

CONFIDENTIAL

Page 27

1 very beginning?

2 A. Yes, sir.

3 Q. Did you ultimately receive a degree from
4 Purdue?

5 A. I did.

6 Q. What degree was that?

7 A. BSME, Bachelor's of Science in mechanical
8 engineering.

9 Q. Was there any area of specialization, or was
10 that a general degree?

11 A. It was a general mechanical degree.

12 Q. Okay. As part of your coursework at Purdue,
13 did you take any courses in thermodynamics?

14 A. I did.

15 Q. Okay. And what courses did you take?

16 A. Thermody- -- basic thermodynamics, one
17 semester series.

18 Q. So just one semester worth?

19 A. Yes.

20 Q. Did you take any courses on nuclear
21 engineering?

22 A. No.

23 Q. Did you take any courses on heat transfer for
24 power plants?

25 A. Yes.

CONFIDENTIAL

Page 37

1 Q. In that degree, did you take any courses in
2 thermodynamics?

3 A. I don't believe I did.

4 Q. Okay. Any courses in nuclear engineering in
5 that degree?

6 A. No.

7 Q. Any courses in heat transfer?

8 A. I don't think so.

9 Q. What was your focus or what was the focus of
10 your coursework for your professional degree?

11 A. It was to round out my -- my education. I
12 knew that I was never going to become a professor, I
13 was going to be a working engineer. So I tried to
14 structure it to take the courses that I would like to
15 have taken when I was getting my bachelor's and didn't
16 have time. So refractories was one course, welding,
17 you know, some of the more -- some of the other courses
18 just to round out my knowledge base.

19 And then as part of that, instead of writing
20 a thesis, we had to do a project write-up for a project
21 we were doing at work, so I did -- that was kind of
22 a -- what they would consider the equivalent of a
23 thesis, we were doing a project and then writing it up.

24 Q. And what was your project?

25 A. I put in -- we put in a coal-fired boiler

CONFIDENTIAL

Page 65

1 that you applied in this case that are also applicable
2 to the instant case?

3 You know what, I'm sorry, let me rephrase
4 that for the record.

5 Were there any methodology or considerations
6 that you took into effect in examining this elementary
7 school boiler malfunctioning that you believe also to
8 be applicable in the instant case?

9 A. It may or it may not be. Based on the
10 documentation I've seen so far, there may be some
11 safety issues involved. As we both know, I have yet to
12 do a site inspection at the Doral facility, so, you
13 know, I do reserve the right to modify my answer based
14 on what I may or may not see later in the week.

15 Q. Have you made any safety determinations as to
16 the E-Cat or the Doral plant in this case?

17 A. Based upon -- again, based on not having
18 physically seen it, but based on what I understand
19 about the construction, I -- I have made a bit of a
20 determination, yes.

21 Q. Okay. We're going to get to that in just a
22 minute.

23 But just back to your publications real
24 quick, so neither one of your publications have been
25 peer reviewed?

CONFIDENTIAL

Page 128

1 asking you to tell me.

2 A. Oh, sure, certainly. The first -- the first
3 law of thermodynamics is generally that energy can
4 neither be created nor destroyed, it only changes form.
5 And -- and also -- well, yeah, that's it.

6 Q. And there are many forms of energy, correct?

7 A. There are, yes, sir.

8 Q. Would you state that there are chemical,
9 electrical, mechanical, nuclear, thermal,
10 electromagnetic and so on?

11 A. And so on, correct.

12 Q. Now, on page 3 of your report, you go on to
13 discuss and state that the energy forms are all
14 interchangeable?

15 A. Theoretically, but go ahead.

16 Q. Okay. And you can convert one form of energy
17 into another?

18 A. Theoretically.

19 Q. Okay. But then you state that nuclear energy
20 is generally a one-way street?

21 A. Yes, it is.

22 Q. Why is that?

23 A. It's because -- again, I'm not a nuclear
24 engineer, understand that. But to go from, say,
25 mechanical energy to nuclear energy is typically not

CONFIDENTIAL

Page 129

1 possible. And I cited a nuclear weapon and a nuclear
2 power plant. And usually with -- with nuclear energy,
3 it's a one-way street outbound.

4 Q. What were you told of the E-Cat process?

5 A. That it is a -- not a nuclear reaction.

6 Q. Who told you that?

7 A. I read Mr. Stokes' report in which Mr. Rossi
8 said that there's not a nuclear reaction involved.

9 Q. I'm sorry, Mr. Stokes' report?

10 A. The Florida radiological guy.

11 Q. That wasn't listed on the documents that
12 you -- that are included in your report.

13 A. I believe it's in the -- I believe portions
14 are in that 277-page response, and I'm not -- I can't
15 look, I don't have all 277 pages of the third amended
16 answer.

17 Q. Do you know what the nature of the reaction
18 underlying the E-Cat is?

19 A. I do not.

20 Q. So as far as you know, it may be nuclear?

21 MR. LOMAX: Objection to the form of the
22 question.

23 A. Again, based on Mr. Stokes' report, it does
24 not appear to be nuclear.

25 Q. Okay. But, again, you're saying based on

CONFIDENTIAL

Page 130

1 Mr. Stokes' report.

2 What in Mr. Stokes' report indicates to you
3 that it is not nuclear?

4 A. Okay. This is the 15 February '16 report of
5 his, on the last line of item 20, Description of
6 Investigation, he uses no process that generates
7 ionizing radiation and uses no radioactive materials in
8 the construction.

9 Q. Have you ever heard the term LENR, L-E-N-R,
10 before?

11 A. I have.

12 Q. Okay. What does that stand for?

13 A. It purportedly stands for low energy nuclear
14 reaction.

15 Q. Have you done any research on that subject
16 matter?

17 A. Prior to this case, not much. I was -- I was
18 vaguely familiar with Pons and Fleischmann when it
19 happened, but I, you know, quit following it after the
20 controversy.

21 Q. What about as part of this case?

22 A. Well, it -- Mr. -- what I do understand is
23 that what Mr. Rossi is claiming kind of falls under the
24 general rubric of LENR. But I believe that LENR is now
25 a generic term as opposed to a specific term describing

CONFIDENTIAL

Page 131

1 a specific phenomenon.

2 Q. Okay. And so other than Mr. Stokes' report
3 which states that it does not use -- or does not emit
4 ionizing radiation or use radioactive materials, do you
5 have anything other than that to base your statement
6 that it is not a nuclear reaction?

7 A. I believe that Mr. Rossi has stated that
8 maybe in one of his depositions.

9 Q. Okay. Do you, sir, have any independent
10 knowledge other than what you believe other people have
11 said?

12 A. Well, when you say "independent knowledge,"
13 help me out here because this is an official report
14 from the State of Florida, it's an official document.

15 Q. And it's somebody's interpretation. In our
16 profession, we call it hearsay. Okay.

17 So what I'm asking you is, is there anything
18 that you know that does not rely upon what somebody
19 else says?

20 A. Well, I've not -- I've not been allowed to
21 look at anything inside the facility. All right. I've
22 not had a description of what is purported to happen,
23 so I have not been allowed to get that far to make an
24 independent determination yet.

25 Q. Would that be within your field of expertise

CONFIDENTIAL

Page 132

1 is to make a determination?

2 A. I believe I said already, I'm not a nuclear
3 engineer, but I believe this is a non-nuclear device.

4 Q. Okay. Then what type of reaction may be
5 occurring?

6 A. I have no idea. It looks like just a heat --
7 a thermal heat reaction on a glorified electric heater.
8 I'm not sure that there's any reaction going on.

9 Q. Has anyone ever told you that samples of the
10 catalyst had been taken were transmutation of the
11 materials used appear to be indicated?

12 A. Appear to be? That's a little nebulous --

13 Q. What have you been told, sir?

14 A. I've not -- I've not been told anything in
15 that regard.

16 Q. So you don't know whether there's been any
17 transmutation or not? You don't know the nature of its
18 reaction, correct?

19 MR. LOMAX: Object to the form of the
20 question.

21 Q. And other than what you've read, you have no
22 knowledge whatsoever or opinion with respect to whether
23 it's nuclear or any other type of reaction?

24 MR. LOMAX: Objection to the form of the
25 question.

11
CONFIDENTIAL

Page 184

1 exchanger, sir, that it would, in fact, negate some of
2 your opinions as set forth in your report?

3 MR. LOMAX: Objection to the form of the
4 question.

5 A. Absolutely not.

6 Q. Your -- your report was predicated upon the
7 assumption that there was no heat exchanger, correct?

8 A. Correct.

9 Q. Okay. So if there was a heat exchanger,
10 there would be different variables that you had not
11 accounted for in this report, correct?

12 A. I -- I can't answer that. Knowing nothing
13 about it and -- and a heat exchanger, even if it's
14 installed, may not work. There may have been a heat
15 exchanger there; it may not have functioned.

16 Q. But you don't know one way or another. If
17 there was a functioning heat exchanger there, sir,
18 would that change the findings in your report?

19 A. It may, it may not. It probably will not.

20 Q. Why is that?

21 A. Because, again, I don't believe it was there,
22 based on my understanding of thermodynamics and what I
23 have -- what pictures I have seen of the facility, I
24 have no reason to believe that it was there.

25 Q. Well, I'm asking you to assume, sir, that it

1 was.

2 A. I'm not taking that assumption. Sorry.

3 Q. Okay. Are you making or giving any opinion
4 as to whether this was the guaranteed performance test
5 required under the parties' contract in this case?

6 MR. LOMAX: Objection to the form of the
7 question.

8 A. I'm not speaking specific to the contractual
9 obligations. What I'm basing mine on is the test plan
10 report and then Dr. Penon's final report.

11 Q. Did anyone from Industrial Heat or counsel
12 inform you that they had never objected to Penon's test
13 plan?

14 MR. LOMAX: Objection to the form of the
15 question.

16 A. I believe I've heard that, yes.

17 Q. Okay.

18 A. In fact -- well, even last week during -- you
19 questioned Dr. Penon quite extensively on that.

20 Q. Did anyone ever tell you why they had not
21 objected?

22 MR. LOMAX: Objection to the form of the
23 question.

24 A. No, that, I'm not privy to that, no, sir.

25 Q. How long did it take you to evaluate the