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UNITED STATES DISTRICT COURT
for the
Southern District of Florida
Civil Action No. 1:16-cv-21199-CMA
ANDREA ROSSI and LEONARDO
CORPORATION,

Plaintiff,

vs.
THOMAS DARDEN; JOHN T. VAUGHN;
INDUSTRIAL HEAT, LLC; et al.,

Defendant.

_____/

600 Brickell Avenue
Miami, Florida
February 27, 2017
10:00 a.m.

VIDEO DEPOSITION OF
KAU-FUI VINCENT WONG, PH.D.

Taken before SUZANNE VITALE, R.P.R., F.P.R.
and Notary Public for the State of Florida at Large,
pursuant to Notice of Taking Deposition filed in the
above cause.

1 After you were contacted about this
2 case -- actually, when did you do the site
3 inspection?

4 And then, I'm -- I'm sorry. Let me start
5 it again.

6 Your work involves, a warehouse facility
7 located at 7861 Northwest 46th Street in Doral,
8 Florida, correct?

9 A. It's in Doral, yes. Correct.

10 Q. All right. If I just call that the "Doral
11 warehouse," will you understand what I'm
12 referencing?

13 A. Yes.

14 Q. Okay. So how many times have you
15 visited -- visited the Doral warehouse?

16 A. Once.

17 Q. When was that?

18 A. To be sure, I'm checking my notes. If my
19 notes are correct, it was that Friday.

20 Q. In terms of forming your report, you state
21 that you had discussions with Andrea Rossi.

22 Can you tell me when you had those
23 discussions?

24 A. The first time I met Andrea Rossi was on
25 the 10th. Yeah.

1 Q. And when was the -- when was the next time
2 you met?

3 A. 13th.

4 Q. The 13th?

5 Were those the only two times that you met
6 with him before finalizing your expert report?

7 A. Yes.

8 Q. How many times have you spoken with
9 Dr. Rossi other than meeting him in person? For
10 example, you know, telephone calls, e-mail exchange?

11 A. None.

12 Q. No telephone calls?

13 How about e-mail exchanges?

14 A. Once, only once. He thanked me for
15 showing up at his client.

16 Q. For the two times that you met with
17 Dr. Rossi before you finalized your report, did you
18 take notes of either of those meetings?

19 A. Yes.

20 Q. Do you know if you produced those notes?
21 Where are those notes maintained?

22 A. In the garbage. In the garbage.

23 Q. And so you threw -- you threw away the
24 notes?

25 So these were -- and just so I understand,

1 so...

2 Q. But for your purpose in terms of offering
3 an opinion about a heat exchanger, the facts about
4 that heat exchanger had to come from Andrea Rossi,
5 correct?

6 A. Yes.

7 Q. And you wrote down those facts or those --
8 what Dr. Rossi told you to make sure that you were
9 going to kind of accurately remember it later?

10 A. Right.

11 Q. All right. And that piece of paper where
12 you wrote down those notes about meeting with Andrea
13 Rossi, you subsequently threw that out?

14 A. After I wrote my draft report.

15 Q. Okay. I'm just trying to understand.

16 That, you've thrown out?

17 On the 2nd of February, or the 13th of
18 February, you met with Andrea Rossi again.

19 How long was that meeting?

20 MR. EVANS: If you know.

21 I just have to warn you again. Any
22 meetings that you had that included your
23 attorneys, you don't want to get into the
24 substance. Just answer the questions strictly.

25 BY MR. PACE:

1 ballpark.

2 Q. Is this confirming inputs that you used
3 for formulas taken from the engineering toolbox?

4 A. Well, the two voluminous reports. The two
5 voluminous -- the Fourier's law and the Newton's
6 law.

7 Q. So, for example, there is --

8 A. There's only two equations.

9 Q. What I was going to say is that for the
10 Fourier equation, F-O-U-R-I-E-R, there is a number
11 of inputs that you need for that equation, correct?

12 A. Yes.

13 Q. And you talked to Andrea Rossi about what
14 values you should use for those inputs, correct?

15 A. What he used. Yeah. Yeah. Fluoridated
16 water, for instance, what he had used and the
17 thermal conductivity, I had to make sure that it was
18 C15 steel as he said it was.

19 Q. When you say -- we'll go into this in much
20 more detail a little later on, but when you say that
21 you had to confirm that it was C15 steel as Andrea
22 Rossi said it was, you were just confirming with him
23 that that's what he told you before?

24 A. Yes.

25 Q. Okay. I mean, you didn't actually look at

1 the steel itself?

2 A. No.

3 Q. Okay.

4 A. I had to use that to look into the
5 engineering toolbox, because they have C15 -- they
6 have other kinds of steel in there.

7 Q. No, I understand.

8 I think your testimony was clear on this,
9 but I just want to make sure I'm closing the loop on
10 it, which is, in terms of the meeting on the 2nd
11 of -- or the 13th of February, other than making
12 changes directly into your report, you didn't take
13 any other notes of that meeting with Andrea Rossi?

14 A. Nope. Nope.

15 Q. Were there any documents that Andrea Rossi
16 relied upon or was looking at when he was talking to
17 you either on the 10th or the 13th of February?

18 A. No.

19 Q. Did you ask him for any supporting
20 materials relating to the things he was telling you
21 about, for example, the heat exchanger?

22 A. No.

23 Q. Your expert report has certain photographs
24 of the -- from the Doral warehouse.

25 Who took those photographs?

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1 mic.
 2 BY MR. PACE:
 3 Q. I literally was doing what the worse thing
 4 you're supposed to do, covering up your mic.
 5 In Exhibit A-4, on the left-hand side, you
 6 can see the red container, that in Exhibit 2, we see
 7 on the right-hand side and this is because these two
 8 pictures are taken from the opposite sides of the
 9 wall, correct?
 10 Exhibit 2 is from the side where the red
 11 container is. Exhibit A-4 is from the other side of
 12 the wall.
 13 Do you understand what I'm saying?
 14 A. I do, what you just said.
 15 Q. So on the side of the wall where you were
 16 taking the picture that is Exhibit A-4, was there a
 17 black container on that side next to you?
 18 A. I don't remember.
 19 Q. You also listed among the documents that
 20 you reviewed for your deposition or for your expert
 21 report the Penon report, P-E-N-O-N, report, correct?
 22 A. I reviewed data. I reviewed data.
 23 Q. This might help us move this along a
 24 little bit faster.
 25 If you open your report on page three.

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1 A. Uh-huh.
 2 Q. Let me ask you several questions about
 3 this. Let me start with -- looking at the bottom
 4 part of this page, under methodology, are there any
 5 documents that you reviewed that are not included on
 6 this list of one through seven?
 7 A. No.
 8 Q. Now, looking at this list of one through
 9 seven, we've established number seven are
 10 photographs of the Doral facility, which are ones
 11 that you took on February 10th, correct?
 12 A. Yes.
 13 Q. We have two books for which you are the
 14 author, Thermodynamics for Engineers and
 15 Thermodynamics for Engineers II?
 16 A. Yes.
 17 Q. Correct?
 18 A. Yes.
 19 Q. There is a page cite -- no, I'm sorry.
 20 These are textbooks you wrote, so what part of the
 21 textbook you relied upon.
 22 I mean, did you rely on any particular
 23 part of your textbook or are you citing these
 24 because these are your textbooks on thermodynamics?
 25 A. Both.

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1 Q. You reviewed the expert report of Rick
 2 Smith.
 3 Did you review the entire report?
 4 A. Yeah.
 5 Q. Did you review any exhibits to that
 6 report?
 7 A. Meaning photographs and stuff?
 8 Q. Whatever was --
 9 A. Part of his exhibit, yes.
 10 Q. The expert disclosure of Joseph Murray,
 11 you reviewed that expert disclosure in its entirety?
 12 A. Yes.
 13 Q. Did you review any material that came
 14 along with that disclosure, if you recall?
 15 A. If there was, it would be the same, I
 16 think, as part of Penon's report. The whole data
 17 thing, I think, was showing up at different places,
 18 I think. Once I recognize that it was whole bunch
 19 of repeated stuff, I said --
 20 Q. Don't need to look at the details of that?
 21 A. Exactly, from a human point of view.
 22 Q. Let's see if we can establish that as
 23 well, which is, when we talk about the Penon report,
 24 I'm going to mark -- the best thing about marking
 25 some of these exhibits before lunch, we'll have many

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1 of them in front of you numbered.
 2 (Thereupon, the referred-to document was
 3 marked by the court reporter for Identification as
 4 Defendant's Exhibit 4.)
 5 BY MR. PACE:
 6 Q. What I'm marking here is Exhibit 4.
 7 I take from your reaction that this seems
 8 larger than the report that you reviewed?
 9 A. No, this engineering diagram is totally
 10 first time looking at it, sketches. No. I cannot
 11 say for sure this because this looks likes the data
 12 I was complaining about.
 13 Q. So let's do this, if we can. If you can
 14 just take a minute to look at what I've marked as
 15 Exhibit 4. It may be that what you state is the
 16 Penon report in your report is maybe a subpart of
 17 this, such as the pages with all the data, but if
 18 you can just take a second and see, what is it you
 19 do recognize versus not?
 20 A. I recognize -- I think they are the data
 21 which I got separately, but definitely not the front
 22 pages.
 23 Q. There are page numbers here on Exhibit
 24 4 --
 25 A. One through five, I don't think I have

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1 seen. I'm sure I haven't seen one through five, I'm
 2 sure.
 3 Q. So for Exhibit 4, you have not previously
 4 seen pages one through five?
 5 A. Six to 29, I think I've seen, but in the
 6 strictest sense of the view, they locked up the
 7 whole control room. The data, if you change one
 8 there, you change one there, how would I know.
 9 Q. Let me be clear. Pages six through 29 is
 10 data layouts that you believe you've seen before?
 11 A. Yes.
 12 Q. You did not attempt to analyze the
 13 calculations or the numbers in there to determine if
 14 any of them were accurate or consistent or
 15 inconsistent or anything of that nature?
 16 A. Not in that sense. I did go and mark -- I
 17 think it was in Murray's report, Joseph Murray's
 18 report, to see that it was consistent with 24 hours,
 19 that the 1 megawatt was a very prominent number
 20 coming up. 1 megawatt heat generation was recorded
 21 a lot, a lot, so it's not unreasonable. I wasn't
 22 there when the data was taken.
 23 So in that sense, I did that. And then
 24 Murray had a plot after -- after inverse
 25 relationship with COP and I saw that and I -- yeah,

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1 related them here, I'm sure.
 2 Q. So the testimony is clear, there is a
 3 graphic or chart that Joe Murray provided that shows
 4 a relationship between what is called COP and power
 5 input into a system?
 6 A. Uh-huh.
 7 Q. In looking at that -- after you looked at
 8 that, you looked at some pages or all the pages that
 9 are reflected in pages six through 29 of Exhibit 4
 10 just to get a sense of what the power output was
 11 claimed to be for the E-Cat plant?
 12 A. Absolutely.
 13 Q. Okay. Who provided you the E-Cat or the
 14 Penon report?
 15 A. The set of data.
 16 Q. I'm sorry. So the set of data that is in
 17 Exhibit 4, who provided that to you?
 18 A. My lawyers.
 19 Q. Why don't we use a few minutes before we
 20 go to lunch to cover just a few terms so that when
 21 we come back, we're all on the same page -- sorry.
 22 I just realized I skipped something here.
 23 You have a book on heat exchangers that
 24 you're not listed as one of the authors on that.
 25 For what purpose did you use that book in

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1 connection with your opinions?
 2 A. Here, like I gave two -- you gave me two
 3 reasons to check off regarding my book and this is
 4 only for one reason, to show that I have knowledge
 5 about this rather popular textbook on heat
 6 exchanges.
 7 Q. Did you --
 8 A. Not knowledge about the book but the
 9 interior stuff. They are my colleagues. The first
 10 two authors are my colleague. The last one was a
 11 student -- was the own student for thesis, she took
 12 classes from me.
 13 Q. If I can ask it a little bit differently.
 14 Did you have to -- did you consult this
 15 textbook for any purpose in connection with forming
 16 your opinions, did you have to say, oh, I don't
 17 remember the formula for something, I need to go
 18 look at this textbook and find the formula?
 19 A. Not the two formulas I used.
 20 Q. Is there any other purpose that you used
 21 for this textbook in connection with forming your
 22 opinions?
 23 Again, in the sense of -- I actually had
 24 to open up and look at this textbook when I'm
 25 writing my expert report or formulating my opinions?

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1 A. No.
 2 Q. So this is cited more as this is a
 3 recognized source in the field, this book, but it's
 4 not something that you had to rely upon in forming
 5 your opinions or coming to your conclusions?
 6 A. In a little bit more, meaning I'm their
 7 colleague, professional colleague, and I'm a teacher
 8 of the author.
 9 Q. Well, you were the teacher. I assume the
 10 third author has graduated?
 11 A. She's back in Thailand, yes.
 12 Q. And graduated a while ago?
 13 A. A while ago. Full professor now.
 14 Q. Excellent.
 15 Where is she a full professor at?
 16 A. One of those Thai names. I cannot
 17 pronounce any of them.
 18 Q. Because I like our court reporter, I will
 19 also not ask you to pronounce the last name. Don't
 20 even do it.
 21 A. We call her by her first name.
 22 Q. What is her first name?
 23 A. I don't remember.
 24 Q. It's a difficult last name as well.
 25 Before we take our break, let me get into

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1 a few things just to make sure we've got them clear.
 2 We made a couple of references already this morning
 3 to COP.
 4 That's a reference to coefficient of
 5 performance, correct?
 6 A. Yes.
 7 Q. You made a reference already today to
 8 seeing pipes at the Doral location.
 9 You made at least one reference to that,
 10 so I just want to understand.
 11 When you were actually at the Doral
 12 location, what pipes or piping did you see?
 13 A. I think I'm still basing it on Dr. Rossi's
 14 statement that there was a heat exchanger there and
 15 there were pipes leading to the heat exchanger room.
 16 Q. So you didn't see any pipes that -- when
 17 you were there, you didn't see any pipes that were
 18 part of a heat exchanger, for example?
 19 A. I wasn't looking out for them. I just --
 20 no.
 21 Q. Did you see any pipes running from the
 22 E-Cat unit or plant to any other location?
 23 A. No. I didn't look out for them.
 24 Q. I understand. I thought you made, and I
 25 may be wrong, I thought you made a reference to

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1 seeing pipes at the warehouse and I may be mistaken.
 2 It sounds, from what you're telling me
 3 right now, that you certainly didn't see any heat
 4 exchanger pipes. You didn't see any pipes running
 5 from the E-Cat plant to some other unit, so if you
 6 happened to see any piping when you were there, it
 7 was simply incidental. I'm sure there's water pipes
 8 there that run to the sink. I'm sure that there are
 9 other pipes, those would be the only other pipes you
 10 saw?
 11 A. Yes.
 12 Q. Let's take our break now and come back
 13 right when you're finished with lunch. We can go
 14 off the record.
 15 THE VIDEOGRAPHER: We're going off the
 16 record. The time off the video monitor is
 17 12:16 p.m.
 18 (Lunch recess taken.)
 19
 20 THE VIDEOGRAPHER: We're back on the
 21 record. This marks the beginning of Media Unit
 22 Number 2. The time on the video monitor is
 23 1:36 p.m.
 24 BY MR. PACE:
 25 Q. Those are the books that you cited in your

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1 expert report. It looks like there's two additional
 2 ones there. I see statistical engineering.
 3 A. These are -- these are the two thermo
 4 books. The second one is not the latest. It's the
 5 sixth edition. I think I sold all of my ninth
 6 edition.
 7 These are other engineering books within
 8 the last two or three years. And this just came in
 9 the mail. This is two of my journal papers from the
 10 ASME. This is how the journals come up.
 11 Q. Okay. And just, again, because we've got
 12 a court reporter and a videographer here. The
 13 bottom book on that stack is a book published by the
 14 ASME called --
 15 A. Journal of Energy Resources Technology.
 16 Q. Journal of Energy Resources Technology.
 17 The next two books on the bottom of that
 18 stack are your two textbooks, Thermodynamics for
 19 Engineers, and Thermodynamics for Engineers II.
 20 A. Yes.
 21 Q. And, then, let me just see those -- I'm
 22 not going to mark them as exhibits -- no, not those,
 23 the other two. I can just -- I can probably read
 24 them a little faster into the record.
 25 And then the other two books you have with

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1 you are -- you are the author for "Sustainable
 2 Engineering" is the title, published by Momentum
 3 Press.
 4 And the second one that you're also the
 5 author on, also by Momentum Press, and that title is
 6 "Climate Change."
 7 These are both newer books and consistent
 8 with what you had testified to this morning that
 9 your work now has focused more on
 10 environmental-related engineering?
 11 A. Has always been in energy and environment.
 12 Q. Energy and environment. I appreciate
 13 that.
 14 A. They did a newer focus. I had the
 15 contracts. I just submitted the two final
 16 manuscripts on nutrition and health by Momentum
 17 Press. Some manuscripts are coming out in 2017.
 18 Q. We talked about the things that you did to
 19 prepare for your - to prepare your report. I want
 20 to talk just --
 21 A. Oh, maybe just a little bit clarification.
 22 Q. Uh-huh.
 23 A. These principally are republication of my
 24 journal papers which you requested, not all of them,
 25 but republication of many.

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1 Q. I understand.
 2 So the two books there by Momentum Press
 3 that you have in front of you have reprints of many
 4 of your journal papers?
 5 A. Republication.
 6 Q. Republication?
 7 A. We got permission and everything. Now
 8 Momentum Press holds the copyrights.
 9 Q. Okay. Understood.
 10 I talked about things you did for
 11 preparing your expert report.
 12 I want to talk just a little bit about
 13 what you did after preparing your expert report to
 14 prepare for today's deposition.
 15 Let me start with -- and again, to the
 16 extent we're going to talk about the time you spent
 17 with your lawyers, I don't want to get into the
 18 detail of it. I just want to understand the basics.
 19 After finishing your expert report, how
 20 much time did you spend preparing for your
 21 deposition today?
 22 A. One meeting.
 23 Q. Okay. You had one meeting with counsel?
 24 A. Yes.
 25 Q. Can you tell me -- I don't want to know

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1 the substance of it. Just tell me how long it
 2 lasted.
 3 A. Two and a half hours.
 4 Q. Okay. Was Dr. Rossi there?
 5 A. No. This is my third time with Dr. Rossi,
 6 seeing his face.
 7 Q. Understood. First time was -- was
 8 February 10th, and the second time was
 9 February 13th?
 10 A. Yes.
 11 Q. In terms of either preparing your report
 12 or preparing for today's deposition, with whom did
 13 you speak, other than counsel or Dr. Rossi?
 14 A. Counsel means or his partners?
 15 Q. Yes, Porpoise Evans or anyone at his law
 16 firm.
 17 A. Nobody else. That's it.
 18 Q. Okay. Let me ask the question again just
 19 to make sure I get a clear record, which is, other
 20 than Porpoise Evans or anyone in his law firm and
 21 other than Andrea Rossi, with whom did you speak, if
 22 any, to prepare your report or to prepare for
 23 testifying today?
 24 A. No other.
 25 Q. Are there any documents you reviewed to

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1 prepare yourself for testifying today that you had
 2 not reviewed for the purpose of preparing your
 3 report?
 4 A. Oh, yeah. Counsel sent me something.
 5 Q. Was that a deposition testimony?
 6 A. Yes, Murray.
 7 Q. Joseph Murray?
 8 A. Murray.
 9 Q. I'm sorry. Just forgive me. Joseph
 10 Murray. Okay.
 11 We talked a little bit about the Penon
 12 report that you reviewed, at least some of the
 13 numbers from it.
 14 Tell me, what do you understand the E-Cat
 15 plant to be that you saw at the Doral warehouse?
 16 A. Nothing.
 17 Q. I'm sorry. The E-Cat plant is nothing?
 18 You've lost me a little bit. What -- what is --
 19 A. I don't know anything about it. I didn't
 20 see it in action. I don't think -- nobody gave me
 21 any effort to explain what it was. I did ask. I
 22 didn't get an answer.
 23 Q. Who did you ask? Who did you ask?
 24 A. Counsel.
 25 Q. Okay. You have at least one

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1 opinion relating to a --
 2 A. Another reason was because I never claimed
 3 to be an expert, and they didn't want an expert in
 4 that.
 5 Q. I'm asking -- perhaps I'm asking at a
 6 higher level. I'm not asking for the details of it
 7 as much as -- I mean, you offered an opinion
 8 relating to a coefficient of performance, correct?
 9 A. Yes.
 10 Q. And that has to do with, at least in the
 11 context where you're offering it here, the amount of
 12 power going into the system compared to the amount
 13 of power coming out of the system?
 14 Power or energy? You can tell me which --
 15 A. No. No. Power is just energy per time
 16 rate, same thing.
 17 As long as the units are the same
 18 engineering units, are the same in the numerator and
 19 denominator, they cancel out so that the COP is
 20 without dimensions or dimensionless.
 21 I think you said that converse, hopefully
 22 not to trick me. The top is what comes out. The
 23 numerator is what comes out.
 24 Q. Oh, I'm sorry. I didn't -- I didn't -- I
 25 don't think I talked in terms of numerator and

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1 denominator. So let me do that now.
 2 A. You did say something. You did.
 3 Q. My apologies. I didn't mean. Let me try
 4 this again.
 5 You have an opinion about a COP, which you
 6 have defined as the power or energy coming out of
 7 the system over the power or energy coming into a
 8 system.
 9 MR. EVANS: Object to form.
 10 BY MR. PACE:
 11 Q. Is that correct?
 12 A. Did he object to it?
 13 MR. EVANS: But you can answer.
 14 BY MR. PACE:
 15 Q. You can answer. It's for the record.
 16 It's something lawyers do for the record. It
 17 doesn't stop you from answering.
 18 A. I --
 19 Q. If he doesn't want you to answer, he will
 20 instruct you not to answer it.
 21 A. The way you phrased it, I defined it. I
 22 used something that, arm's length, the party,
 23 Dr. Rossi and defendants, decided to use. I used
 24 that definition.
 25 Q. Okay. I didn't -- I didn't mean to

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1 suggest that it was a definition that you are
 2 committing to --
 3 A. Okay.
 4 Q. -- because they're -- in different
 5 context, there can be different definitions for COP,
 6 correct?
 7 All right. So let's see if we can just be
 8 clear here for this purpose. For purposes of your
 9 report, you accepted, as the formula for determining
 10 COP, the energy output divided by the energy input?
 11 A. Correct.
 12 Q. Okay. And it's your understanding that
 13 the E-Cat plant has both energy that goes into it,
 14 an energy input, and an energy output, correct?
 15 A. Yes.
 16 Q. All right. What do you understand is the
 17 amount of power or energy that is produced by the --
 18 the E-Cat plant?
 19 A. Amount that's produced?
 20 Q. Yes, the output.
 21 A. 1 meg. 1 megawatt.
 22 Q. 1 megawatt. And is that 1 megawatt hour
 23 per hour?
 24 A. Megawatt stands for megajoules per second.
 25 So time is already there. Time and units are

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1 already there.
 2 Q. So when we talk about one -- should I
 3 refer to this as 1 megawatt of power or 1 megawatt
 4 of energy? What -- what's the right phrase?
 5 A. It is power.
 6 Q. Power. Okay.
 7 A. And as an experienced engineer, instead of
 8 saying "megawatt," 1 meg.
 9 Q. 1 meg.
 10 I'm not -- fortunately -- don't take this
 11 the wrong way, but fortunately, for me, I'm not an
 12 experienced engineer, so I'll use the longer
 13 version, but I appreciate that.
 14 A. Yes.
 15 Q. Can you give me an idea of how much power
 16 is 1 megawatt?
 17 A. Okay.
 18 Q. Can you use in terms of -- for example,
 19 how -- could that power of subdivision -- would a
 20 subdivision of homes typically use less than 1
 21 megawatt of power in a day -- or at a time?
 22 A. I don't even know what a subdivision of
 23 homes is how many homes.
 24 I can tell from the power -- power plant
 25 point of view, I believe a nuclear power plant are

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1 200-megawatts each, I believe.
 2 Q. Okay.
 3 A. 200-megawatts and they are supplying
 4 almost all of South Florida all the way to West
 5 Palm.
 6 Q. So a --
 7 A. Homes, industries, everything. 1 meg.
 8 Q. Yeah, so if I can. A single nuclear power
 9 plant --
 10 A. It has to be more. Now I'm thinking --
 11 MR. ROSSI: 12,000.
 12 THE WITNESS: How many thousand?
 13 BY MR. PACE:
 14 Q. Well, let's be careful. I just -- I don't
 15 want you kind of communicating with somebody else
 16 during the deposition. It makes things unusual, but
 17 let's use a different way of looking at it.
 18 Is there -- is there any touchstone you
 19 give me for how much 1 megawatt of power is in terms
 20 of what -- and if you can't, you can't. But what
 21 would be used to power a large office building?
 22 What would be used to power, you know, a
 23 subdivision? What would be used to power the entire
 24 University of Miami? I mean --
 25 A. I want to -- again, my memory is not good

1 THE WITNESS: No, except the heat
2 exchanger. One kind of a heat exchanger, yeah.

3 BY MR. PACE:

4 Q. How about the -- in terms of the E-Cat
5 plant, how about your experience with the power
6 plant in Malaysia?

7 Was there similarities in the sense that
8 doesn't it heat up water?

9 A. Yeah. And like the boiler heats up water,
10 yeah.

11 Q. In terms of -- the E-Cat units that are to
12 be producing the energy, did you talk to Andrea
13 Rossi about that process at all?

14 A. No.

15 Q. Did you talk about whether it was a
16 chemical process or not?

17 A. No.

18 Q. Did you talk about whether it was a
19 nuclear process or not?

20 A. No.

21 Q. Okay. What's the first law of
22 thermodynamics?

23 A. Conservation of energy.

24 Q. And does that mean that --

25 A. Energy can neither be created nor

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1 So understanding here the system that
 2 we're calling the -- the E-Cat plant. It's in that
 3 red container --
 4 A. Right.
 5 Q. -- that you saw.
 6 Can the amount of power coming out of that
 7 plant -- I'm sorry. The energy.
 8 Can the amount of energy coming out of
 9 that plant be greater than the amount of energy
 10 going into that plant?
 11 A. In the way you're phrasing it, no, but I
 12 can explain how the heat pump works.
 13 A heat pump delivers more heat than the
 14 heat it takes from the utility. A heat pump
 15 delivers more heat to the building, to the house,
 16 than the amount of electricity it takes.
 17 I think a lot of this has to do with
 18 change of the phase of the refrigerant in the heat
 19 pump. That has to do with a lot of that.
 20 And just to do -- you know, just to give
 21 you a little bit more information. The COP is
 22 related by effective treatment for something through
 23 the EER.
 24 And whoever heard of the EER less than one
 25 that's being sold. EER is a sales product based

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1 very much on the COP of the heat pump. And when
 2 they sell an air conditioner, reversible air
 3 conditioner that say the heat pump, typically 12,
 4 15, 20 EER. If you go buy three, it's still larger
 5 than one.
 6 Q. Looking at page 5 of your report. I'm
 7 talking about page 5 of your report. I'm talking
 8 about the formula that you use on page 5 of your
 9 report.
 10 A. Uh-huh.
 11 Q. Okay. This is -- the COP -- this formula
 12 of COP is the energy -- is the energy into a plant
 13 versus -- the energy into the E-Cat plant versus the
 14 energy coming out of the E-Cat plant, correct?
 15 A. As defined by Rossi.
 16 Q. I'm not -- I'm not criticizing or
 17 evaluating your selection of that.
 18 I'm just trying to understand. Using this
 19 formula, if there's no nuclear or chemical reaction
 20 going on in the E-Cat plant --
 21 A. If there is no reaction.
 22 Q. No, I agree, that's an assumption. Take
 23 that as an assumption. Assume there's no chemical
 24 or nuclear --
 25 A. Passive. Okay. The word you would use

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1 there is if it is a passive control volume.
 2 If I drew a control volume around the
 3 nuclear reactor, you're saying there is nothing
 4 happening inside there, except what's coming in and
 5 going out.
 6 Q. Right, so --
 7 A. And if you conservation, let's say, no,
 8 you cannot do.
 9 Q. All right. So in that approach, the --
 10 this equation would produce a number that's less
 11 than one?
 12 A. And this would not be the appropriate
 13 equation for that. It will be the thermo
 14 efficiency, which I think Smith went off on a
 15 tangent talking about.
 16 The thermo efficiency is well understood
 17 cannot be greater than one. These are definitions,
 18 COP definition, thermo efficiency definition.
 19 Q. So the formula that you have here, and
 20 again, you can, you know, replace COP with anything
 21 you want, but the formula of energy output divided
 22 by energy input for the type of system that you
 23 were -- you weren't looking at it.
 24 For the type of system that you understand
 25 the E-Cat to be, would it violate the first or

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1 second law of thermodynamics for the energy output
 2 to exceed the energy input?
 3 A. No. COP can be less than one -- can be
 4 equal to one.
 5 Q. It can be equal to one?
 6 A. Also.
 7 Q. Can it be greater than one?
 8 A. Yes. Did I not make you understand about
 9 the EER?
 10 Q. You did. But I'm not sure that you're
 11 talking about -- you're talking about -- are you
 12 talking about this formula or are you talking
 13 about -- I understand that there's a different
 14 formula that can exist for a COP when you're talking
 15 about heat transfer.
 16 A. Heat pump.
 17 Q. Heat pumps.
 18 So I'm just asking you here, though. So
 19 let's put the COP concept to the side.
 20 A. Okay.
 21 Q. Can you have a device where the amount of
 22 energy that comes out of that device exceeds the
 23 amount of energy that goes into that device,
 24 assuming within the device there is neither a
 25 chemical nor nuclear reaction?

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1 A. Through the fans. It's in my exhibit.
 2 Q. You saw the two holes?
 3 A. For the two fans.
 4 Q. Let's see if we can get to your exhibit
 5 and you can tell me where it is.
 6 A. Yeah, this. (Indicating.)
 7 Q. A-2. So you're saying out of A-2 --
 8 A. The two bottom holes were occupied by the
 9 two fans.
 10 Q. And let's clarify a little bit.
 11 You called them "holes." Those
 12 are frames.
 13 A. Frames.
 14 Q. This is frames. These are window panes,
 15 correct?
 16 A. It's not panes. When I was there, it was
 17 empty. There were two workmen by the site here.
 18 Q. Okay. There was no glass in these?
 19 A. No.
 20 Q. There was no glass in any of these four?
 21 A. No.
 22 Q. I'm sorry. Exhibit A-2 shows four squares
 23 for a window, and you're saying there was no glass
 24 in any of the four squares? Okay.
 25 A. Yes.

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1 Q. Going back to your report. You've got 22
 2 steel pipes, approximately 10 meters each, interior
 3 dimension, .15-meter.
 4 You have never seen those steel pipes,
 5 correct?
 6 A. No.
 7 Q. Dr. Rossi told you about those steel
 8 pipes, correct?
 9 A. Yes.
 10 Q. Has anyone else told you about those steel
 11 pipes?
 12 A. I discuss with counsel.
 13 Q. Okay. Other than counsel and Dr. Rossi,
 14 has anyone else told you about those steel pipes?
 15 A. No.
 16 Q. Did you ask to see the steel pipes?
 17 A. No.
 18 Q. Do you know what happened to the steel
 19 pipes?
 20 A. No.
 21 Q. Did you see any receipts for the purchase
 22 of the steel pipes?
 23 A. No.
 24 Q. Other than what you've been told by
 25 counsel or Dr. Rossi, do you have any evidence that

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1 those steel pipes existed?
 2 A. Oh. As a nonprofessional but as a rather
 3 aged human being, it looked to have like something
 4 has been laying on that floor before. You see some
 5 marks or something on that concrete floor.
 6 Q. Looking at your Exhibit A-1.
 7 A. Yeah. It would be this -- this -- it
 8 would seem as though there was something lying on
 9 top.
 10 Q. So other than what you learned from
 11 Dr. Rossi or from counsel, the only evidence you
 12 have as to the -- even the existence of these steel
 13 pipes is looking at the floor in Exhibit A-1, it
 14 appears that something at one point was on the
 15 floor?
 16 A. Yes.
 17 Q. Okay. Without knowing whether that was
 18 steel pipes, wood, or what exactly was on that
 19 floor?
 20 A. Certainly not an office desk.
 21 Q. Understood. Something other than an
 22 office desk.
 23 Encasement, it says: "Wood panel
 24 insulated with rock wool shaped for thermal and
 25 acoustic insulation."

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1 Did you ever see this encasement?
 2 A. No.
 3 Q. Dr. Rossi told you about this encasement,
 4 correct?
 5 A. Yes.
 6 Q. Did you have any -- did anyone else tell
 7 you about this encasement?
 8 A. No.
 9 Q. Did you ever see any receipts for the
 10 encasement?
 11 A. No.
 12 Q. Did you ever see any design specs for
 13 building the encasement?
 14 A. No.
 15 Q. Did you ask to see if there was design
 16 specs for building the encasement?
 17 A. Design specs, no. I did ask -- I did
 18 discuss with Rossi about the design of the casing.
 19 Q. But I -- I'm asking if there's any -- did
 20 you see any paper --
 21 A. No paper.
 22 Q. -- that demonstrates that this encasement
 23 existed?
 24 A. No paper.
 25 Q. Did you have see any paper, any diagrams,

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1 or drawings for how the steel pipes were supposedly
 2 laid out in this heat exchanger?
 3 A. No diagrams.
 4 Q. Okay. Any paper at all?
 5 A. No paper.
 6 Q. All right. Airflow says: "Two fans,
 7 250,000 cubic meters per hour each."
 8 MR. EVANS: Object to form.
 9 BY MR. PACE:
 10 Q. Looking at your report, question one is
 11 did you see those two fans?
 12 A. No.
 13 Q. Did you ask to see the two fans?
 14 A. No. I did ask about the design of the
 15 heat exchanger and how the pipes were laid out.
 16 Q. And you asked that of Andrea Rossi?
 17 A. Right.
 18 Q. And he provided you the explanation?
 19 A. Verbally, yes.
 20 Q. Okay. I understand.
 21 A. I had no reason to doubt that part of it.
 22 If I believed that there was a heat exchanger there,
 23 I believed the arrangement.
 24 Q. If you believe there was a heat exchanger,
 25 you would have believed the arrangement for the heat

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1 exchanger.
 2 A. Because he say he made it himself.
 3 Q. How big would these fans be?
 4 A. What he said. I --
 5 Q. Well, I'm sorry. It tells me how much air
 6 they can circulate. I'm asking for the dimensions
 7 of the -- the fans, if you know.
 8 A. This is a man's height, I think, so
 9 three feet.
 10 Q. So let's describe this. You're pointing
 11 to Exhibit A-2. You're saying that the entire
 12 window is roughly --
 13 A. Three feet high -- six feet high.
 14 Q. Six feet high. The window is six feet
 15 high, so each pane would be three feet high
 16 approximately?
 17 A. Three to three and a half.
 18 Q. Okay. So, again, though, as I understand
 19 how a heat exchanger works, these fans -- are the
 20 fans up against the window? Is that what you're
 21 saying?
 22 A. It's part of the wall. Yeah, it's part of
 23 the wall. There's no window. These are holes in
 24 the wall, and it was occupied by two fans down here.
 25 Q. These are holes in the wall --

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1 A. External wall, actually. Yeah. Outside.
 2 You can see the outside.
 3 Q. I don't understand that.
 4 I'm going to mark for you -- we'll call
 5 this Exhibit 5, I believe we're on. There they are.
 6 I want to make sure I don't cover it.
 7 (Thereupon, the referred-to document was
 8 marked by the court reporter for Identification as
 9 Defendant's Exhibit 5.)
 10 BY MR. PACE:
 11 Q. When you say that there are holes in the
 12 wall, are you referring to any of these windows that
 13 we're seeing here in front of 7861 -- in front of
 14 the Doral warehouse?
 15 A. I'm not sure. Was this taken recently?
 16 Q. No. No. It was taken a while ago.
 17 A. If I were forced to guess, parking lot is
 18 here. The holes are these, I think.
 19 Q. Are one of these windows --
 20 A. The second floor one.
 21 Q. So if we can identify this for the record.
 22 A. I think.
 23 Q. You're looking at Exhibit 5. What you're
 24 describing as the holes are on the left-hand side of
 25 that exhibit. If you're facing the exhibit, on the

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1 left-hand side, we can see some second-story window
 2 there; is that correct?
 3 A. Yes. It's because the other two are not
 4 the same shape. This is more squarish.
 5 Q. This is more square?
 6 A. Yes, but there was definitely no panes
 7 when I was there.
 8 Q. Okay. And this one -- and this one is
 9 actually --
 10 A. But it was being worked on, because there
 11 were two workmen waiting for me to take the photo.
 12 I had to say, "Get out of the way." I don't know
 13 what they were working on.
 14 Q. You have -- you have no idea -- you don't
 15 have any firsthand basis to know whether there
 16 were -- whether there was glass in those windows
 17 prior to February 10th of 2017, correct?
 18 A. Before and after those 20 minutes I was in
 19 that room, I don't know what was happening.
 20 Q. And those 20 minutes were February 10th of
 21 2017, correct? I need a verbal response.
 22 A. Yes.
 23 Q. All right.
 24 A. And if there was a date, I confirmed that
 25 I visited the plant in Doral.

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1 to demonstrate that any of this equipment existed?
2 A. Yes.
3 Q. You next say that there was two large air
4 vents in the ceiling in the main warehouse area.
5 This is observations. Now -- I'm now
6 under observations. These are things you actually
7 personally observed, correct?
8 A. Yes, this will be the photo that I took --
9 yeah, there's the two fans. The last one of this.
10 Q. So your Exhibit A-4?
11 A. It's the two.
12 Q. All right. These are the two -- these
13 are -- in your site observations, you're now jumping
14 ahead of me a little bit, but I think you're on the
15 two large -- what you call two large ventilation
16 fans in the main warehouse area?
17 A. Right.
18 Q. Correct?
19 A. Right.
20 Q. A-4, are those ventilation fans or are
21 those circulation fans?
22 I thought ventilation fans were something
23 that sent air out of the building and a circulation
24 fan would just circulate the air within a building?
25 A. You're right. The second one, I guess.

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1 Q. So really, these are two --
2 A. There is no obvious machine, so something
3 else.
4 Q. So these are really two large circulation
5 fans, not ventilation fans?
6 A. Yes.
7 Q. If I can, I'm going to mark this Exhibit
8 7.
9 (Thereupon, the referred-to document was
10 marked by the court reporter for Identification as
11 Defendant's Exhibit 7.)
12 BY MR. PACE:
13 Q. These are those same circulation fans?
14 A. Yes.
15 Q. And then you refer to two large air vents
16 in the ceiling.
17 I just want to understand, is the skylight
18 that we're seeing here -- is that one of the things
19 you're referring to as an air vent or is it
20 something else?
21 A. Yeah, this -- this also basically is what
22 I was told. I saw it and I didn't question it,
23 yeah.
24 Q. So --
25 A. Two large ventilation fans, yeah. I think

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1 I -- I saw the position and where it was.
2 Q. Okay.
3 A. I think why I'm looking here is because --
4 I have to think, because this is all my own. Think.
5 Think. Think.
6 I think one of the other engineers,
7 Murray, may have took some photos of some holes
8 without fans or something.
9 Q. I'm sorry. You have to run that by me
10 again. You think one of?
11 A. I think Murray was the one that took
12 photos and shot some holes without fans. I think
13 they were showing the same holes. So I don't know.
14 Q. I think you may be looking at some of the
15 photos -- what we have here are some photos from --
16 that were taken a while ago, but Exhibit 7 -- I
17 guess I'm trying to understand.
18 You not only referenced two ventilation
19 fans, which we're now talking about is circulation
20 fans, but you also mentioned two large air vents in
21 the ceiling and I'm trying to understand whether --
22 A. So I would say that I was told that there
23 were two large fans and I saw something dead.
24 Q. And you didn't go to see was it actually
25 an air vent as opposed to maybe a skylight?

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1 A. Yes. And if that skylight was open most
2 of the time, these same circulation fans will also
3 be acting as ventilation fans because they can blow
4 it up there.
5 Q. They can blow it up -- they're not
6 actually blowing it up towards that?
7 A. But hot air would rise.
8 Q. I understand. Hot air would rise with or
9 without the fans.
10 A. The fan would just give it some momentum,
11 because it's not a straight rise. It's coming up
12 like this. The fan would give it more momentum and
13 would help it rise faster.
14 Q. Now, we're looking at these fans, if you
15 would. These fans are behind the -- these fans were
16 operating?
17 A. Uh-huh.
18 Q. And you can see the red container there,
19 correct, in Exhibit 7?
20 If these fans were operating, they would
21 be blowing the air away from the red container
22 towards the other part of the warehouse?
23 A. And then the -- on the floor, it would
24 blow like this and then rise. If that hole is open,
25 it would be looking for that hole.

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1 Q. Eventually, right, it would keep --
2 because heat's going to move towards where something
3 is cooler, correct?
4 A. Or more like if there's a hole. Like if
5 you ever tried repairing your pipes underneath your
6 sink, you repair one obvious hole, and it's leaking
7 somewhere else.
8 Same -- same idea. If there is a hole
9 anywhere, it will go. And the fan will help. You
10 cannot prove the other way that the help -- fan is
11 not helping, even though it's showing in this
12 direction.
13 Q. I understand. It can circulate air in the
14 building.
15 You got -- so you don't recall actually
16 seeing two air vents and, in fact, what you may have
17 seen in the roof might have been a skylight?
18 MR. EVANS: Object to form.
19 THE WITNESS: I think this is my counsel
20 and I was told it was there.
21 BY MR. PACE:
22 Q. That's fine. I'm not asking you to opine
23 on the credibility of somebody else.
24 I'm just asking. It said site
25 observations and so I was trying to understand.

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1 This sounds more like this was something you were
2 told.
3 A. Let me see a second, please.
4 Q. Okay. Now, under these site observations,
5 you have second floor heat exchanger area with three
6 bays of windows, accessible for ventilation.
7 One, just so I understand, that is -- when
8 you say "heat exchanger area," you just mean a room?
9 A. Right.
10 Q. It's a room that could be -- could be used
11 for a lot of different purposes, correct?
12 Someone could put an office in that room
13 if they wanted to?
14 A. That's why I said on the ground, it didn't
15 look like a desk.
16 Q. Someone could use that as a storage
17 location?
18 A. Okay.
19 Q. Isn't that correct? I mean, I'm asking
20 you.
21 You call it a heat exchanger area and I'm
22 just saying, all that means is an empty open room?
23 MR. EVANS: Object to form.
24 THE WITNESS: I wouldn't have a lot -- if
25 it was a regular office, for instance, I

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1 wouldn't have allowed a wooden staircase to
2 exist as is. The wooden staircase is in
3 invitation for a lawsuit.
4 BY MR. PACE:
5 Q. I understand. So you assume, because of
6 the way to access that second floor was through that
7 wooden staircase --
8 A. Rickety wooden staircase.
9 Q. A rickety wood staircase, you wouldn't
10 expect that -- that room to be used as an office,
11 but --
12 A. Or anybody that goes and access it all the
13 time.
14 Q. Understood. You wouldn't expect anybody
15 to be accessing it all the time, but you have no
16 idea what that room was actually used for?
17 A. I was told it was a heat exchanger room.
18 Q. I understand. I'm just referring --
19 because you have your observations.
20 What you observed was an empty room,
21 correct?
22 A. Correct.
23 Q. Okay. I probably have a picture here
24 someplace. Well, actually, you have a -- you have a
25 little bit of a picture, don't you?

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1 If we look at your -- what I have marked
2 as Exhibit 3, but it's to your report, Exhibit A-3.
3 A. A door.
4 Q. This is the door into the second-story
5 room, correct?
6 A. The only door.
7 Q. The only door.
8 We can see outside here a little bit that
9 there's a -- some wooden rails. That's the wooden
10 rails that go with the wooden staircase that you
11 have to walk up to get from the first floor to the
12 second floor?
13 A. Yes, the rickety staircase.
14 Q. And we'll get into a lot more details of
15 this in a second.
16 Just for now, if a pipe -- if it -- if
17 there's a heat exchanger in this second-floor room,
18 there has to be a pipe that brings in the heated
19 fluid, correct?
20 A. Uh-huh.
21 Q. And then there has to be a pipe that
22 returns the cooled fluid, correct?
23 A. Yes.
24 Q. Okay. I'm just looking at this.
25 I'm just looking at this. Is that cement

1 on the bottom at the base of the door?

2 MR. EVANS: Object to form.

3 BY MR. PACE:

4 Q. Looking at Exhibit A-3, the base of the
5 door, the foot of the door, are we looking at
6 cement?

7 A. I believe so.

8 Q. So could the pipes have come in -- and
9 you saw the floor itself. The floor itself is
10 reflected in Exhibit A-1 and a little bit here in
11 A-3.

12 How would the pipes have gotten into this
13 room? Would they have had to come through the door?

14 A. They can come through the walls.

15 Q. They would have had to come through the
16 walls or the door.

17 A. This is a very narrow for even human
18 beings. I don't think the pipes came through the
19 wall -- through this door.

20 Q. Did Dr. Rossi ever explain to you where
21 the pipes came into the room?

22 A. No, I didn't ask.

23 Q. Do you know where the pipes traced in or
24 did you know the path that the pipes took from the
25 first floor to the second floor?

1 A. No.

2 Q. Do you know -- did you ask as to which
3 wall they ran up along or against?

4 A. No, but I would guess -- guess it's along
5 the wall from this -- this to underneath somewhere,
6 on this wall.

7 Q. And why would you guess that?

8 A. That wall is the closest to the reactor, I
9 think.

10 Q. So if we look at -- if you can look at
11 Exhibit 2 for me, are you saying that the wall we
12 see on the right-hand side is the wall you would
13 expect the reactor to go along?

14 A. I would expect it to be somewhere along
15 this wall. There's a lot of space where we walked
16 on this side.

17 Q. Let me -- let me see. If you can get my
18 Exhibit 2 that I handed you. That's this document I
19 handed you. Okay.

20 A. I don't remember seeing a black thing,
21 that's why.

22 Q. No, I understand that.

23 A. I tried to avoid looking at that one.

24 Q. The black -- the black container wasn't
25 there, but let me --

1 Q. Now, if you look at Exhibit 8, can you see
2 water hoses there at the end of that serpentine
3 piping?

4 A. It is not part of the system I'm ready to
5 discuss about.

6 Q. To your knowledge, when you talked to
7 Dr. Rossi, and your opinion is only based on the
8 heated fluid coming from the E-Cat going directly
9 into a heat exchanger.

10 You have no opinion in terms of a heated
11 fluid going into that black box and coming out of
12 the black box and going up to a heat exchanger in
13 the second story of the Doral warehouse, correct?

14 MR. EVANS: Object to form.

15 THE WITNESS: No opinion at this time.

16 BY MR. PACE:

17 Q. And that's in part because what you see
18 here in Exhibits 8 and 9 are things that no one told
19 you about before today or you were aware of,
20 correct?

21 A. Correct.

22 Q. And that introduces several concepts here,
23 don't we.

24 We've got added water tubes here. We have
25 some sort of a filter and valves in these pictures.

1 All of those could affect issues relating
2 to water coming into the system, water going out of
3 the system, other impacts on the system itself,
4 correct?

5 MR. EVANS: Object to form.

6 BY MR. PACE:

7 Q. Is that correct?

8 A. I do not want to opine on that.

9 Q. I'm sorry?

10 A. I do not want to opine on that.

11 Q. So you have no opinion in terms of whether
12 a heat exchanger was operating or not operating that
13 would take heat from the black box at the Doral
14 location up to the second story?

15 A. To be honest, you're asking me about
16 specific equipment and it's not a general question
17 and my certification, as a professional engineer in
18 Florida, I have been trained because of the early
19 years for registration, instead of taking a course,
20 we watch the court, engineer's court in which
21 professional engineers were disciplined for
22 wrongdoing, for malpractice, for incompetence, for
23 not showing up at the site. This is exactly one of
24 the cases I can see myself getting into trouble.

25 I'm opining about something that I'm

1 seeing for the first time on a photograph asking me
2 about stuff on that. I don't want to get into
3 trouble for nothing.

4 I was also told by counsel what I was
5 being hired to opine about, and this wasn't in my
6 job description.

7 Q. I understand. And so you have no opinion
8 on that?

9 A. No.

10 Q. And your testimony is that black box that
11 appears in Exhibit 2 wasn't, in fact, at the Doral
12 location when you were there, correct?

13 MR. EVANS: Object to form.

14 THE WITNESS: It may have been there. It
15 wasn't something I was pointed out to take
16 notice of, you know.

17 BY MR. PACE:

18 Q. Am I correct that you were -- in fact, I
19 believe you testified that, to your recollection,
20 even that gray wall --

21 A. Gray wall definitely not there.

22 Q. So in Exhibit 2, there is a gray wall
23 about 6 feet tall with a white door in it.

24 That was not present when you were at the
25 Doral location?

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1 A. If it was there, it would be only one
 2 part. This part I think is missing because I can
 3 see the staircase.
 4 Q. Okay.
 5 A. And for some reason, I'm just reasoning
 6 with my thoughts. For some reason, I felt I was
 7 going from one room to another, from the reactor to
 8 the other room where workmen were working, so I
 9 think this one was probably still there, but not
 10 this way.
 11 Q. Let me explain because of the camera and
 12 the court reporter.
 13 The wall that has the white door in it you
 14 think might still be there?
 15 A. Separating -- the door may not be there,
 16 but separating the reactor and whatever was there,
 17 either empty or was there.
 18 I kind of remember it as a separate room.
 19 And the only reason would be because the wall - some
 20 wall was there.
 21 Q. And the wall -- but the wall that runs
 22 towards the back --
 23 A. There was a heat exchanger room.
 24 Q. The short wall that runs towards the back
 25 of that warehouse, you think that was not present?

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1 A. Yes.
 2 Q. Do you have an opinion -- if there was no
 3 heat exchanger in this warehouse and the E-Cat unit
 4 container was producing the amount of heated fluid
 5 or steam that you were told it was producing, would
 6 you agree then that the warehouse would have gotten
 7 unbearably hot?
 8 I'm saying assume no heat exchanger at
 9 all.
 10 A. It was probably used to heat some
 11 industrial process.
 12 Q. Let's assume that the testimony is that
 13 there wasn't anything else that was absorbing the
 14 heat, so it was -- if there's not a heat exchanger,
 15 it was being discharged into the warehouse.
 16 My question for you is only, your opinion
 17 is if the heat exchanger existed, it would be able
 18 to move that heat out of the warehouse?
 19 A. Yes.
 20 Q. My question to you is, if the heat
 21 exchanger didn't exist, wouldn't that warehouse have
 22 become unbearably hot?
 23 MR. EVANS: Object to the form.
 24 THE WITNESS: The reactor reacts,
 25 generates heat, even though it's insulated.

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1 Dr. Rossi did tell me it was 1,500 degrees
 2 centigrade inside, at least in one spot. But
 3 the control room, I believe, is where -- the
 4 one that was padlocked was there, human beings
 5 would sit, including Dr. Rossi, to take data,
 6 is probably air conditioned.
 7 That reactor room would be the hottest.
 8 BY MR. PACE:
 9 Q. The reactor room would be the hottest and
 10 then it would go out to the rest of the warehouse?
 11 A. Whoever would be in the reactor room would
 12 be dead first, if it's not in the control room.
 13 Q. Sorry. Say that for me again.
 14 A. Somebody in the reactor would be suffering
 15 first and I assume it's Dr. Rossi in the beginning.
 16 If it is the control room -- I believe it's the
 17 control room where all the computers are would be
 18 feeling, very, very uncomfortable.
 19 Q. Let's exclude the control room. I'm just
 20 asking for the warehouse, the whole warehouse.
 21 If there is 1 megawatt hour per hour of
 22 steam that's being produced in this warehouse and
 23 there is not a -- the heat exchanger that Dr. Rossi
 24 told you about, wouldn't that warehouse have become
 25 unbearably hot?

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1 A. I'm a little wary about opining because I
 2 know Murray opined on that and calculated marble and
 3 everything.
 4 Q. You're getting a little bit to my point.
 5 I'm trying to understand.
 6 When you take issue with Joe Murray's
 7 opinion, it sounds to me like the only issue you're
 8 really taking with Joe Murray's opinion is you're
 9 saying there was a heat exchanger and that he's not
 10 accounting for the heat exchanger?
 11 I need a verbal response.
 12 A. Yes.
 13 Q. You're, otherwise, not taking issue with
 14 Joe Murray's opinion because you haven't evaluated
 15 his opinion.
 16 Solely the issue of does a heat exchanger
 17 exist or not exist, correct?
 18 MR. EVANS: Object to form.
 19 THE WITNESS: Correct.
 20 BY MR. PACE:
 21 Q. And your sole evidence that a heat
 22 exchanger existed, you've never seen it, you didn't
 23 have no documents that reflect it, you've never seen
 24 any diagrams of how it was set up, it all comes
 25 either from what's been orally communicated to you

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1 from either Andrea Rossi or from counsel, correct?
2 A. Yes.
3 Q. I'm just trying to get that clear and
4 simple on the record. Why don't we take a break?
5 THE VIDEOGRAPHER: We're going off the
6 record. The time on the video monitor is
7 3:22 p.m.
8 (Short recess taken.)
9 THE VIDEOGRAPHER: Back on the record.
10 This marks the beginning of Media Unit No. 3.
11 The time on the video monitor is 3:35 p.m.
12 BY MR. PACE:
13 Q. Dr. Wong, I want to ask you for a few
14 minutes here about section 2.2 of your report.
15 A. Okay.
16 Q. So this is a COP -- we talked about this
17 earlier today.
18 We talked about this earlier today. This
19 is a COP formula that you were told to use which was
20 just dividing the energy output of the E-Cat plant
21 by the energy input of the E-Cat plant; is that
22 correct?
23 A. Correct.
24 Q. I want to see if I can understand this
25 correctly.

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1 You say here, "If the energy output
2 numerator of the plant is approximately constant,
3 the equation dictates that the COP of the E-Cat will
4 increase when the plant draws less electrical power
5 (denominator decreases)."
6 First of all, I want to understand this is
7 essentially extremely basic math that you're
8 proposing here, right? That if the equation equals
9 one, then if you're changing the -- I'm sorry.
10 If the denominator of the formula is the
11 same, it's always ten, energy output is always ten,
12 then if you change --
13 A. You mean the numerator.
14 Q. You're correct. I apologize. Let me
15 start this all over again, Dr. Wong, just to
16 understand.
17 I think what you're saying here is
18 actually kind of pretty simple math, though I just
19 butchered it there.
20 If the numerator is always ten, then if
21 you change the denominator, you're going to change
22 what numerator divided by denominator equals?
23 A. Correct.
24 Q. So if the denominator becomes two, then
25 the formula equals five. If the denominator becomes

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1 five, the formula equals two.
2 It's just that basic of math, correct?
3 A. Right.
4 Q. What is your basis for the assumption that
5 if the energy output of the plant is approximately
6 constant?
7 A. Because I look at the data and I said --
8 that was the part I focused. You look and saw it
9 was producing 1 megawatt and that is the output, 1
10 megawatt.
11 And that is also to really counter
12 Murray's implied -- he didn't imply, you know, that
13 it was the thermal efficiency that he was looking at
14 because all his statements, that cannot be graded on
15 one, that it cannot be was correct for thermal
16 efficiency, so for some reason, in his mind, he
17 switched coefficient for performance with thermal
18 efficiency.
19 I didn't want to put it in words because
20 that's his mistake. People can make all kinds of
21 mistakes in different forms.
22 And that's where -- that statement is
23 mindful that he said that that wasn't reasonable.
24 My statement is to counter that.
25 Simply that it is a math thing, but I'm

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1 sure you were thinking thermal efficiency. I am
2 sure he was thinking thermal efficiency.
3 Q. Let me ask you. Using this equation, I'm
4 trying to understand, because you already testified
5 a little bit about the laws of thermodynamics.
6 When the energy input into a system
7 decreases, shouldn't the energy output of the system
8 decrease?
9 A. Not if the reaction inside the reactor was
10 producing more energy.
11 Q. And can it do that if it's not chemical or
12 nuclear?
13 A. I don't know.
14 Q. I'm sorry?
15 A. I don't know.
16 Q. You don't know?
17 A. No.
18 Q. Wait, stop there for a second.
19 You don't know --
20 A. I do not know what happening in E-Cat.
21 But I can say that the energy output is more and,
22 therefore, leading the COP, and reactor was
23 producing more energy. I can say that
24 categorically.
25 Q. I'm asking you -- let's go back to our

1 something about it to you; is that correct?

2 MR. EVANS: Object to form.

3 THE WITNESS: No, he introduced
4 endothermic. Dr. Rossi mentioned some other
5 thing before the heat exchanger was used.

6 BY MR. PACE:

7 Q. Did he give you any more detail about what
8 that other thing was?

9 A. It was in passing. I don't follow up.

10 Q. So there's a period of time when the plant
11 was being operated -- what Dr. Rossi told you is
12 there was a period of time where the plant was being
13 operated but the heat exchanger wasn't in place?

14 A. I believe that's what I did hear.

15 Q. I was a little confused by your response
16 there on A-3, about your Exhibit A-3, because I
17 thought -- I thought Exhibit A-1 showed the floor.

18 A. Yes, that showed the floor.

19 Q. So what is the floor made out of?

20 MR. EVANS: Object to form.

21 THE WITNESS: That floor I think is
22 concrete.

23 BY MR. PACE:

24 Q. I thought the question that was asked,
25 maybe you were just looking at Exhibit 3.

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1 explained to you by Dr. Rossi, would it have
 2 required a pump to get the heated fluid to circulate
 3 through the system or no?
 4 A. It would probably require a pump to get it
 5 back into the reactor.
 6 Q. A pump to get it back --
 7 A. The return pipe, the return pipe needs a
 8 pump.
 9 Q. Understood. And also the pump -- a pump
 10 can also be used, though, to push the heated fluid
 11 up in through the heat exchanger?
 12 A. Could.
 13 Q. Okay. Would there be a limit on the flow
 14 of the steam if there wasn't some form of pump?
 15 A. Would --
 16 Q. I may be getting myself confused about how
 17 fast steam is moving.
 18 Is it possible if steam is moving fast
 19 enough, that it could have gone up through this heat
 20 exchanger without having to have a pump?
 21 A. No, you need energy to get back into the
 22 reactor.
 23 Q. That's all I was trying to understand, and
 24 I marked it as Exhibit 13. I don't have any further
 25 questions.

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1 THE VIDEOGRAPHER: We're going off the
 2 record. The time on the video monitor is
 3 5:14 p.m.
 4 (Concluded at 5:14 p.m.)
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1 AFFIDAVIT
 2
 3 STATE OF FLORIDA)
 4 COUNTY OF _____)
 5 I, _____, being
 6 first duly sworn, do hereby acknowledge that I did
 7 read a true and certified copy of my deposition
 8 which was taken in the case of ANDREA ROSSI, taken
 9 on the 27th day of February, 2017, and the
 10 corrections I desire to make are as indicated on the
 11 attached Errata Sheet.
 12 _____
 13 (Deponent)
 14
 15 ++++++
 16 CERTIFICATE
 17 STATE OF FLORIDA)
 18 COUNTY OF _____)
 19
 20 Before me personally appeared
 21 _____,
 22 to me well known / known to me to be the person
 23 described in and who executed the foregoing
 24 instrument and acknowledged to and before me that he
 25 executed the said instrument in the capacity and for
 the purpose therein expressed.
 Witness my hand and official seal, this
 ____ day of _____, _____.

 (Notary Public)
 My Commission Expires: _____

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1 ERRATA SHEET
 2 ANDREA ROSSI
 Deponent: KAU-FUI VINCENT WONG, PH.D
 3 Date of : February 27th, 2017
 Job# 2552478
 4
 5 PAGE LINE REMARKS
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 22 Signature of Witness

 23 (Notary Public)
 24 Dated this _____ day of _____, _____.
 My Commission Expires: _____
 25

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