MS. ROSENFELD: And in your survey of articles and studies, did you find any articles or studies that applied the OLM to a negative gas station setting?
MR. SULLIVAN: I, I did not, no.
MS. ROSENFELD: Or a source. When you developed

your modeling assumptions, did you seek EPA guidance in terms of what your input or assumptions would be to your protocol?
MR. SULLIVAN: Did I seek EPA guidance, do you mean by calling EPA or looking at guidance?
MS. ROSENFELD: Did you --
MR. SULLIVAN: I did not --
MS. ROSENFELD: Did you speak with anybody? Did you speak with any regulators at EPA?
MR. SULLIVAN: I did not. The reason EPA is not involved -- and I don't think wants to be involved in this matter.
MS. ROSENFELD: And as you've testified, before you filed your November 2012 report, you did meet with Dr. Cole regarding the protocol you would follow in your November 2012 report, is that correct?
MR. SULLIVAN: We did meet, yes.
MS. ROSENFELD: And did you discuss the protocol you would follow?
MR. SULLIVAN: Yes.
MS. ROSENFELD: And in some areas, you agreed, and others, you agreed to disagree?
MR. SULLIVAN: That's fair.
MS. ROSENFELD: But you did have a dialog?
MR. SULLIVAN: We had a good dialog, and we agreed

on some things, we disagreed on others, so that's a fair statement.
MS. ROSENFELD: And did you go through that consultation process with Dr. Cole as you developed your OLM modeling protocol?
MR. SULLIVAN: I did not.
MS. ROSENFELD: Did you consult with anybody with respect to your modeling assumptions in the rebuttal report as it relates to OLM?
MR. SULLIVAN: I did.
MS. ROSENFELD: And who did you speak with?
MR. SULLIVAN: I discussed it with Mr. Hlinka, who works for me.
MS. ROSENFELD: And he, he's one of the partners in Sullivan Environmental Consulting or works --
MR. SULLIVAN: He's an employee --
MS. ROSENFELD: Okay.
MR. SULLIVAN: -- of the company, correct.
MS. ROSENFELD: And anybody else?
MR. SULLIVAN: I've mentioned, I, I read the literature and acquired information that I could regarding conversion rates, initial ratios, and that sort of thing, and I reviewed EPA guidance documents and came up with a, a modeling approach that, in my judgment, very conservatively represented the model application at hand.

MS. ROSENFELD: Okay. Mr. Grossman, I'm handing out --
MR. GROSSMAN: Be careful of the wire right in front of you.
MS. ROSENFELD: Oh. Thank you. I will watch -- that could end the day very badly. Do you mind giving this to Mr. Grossman?
MR. GROSSMAN: Thank you.
MS. ROSENFELD: This is Exhibit --
MR. GROSSMAN: Is this a new exhibit or a copy?
MS. ROSENFELD: No, this is a copy. It's Exhibit 285, which is already in the record.
MR. GROSSMAN: All right.
MS. ROSENFELD: It is what's, references Appendix W, EPA --
MR. SULLIVAN: Yes.
MS. ROSENFELD: -- Guidelines on Air Quality Models. It is in the record in its entirety, and I'm just providing it because I think it'll --
MR. GROSSMAN: It's easier than going through those volumes of files. Thank you.
MS. ROSENFELD: -- digging them out. That's correct. Mr. Sullivan, are you familiar with this document, this Exhibit 285?
MR. SULLIVAN: I am.

MS. ROSENFELD: If you would please turn to page 68232.
MR. SULLIVAN: Okay.
MS. ROSENFELD: And let me just ask a background question. Is the OLM methodology that you applied, is that considered an alternative model under EPA guidance?
MR. SULLIVAN: I would say no. I'm using the AERMOD --
MS. ROSENFELD: And why did you --
MR. SULLIVAN: I'm using the AERMOD dispersion model, which is an EPA guideline model.
MS. ROSENFELD: And where in this document is it shown as an EPA guideline model?
MR. SULLIVAN: I don't know the specific reference, but it's commonly known that, the AERMOD is an EPA guideline model. It's the most commonly used guideline model that exists for this type of model application.
MS. ROSENFELD: But the ozone limiting method is not a typical modeling protocol, is it?
MR. SULLIVAN: The ozone limiting method is not a guideline option, meaning it's not, it's not an option that is in the standard set of EPA to solve assumptions.
MS. ROSENFELD: That's, and so it's an alternative model?
MR. SULLIVAN: No.

MS. ROSENFELD: And could you please clarify again for me the distinction?
MR. SULLIVAN: An alternative model would be a model with a different software package than AERMOD, it would be a different model. This is using the same model. We're talking about how to set up a model. It's a very question.
MS. ROSENFELD: Okay. Then in that case, would you turn to page 68235, please?
MR. GROSSMAN: What page are we on? 6 --
MS. ROSENFELD: 68235.
MR. GROSSMAN: 235, okay.
MS. ROSENFELD: And under Section 5.2.4, models for nitrogen dioxide annual average, under Section (a), it says a tiered screening approach is recommended to obtain annual average estimates of NO2 for point sources for new source review analysis. Is this one of the standard models?
MR. SULLIVAN: Well, you're, is what a standard model? I mean, is AERMOD a standard model?
MS. ROSENFELD: These three tiers that are referenced under 5.2.4.
MR. SULLIVAN: Well, these three tiers are showing EPA's guidance, a guidance document for modeling NO2. It's showing a tiered, a tiered approach, and there's three tiers.

MS. ROSENFELD: Okay. And looking at page 68236, tier 1 and tier 2 and tier 3, would these be the three tiers that you understood Mr., Dr. Cole to be discussing during his testimony?
MR. SULLIVAN: Dr. Cole mentioned the ozone limiting method, which is a tier 3. I don't recall if he mentioned the three tiers specifically, but I remember him mentioning tier 3.
MS. ROSENFELD: In your report, you reference Dr. Cole's testimony a number of times. You said you provided the OLM methodology in response to Dr. Cole's suggestions, and that was on page 2. And on page 2, you also say, Dr. Cole testified that COSTCO should have used the ozone limiting method, which is a more refined analysis. And on page 6, you have a heading that says, as Dr. Cole suggests, you applied the OLM method. Can you tell me where in the record of these proceedings Dr. Cole said that you should have used the ozone limiting method or that he suggested that you do so?
MR. SULLIVAN: I can paraphrase. I don't know where in the record the exact line and date, but what Dr. Cole said was that if we're not going to assume 100 percent NO2, which is tier 1, that if we're going to go to an alternative approach, then we should follow a method, a more refined method such as OLM. That's a paraphrasing, but

that's essentially what I recall is on the record.
MS. ROSENFELD: And in your report, you have an appendix, Appendix F, key portions of opposition testimony that generated need for rebuttal report. And in this, you go through Dr. Cole's testimony, and I think your report suggested this is the basis for the rebuttal report. If you could look at page 46, there is text that's highlighted in a red box, is there any discussion of the ozone limiting method on page 46? Actually, I believe the text that's highlighted here is me speaking, not Dr. Cole, but -- actually, the answer is Dr. Cole.
MR. SULLIVAN: Can you repeat the question?
MS. ROSENFELD: Yeah, I'll --
MS. ADELMAN: Uh-huh.
MS. ROSENFELD: I'll make it much shorter. Can you, would you tell me if Dr. Cole discusses the ozone limiting method in the text highlighted on page 46?
MR. GROSSMAN: Which date of transcript is this?
MS. ROSENFELD: It does not say on, on this, it's page 161, and it's page 46 of the rebuttal report.
MR. GROSSMAN: Okay.
MR. GOECKE: December 5th, Mr. Grossman.
MR. GROSSMAN: Okay.
MR. SULLIVAN: This statement isn't about the ozone limiting method at all. That's not what this is

about.
MS. ROSENFELD: Okay. And on page 47?
MR. SULLIVAN: But just before we go through all this, can I clarify, this came up earlier today in the discussion. Didn't we find the exact location in the transcript where Dr. Cole mentioned the ozone limiting method. I don't remember off the top of my head, but I recall it being --
MS. ROSENFELD: On --
MR. SULLIVAN: -- discussed earlier.
MS. ROSENFELD: On, your report says that it references these exhibits as the basis for your having applied the ozone limiting method, and I'm trying to find out where in this testimony it's included.
MR. SULLIVAN: Well, again, I was, I heard, I was here when Dr. Cole testified, I heard what he said, and I paraphrased it. And if I didn't include the exact phrase from here, it was said earlier today. If I remember correctly, they identified Mr. Goecke, or Mr. Grossman identified the line number and page number when he said that.
MR. GROSSMAN: Yes, that's actually when he first mentioned it. He --
MS. ROSENFELD: Yes, but --
MR. GROSSMAN: He did mention it again, if you

want the reference --
MS. ROSENFELD: But my question, that's not my question. Mr. Sullivan's report says that the OLM analysis in his report was provided in response to Dr. Cole's suggestions, and that Dr. Cole testified that Costco should have used the ozone limiting method. Both of those statements are on page 2 of his report. On page 6, he says he applied the OLM method to model one-hour NO2, quote, as Dr. Cole suggests, end quote. And I am looking for where in the record Dr. Cole said that you, quote, should have used, end quote, the ozone limiting method, or that he suggested that you do so.
MR. SULLIVAN: It's on the record earlier today.
MS. CORDRY: No, then --
MS. ROSENFELD: I will --
MR. SULLIVAN: I could look through --
MR. GROSSMAN: I can --
MR. SULLIVAN: -- the whole transcript --
MR. GROSSMAN: I can --
MR. SULLIVAN: -- to look for it.
MR. GROSSMAN: I can help you out here, Ms. Rosenfeld. It's on page 130 of the transcript from December 6th, lines 1 through 18, where the first line is me asking the three-tier analysis, and then Dr. Cole says the three-tier analysis at tier 1 is 100 percent, which is what Mr.

Sullivan used; tier 2 is 80 percent, which doesn't buy you a whole lot in terms of reduction; tier 3 requires an analysis where you consider ozone concentrations, and they have to use either the ozone limiting method or another model, the name of which, it's an acronym and incorporates the interplay between dispersion and chemistry, and so on. So that's where the, that's the reference.
MS. ROSENFELD: But where does that say that Costco should do that analysis? It's explaining what the OLM is and what the three tiers reflect, but I want to know where Dr. Cole said this analysis should be conducted.
MR. SULLIVAN: Could I --
MS. ROSENFELD: As a matter of fact, if you go to the end of his comments on that, 14, 15, and, 15, lines 15, 16, and 17, so, but I repeat, I don't find anything in the record that would substantiate going below the 100 percent. They would have to justify and they haven't done that analysis. That's not a recommendation that they would do it or should do it; it simply reflects that it hasn't occurred.
MR. GROSSMAN: If your point is that you don't think that Dr. Cole said that that, the ozone limiting method was the preferred method or something like that, I don't know if that, if that's the point you're trying to get at, I think what the witness testified to just a few moments ago in response to your question, was that Dr. Cole

suggested the OLM method in his thing, he did suggest that as one of the methods. Whether he says that that's what he thinks ought to be used or not is a different --
MS. CORDRY: Well --
MR. GROSSMAN: -- is a different issue. So --
MS. CORDRY: -- it's what we're getting at.
MR. GROSSMAN: Yes, I understand, but if --
MS. ROSENFELD: Yeah, I certainly think that that's what his report is saying. He's saying that Dr. Cole was advising them to use this methodology. And if Mr. Sullivan is prepared to say that's not what Dr. Cole's testimony is, then I'll be satisfied with that answer and we can move on.
MR. GROSSMAN: Well --
MS. CORDRY: Yeah --
MR. GROSSMAN: -- Dr. Cole's testimony is what it is; it's not what Mr. Sullivan says it is. It is what the transcript says it is. So I don't --
MS. ROSENFELD: Well, but -- well, I do think it's important because Mr. Sullivan's report, if you read Mr. Sullivan's report, he's saying he produced this methodology because he was, it was recommended that he do so by Dr. Cole.
MR. GROSSMAN: I understand the point you're making; I'm just saying that questioning him about what Dr.

Cole said is not --
MS. ROSENFELD: Well then, let me --
MR. GROSSMAN: -- does not resolve the issue of what Dr. Cole. What Dr. Cole said is what's in the transcript.
MS. CORDRY: Right.
MR. GROSSMAN: That's all I'm saying.
MS. CORDRY: Yeah. And if the --
MR. GROSSMAN: And he's testified as to what his understanding of what Dr. Cole meant from what he heard in the testimony when he was here. So you can put that all together anyway you want, but that's --
MS. CORDRY: If I might just say.
MR. GROSSMAN: Yes.
MS. CORDRY: The only other place where Dr. Cole talked about the ozone limiting method was simply, he was asked about, have you ever done any air modeling himself --
MR. GROSSMAN: Right. He said he --
MS. CORDRY: -- and so he mentioned it.
MR. GROSSMAN: Right. One of, the first reference I found in it was the --
MS. CORDRY: Right. He said and mentioned, I've done this, at which --
MR. GROSSMAN: He's the one who created it, I think he said, he created this OLM method --

MS. CORDRY: Right.
MR. GROSSMAN: -- I think, is what he said --
MS. CORDRY: Right.
MR. GROSSMAN: -- as part of his credentials examination.
MS. CORDRY: Right. So that was not a recommendation either, so we have --
MR. GROSSMAN: No. I --
MS. CORDRY: -- a witness --
MR. GROSSMAN: That was the first time, I hadn't remembered that but when I went back and looked for the term, limiting, in the index, I found that, and then I found this other reference to it.
MS. CORDRY: Right.
MR. SULLIVAN: Well, I can read it. I mean, I, if it would help, I can read it --
MR. GROSSMAN: No, you don't have to read it. There's no reason for you to read what's in the transcript. That speaks for itself. I read a portion of it myself, and that's what he said, according to the transcript.
MS. ROSENFELD: If you would turn to page 28 of your report, in the second paragraph, you say that the OLM was developed for stack sources, primarily power plants. Not to state the obvious, but does the proposed gas station involve power plant stacks?

MR. SULLIVAN: Is that a question? I didn't hear it.
MS. ROSENFELD: That is a question.
MR. SULLIVAN: No, it does not involve power plant stacks?
MS. ROSENFELD: And in the next sentence, on the same page, you say that the application for a relatively large -- excuse me -- ground-based area source is not a standard application, correct?
MR. SULLIVAN: Which line is that you're referring to?
MS. ROSENFELD: In the next sentence, also on page 28.
MR. SULLIVAN: The next sentence would be the second sentence of the first full paragraph? I mean, I'm just not sure where --
MS. ROSENFELD: The first, the second paragraph, the OLM method was developed for stack sources, primarily power plant stacks.
MR. SULLIVAN: Could I please have a, a master version of the report? I don't have a copy of what you're looking at.
MS. ROSENFELD: Do you have an electronic version? I didn't --
MR. SULLIVAN: I, I do not.

MS. ROSENFELD: Sorry. I didn't bring --
MR. GROSSMAN: What, which, what are you looking at, by the way?
MS. ROSENFELD: I'm looking at his rebuttal report.
MR. GROSSMAN: Okay. And what page?
MS. ROSENFELD: Page 28.
MR. GROSSMAN: 28? Okay.
MR. SULLIVAN: So in the second paragraph? Okay. I'm with you now.
MS. ROSENFELD: Yes.
MR. SULLIVAN: What's the question?
MS. ROSENFELD: It says, the application for a relatively large ground-based area source is not a standard application, correct?
MR. SULLIVAN: That is correct.
MS. ROSENFELD: And you say, but we have developed the methodology conservatively by the OLM method for this use.
MR. GROSSMAN: I don't see where you're reading actually.
MR. SILVERMAN: The second paragraph, second sentence.
MS. ADELMAN: Second paragraph.
MR. GROSSMAN: I don't have a second paragraph on

page 28.
MS. ADELMAN: That's the wrong page. Turn to 28.
MR. GROSSMAN: All right.
MS. CORDRY: This page, it looks like this.
MR. SILVERMAN: Try 27.
MR. GROSSMAN: My page 28 is the one I'm looking at. I have a different page 28, apparently.
MS. ADELMAN: Well, okay.
MS. CORDRY: Well, this is the page 28 we're looking at.
MR. GROSSMAN: You have a page 27. Okay.
MS. ROSENFELD: Well, in light of that, I'd like --
MS. CORDRY: Yeah, I mean, the ones you handed out today all show page --
MS. ROSENFELD: Mine's 28 as well.
MR. GOECKE: That's a page 27 for me, not 28.
MR. GROSSMAN: Yeah.
MS. CORDRY: Well, then somewhere, somewhere the pages got, the page number got changed. You might have put a one on the front page of this version and not on your original version, so --
MR. GROSSMAN: All right. So anyway, so what was the point in this question? I didn't, now that I'm looking at the right spot?

MS. CORDRY: Okay. Paragraph 2.
MR. GROSSMAN: And what was the, what was the point of the question?
MS. ROSENFELD: In the next sentence, you say, the application for a relatively large ground-based area source is not a standard application, is that correct?
MR. GROSSMAN: Okay.
MR. SULLIVAN: That, that is correct. This method is generally, usually used for power plants or tall stacks.
MS. ROSENFELD: And then you go on to say, we have developed a methodology to conservatively apply the OLM method for this use, correct?
MR. SULLIVAN: That is correct.
MS. ROSENFELD: And who is the we?
MR. SULLIVAN: My firm, my modeling team.
MS. ROSENFELD: And when we were --
MR. GROSSMAN: My version, by the way, doesn't have that exact language. My version says, but Sullivan Environmental applied the methodology --
MS. CORDRY: Well --
MR. GROSSMAN: -- conservatively --
MS. CORDRY: -- that's changed again.
MR. GROSSMAN: -- apply --
MS. ROSENFELD: Wait a second.
MR. GROSSMAN: -- the OLM method for this use.

MS. ROSENFELD: Wait a second. All right. I --
MS. ADELMAN: Would you like to look at mine?
MS. ROSENFELD: This is really troubling. Could, can we --
MR. GROSSMAN: Well, it's probably we got one draft versus another draft.
MR. GOECKE: It looks like they've got an earlier draft, yeah.
MR. GROSSMAN: I don't know which draft I have. I have one that's been actually signed --
MS. ROSENFELD: So is mine.
MR. GROSSMAN: -- and it's Exhibit, copy of Exhibit 466 --
MS. ROSENFELD: Mine is not signed.
MR. GROSSMAN: -- probably as it was e-mailed to me, and I printed it out from an e-mail.
MS. ROSENFELD: Mine is not signed. Mine is dated February 21, 2014.
MS. CORDRY: We've got the numbers at the bottom. Can you tell from that?
MR. GOECKE: Can we take a break and copy the signed one?
MR. GROSSMAN: Sure.
MR. GOECKE: Okay.
MS. ADELMAN: Would you like to have mine?

MS. CORDRY: No, no. Because he's --
MR. SULLIVAN: Mr. Grossman, your, your page 27 is the start of Appendix B?
MS. CORDRY: He's going to copy that one.
MS. ADELMAN: Oh, okay.
MR. GROSSMAN: Yes.
MS. ADELMAN: Is that the one, mine says page 28 is what we're discussing?

MS. CORDRY: Well, page 27.
MS. ADELMAN: Yours is signed and that's --
MR. SULLIVAN: Okay. That's the signed version?
MR. GROSSMAN: Yeah.
MS. CORDRY: No.
MS. ROSENFELD: Mine is not signed.
MS. ADELMAN: Well then, that's, those are all--
MR. GOECKE: That's not the signed one.
MS. ADELMAN: We should take those --
MS. ROSENFELD: Well, how, wait, wait, wait, wait. For the record --
MR. GOECKE: Even unsigned --
MS. ROSENFELD: -- for the record, how is it that we have an unsigned copy and there is in the record somewhere a signed copy of this document? This is not the first time, frankly, even in the last few weeks that we

don't have the current version of the document that's being produced as material evidence in this case.
MS. HARRIS: What was, I believe what was distributed via e-mail was the signed copy.
MS. ROSENFELD: Well, this was printed from my e-mail.
MS. HARRIS: It was distributed --
MS. ROSENFELD: I have a color printer. I take what you e-mail and I print it.
MS. CORDRY: And we don't have the Sullivan Associate --
MS. ROSENFELD: I've been preparing for this testimony for a long time, and I don't even have the right document?
MR. GROSSMAN: All right. I understand you're being upset, but it may not, there may not be any material differences between the signed version and this version.
MS. ROSENFELD: Well --
MS. ADELMAN: There are. You just read it.
MR. GROSSMAN: There may be some -- well, that's not, I said material differences.
MS. ADELMAN: Well, it's hard to say.
MR. SILVERMAN: How would you know?
MR. GROSSMAN: Well, we don't, we don't know, and I guess we'll find out as this goes along. But you know, if

it's just a matter of language, when he substituted the word Sullivan Environmental applied, to the term, we, that kind of a change is not material.
MR. SILVERMAN: There's a difference between develop and apply, the verb.
MR. GROSSMAN: That's -- and I don't consider that a particularly --
MS. ADELMAN: Well, having --
MR. GROSSMAN: -- material development. But I understand your concern, and let's get, let's get the version copied that's the correct version. I'm not sure why you got the incorrect version. And if it makes a difference, then we'll handle that.
MR. GOECKE: So this is Exhibit 466 we're talking about?
MR. GROSSMAN: You looking for the file with 466 in it?
MR. GOECKE: Yeah.
MR. GROSSMAN: All right. Hold on a second.
MR. GOECKE: I want to make sure I got the right one.
MR. GROSSMAN: Yeah, I think the files you're looking through probably don't have that one. It's right here.
MR. GOECKE: Okay.

MR. GROSSMAN: Here, probably. Let's see if this one has 466. Sorry, guys. This is file 6. Might have to look at file 7.
MR. GOECKE: Okay.
MR. GROSSMAN: Yeah, I suspect it's in file 7.
MR. GOECKE: Which is over here?
MR. GROSSMAN: Yes.
MR. GOECKE: Okay.
MR. GROSSMAN: Should be over there.
COURT REPORTER: Mr. Grossman, now we're going off the record?
MR. GROSSMAN: Yes, we'll go off the record for a few minutes. Take a five-minute break while we --
(Whereupon, at 2:04 p.m., a brief recess was taken.)
MR. GROSSMAN: All right. Are we ready to go back on the record?
MR. GOECKE: We are.
MR. GROSSMAN: So everybody now have a copy of the correct final version of the exhibit?
MR. GOECKE: They do, Mr. Grossman, and I want to apologize to everybody. It looks like I e-mailed out inadvertently and circulated a draft of Mr. Sullivan's report. The signed final copy is part of the record, Exhibit 466, that's been copied and given to anybody,

everyone now.
MR. GROSSMAN: Did you put the original back in the file?
MS. ROSENFELD: Yes, I did.
MR. GROSSMAN: Okay.
MR. GOECKE: And we are also in the process of making a worksheet compared with my markup, showing the changes so that everyone will be able to see what the differences are --
MR. GROSSMAN: Okay.
MR. GOECKE: -- between the two versions, and I'll circulate that as soon as it's available.
MR. GROSSMAN: All right. Let's move along on the assumption that there are no material differences until we know otherwise.
MS. CORDRY: I can find at least one that I consider material --
MR. GROSSMAN: And --
MS. CORDRY: -- already.
MR. GROSSMAN: -- all right, what's that Ms. Cordry?
MS. CORDRY: Well, it is in talking about background levels, for instance, with respect to this TO monitor -- and we're going to talk about, when we get to that eventually, whether that is or is not wrong -- and the

original one said, the TO monitor was biased high. The other, this other one says it was shown to be biased high, which indicates to me that someone had somehow maneuvered it so as that, that someone somehow shows that it was actually biased high, and that that was, that there's some kind of proof of that. And I, you know, I'm going to be discussing that --
MR. GROSSMAN: Well, you could explore whether that ends up being a material difference or not.
MS. CORDRY: Yeah, I mean, I --
MR. GROSSMAN: I don't know that that is.
MS. CORDRY: It's the kind of thing that I just --
MR. GROSSMAN: I mean, that sounds like a, it might just be a word-smithing thing, so --
MS. CORDRY: Well, it's, obviously an implication there.
MS. ROSENFELD: Mr. Grossman, if I may.
MR. GROSSMAN: You may, because I think you're going to whether I say no or not.
MS. ROSENFELD: I will. Well, I appreciate the indulgence nonetheless. Exhibit 465, which was the HCM highway capacity manual analysis from Mr. Guckert, at the time he testified on March 11th, there were two pages missing, we requested copies of those pages, we were told it was a copying error, and they would be provided. And in his

testimony on Tuesday, Mr. Guckert testified that, in fact, those two missing pages never even existed -- material components of an exhibit that just were proffered as existing that didn't exist.
MS. CORDRY: If you recall, that's what he said, that he said he just estimated those numbers, he never actually did the papers, even though he testified that he had just left them on the copying machine.
MS. ROSENFELD: And that just happened on Tuesday, where the actual status of that document was made known to us on Tuesday. Exhibit, I, we were provided with a copy of a truck turning, of a, of a series of physical changes to intersection 16 that were provided to us, it was proffered to us during the hearing that those were provided to Park and Planning staff to review and evaluate. And we learned weeks later that an entirely different layout had been provided to staff, staff had already commented. And frankly, I can't even find in the record where that original intersection 16 was provided to you. Again, the --
MR. GROSSMAN: You mean what they provided to staff.
MS. ROSENFELD: That what they -- no, you --
MS. CORDRY: No.
MS. ROSENFELD: -- ultimately did receive what was provided to staff. I don't know whether you were ever

provided what had originally been provided to us. Material, material changes to that intersection that were proffered both at the time, as curative measures for substantive traffic impacts, as well as curative measures for impacts to pedestrians.
Now, I'm sitting here with Mr. Sullivan's rebuttal report that is not the one that is in the record, that clearly has verbiage changes that may or may not be material, and I, frankly, am unwilling to continue with my cross-examination until I have the actual report with the redline changes so that I can conduct a meaningful cross-examination. This is an absolute waste of my time to go through and guess what may have changed or may have not changed between this report that I've been reading now for nearly a month and what Mr. Sullivan has actually entered into the record.
I, you know, at what point is this, you know, at some point, I question whether these are inadvertent errors or if this really is a calculated effort to try and divert attention from what the real issues in this case are. We have found over and over again errors in these reports. We have taken time, we've evaluated them, we've cross-examined on them extensively, and I submit to you, with some very, very productive results. And to sit here today -- I can't tell you how angry and outraged I am to be here right now in

this position.
MR. GROSSMAN: Well, you can. You just did.
MS. ROSENFELD: Well, I can and I do. Ms. Adelman has made it perfectly clear that no matter what I say, my face, the color -- I'm not making light of this. It, this is a pattern, Mr. Guckert, and a very troubling one.
MS. CORDRY: Mr. Grossman.
MS. ROSENFELD: Mr. Grossman.
MS. CORDRY: Mr. Guckert is a pattern.
MS. ROSENFELD: Mr. Grossman.
MS. CORDRY: He's a pattern to.
MR. GROSSMAN: I didn't make the errors; Mr. Guckert --
MS. CORDRY: Yes.
MS. ROSENFELD: I'm not trying to --
MR. GROSSMAN: So I'll make my own errors later on.
MS. ROSENFELD: Fine. I'm not trying to cast aspersions.
MR. GROSSMAN: Here's the, first of all, as far as the intersection 16, I already ruled that that ends up not being material because we're not going to --
MS. ROSENFELD: I understand.
THE COURT: -- involve that change in the outcome of this case. So that, now, we're talking, we're down to

the Guckert document and the missing page issue. He testified that it didn't exist. I don't really have a basis one way or the other of knowing. My assumption is, and I think it's probably reasonable, is that it just, and I think all of it is inadvertent errors to tell you the truth.
As far as this, Mr. Goecke has stated he inadvertently sent the draft out instead of the final copy, so I don't think I can, I don't think outrage is the appropriate level of concern here.
MS. CORDRY: If I could go back to Mr. Guckert's, he testified at least twice on the day, very shortly after these documents were produced, that there was a copying problem and that's why it wasn't, that it was missing, because I don't know whether the copy machine has all the sheets in there or not. He says that twice on both page 155 and 157.
That was repeated through Ms. Harris's, a e-mail from Ms. Harris, which I will give her the benefit of the doubt, but she was again told by Mr. Guckert that it hadn't been copied, and that's why it wasn't produced to us.
And then we get up there on the stand, and you saw how taken aback I was when he said, oh, I never actually did that report, I never made it, I just estimated those numbers out of my head.
MR. GROSSMAN: Well, that's his testimony.

MS. ROSENFELD: And --
MR. GROSSMAN: You didn't make a motion regarding that. So what is that you --
MS. CORDRY: Well, I don't know what kind of a motion --
THE COURT: What are you --
MS. CORDRY: Well, my --
MR. GROSSMAN: -- asking me to do?
MS. CORDRY: Well, my point is at this is a pattern of getting testimony from witnesses that is not correct; that they misstate things; that we don't get the full documents; and then it turns out, maybe the documents don't even exist. I mean, it's just, this is the problem we've had throughout this case.
MS. ROSENFELD: And I understand that the intersection 16 changes are not under consideration, but the reality is, what was provided to us bore no resemblance to what had been provided to Park and Planning staff, or later, submitted into the record. The pattern that I'm talking about --
MR. GROSSMAN: I understand the concern.
MS. ROSENFELD: All right. All right.
MR. GROSSMAN: I understand the concern, but I don't attribute evil motive the way you are suggesting is a possibility here. But I'll hear from Mr. Goecke or Ms.

Harris.
MS. HARRIS: In terms of the intersection 16, to be fair, the, what was submitted initially were, was shared with Park and Planning. And like in any planning process, staff came back and said, you should consider this or that after we sat down with them, it's somewhat iterative process. And so what we ultimately submitted to Park and Planning was what was then provided to, it was attached to Mr. Axler's e-mail to you, and that was provided to opponents.
MS. CORDRY: Well --
MS. HARRIS: And there was no, and furthermore, the changes were not material. There were some changes --
MS. ROSENFELD: Oh --
MS. HARRIS: -- granted, but they were not material changes.
MS. CORDRY: Well --
MS. HARRIS: And so I think that's hyperbole in terms of the description. And there was no, there's certainly was no evil motive; it was an attempt to perfect the concept that was initially submitted.
MS. CORDRY: Well, the data that we got, we got originally one page --
MS. HARRIS: Because that's what was originally prepared.

MS. CORDRY: But what you then gave to Park and Planning that we saw was a seven-page document, six- or seven-page document --
MS. ROSENFELD: Six.
MS. CORDRY: -- that had the same thing on it. It was dated at the same date as the one page you gave us, but the one page you gave us, there was a one-page picture of the intersection and then five or six pages of truck turning diagrams. We didn't get the truck turning diagrams until weeks later when we asked about them repeatedly, if there were truck turning radiuses. We were never told they'd already been prepared.
The version, the one-page intersection diagram we got and that was submitted by Mr. Agliata as being what Westfield was approving was not the same one page that was attached to what Park and Planning looked at.
MR. GROSSMAN: All right.
MS. ADELMAN: Right.
MS. CORDRY: This is --
MR. GROSSMAN: Well, let's hear, but let's hear from Ms. Harris without interruption here.
MS. CORDRY: Well, I thought she had finished what she was saying, and --
MR. GROSSMAN: Well --
MS. ADELMAN: Could I just add before Ms. Harris

says something.
MR. GROSSMAN: Go ahead.
MS. ADELMAN: At the meeting we had, Karen was present, I was there with Park and Planning, Kalig, Renee, and Ed, I produced the document that you saw that was produced by the applicant with the green arrows, the red arrows, you remember that document, and said, have you seen this document. That was the document entered into this hearing. And the reply from three people was, no.
MS. CORDRY: Well --
MS. HARRIS: I can, I will go back --
MR. GROSSMAN: The reply from three --
MS. HARRIS: -- and show you --
MR. GROSSMAN: Hold on one second, Ms. -- reply from --
MS. ADELMAN: From Kalig, from Ed, and from Renee.
MR. GROSSMAN: Okay.
MS. HARRIS: And I will go back and show you the e-mail where Wes forwarded to them the diagram with the turning diagrams on there. They have that.
MS. CORDRY: Well --
MS. ADELMAN: They truck turning diagram, it's not the same as the --
MR. GROSSMAN: All right.
MS. ADELMAN: -- non-stop --

MR. GROSSMAN: Folks, I'm not going to waste any more time on intersection 16 because it's not going to be as we, as I earlier ruled, it's not going to be a factor, at least the proposed changes, the intersection 16 are not a factor in this case anymore, so let's not waste an inordinate amount of time. I understand the concerns that have been announced.
The real, more immediate problem is whether or not Mr. Sullivan's cross-examination should go forward when there's this concern about the copy of the rebuttal report. How long will it take before this side-by-side comparison is finished, Mr. Goecke?
MR. GOECKE: We're being told that they're having problems because it's in the PDF and you can't do a work share compare on PDFs so --
MS. CORDRY: And I think Mr. Sullivan has stated that he doesn't keep his drafts, so I don't know, somebody's going to have to do a line-by-line --
MS. HARRIS: Well, I just informed my office that they'll be doing a line-by-line manual comparison if need be. But obviously, it's not going to be in the next 10 minutes because of that.
MS. ROSENFELD: I mean, the first indication, of course, was when there was 70-foot versus the 50-foot --
MR. GROSSMAN: Right.

MS. ROSENFELD: -- distance on page 26 or 28. I have verbiage changes, number changes. I have no way to know.
MR. GOECKE: And if I could also just address Ms. Rosenfeld's accusation that this is part of an intentional pattern or practice, I appreciate your statement that you don't think that's the case, and I can assure you it's not the case. And I can't speak to the nuances behind what happened with Mr. Guckert's documents in his office, but you know, we've been working on this case for over, well over a year now; we've had, this is day 31, we've got 550 exhibits, there's lots of people involved.
I made a mistake when I e-mailed out this document. I apologize for that. I assure everyone that it was not intentional, and it's not part of any pattern. We've worked very hard to do the opposite, but mistakes are made. And even this morning, Ms. Cordry passed out three documents that were amendments to exhibits she had done before --
MS. CORDRY: Two.
MR. GOECKE: -- so we're not the only ones who make mistakes. They've been making mistakes as well. I think it's unfair to just look at it so one-sidedly. I appreciate their frustration, but I just think that's, it's important to know.

MR. GROSSMAN: I actually agree with what Mr. Goecke said. We've all made some mistakes in this. There have been documents where you've provided corrections, Ms. Cordry. It's understandable with the level, the number of documents and the level of detail here that there would be some mistakes made. The question now is -- I'm, that's my conclusion. There's no intentional misstating of documentation here; it's just what happens in a case that's gone on for a year with all these documents.

Just the question now, how do you propose to proceed at this juncture? I'll hear from the applicant.

MR. GOECKE: If there are not portions of his testimony that can be done outside the report, I, you know, the potential prejudice is on them, so I'm, that would be my suggestion that we do what we can today to the extent it doesn't prejudice them. If they feel like they can't proceed without being prejudiced, I can't object to that.

MR. GROSSMAN: All right. So are there portions of the cross-examination that go outside of the rebuttal report that can be proceeded with now, either from Mr. Silverman or from you, Ms. Rosenfeld?

MS. CORDRY: Not realistically. I mean, we developed it in a certain way. There's some portions that, perhaps, are not strictly out of here, but they're ones that we were still finalizing because from the time we've spent,

we knew we were not going to get to them by the end of today. And I don't have all the exhibits copied and the questions finalized or anything like that for that, so --

MS. ROSENFELD: I, everything that I had prepared for today --

MS. CORDRY: Was doing his rebuttal.

MS. ROSENFELD: -- was based on his rebuttal report. I mean, we've, there, we've --

MR. GROSSMAN: I suspect that --

MS. ROSENFELD: -- covered everything.

MR. GROSSMAN: -- that you're going to find, when it's all, when it all shakes out that the changes are minor and that all of your work will not have been in vein --

MS. ROSENFELD: Well, I --

MR. GROSSMAN: -- with the exception of perhaps a couple of page references.

MS. ROSENFELD: I --

MR. GROSSMAN: So I suspect that's the way it's going to shake out, but --

MS. ROSENFELD: The ones that are questions that I have that, frankly, came up as a result of earlier testimony today on his August 16th, 2013 report, which I'm happy to go through. But for that --

MR. GROSSMAN: Okay.

MS. ROSENFELD: -- everything else relies on his

rebuttal report.

MR. GROSSMAN: What about you, Mr. Silverman?

MR. SILVERMAN: Yeah, I would agree. I want to hear Ms. Rosenfeld's, kind of, thoughts on the complete, so I didn't waste your time --

MR. GROSSMAN: All right. So let's go ahead with the thing you can go ahead with, Ms. Rosenfeld, and then we'll break, and can we get the side-by-side by the end of the day?

MS. HARRIS: I will try it. I mean, I, I'm not sure, and it's probably going to be a hand marked up highlight because we can't do it electronically. And well, I'll go out in the hall and try to make arrangements for someone to start on that. That's what I've been doing now.

MR. GROSSMAN: Okay. Let's say by, since we, May 8th is when we're coming back, let's say by tomorrow, have that --

MS. HARRIS: Okay.

MR. GROSSMAN: -- to the other side.

MS. HARRIS: Got it.

MR. GROSSMAN: And then go on from there at the May 8th session. All right.

All right. Do you want to continue with your cross-examination?

MS. ROSENFELD: Sure. Thank you.

I'm handing out excerpts from Hearing Examiner Exhibit 255A, which is the August 16th, 2013 report. Mr. Sullivan, did I understand you to testify earlier that in your August 2016 report, your one-hour NO2 concentrations were 168 -- I'm sorry -- were 160? And I'm looking at, did I understand your testimony correctly?

MR. SULLIVAN: I believe I said 160.

MS. ROSENFELD: 1, 6, zero? Okay. And is that the number that's reflected on the figure small (i) on page 5?

And Mr. Grossman, these are excerpts of pages.

MR. GROSSMAN: Yes.

MS. ROSENFELD: I can just provide a whole copy.

MR. SULLIVAN: It says 160.2.

MS. ROSENFELD: And is that the, talking about 160? And if I go to page 4, which is the preceding page, the first bulleted point -- I want to make sure I'm reading this correctly -- we've assumed conservatively that individuals were in the queue for an hour even though transaction queue data shows that the maximum time is 16 minutes on weekdays and 20 minutes on weekends, based on passage through a 40-car queue, based on the observed 4 minutes fueling time per vehicle, through put for passage through the queue.

Then you go on to say, in the refined model, we

assume 20 minutes in queue and 40 minutes at the background concentration for the one-hour NO2 concentrations. Does this paragraph reflect the 160 number that's shown in figure I?

MR. GROSSMAN: When you say, does that reflect, you mean that, does the, is the 160 number derived from a 20-minute exposure, is that what you're saying?

MS. ROSENFELD: Yes.

MR. GROSSMAN: Question is? Okay.

MR. SULLIVAN: I, my recollection, it's been a while since I reviewed this report from 2013, but figure 2 on page 6, which you don't have, I don't believe have in here, it shows the, what the concentration is with the maximum timing queue considered, and that maximum is 113.4.

MS. ROSENFELD: So the 113.4 is reduced for the time in queue?

MR. SULLIVAN: Correct.

MS. ROSENFELD: So the second paragraph that you're talking about, this first bulleted paragraph on page 4 is talking about figure 2 and not figure 1?

MR. SULLIVAN: And again, please point me to the right page and paragraph you're asking this question from?

MS. ROSENFELD: Page 4, the first bulleted paragraph.

MR. SULLIVAN: It conservatively address any

individuals in queue even though they were only there 20 minutes would be consistent with clock, figure I on page 5, and consideration of timing queue would be consistent with figure 2, figure 2 on page 6.

MS. ROSENFELD: So this first bulleted point is talking about two different figures, figure 1 and figure 2?

MR. SULLIVAN: Correct. Well, the first part is talking about the difference, what we did in figure I.

MS. ROSENFELD: Okay.

MR. SULLIVAN: And this last part would be figure II.

MS. ROSENFELD: Okay. All right. Thank you. And then when I look at figure I on page 5, it says, plot showing refined modeling of one-hour NO2 concentrations based on Sections 4 and 5 of this report. The following page after that figure I, Section 4, I believe under Section 4, you made some adjustments to reduce emission rates for the heavy-duty vehicles. Am I reading that correctly?

MR. SULLIVAN: I'm not really sure where you're at. I'm looking at, you're asking about Section 4?

MS. ROSENFELD: Right, which begins on page 18 of your August report.

MR. SULLIVAN: Correct. We, we had found that the computations for the loading dock had an excessive number of trucks, and the, the refined calculation shown on page 18 is

trying to clarify that.

MS. ROSENFELD: And then Section 5, which is the next page of it, so did it, page 23, Section 5 says, modeling results focused on the areas of highest concentrations at the mall based on refined NO2 analysis for Section 4 and urban rural plots for all pollutants. Then it goes on to say, figures 9 through 12 include all of the refinements of Section 4, except for the time in queue. So if I go to 9 through 12, am I looking at the numbers without the corrected factor, without reducing it to the 20 minutes?

MR. GROSSMAN: I hate to ask this question after our last discussion, but my page 23 doesn't say figures 9 through 12 include; it says, figures 9 through 12 present a --

MS. ROSENFELD: They do. I misread it. It does say, that's my error. Figures 9 through 12 present.

MR. GROSSMAN: You guys have to master the Washington lingo. You've said it's my error, Mr. Goecke said I made a mistake. You're supposed to say, mistakes were made, is that --

MS. CORDRY: Were made -- yes, exactly, we understand that.

MR. GROSSMAN: That's the way it's done in this area.

MS. ROSENFELD: As an English major, I know that's

not --

MR. GROSSMAN: I know it's passive, but --

MS. ROSENFELD: -- grammatically --

MR. GROSSMAN: -- that's the Washington way. All right.

MS. ROSENFELD: So figures 9 through, if I'm reading this correctly -- and I know it's been a while, take your time to look at it -- if I'm reading, am I reading this correctly to say that figures 9 through 12 are straight up numbers, you didn't make any reductions based on time and queue?

MR. SULLIVAN: That's my recollection that's what it says.

MS. ROSENFELD: Okay. So then if I go to figure 9, which in my report, is on page 24 --

MR. SULLIVAN: Correct.

MS. ROSENFELD: -- refined predicted 98th percentile one-hour NO2 ISO crest runs, it says max, 168.

MR. SULLIVAN: It, yes, it does.

MS. ROSENFELD: If that is the number based on the modification for the heavy-duty vehicles but without discounting for the 20 minutes, how do you get from the 168 in figure 9 to the 160 on figure I on page 5?

MR. SULLIVAN: This came up in the record earlier, and the issue is that this particular figure 9 is using a

98th background instead of 90. And that clarification is on the record already.
MS. ROSENFELD: Where does figure I say it's based on the 98th percentile?
MR. SULLIVAN: I'm looking at figure, right now, I'm looking at figure 9. It shows 98, it's actually 98. Figure 1 you referred to earlier is based upon 90, as I, I recall correctly.
MR. GROSSMAN: It's not percentile difference, it's background --
MS. ROSENFELD: Right.
MR. GROSSMAN: -- levels, 1 is at 98 --
MR. SULLIVAN: Correct. And the cubic meter.
MR. GROSSMAN: -- and this one says 90, right.
MR. SULLIVAN: One is based on the more updated background, one is not.
MS. ROSENFELD: Figure 9 is based on 90?
MR. SULLIVAN: Figure 9 is based on 98, is my recollection --
MS. ROSENFELD: Well, if you would look at page 20 --
MR. SULLIVAN: -- and figure I is based upon 90.
MS. ROSENFELD: Okay. Please look at figure 9 on page 24. Urban dispersion plus 90 background.
MR. SULLIVAN: This, as I said on the record, we

clarified, I clarified previously that it was 98, not 90.
MS. ROSENFELD: So I should cross out 90 on page 24 and write 98?
MR. SULLIVAN: Correct.
MR. GROSSMAN: That applies to figure 10 as well?
MR. SULLIVAN: Correct.
MS. ROSENFELD: I don't remember that.
MR. SULLIVAN: It's the record I'm sure.
MS. ROSENFELD: Okay. Thank you for that. Answers my question. I have no further questions at this time.
MR. GROSSMAN: Okay. Well, if there are no further questions from the opposition on cross-examination, is there anything further that we can do today in the time that's left over, or should we just break until May 8th?
MS. HARRIS: I have a question and I don't know if it relates specifically to your question, which is how do you anticipate handling the conditions in your discussion of the conditions? You have ours, you have the mutual-agreed upon conditions, and then you have --
MR. GROSSMAN: Right.
MS. HARRIS: -- in addition to what --
MR. GROSSMAN: I've gone through all of them, and what I was planning to do was, for the ones that are all mutually-agreed, I don't think we need any further

discussion. They would be included as an appendix to the report as conditions that are mutually-agreed if the special exception is approved with the opposition not waiving any objection to the special exception itself.
As to the ones that are disputed, we'd discuss them here and see, you know, if there are, any disputes can be resolved; and if not, I would include them as well as ones you would, as you would have it and ones as the opposition would have it, just so the Board of Appeals would have a full picture of the conditions that were suggested. And may well have my own, may or may not have additional ones that I would suggest.
MS. HARRIS: So the goal of the mutual discussion would be to see whether there's other additional ones that can be mutually agreed upon?
MR. GROSSMAN: Right. Unless anybody else has any other ideas on that. It seems to me that that would be the way to handle it. It would be, I would make sure that it's clear that the opposition is not agreeing to the special exception with these conditions, but rather just stating that these are the ones, these are the conditions if, over their objection, the special exception is granted.
MR. SILVERMAN: These conditions are all enforceable?
MR. GROSSMAN: Well, yes, they wouldn't be --

MR. SILVERMAN: And so --
MR. GROSSMAN: They're, usually, the way it works is, the Department of Permitting Services makes annual inspections and enforces conditions if there's not a; if there's a violation, they issue a violation notice.
MR. SILVERMAN: But aren't certain of the conditions like with the pedestrian path and the wall are not under the control of Westfield?
MR. GROSSMAN: That's true, but they are, since they are conditions that the applicant and Westfield has agreed to, they would be enforceable as part of the special exception; that is, if they were not complied with by the applicant, who has responsibility for carrying out its portion, then there could be sanctions by the Board of Appeals.
MR. SILVERMAN: Against the applicant?
MR. GROSSMAN: Well, it doesn't have power over anybody but the applicant. Ultimately, the special exception is at risk, it could be revoked if conditions are violated.
MR. SILVERMAN: After the station's built.
MR. GROSSMAN: Could be revoked, it's a special exception.
MR. SILVERMAN: And that, of course, being said, based on a letter --

MR. GROSSMAN: In the file.
MR. SILVERMAN: -- in the file, and we should give that, I mean, what weight is that at? Is that a binding contract? Is that, what is it? I just, you know, it's, I mean, to me, it's always seemed that Westfield should be part of this case and subject to the jurisdiction of the Board. I don't really understand why they're not if they're so critical to some key provisions.
MR. GROSSMAN: Well, they're not an applicant here, so they're not before the Board in that sense. But, and it's conceivable that the Board might decide that they do not want to impose a condition that involves a portion of land outside of the subject site. I can't tell you that the Board would do that; I can tell you that I have, in the past, recommended such a condition in another case, and it was applied with the commission of the owner of the property. And I believe it also involved a wall.
MS. CORDRY: Fence, I believe, perhaps.
MR. GROSSMAN: It was a gas station and I think it was something enough to --
MS. CORDRY: Up in New Hampshire Avenue?
MR. GROSSMAN: -- the barrier. Pardon me?
MS. CORDRY: Up in Spencerville, if I'm remembering, I think.
MR. GROSSMAN: Might be. Exxon, it was an Exxon

gas station.
MS. CORDRY: I thought that was eventually, actually not done, but anyway --
MR. GROSSMAN: That may be the case.
MS. CORDRY: -- hardly meaningful at this point, yes.
MR. GROSSMAN: I don't know. I'm just saying that it was part of the special exception. There was an issue raised, there was oral argument before the Board of Appeals, and there was an issue raised about having such a condition. But in any event, my recollection is they did, in fact, impose that condition with the consent of the owner.
MR. SILVERMAN: And with something like a pedestrian path, there's a wall, is there an implicit construction that these are built but maintained? Or is that explicit or, and again, is that directed?
MR. GROSSMAN: Well, there was language about maintaining the wall and the path, I think, in the post-condition. And I think it was being maintained by Costco, if I recall.
MR. SILVERMAN: And we have, do you construe the letters we have from Westfield as inferring a legally important right to Costco to carry out these provisions?
MR. GROSSMAN: I don't, I wouldn't be in a position to make that kind of decision; that's between

Costco and Westfield. I'm not a court, and I'm not, I can't make that kind of decision. All I can say is that if the Board imposes a condition with a requirement upon Costco and it's not fulfilled, then there can be a sanction up to revoking the special exception upon an appropriate proceeding. So there's a strong incentive for an applicant, especially one that's made a big investment, to carry out the condition.
MR. SILVERMAN: It seems like if the conditions are intended to protect citizens in the neighborhood, it seems like the, a weak protection.
MR. GROSSMAN: Well, let's not get into that debate. The statute provides for enforcement in the way the statute provides, so --
MR. SILVERMAN: I mean, just as a practical matter, that shutting down an existing gas station, that's a very, that's a very, that's bad for everybody. It's just it's, I'm just wondering here, Mr. Grossman, I'm new to this, and I, it seems to me that people who are critical to the successful resolution of cases are the, it's, I guess, my position.
And there is a motion in the Federal Rules of Civil Procedure that says that, a motion to dismiss for failure to produce an indispensable party --
MR. GROSSMAN: Right. Familiar with it.

MR. SILVERMAN: And I'm sure you are. I wonder if we are missing and indispensable party in this case as well.
MR. GROSSMAN: I don't think so.
MR. SILVERMAN: Okay.
MR. GROSSMAN: And the rules, the Federal Rules of Civil Procedure, nor the Maryland Rules, for that matter, don't apply to this administrative proceeding.
Okay. So lacking anything else to, on our agenda, we'll adjourn until May 8, in this location, at 9:30 a.m., and hopefully, by tomorrow, we'll have the side-by-side version and, of the rebuttal report.
MS. CORDRY: And that we'd also have all of Mr. Sullivan's background. He was going to check several of those things about where the background came from and so forth so, which he was going to be able to provide to us by tomorrow as well.
MR. GOECKE: Right. If you could send us a list of exactly what you want so we make sure we get you the right information.
MS. CORDRY: Okay.
MR. GROSSMAN: Right. I mean, that's, he has volunteered to do it. Mr. Goecke has apparently volunteered to supply it. It's not a requirement. Usually, if a witness doesn't know an answer, they say, I don't know.
MS. CORDRY: Well, okay.

MR. GROSSMAN: And so it's not a requirement that it be done, but he's agreed to do it, so --
MS. CORDRY: But it was simply questions about what background monitors he was using in his report, so I think it would be difficult for him to say he didn't know what he had done. He didn't know it off the top of his head, but in any case --
MR. GROSSMAN: But that's what happens when a witness is on the stand; they either know it or they don't know it, and if they don't know, they say they don't know, and usually, that's the end of the story. But I'm not saying he can't supply it. I mean, he's agreed to supply it, that's fine. Okay.
Then we are adjourned until May 8th. Thank you.
(Whereupon, at 3:01 p.m., the hearing was concluded.)

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:

Kimberly Chwirut, Transcriber

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