

Composite Exhibit 57

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF FLORIDA

ANDREA ROSSI and LEONARDO)
CORPORATION,)
)
Plaintiffs,)

VS.)

No. 1:16-cv-2119-CMA

THOMAS DARDEN; JOHN T. VAUGHN;)
INDUSTRIAL HEAT, LLC; IPH)
INTERNATIONAL B.V.; and)
CHEROKEE INVESTMENT PARTNERS,)
LLC,)

Defendants.)

INDUSTRIAL HEAT, LLC and IPH)
INTERNATIONAL B.V.,)

Counter-Plaintiffs,)

vs.)

ANDREA ROSSI and LEONARDO)
CORPORATION,)

Counter-Defendants,)

and)

J.M. PRODUCTS, INC.; HENRY)
JOHNSON; FABIO PENON; UNITED)
STATES QUANTUM LEAP, LLC;)
FULVIO FABIANI; and JAMES)
BASS,)

Third-Party Defendants.)

HIGHLY CONFIDENTIAL

Videotaped Deposition of JOSEPH ALAN MURRAY
(Taken by Plaintiff)
Raleigh, North Carolina
Friday, February 17, 2017

Reported in Stenotype by
Lauren M. McIntee, RPR
Transcript produced by computer-aided transcription

02/17/2017 Joseph Alan Murray

<p style="text-align: right;">Page 2</p> <p>1 APPEARANCES</p> <p>2 ON BEHALF OF THE PLAINTIFF:</p> <p>3 John M. Annesser</p> <p>4 Brian Chaiken</p> <p>5 Perlman, Bajandas, Yevoli & Albright, PL</p> <p>6 283 Catalonia Avenue, Suite 200</p> <p>7 Coral Gables, Florida 33134</p> <p>8 (305) 377-0086</p> <p>9 Jannessers@pbylaw.com</p> <p>10 Bchaiken@pbylaw.com</p> <p>11 ON BEHALF OF DEFENDANTS:</p> <p>12 Christopher Lomax</p> <p>13 Jones Day</p> <p>14 Brickell World Plaza</p> <p>15 600 Brickell Avenue, Suite 3300</p> <p>16 Miami, Florida 33131</p> <p>17 (305) 714-9700</p> <p>18 clomax@jonesday.com</p> <p>19 ON BEHALF OF THIRD-PARTY DEFENDANTS J.M. PRODUCTS, INC.,</p> <p>20 HENRY JOHNSON, and JAMES BASS:</p> <p>21 Francisco J. León de la Barra (Via telephone)</p> <p>22 Aran, Correa & Guarch, P.A.</p> <p>23 225 University Drive</p> <p>24 Coral Gables, Florida 33134</p> <p>25 (305) 665-3400</p> <p>fleon@acg-law.com</p> <p>ON BEHALF OF THIRD-PARTY DEFENDANTS FULVIO FABIANI, AND</p> <p>UNITED STATES QUANTUM LEAP, LLC:</p> <p>Rudolfo Nuñez (Via telephone)</p> <p>Rudolfo Nuñez, P.A.</p> <p>255 University Drive</p> <p>Coral Gables, Florida 33134</p> <p>(305) 665-3400</p> <p>rnunez@acg-law.com</p> <p>ALSO PRESENT:</p> <p>MR. MICHAEL KIRBY, CLVS</p> <p>DR. ANDREA ROSSI</p>	<p style="text-align: right;">Page 3</p> <p>1 VIDEOTAPED DEPOSITION OF JOSEPH ALAN MURRAY, a</p> <p>2 witness called on behalf of Defendant, before Lauren M.</p> <p>3 McIntee, Registered Professional Reporter and Notary</p> <p>4 Public, in and for the State of North Carolina, at</p> <p>5 CaseWorks Court Reporting, 3509 Haworth Drive, Suite</p> <p>6 403, Raleigh, North Carolina, on Friday,</p> <p>7 February 17, 2017, commencing at 8:50 a.m.</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>																																
<p style="text-align: right;">Page 4</p> <p>1 INDEX OF EXAMINATIONS</p> <p>2 By Mr. Annesser. Page 6</p> <p>3 By Mr. León. Page 349</p> <p>4 By Mr. Nuñez. Page 350</p> <p>5</p> <p style="text-align: center;">INDEX OF EXHIBITS</p> <p>6</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">NUMBER</th> <th style="width: 40%;">MARKED</th> </tr> </thead> <tbody> <tr><td>7 Exhibit 1</td><td>78</td></tr> <tr><td>8 Exhibit 2</td><td>82</td></tr> <tr><td>9 Exhibit 3</td><td>100</td></tr> <tr><td>10 Exhibit 4</td><td>116</td></tr> <tr><td>11 Exhibit 5</td><td>124</td></tr> <tr><td>12 Exhibit 6</td><td>133</td></tr> <tr><td>13 Exhibit 7</td><td>143</td></tr> <tr><td>14 Exhibit 8</td><td>177</td></tr> <tr><td>15 Exhibit 9</td><td>217</td></tr> <tr><td>16 Exhibit 10</td><td>239</td></tr> <tr><td>17 Exhibit 11</td><td>243</td></tr> <tr><td>18 Exhibit 12</td><td>262</td></tr> <tr><td>19 Exhibit 13</td><td>262</td></tr> <tr><td>20 Exhibit 14</td><td>322</td></tr> <tr><td>21 Exhibit 15</td><td>334</td></tr> </tbody> </table> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	NUMBER	MARKED	7 Exhibit 1	78	8 Exhibit 2	82	9 Exhibit 3	100	10 Exhibit 4	116	11 Exhibit 5	124	12 Exhibit 6	133	13 Exhibit 7	143	14 Exhibit 8	177	15 Exhibit 9	217	16 Exhibit 10	239	17 Exhibit 11	243	18 Exhibit 12	262	19 Exhibit 13	262	20 Exhibit 14	322	21 Exhibit 15	334	<p style="text-align: right;">Page 5</p> <p>1 THE VIDEOGRAPHER: We're on the record at</p> <p>2 8:51 a.m. This is the videotaped deposition of</p> <p>3 Joseph Murray in the matter of Andrea Rossi, et al,</p> <p>4 versus Thomas Darden, et al. This deposition is</p> <p>5 being held in the offices of CaseWorks at 3509</p> <p>6 Haworth Drive, Suite 403, in Raleigh, North Carolina</p> <p>7 27609 on February 17, 2017. The court reporter is</p> <p>8 Lauren McIntee. The videographer is Michael Kirby,</p> <p>9 both with Caseworks. Would counsel please introduce</p> <p>10 themselves.</p> <p>11 MR. ANNESSER: John Annesser and Brian</p> <p>12 Chaiken on behalf of the Plaintiffs.</p> <p>13 MR. LOMAX: I'm Christopher Lomax on behalf</p> <p>14 of the Defendants.</p> <p>15 THE VIDEOGRAPHER: And would the court</p> <p>16 reporter please swear in the witness.</p> <p>17 MR. NUÑEZ: Hello there. This is Rudy</p> <p>18 joining in.</p> <p>19 MR. ANNESSER: Thank you, Rudy. We've</p> <p>20 already begun.</p> <p>21 MR. NUÑEZ: Okay.</p> <p>22 MR. ANNESSER: Please place us on mute.</p> <p>23 MR. NUÑEZ: I thought it was 9:00 though,</p> <p>24 right?</p> <p>25 MR. ANNESSER: Yes, but we, we decided to</p>
NUMBER	MARKED																																
7 Exhibit 1	78																																
8 Exhibit 2	82																																
9 Exhibit 3	100																																
10 Exhibit 4	116																																
11 Exhibit 5	124																																
12 Exhibit 6	133																																
13 Exhibit 7	143																																
14 Exhibit 8	177																																
15 Exhibit 9	217																																
16 Exhibit 10	239																																
17 Exhibit 11	243																																
18 Exhibit 12	262																																
19 Exhibit 13	262																																
20 Exhibit 14	322																																
21 Exhibit 15	334																																

02/17/2017 Joseph Alan Murray

Page 62

1 over and test it again?

2 **A. Well, because Mr. Darden was, wanted us to**

3 **drive to the end, that if there was even one percent**

4 **chance that that one measurement he did was correct,**

5 **then let's get to the bottom of it. And there was a big**

6 **language barrier. So what we did was we had him, after**

7 **we were able using all of his information, able to**

8 **reproduce it or not able to reproduce it, what we had**

9 **him do was we had him to come over and use one of his**

10 **reactors in our facility to see if there was something,**

11 **some nuance difference that we just weren't getting, and**

12 **then try to reproduce it. But we were not able to get**

13 **it to work even with him there.**

14 Q. Would you say that it is essential to work

15 with the inventor in order to make sure that you're

16 getting absolutely everything to attempt to replicate

17 these tests?

18 **A. In my opinion, yes. I mean if, these are**

19 **very nuanced and subtle areas. And so if you don't have**

20 **access to, to these people, it's very difficult to**

21 **really understand all of the, the small nuance**

22 **differences.**

23 Q. Did you ever try to reproduce or test an

24 E-Cat device designed by Dr. Rossi?

25 **A. I did not.**

Page 64

1 **Mazzarino asked me to look at in detail what Mr. Rossi**

2 **was doing. So I took all the information that, that**

3 **they could provide me, and it was insufficient**

4 **information incidentally. There were, there were no**

5 **red-line drawings of the plant. There were no details.**

6 **And on top of that, this is another kind of detail, Tom**

7 **Darden was the keeper of the trade secrets. Nobody else**

8 **knew anything about the details of the fuel technology.**

9 **So what we did was we focussed on the heat**

10 **transfer and the coefficient of performance as they had**

11 **been defined so that we could figure out if we could**

12 **replicate it. Because Tom and John insisted that if**

13 **there's even one percent chance he's right, they want to**

14 **move ahead and figure out how to do this.**

15 **So in 2000 -- June of 2015 I went through**

16 **everything I could find. And, and there were some**

17 **commissioning reports I think they were from Mr. Penon.**

18 **And I was going through those, and there were a lot of**

19 **typos and errors, and so that was concerning. And so I**

20 **developed a whole bunch of questions. Like, for**

21 **example, in the commission report they had the flow rate**

22 **in the system was 36,000 -- let me think of the unit --**

23 **kilograms per day, day after day after day, which I**

24 **thought was suspicious, but in the body of the text he**

25 **had written 3,600.**

Page 63

1 Q. So you've never tested an E-Cat device?

2 **A. We created a device that was as close as**

3 **possible to the best of our ability without, without the**

4 **ability to communicate with Mr. Rossi. We, we did the**

5 **best we could. So we created some reactors that were**

6 **similar to some of the reactors that he had tested at**

7 **the Triangle Drive facility before I was part of**

8 **Industrial Heat, and we tested those systems.**

9 Q. Okay. Now, you said a couple things there I

10 want to ask you about. You said with no communication

11 with Dr. Rossi?

12 **A. Uh-huh.**

13 Q. Why didn't you have communication with

14 Dr. Rossi?

15 **A. Well, so when I came on board, so in June of**

16 **2000 -- let me get the year right -- 15, Industrial Heat**

17 **was, had just received their funding. I don't know if**

18 **it was in April or May. They had received funding, and**

19 **they were in negotiations for several other investments.**

20 **And so those were ongoing, and the lawyers, you know,**

21 **not to say anything bad about lawyers, but the lawyers**

22 **were doing their thing. And so they were taking a long**

23 **time to kind of get to the point where we could really**

24 **engage and work with the various groups.**

25 **So in June of 2015 Tom Darden and John**

Page 65

1 **So I thought, oh, 3,600 would be a lot more**

2 **logical. It was kind of consistent with what everybody**

3 **was describing as the coefficient of performance, those**

4 **types of things. So I thought, okay, well, maybe**

5 **there's an error there. Maybe it's just a simple typo.**

6 **I mean somebody could have transposed a number. That's**

7 **not a big deal. Things happen.**

8 **So we went through all of that. And I was**

9 **looking at it. I just couldn't figure it out because I**

10 **couldn't figure out where, in a thermodynamic sense**

11 **where the various sensors were. Because you have to**

12 **have the pressure and the temperature and the volume or**

13 **mass flow rate of the condensate return, and you need**

14 **the pressure and the temperature and the volume or mass**

15 **flow rate of the steam to, to measure the system.**

16 Q. I'm going to stop you for just a minute.

17 **A. Okay.**

18 Q. We will get into that. I'm going to give you

19 plenty of --

20 **A. Okay.**

21 Q. -- opportunity to tell me about it.

22 **A. Okay.**

23 Q. But I want to go back to the testing that you

24 did.

25 **A. Okay.**

02/17/2017 Joseph Alan Murray

Page 66

1 Q. Okay. So the question again was why you had
 2 no communication with Dr. Rossi.
 3 **A. Right. So that was where I was getting to.**
 4 **So at the end of that analysis -- thanks for reminding**
 5 **me because I'm out in the weeds. At the end of that**
 6 **analysis I just couldn't make heads or tails of what was**
 7 **going on, so JT Vaughn and Tom Darden and John Mazzarino**
 8 **said you need to go down and meet with Mr. Rossi,**
 9 **understand what he's doing, look at the plant. He said**
 10 **if we don't have the documentation, at least you can**
 11 **look at the plant and understand what's going on. I**
 12 **said fine, I'll go down and meet with Dr., with**
 13 **Mr. Rossi.**
 14 **So in July of 2015 we were going to fly down**
 15 **and visit him. And I don't know exactly what happened,**
 16 **but JT had informed Mr. Rossi we were coming down and**
 17 **he, he said I couldn't come to the building. So that**
 18 **kind of put up a big barrier.** And so subsequently what
 19 we did was we, I engaged with Barry West, and Barry West
 20 was on leave or vacation. I think it was in August time
 21 frame. He would, I think he would work five weeks and
 22 take a week off or maybe work four and take two. I
 23 don't remember what the details were, but he was back up
 24 in North Carolina, and I met with him to get some
 25 details to try to figure out what was going on.

Page 68

1 **A. I don't, what --**
 2 Q. Did they ever tell you that, you know, just
 3 them even suggesting that you come down is probably
 4 going to upset Dr. Rossi?
 5 MR. LOMAX: Objection to the form of the
 6 question.
 7 **A. I, I don't know. I, I would have anticipated**
 8 **that, based on their relationship as it was kind of**
 9 **presented to me, that, you know, there would be some,**
 10 **some reception actually at that time, because Mr. Darden**
 11 **and others were taking other people down there to look**
 12 **at the plant and talk to them, and so I thought I was**
 13 **just going to be another person to visit.**
 14 Q. Okay.
 15 **A. So.**
 16 Q. Did they ever tell you he would be upset by
 17 your visit, but, you know, to do it anyways?
 18 MR. LOMAX: Objection to the form of the
 19 question.
 20 **A. I don't recall, but they may have. They may**
 21 **have indicated that. It may have been after though**
 22 **that, once he actually said you can't come in. I don't**
 23 **remember the exact time line that all of that happened.**
 24 Q. Now, just back for a second with Mr., and I'm
 25 sorry, Dr. Mizuno. So is it your belief that his

Page 67

1 Q. Okay. Now, going back for just a minute to
 2 your testing. Well, first of all, in that time period,
 3 and I understand JT Vaughn sent an e-mail to Dr. Rossi
 4 as you explained. Did you ever send an e-mail to
 5 Dr. Rossi?
 6 **A. I don't believe I ever did, no.**
 7 Q. Did you ever introduce yourself to Dr. Rossi?
 8 **A. First time I met him was actually the day**
 9 **that you and I were at the plant for the first time.**
 10 Q. Okay. Did you have any preconceived notions
 11 about Dr. Rossi when you met him?
 12 **A. Yeah. I would say yes, I did.**
 13 Q. And what were those notions?
 14 **A. Mr. Darden, Tom Darden and John Mazzarino,**
 15 **they engaged with me directly and said, look, you just**
 16 **have to be aware that he's very deceptive, and you just**
 17 **have to be careful with that. And I said I'm only about**
 18 **the data --**
 19 Q. When did they tell you that?
 20 **A. -- and so. I think after the meeting was**
 21 **canceled in July, that, about that time frame.**
 22 Q. Did they tell you that that meeting was
 23 likely not going to go over well with Dr. Rossi?
 24 MR. LOMAX: Objection to the form of the
 25 question.

Page 69

1 testing protocol that was undertaken at his lab in Japan
 2 was faulty?
 3 **A. I believe that the test protocol that he**
 4 **executed in Japan prior to us being able to go in and**
 5 **inspect what he was doing did have errors and, and**
 6 **problems, yes.**
 7 Q. To your knowledge, did Industrial Heat invest
 8 in Dr. Mizuno's technology?
 9 **A. To my knowledge I believe, and I'm not deep**
 10 **into this, my understanding is that we paid him kind of**
 11 **a monthly stipend to, to support his research and**
 12 **development activities.**
 13 Q. To your knowledge, has Industrial Heat sued
 14 him?
 15 **A. I am not aware of that, no.**
 16 Q. All right. Now, sir, taking a large step
 17 back from what we've been discussing. When did you
 18 first come into contact with Industrial Heat?
 19 **A. When did I first come into contact with**
 20 **Industrial Heat or with the personnel associated with**
 21 **Industrial Heat?**
 22 Q. Well, let's go ahead and say the personnel.
 23 **A. Okay. So I met Dewey Weaver --**
 24 THE VIDEOGRAPHER: Mr. Murray.
 25 **THE WITNESS: Oh, I'm sorry. Sorry about**

Page 82

1 medical benefits renew -- I use a HSA medical plan, and
 2 they renew at the beginning of the year. And so when I
 3 left Ultra I was in the middle of a, kind of a plan
 4 year. And my daughter was sick. She needed some
 5 surgery, and I didn't want to mess with the insurance.
 6 So I just said, look, let me just consult until the end
 7 of the year, and then we'll convert to an employee at
 8 the end of the year when the medical plans turn over.
 9 Q. Now, as a consultant were you given a title
 10 within the company?
 11 A. Because the intention was for me to
 12 transition to a full-time employee, yeah. My title was
 13 Vice President of Engineering.
 14 Q. So you were Vice President of Engineering
 15 from day one?
 16 A. Kind of from the beginning, yeah.
 17 Q. I'm going to show you a document, sir, that
 18 we'll mark as Exhibit 2.
 19 (Whereupon, Exhibit 2 was marked for
 20 identification.)
 21 Q. Have you seen this document before, sir?
 22 A. One second. Let me see. Yes, I actually
 23 think I prepared this document.
 24 Q. Okay. Now looking, sir, the, the date on the
 25 front of this document appears to be January 2016?

Page 84

1 A. No, not to, not to my knowledge.
 2 Q. Did they have any systems in place when you
 3 joined them in May or June of 2015?
 4 A. This, this was for the new facility. So
 5 we -- I don't recall when they got the lease on the new
 6 facility. I think it was about August or maybe
 7 September of 2015. So what we were doing is setting up
 8 this entire new organization in the new facility. And
 9 so these systems, I -- not that I'm aware of. I don't
 10 know what they really had at Triangle Drive. I know
 11 they did, they were doing some electrolytic system
 12 testing at Triangle Drive at that time. I had gone over
 13 there one or two times, but I wasn't really too versed
 14 in what they were doing.
 15 Q. Okay. Integration and tests, what was that?
 16 A. So integration and tests is actually taking
 17 the development assets, bringing them together and
 18 executing test programs using those. So the integration
 19 is kind of a validation procedure for the infrastructure
 20 that lives over top of, for example, a reactor or we had
 21 chambers and other equipment. So we were integrating
 22 all that equipment together, and then we were testing it
 23 and validating it to make sure that it was operating as
 24 we had specified in the development phase.
 25 Q. So that wouldn't be the testing and

Page 83

1 A. Uh-huh.
 2 Q. Okay. What I'd like you to turn to -- and
 3 I'm sorry. This document is a document with a bates
 4 number IH00053931. I'll ask you to turn to the sixth
 5 page of the document with the bates number IH00053936.
 6 A. Uh-huh.
 7 Q. There is an organizational structure there?
 8 A. Uh-huh.
 9 Q. And it lists engineering, J Murray. Is that
 10 you?
 11 A. Yes.
 12 Q. Okay. And it has categories in which I
 13 believe you're responsible: Development, integration
 14 and tests, data management, project management, modeling
 15 and simulation?
 16 A. Yes.
 17 Q. Okay. What development did you do for the
 18 company?
 19 A. We developed data acquisition systems and
 20 replication reactor systems. We developed calorimetry
 21 systems. We developed a wide range of test assets. We
 22 developed databases to archive and store all of the
 23 information from every test that we did. I don't know.
 24 Just broad range of development activities.
 25 Q. Didn't those exist before?

Page 85

1 evaluation of the underlying LENR technology? And by
 2 LENR do you understand what I mean?
 3 A. Yes, I do.
 4 Q. Low energy nuclear reaction?
 5 A. Uh-huh. It would be, in fact, a combination
 6 of testing of the equipment and infrastructure necessary
 7 to test those reactors as well as the test of those
 8 reactors --
 9 Q. Yeah.
 10 A. -- when it was appropriate and when we got to
 11 that point.
 12 Q. Data management?
 13 A. So in my experience, many companies fail to
 14 adequately archive and manage data. So what we were
 15 doing is we put a very robust plan in place to store and
 16 archive the data and metadata associated with tests so
 17 we could reproduce it.
 18 Q. Okay. Project management?
 19 A. Over --
 20 Q. Is that anything other than the common term,
 21 project management, overseeing all these projects?
 22 A. It's project management.
 23 Q. Modeling and simulation?
 24 A. Right. So we, we attempted to model and
 25 simulate as many of the systems as we could so we could

02/17/2017 Joseph Alan Murray

Page 114

1 what the model of the flow meter is. We need to know
 2 the type. We need to know what flow meter is on the
 3 condensate line, what flow meter is on the steam side.
 4 We needed all that information.
 5 Q. Did you, did you look at the, the test plan?
 6 A. I did, yes.
 7 Q. Okay. And that didn't indicate anything to
 8 you?
 9 A. At some point along the way after the fact
 10 once, once I actually got my eyes on what they were
 11 doing down in the plant in February of 2015 when we were
 12 there on that, those two days and I saw what they were
 13 doing, I went back and scoured through all the
 14 documents. And there was a document where they had a
 15 bullet line of what the flow meter was --
 16 Q. Okay.
 17 A. -- on the condensate line, but I had not seen
 18 that before that.
 19 Q. So they had that though?
 20 A. There was a --
 21 Q. That was information that Industrial Heat
 22 had?
 23 A. There was a document that had that, yes.
 24 Q. Okay. And you hadn't seen that before?
 25 A. I had not noticed it, no.

Page 116

1 (Whereupon, Exhibit 4 was marked for
 2 identification.)
 3 MR. LOMAX: Thank you.
 4 Q. Do you recall receiving this e-mail, sir,
 5 which was sent by Mr. Fabiani to yourself on April 25,
 6 2016?
 7 A. Yes.
 8 Q. And do you recall him telling you that he is,
 9 I think the words he used is between the hammer and
 10 anvil?
 11 A. I don't recall the specific e-mail, but yeah,
 12 I mean this, this looks like almost the same as what he
 13 described when we met before this at Jones Day.
 14 Q. And isn't it true, sir, that Industrial Heat
 15 refused to pay him for his last invoice?
 16 MR. LOMAX: Objection to the form of the
 17 question.
 18 A. Okay. Mr. Fabiani committed to delivering to
 19 us a final report that he was preparing. And so when we
 20 met with him in, at Jones Day prior to this, he said the
 21 next day he would produce two things; all of the data
 22 that he had collected, and he would produce a final
 23 report with all of the details of what he had done
 24 during the one-year period. And, and we said as soon as
 25 you do that, we'll release your final payment and we'll

Page 115

1 Q. Okay. But Industrial Heat had it. It wasn't
 2 a secret. It wasn't --
 3 A. That's right.
 4 Q. Okay. Now, you're dealings with Mr. Fabiani,
 5 did he ever tell you that he felt like he was between a
 6 rock and a hard spot, you know, sitting there between
 7 Industrial Heat and Dr. Rossi?
 8 A. Yes. Yes.
 9 Q. Okay. Do you have any reason to believe that
 10 that wasn't the case?
 11 A. No. He described his relationship with
 12 Mr. Rossi when he was at Jones Day with us. He
 13 described his relationship as he, he was very close to
 14 Mr. Rossi's wife. I don't recall her name. He, he
 15 described it as she was kind of like a sister or a
 16 mother to me, and that he felt like he was really in a
 17 hard spot because he couldn't do anything without being
 18 under the scrutiny of Mr. Rossi.
 19 Q. Did he ever tell you that Dr. Rossi was very
 20 disappointed in him because he thinks that he is an IH
 21 spy?
 22 A. I don't recall those exact words, no.
 23 Q. Okay. I'll show you a document that we'll
 24 mark as Exhibit 4. It bears the bates number
 25 IH00087145.

Page 117

1 go from there. And the next day he said he would not
 2 release that information, and then we began a dialogue
 3 of continually not getting the information.
 4 Q. That, that information, I'm sorry, that final
 5 payment was already past due, was it not?
 6 A. I have no idea.
 7 Q. Okay. Now, Mr. Fabiani sent reports on a
 8 regular basis to Industrial Heat, did he not?
 9 MR. LOMAX: Objection to the form of the
 10 question.
 11 A. I am not --
 12 MR. ANNESSER: What's the objection?
 13 MR. LOMAX: It's leading.
 14 MR. ANNESSER: He's an opposing party
 15 witness, Chris.
 16 MR. LOMAX: It's just my objection for the
 17 record.
 18 MR. ANNESSER: Okay. Thank you.
 19 BY MR. ANNESSER:
 20 Q. Go ahead, sir.
 21 A. Can you repeat the question?
 22 Q. Yes. Isn't it true that Mr. Fabiani sent
 23 regular updates and reports to Industrial Heat?
 24 A. I'm not sure. Those in my, in my best
 25 judgment would probably have gone to JT Vaughn.

02/17/2017 Joseph Alan Murray

Page 118

1 Q. Okay. Were they ever shown to you?

2 A. **Not that I recall.**

3 Q. Would those have been helpful to you in your

4 replication efforts?

5 A. **I don't know what the content of the, the --**

6 Q. If --

7 A. **-- reports were.**

8 Q. If he sent reports regarding the amount of

9 power used or water flow, or anything for that matter?

10 A. **No, I don't believe those would be valuable**

11 **relative to the replication efforts.**

12 Q. But --

13 A. **It would have been useful information**

14 **relative to understanding what was happening in that**

15 **facility.**

16 Q. **Did you ever ask JT Vaughn for anything that**

17 **they received?**

18 A. **I don't recall.**

19 Q. **Power usage reports from Mr. Fabiani?**

20 A. **Actually, yeah, I recall at some point,**

21 **probably after the test was complete, getting a PDF file**

22 **with a spreadsheet. I mean I have a vague recollection**

23 **of this, but subsequent to that, when we met at Jones**

24 **Day Mr. Fabiani provided us with a series of**

25 **spreadsheets and data that we actually analyzed.**

Page 120

1 received it now, but at that point we had not received

2 it.

3 Q. So you haven't analyzed that now?

4 A. **I'm sorry?**

5 Q. You haven't analyzed the additional data that

6 he's given you?

7 A. **I don't know if we've received it.**

8 Q. So you don't recall ever seeing monthly,

9 monthly spreadsheets?

10 A. **No, I, I received monthly spreadsheets from**

11 **Mr. Fabiani when we met at Jones Day, and we analyzed**

12 **that data. And at some point probably in the first, you**

13 **know, first part of 2016, maybe after the test,**

14 **somewhere thereabouts there were some spreadsheets that**

15 **were in PDF form that were shared with us.**

16 Q. And that meeting was in 2016 after the test

17 was --

18 A. **Completed, yeah. I think it was in March. I**

19 **would have to look back to see when I flew down to**

20 **Miami.**

21 Q. So you never received monthly spreadsheets --

22 A. **Before.**

23 Q. -- before that from anyone?

24 A. **Not that I'm aware of.**

25 Q. Did you receive --

Page 119

1 Q. Okay. Have those spreadsheets and data been

2 provided do you know in discovery?

3 A. **Yes, I believe they have. I should say we**

4 **have provided them to Jones Day. What they provide I, I**

5 **don't know.**

6 Q. Okay. So when Mr. Fabiani met with you, was

7 it with Jones Day or without Jones Day?

8 A. **With Jones Day.**

9 Q. Okay. What was discussed at that meeting?

10 A. **He had, he had indicated that he had a lot of**

11 **data and that he would share that data with us. So**

12 **initially we were just having small talk, you know. He**

13 **kind of -- introduction. We had never really formally**

14 **met in a, a less kind of stressful environment. So we**

15 **chatted. He kind of gave me a little bit of his**

16 **background. I gave him a little bit of my background.**

17 **He was familiar with some of my defense background, and**

18 **I was familiar with some of the work that he had done in**

19 **Israel.**

20 So we had small talk, and then we had a

21 discussion about what he had done and the data that he

22 would provide us, and he gave us a little bit of

23 information. He gave us some, several spreadsheets, and

24 then subsequently he made a commitment to give us

25 additional data that we, actually I don't know if we've

Page 121

1 A. **Oh, there were the monthly or -- the reports**

2 **that Mr. Penon had submitted, I don't know if they were**

3 **monthly or quarterly. And from time to time I would get**

4 **those updates, and we would look at those. That's the**

5 **ones that I was describing as units were changing and**

6 **there were some, you know, things that we had to be**

7 **careful with.**

8 Q. So I know I asked you this before, but I need

9 you to refresh my recollection. When is the first time

10 that you saw the test plan for the test being performed

11 by Mr. Penon?

12 A. **Probably, you know, it's hard to know which**

13 **one. I saw a commissioning report. That's what I**

14 **reviewed along with the, all of the information that was**

15 **available at that point in June of 2015. The test plan,**

16 **kind of the precursor to that, I think it was kind of**

17 **incorporated in it, but it wasn't exactly the same.**

18 **These things, the reports kind of changed over time.**

19 Q. Okay.

20 A. **So I don't really know exactly when I saw the**

21 **test plan, but I know that after we went on the 15th and**

22 **16th and I saw the flow meter, I went back and scoured**

23 **through all the documents I could find, and then I found**

24 **a document that had a reference to a flow meter in it.**

25 Q. Okay. And what was that document, if you

02/17/2017 Joseph Alan Murray

Page 126

1 been down there?
2 A. I think he had when they were setting up the
3 plant, yes.
 4 Q. Did you ask him about his trip down there or
 5 how things were set up?
6 A. Yes.
 7 Q. And you still didn't know the configuration?
8 A. No.
 9 Q. Did he ever try to come back down --
10 A. I am not --
 11 Q. -- to your knowledge?
12 A. -- aware. I am not aware.
 13 Q. So why would Dr. Rossi -- or why would he say
 14 he'll start getting worked up now?
 15 MR. LOMAX: Object --
 16 Q. You said you, you said you took that to mean
 17 that he didn't want you coming down?
18 A. Yes.
 19 Q. Well, so you knew that before --
20 A. No, no, no. He sent --
 21 Q. -- he even asked?
22 A. I believe he sent this e-mail --
 23 Q. Two minutes after the original e-mail.
24 A. -- after, he sent that e-mail to me saying,
25 well, he's going to start getting worked up now.

Page 128

1 point Tom Darden indicated that he was hiring an
2 engineering team and that they were bringing, ramping up
3 Industrial Heat. I don't know if they shared that
4 information with Mr. Rossi though.
 5 Q. Okay. Well, it certainly appears that JT
 6 Vaughn knew that Dr. Rossi would get upset by that
 7 suggestion.
8 A. Of bringing somebody new in the plant?
 9 Q. Yeah.
10 A. It appears that way, yes.
 11 Q. And Dr. Rossi didn't know you from Adam at
 12 that point in time. And specifically at that point in
 13 time isn't it true that you weren't even an employee of
 14 Industrial Heat?
15 A. No. I was --
 16 Q. You were a consultant?
17 A. -- working as a consultant, that's correct.
 18 Q. Okay. So at that point in time you knew as
 19 of two minutes after they sent that e-mail, before
 20 Dr. Rossi ever responded, that it was going to be a
 21 problematic situation?
22 A. According to what JT sent me, yes.
 23 Q. That was the intent of this original e-mail,
 24 wasn't it?
 25 MR. LOMAX: Objection to the --

Page 127

1 Q. He sent, no, he sent an e-mail --
2 A. Yeah.
 3 Q. -- to Dr. Rossi, July 13, 2015, at 9:10 a.m.?
4 A. Yes.
 5 Q. Two minutes later at 9:12 a.m. on July 13,
 6 2015, he sent you an e-mail saying, "All right. He'll
 7 start getting worked up now. Should be a fun trip."
8 A. Uh-huh.
 9 Q. Did, did he tell you beforehand that he would
 10 get worked up and oppose you coming?
11 A. I think everybody thought that me, being an
12 engineer, coming down to inspect the plant was going to
13 cause Mr. Rossi some concern.
 14 Q. T. Barker Dameron is an engineer, isn't he?
15 A. He is.
 16 Q. He was never refused access, was he?
17 A. I am not aware.
 18 Q. T. Barker Dameron worked with Dr. Rossi for
 19 some time?
20 A. Uh-huh.
 21 Q. Are you aware of any problems with that?
22 A. No, I'm not aware.
 23 Q. Okay. Any reason to believe that Dr. Rossi
 24 knew anything about you, Joe Murray?
25 A. I don't know. I, I believe that at some

Page 129

1 Q. To create a problem?
 2 MR. LOMAX: Objection to --
3 A. Absolutely not.
 4 MR. LOMAX: Excuse me. Objection to the form
 5 of the question.
 6 MR. ANNESSER: What's the objection?
 7 MR. LOMAX: You asked him was the intent of
 8 the e-mail to --
 9 MR. ANNESSER: If he knows.
 10 Q. Go ahead, sir.
11 A. Absolutely not. The intent was for me to go
12 down to the plant, inspect the plant, figure out what
13 was going on, and then try to understand the, the
14 content of the reports.
 15 Q. Now, it says, "I have booked a flight down
 16 Tuesday afternoon."
17 A. Uh-huh.
 18 Q. So you booked the flight. You, you guys
 19 booked your flight before even telling Dr. Rossi, hey,
 20 we'd like to bring Joe Murray down?
21 A. Yeah. I think, I think that the, the
22 Industrial Heat people booked the flight, yes.
 23 Q. Okay. To your knowledge, did anyone call and
 24 say, hey, Andrea, we got this new guy, he's great, Joe
 25 Murray, he's on board, he's our VP of Engineering, we'd

02/17/2017 Joseph Alan Murray

Page 130

1 like to bring him down, prior to this e-mail?
 2 **A. I have no idea.**
 3 **Q. Okay. How did Dr. Rossi respond to this**
 4 **e-mail, Mr. Vaughn's original e-mail?**
 5 **A. The trip was canceled. I was not going to be**
 6 **allowed into the facility.**
 7 **Q. How did Dr. Rossi respond?**
 8 **A. I, I don't recall.**
 9 **Q. Do you know if it was canceled because of**
 10 **Dr. Rossi?**
 11 **A. It was canceled because I was not going to be**
 12 **allowed into the facility.**
 13 **Q. By who?**
 14 **A. By Mr. Rossi.**
 15 Q. Did you ever speak with Mr. Rossi about that?
 16 **A. I did not.**
 17 Q. Did you ever reach out to him at any point
 18 before or after that and say -- you know, by, by mid
 19 July when that e-mail was sent, you had been working
 20 May, June, so two and a half months with Industrial
 21 Heat?
 22 **A. Uh-huh.**
 23 Q. As the head of engineering? Or, I'm sorry,
 24 the Vice President of Engineering?
 25 **A. Uh-huh.**

Page 132

1 **opportunity, go down, look at the plant, try to figure**
 2 **out what's going on, and move forward. The instruction**
 3 **was if there is even one percent or a half a percent**
 4 **chance that this works, we want to know so we can move**
 5 **forward.**
 6 Q. Well, I absolutely understand you want to do
 7 your, your investigation. So after Dr. Rossi originally
 8 said no to you coming to the plant, did you follow up at
 9 all? Did you say, hey, why don't I, you know, why don't
 10 I give him a call?
 11 **A. No.**
 12 Q. You don't --
 13 **A. I was never introduced to him.**
 14 Q. Okay. Is there a reason? I mean --
 15 **A. Not that I'm aware of.**
 16 Q. Do you know of any reason why this Dr. Rossi
 17 that you've never met would dislike you so much to say,
 18 no, you can't come?
 19 **A. Not that I'm aware of.**
 20 Q. That didn't bother you at all?
 21 **A. We had numerous things moving at the same**
 22 **time, lots of different activities. So it was just one**
 23 **of the things.**
 24 Q. Do you know of any attempts whatsoever after
 25 that to have you come down?

Page 131

1 Q. And you never reached out to Dr. Rossi and
 2 said, hey, nice to meet you, I'm really interested in
 3 your work, we should talk?
 4 **A. No.**
 5 Q. Is there a reason?
 6 **A. There was no contact. I wasn't provided**
 7 **information. I, I think at some point I said, hey,**
 8 **should I send an e-mail, but.**
 9 Q. And what did they say?
 10 **A. As far as I know, I never did send an e-mail.**
 11 Q. Who did you ask that to?
 12 **A. I think John Mazzarino, Tom Darden, and JT**
 13 **Vaughn. I think. Is my recollection.**
 14 Q. Are you aware that Mr. T. Barker Dameron had
 15 been instructed not to confer with Dr. Rossi?
 16 **A. No, I was unaware of that.**
 17 Q. Were you ever given that instruction?
 18 **A. Not that I'm aware of.**
 19 Q. Okay. So you were never told not to contact
 20 Dr. Rossi?
 21 **A. Uh-huh.**
 22 Q. You just elected never to talk with him?
 23 **A. No. We were working on multiple different**
 24 **initias at the same time. And so I was instructed to**
 25 **analyze all the data we have; if we have the**

Page 133

1 **A. Not that I'm aware of, not until 2016.**
 2 Q. Now, after that you said -- how long after
 3 that e-mail was sent did you meet with Mr. West?
 4 **A. I think in August is my recollection.**
 5 Q. So a month or so after?
 6 **A. Yeah. Two to four weeks later, yes.**
 7 Q. Okay. Was, was that meeting because an
 8 attorney told you --
 9 **A. No.**
 10 Q. -- to have that meeting by any means?
 11 **A. I was trying to, you know, as part of the**
 12 **effort of all of these different activities and hiring**
 13 **people and getting the facility organized, I was trying**
 14 **to get a handle on all the different projects. And, and**
 15 **it was suggested, hey, Barry's down there working, talk**
 16 **to Barry and get, get whatever information you can from**
 17 **Barry. And so T. Barker and I -- Barry was back on one**
 18 **of his leave. And T. Barker and I went and had lunch**
 19 **with him down at the beach.**
 20 Q. So that wasn't, that meeting wasn't in
 21 preparation for litigation, was it?
 22 **A. Not that I'm aware of.**
 23 Q. I'm going to show you, sir, a document which
 24 we'll mark as Exhibit 6.
 25 (Whereupon, Exhibit 6 was marked for

Page 142

1 **situation.**
 2 Q. Did, did you ask him about the facts or
 3 circumstances around that threat?
 4 **A. Not really.**
 5 Q. Problem I've got is we did speak with
 6 Mr. West. And as far as his relationship with
 7 Mr. Fabiani, it was all flowers and sunshine. So what
 8 I'm trying to understand is why this would appear in
 9 your report if Mr. West didn't indicate that to us.
 10 **A. I just documented what he said.**
 11 Q. So you have no independent knowledge of that?
 12 **A. No.**
 13 Q. And you have --
 14 **A. Only what he said.**
 15 Q. -- none of the facts or circumstances behind
 16 that?
 17 **A. No.**
 18 Q. So based on your understanding, do you have
 19 any reason to believe that Mr. Fabiani and Dr. Rossi
 20 were colluding to skew the results of this test?
 21 **A. No.**
 22 Q. What about Dr. Rossi and Mr. Barry West?
 23 **A. Not as far as I'm aware.**
 24 Q. Now, sir, you started drafting a report to
 25 undermine the testing protocol used by Dr. Penon, did

Page 144

1 Q. Thank you.
 2 **A. I have to be careful.**
 3 MR. LOMAX: I'm going to instruct you not to
 4 divulge conversations you had with counsel.
 5 **THE WITNESS: Okay.**
 6 **A. I was instructed to write down all of my**
 7 **notes and information about what I had observed.**
 8 Q. Who instructed you?
 9 **A. Counsel.**
 10 Q. Counsel for Industrial Heat?
 11 **A. Yes.**
 12 Q. I'm sorry. You were instructed to write down
 13 your notes and everything that you had observed?
 14 **A. Yes.**
 15 Q. Is there a more complete report other than
 16 this?
 17 **A. I believe that, you know, based on what's in**
 18 **here, there's lots of redactions and at least the front**
 19 **matter is removed. I'm still going through it, but**
 20 **yeah, there's a lot of redaction.**
 21 Q. Do you know why it would be redacted?
 22 MR. LOMAX: Objection to the form of the
 23 question.
 24 **A. Because I prepared it for Industrial Heat's**
 25 **attorneys.**

Page 143

1 you not?
 2 **A. I never prepared any report to undermine**
 3 **anything. I prepared a report on a review of the**
 4 **documents that I was provided.**
 5 (Whereupon, Exhibit 7 was marked for
 6 identification.)
 7 Q. I show you, sir, a document marked as Exhibit
 8 Number 7. Have you seen this document before, sir?
 9 **A. Not in this form. It looks, it looks**
 10 **familiar, but it doesn't seem like it's complete.**
 11 Q. Did you prepare this document, sir?
 12 **A. It appears to be part of a document that I**
 13 **prepared.**
 14 Q. Well, it says that it's an appendix. Is
 15 there a larger document?
 16 **A. Well, this was after the test, so I would**
 17 **imagine that there is more to this document, yes.**
 18 Q. Do you know why it hasn't been produced?
 19 **A. I have no idea.**
 20 Q. Who asked you to prepare this document?
 21 **A. After the visit on the 20 -- I'm sorry, on**
 22 **the 16th and 17th, Mr. Chris Pace of Jones Day asked**
 23 **me --**
 24 Q. 16th and 17th of?
 25 **A. I'm sorry. Of February of 2016.**

Page 145

1 Q. Is it your understanding it would be used for
 2 litigation?
 3 **A. Probably. If the litigation were to, to**
 4 **happen.**
 5 **Q. Does any of this form the basis of your**
 6 **opinions in this case?**
 7 **A. Yes. These were my observations from what I**
 8 **had seen on those days.**
 9 Q. And do you reference these documents, or did
 10 you refer to them in preparing your expert disclosure?
 11 **A. I don't believe I did at all.**
 12 Q. So you did this great body of work and never
 13 referenced it?
 14 **A. No, I don't think I did at all. In fact, I**
 15 **think this is the first time I've looked at it in at**
 16 **least 10 or 11 months.**
 17 Q. Okay. Looking at -- I'm sorry. For the
 18 record, this is a document marked or bates stamped
 19 IH00120031. If you look at Page 4 of 39 of this
 20 document.
 21 **A. Oh, same one 4?**
 22 Q. Yes, sir.
 23 **A. Uh-huh.**
 24 Q. On the first paragraph, second sentence in
 25 you say, "As far as we can tell, none of the sensor data

02/17/2017 Joseph Alan Murray

Page 146

1 were logged digitally to an archive as required in the
 2 FFTP."

3 **A. Figure A2.**

4 Q. I believe it refers to temperature and volume
 5 flow rate of the return condensate and measurements of
 6 the input powder.

7 THE VIDEOGRAPHER: Six minutes.

8 Q. Do you see that sentence, sir?

9 **A. Yes.**

10 Q. Okay. What is the FFTP?

11 **A. It's the Fabio Penon test plan.**

12 Q. Okay. Do you know, sitting here today,
 13 whether any of the sensor data was logged digitally?

14 **A. The test, the data that I was talking about**
 15 **here was the volume flow meter on the volume condensate**
 16 **return line and the pressure transducer. As far as I'm**
 17 **aware, the information in the report was not logged**
 18 **digitally. I know that the flow meter was not logged**
 19 **digitally because Mr. Penon and Mr. Rossi, as we did the**
 20 **exit interview that day, indicated that they had never**
 21 **hooked up that interface.**

22 Q. Does it have an interface that could read
 23 digitally?

24 **A. Yes.**

25 Q. Okay. That particular flow meter?

Page 148

1 **A. One year.**

2 Q. Okay. So if it was a year-long test, by the
 3 time it's hooked up on the plant, that's to be expected,
 4 isn't it?

5 **A. No, it's not.**

6 Q. How do you --

7 **A. When --**

8 Q. How do you do a 400-day test with an
 9 instrument that is calibrated every year without it
 10 expiring unless you swap it out, send it off somewhere
 11 for new calibration?

12 **A. So when you design a plant like this, there**
 13 **are really two things you do. For example, on a**
 14 **temperature sensor you would put dual redundant**
 15 **temperature sensors in a, a bung. There would be a bung**
 16 **hole in the pipe. You would screw it in. You would put**
 17 **the sensor into it, and you log both sensors. And then**
 18 **when it's coming to an intermediate point in the test,**
 19 **you can remove one of the sensors while the other**
 20 **continues to log and you can take that sensor, have it**
 21 **recalibrated and its logger recalibrated, and then you**
 22 **put that system, you put that back in while both are**
 23 **still --**

24 (Conference call interruption.)

25 **A. So you would, you would install dual. You**

Page 147

1 **A. Yes.**

2 **Q. What about the input power? Is that logged**
 3 **digitally?**

4 **A. That was logged to the power analyzer. So --**

5 **Q. So that was logged?**

6 **A. Yeah. It was not clear who logged it because**
 7 **the data between Mr. Penon and Mr. Fabiani are virtually**
 8 **identical. So it was not clear who was logging it or**
 9 **how it was being logged since Mr. Fabiani was not there**
 10 **continuously, how it was turned over. There, there's a**
 11 **limit to how long you can log. Who was doing that, who**
 12 **was resetting it, who was collecting that data was not**
 13 **clear.**

14 Q. Okay. Now, looking just below that,
 15 Number 2, it says, "Temperature and pressure were
 16 measured. Note that the temperature data logger and
 17 sensor had expired calibrations."

18 **A. Uh-huh.**

19 Q. When did they expire?

20 **A. They expired I believe, I would have to look**
 21 **back at the pictures, but they expired in January or**
 22 **February of 2016.**

23 Q. So it was expired by less than a month?

24 **A. About a month, yeah.**

25 Q. How long are those calibrations good for?

Page 149

1 **would remove the one, have it calibrated while the other**
 2 **one is operational, put that first one back in, remove**
 3 **the second one and have it calibrated and then place it**
 4 **back in the system. It's a standard technique for, for**
 5 **systems, high availability systems.**

6 Q. Okay. And that would be set forth in the
 7 test plan generally?

8 **A. Typically, it would be set forth in a test**
 9 **plan.**

10 Q. Okay.

11 **A. And procedure. Actually, in the system**
 12 **design.**

13 Q. And in fact, that was one of your complaints
 14 of Dr. Mizuno's work, was that he changed out some of
 15 the equipment --

16 **A. Absolutely.**

17 Q. -- in the middle of the test?

18 **A. Yeah.**

19 Q. Okay. Now, you say, "Also, the volume flow
 20 rate sensor was operated below the minimum operational
 21 threshold of the device throughout the entire test
 22 period."

23 **A. Yes.**

24 Q. Okay. We'll talk about that more later. I
 25 will come back to it. I promise.

Page 190

1 **A. I have no idea what it was.**
 2 Q. Or for --
 3 **A. It was not on the facility. It was not at**
 4 **the facility.**
 5 Q. Or for testing?
 6 **A. I have no idea what their plan was.**
 7 Q. Do you know if that equipment was ever
 8 certified?
 9 **A. What equipment?**
 10 Q. The equipment used for this test, any of it.
 11 **A. You know what, this week there were a bunch**
 12 **of documents that came through, but they were all, some**
 13 **of them were in Italian, so I didn't have a chance to**
 14 **review them.**
 15 Q. Okay.
 16 **A. But just to continue here. If we look at**
 17 **this, the other sensors that are reported here in the**
 18 **plant start-up are still different than the sensors that**
 19 **are shown here in this list. So we have a HT --**
 20 **HSTC-TT-TI-24S. That's there. Okay. That's a digital**
 21 **thermometer.**
 22 Q. Okay.
 23 **A. From Omega. And we have a TC-T-NPT-U-72-SMP,**
 24 **which is the sensor, which is not identified here.**
 25 Q. I believe it is.

Page 192

1 **appropriate for this application.**
 2 Q. The, the second one?
 3 **A. The digital manometer, that's correct.**
 4 Q. Okay. But the first one was?
 5 **A. Yeah. We don't know where the -- this is the**
 6 **device that Dr. Penon indicated was used to capture the**
 7 **pressure data for the system. So I'm not saying that he**
 8 **was lying or misleading me or anything else. I'm just**
 9 **saying that these sensors were not appropriately**
 10 **selected. They were not appropriately sized, that**
 11 **collectively some of these sensors were not**
 12 **appropriately selected or sized for this system.**
 13 Q. Sir, and I understand that you take issue
 14 with the test plan in this case.
 15 **A. Yes.**
 16 Q. I understand that and it certainly could have
 17 been more robust, but this was no secret. This is
 18 information that --
 19 **A. Absolutely.**
 20 Q. -- Industrial Heat had?
 21 **A. Absolutely.**
 22 Q. Okay.
 23 **A. I, I fault everybody. I think it was poor**
 24 **engineering and just overall an inappropriate way to do**
 25 **it.**

Page 191

1 **A. I'm sorry. Actually down below it is. If**
 2 **you look at the, the TU-T-NTP-U-72, that is over here on**
 3 **the Omega steam pressure measurement.**
 4 Q. Yeah.
 5 **A. I'm sorry, steam temperature measurement.**
 6 **And then we look for the Keller LEO 1 steam pressure.**
 7 Q. Where do you see the Keller LEO 1?
 8 **A. In the plant start-up.**
 9 Q. Okay.
 10 **A. That's the pressure sensor that Mr. Penon**
 11 **indicated was used for making pressure measurements.**
 12 Q. I'm sorry.
 13 **A. I'm sorry. Yeah, we're crossing documents**
 14 **here, so.**
 15 MR. LOMAX: It's probably better if you
 16 reference the page.
 17 **A. I'm sorry. Let me reference the page. So on**
 18 **IH00011098, the digital, the third bullet down is**
 19 **digital manometer Keller --**
 20 Q. Okay.
 21 **A. -- Type LEO 1 with a certificate. And the**
 22 **issue date, interesting enough, a full month after the**
 23 **test started they added on another sensor, which is**
 24 **fine. There's a redundancy there. So to your point,**
 25 **that's a good thing. The only problem is that it's not**

Page 193

1 Q. We can agree on something.
 2 **A. That's, that's for sure.**
 3 Q. Fault everybody. All right. Do you feel
 4 that Mr. Penon has hidden any information from you?
 5 **A. No.**
 6 Q. Okay. Do you --
 7 **A. I think he's been quite transparent.**
 8 **Q. Do you feel Mr. Fabiani has hidden any**
 9 **information from you?**
 10 **A. Yes, I do.**
 11 **Q. What information?**
 12 **A. Well, he committed to providing us data that**
 13 **he said he had encrypted and stored on a server in**
 14 **Russia, and he committed to providing us with a final**
 15 **report. And so I feel that he was not being transparent**
 16 **with us in providing us the information in a timely way.**
 17 **Q. Has he provided those now?**
 18 **A. I don't know. I, I'm, really I'm not -- I**
 19 **saw --**
 20 MR. LOMAX: Objection to --
 21 **A. I'm not sure what they provided.**
 22 MR. LOMAX: -- to the extent it gets in to
 23 communications with counsel.
 24 **Q. You have never seen them?**
 25 **A. I have seen -- I have not reviewed the**

02/17/2017 Joseph Alan Murray

Page 194

1 detailed data. I have seen a couple of files. I
2 haven't reviewed them, but I have never seen a final
3 report by Mr. Fabiani.
4 Q. Was he engaged to do a final report?
5 A. Yes. And he said he was producing a final
6 report. He had it almost complete. He was doing a
7 final few things, and he was going to provide that to us
8 in about March of 2016. I gotta get my years right.
 9 Q. In the work that you do, sir, when the new
 10 client comes in, do you tell them how much the project
 11 is going to cost?
12 A. Uh-huh.
 13 Q. Do they pay you something before you begin
 14 work?
15 A. No.
 16 Q. They don't?
17 A. No.
 18 Q. It's a bill as you go?
19 A. Most of the work that I do is with Department
20 of Defense, and they have very rigorous accounting and
21 payments terms.
 22 Q. Okay.
23 A. In almost every, in almost every aspect.
 24 Q. And you're pretty secure you're going to get
 25 paid. It's the government, right?

Page 196

1 questions I guess or issues with the test data that you
 2 observed; is that correct?
3 A. Yes.
 4 Q. How did he respond to you?
5 A. My recollection is that I sent that data to
6 him before the final report was issued. And he did, I
7 don't believe he responded to my questions, but then he
8 issued the final report just some days later. Maybe, I
9 don't know, maybe it was a week or two later. I don't
10 recall exact dates.
 11 Q. Do you recall him telling anyone at
 12 Industrial Heat or yourself that he has been available
 13 to Industrial Heat and the Leonardo Corporation to
 14 answer questions throughout the course of the test and
 15 at the end of the validation; in fact, he answered your
 16 questions and that the final report had concluded his
 17 work?
 18 MR. LOMAX: Objection to the form of the
 19 question.
20 A. It sounds familiar, yes.
 21 Q. Okay. Do you know if he was engaged or
 22 offered more money to answer additional questions that
 23 you had?
24 A. I have no idea.
 25 Q. Okay. Sir, I'm going to kind of jump a big

Page 195

1 A. Yeah.
 2 Q. It may not be fast, but it's --
3 A. Yeah.
 4 Q. -- going to come.
5 A. Sometimes they're fast, yeah. And I often
6 work for other companies, and most of the time the, the
7 payment terms are paid when paid or paid within a
8 certain number of days when paid.
 9 Q. Okay. Have you ever worked for a customer or
 10 a client that you did work for and then they didn't pay
 11 you?
12 A. Yes.
 13 Q. Okay. Did you continue doing work for them?
14 A. In some cases, yes.
 15 Q. And others no, right?
16 A. In others no, yes.
 17 Q. Okay. And that's because they hadn't paid
 18 you?
19 A. Yeah. It depends on the circumstances. It
20 depends on who it is and what the circumstances are
21 relative to the ultimate customer.
 22 Q. You can understand why somebody wouldn't want
 23 to do more work for you if you hadn't paid, right?
24 A. I would think that would be reasonable.
 25 Q. Now, Mr. Penon, you, you sent him a series of

Page 197

1 step back from where we've been at for a minute.
2 A. Okay.
 3 Q. In the beginning of this deposition you
 4 mentioned two publications that were part of your
 5 masters program?
6 A. Yes.
 7 Q. But you don't recall the names of those right
 8 now?
9 A. No, I don't.
 10 Q. Okay. Have you published anything else
 11 within the last 15 years?
12 A. Yes. There were publications associated with
13 my PhD research. I have presented data which was
14 ultimately published to multiple NDIA, National Defense
15 Industry Association, conferences and proceedings on --
16 slow down?
 17 Q. I'm sorry. You presented data to them, or
 18 you formed a publication? I --
19 A. I --
 20 Q. What I'm looking for is any document that's
 21 going to list you as the author.
22 A. So I, I was requested to present to a
23 conference proceeding, and then subsequently they
24 produced those. So they were NDIA presentations and
25 numerous technical reports and final reports for

02/17/2017 Joseph Alan Murray

Page 214

1 before I saw the final report after the information came
 2 here.
 3 Q. Now, the reports you, you referred to
 4 Exhibit --
 5 A. Exhibit --
 6 Q. -- Number 8?
 7 A. Yes.
 8 Q. Those reports had been provided to Industrial
 9 Heat before. He was just sending them to you again?
 10 A. May, may very well have been.
 11 Q. Okay. Did you ever see them before that
 12 time?
 13 A. I don't know which of these. I've certainly
 14 seen parts of these. Yeah, I don't know if I've seen
 15 them all. I may have seen them all. I may have only
 16 seen a subset of them.
 17 Q. And I'm sorry, sir. The date of that e-mail
 18 was?
 19 A. The e-mail from Fabio Penon was
 20 February 23rd.
 21 Q. When did you formulate an opinion as to the
 22 accuracy of the Penon reports?
 23 A. I formulated an opinion about the accuracy of
 24 the flow meter on the 16th or, I'm sorry, not the 16th.
 25 The 17th of February, the second day of testing when we

Page 216

1 possibly give an accurate result?
 2 A. I think that the, the test, inclusive of
 3 Industrial Heat and Leonardo Corporation, was so poorly
 4 designed that you couldn't get an accurate result from
 5 it, yes.
 6 Q. Okay. Did you blame that on one side or
 7 another?
 8 A. At that time I was probably frustrated and
 9 concerned about Leonardo Corporation's position. I was
 10 very frustrated that we couldn't see the full system
 11 when I was at the factory, but as I went through this, I
 12 feel like all parties are complicit in this mess. And
 13 I've said that, too.
 14 Q. Because of the test plan?
 15 A. Because of the overall construction of the
 16 system and how it was put together and how it was
 17 instrumented and how it was operated, and the lack of my
 18 ability to actually get in there and see things.
 19 Q. Okay. Now, so as of March 2016 you had not
 20 done the water flow analysis yet to see if there would
 21 actually be a higher error rate with a decreased water
 22 flow?
 23 A. Well, we did not do flow analysis to
 24 determine a higher error rate or not. What we did was
 25 we looked at the flow meter from what happens when you

Page 215

1 were at the airport.
 2 Q. You formed an opinion right there on the
 3 spot?
 4 A. Yeah. I looked, I, I was surprised by the
 5 flow meter itself. And so we took pictures of the flow
 6 meter and its certification label.
 7 Q. Sure.
 8 A. And when we went to the airport, I looked it
 9 up and I downloaded the, the data sheet from the
 10 manufacturer. And I looked at it, and it sure enough
 11 said that the minimum flow rate was 1.6 meters cubed per
 12 hour. And I was, did the math, and I was like, you
 13 know, all these measurements are below the minimum
 14 operating flow rate of the meter. So I was concerned at
 15 that point and saying this is a problem.
 16 Q. Well, there's a difference between being
 17 concerned and forming an opinion that the entire test
 18 was bogus. Would you agree?
 19 A. Yeah, I didn't say the entire test was bogus.
 20 I was specifically talking about the, the, the validity
 21 of the flow meter.
 22 Q. Do you believe the entire test was bogus?
 23 A. How do you mean -- what does bogus mean?
 24 Q. I don't know. Did you think the whole thing
 25 was either fraudulent or so poorly done that it couldn't

Page 217

1 operate it outside of a valid regime, right. If you're
 2 operating outside of the defined operating parameters,
 3 then we just wanted to find out what would be happening.
 4 Why would, why did we see the corrosion line inside the
 5 flow meter? Why did these things exist? I'm trying to
 6 understand what the test was telling us.
 7 Q. Okay. And we'll get into that in a little
 8 bit more detail, but at that time you had already
 9 determined that the report was, Penon's report was
 10 completely bogus?
 11 A. At which, which time?
 12 Q. March 29, 2016, prior to undertaking the
 13 water flow meter analysis?
 14 A. Yeah. I, well, I had res, I would say I had
 15 strong reservations about the validity of the flow meter
 16 data.
 17 Q. In fact, you called it bogus?
 18 A. Yeah, possibly.
 19 (Whereupon, Exhibit 9 was marked for
 20 identification.)
 21 Q. You did. I'm going to show you a document
 22 we'll mark as Exhibit 9, bates stamped IH00087309. You
 23 know what, this appears to be different than the one
 24 that I've got here. Hold on. Let me take that back.
 25 A. Oh, I'm sorry.

02/17/2017 Joseph Alan Murray

Page 250

1 the data that was provided under subpoena.

2 Q. So all of the input was done by Industrial

3 Heat employees?

4 A. Yes.

5 Q. So you've got both of those in, and how did

6 you compare them using these programs? Was there a

7 complex analysis, or was it just plotting these out into

8 a graph?

9 A. So first, well, there was also a third piece

10 of data. That was the data provided by Fabio Penon. He

11 provided that, that data in, again in March/April time

12 frame he gave us files. I kind of described that

13 earlier.

14 Q. Mr. Penon did?

15 A. I'm sorry. Fulvio Fabiani provided us files.

16 And so we, we looked at that, that data. Fulvio

17 Fabiani's data actually had two measurements for each

18 day. He had a measurement at, I believe the numbers

19 were 10:30 a.m. and 10:30 p.m. Mr. Penon's data -- I

20 have to be careful, make sure these names are right --

21 Mr. Penon's data was actually only once per day. It was

22 at I believe 10:30 p.m. each day. And the data from

23 Florida Power and Light was each day at midnight.

24 So what we did is we went back and we

25 cross-referenced it and made comparisons on a daily

Page 252

1 Q. Okay.

2 A. And so they --

3 Q. So that would be consistent with the data

4 points or the data being measured being accurate,

5 correct?

6 A. It would certainly be consistent with the

7 data being measured coming from the same device.

8 Q. Any reason to believe that either one of them

9 have manipulated the results?

10 A. No.

11 Q. Okay. So the green line is FP&L?

12 A. Yes.

13 Q. All right.

14 A. Florida Power and Light, yes.

15 Q. And for the vast majority of this, the green

16 line is higher than the red line?

17 A. That's correct.

18 Q. So the amount of power supplied by FP&L

19 substantially exceeds the amount of power that was

20 recorded going into this device?

21 A. Yes, yeah.

22 Q. Is that odd to you?

23 A. No. You would imagine that a facility like

24 this, the actual reactor system would absorb some power,

25 but you would imagine that there are also some, some

Page 251

1 basis and made, to make sure that we were comparing

2 apples to apples. And then we plotted the data and took

3 the differences between the various data sets and

4 checked the integrity between Penon and Fabiani's data

5 and then checked the comparisons against Florida Power

6 and Light.

7 Q. Okay. So let's look at Exhibit A of

8 Exhibit 11, which you should have in front of you.

9 A. Okay.

10 Q. Is that, sir, the comparison that you did?

11 A. This is part of the comparison, yes.

12 Q. Okay. I only see two lines here, one green

13 and one red.

14 A. Underneath it you can see a few points where

15 Mr. Fabiani -- I'm sorry. We gotta look at the colors

16 here. It's hard to see at this scale. Mr. Fabiani's

17 data diverges from Mr. Penon's data. You can see right

18 about here, and you can see down here. So there were

19 very little divergence between Mr. Fabiani and

20 Mr. Penon's data. In fact, I would, I would argue they

21 were the same exact data.

22 Q. Okay. The same exact?

23 A. Except for these points where they diverge.

24 Because Mr. Fabiani's data, as I said, had two data

25 points per day where Mr. Penon's data only had one.

Page 253

1 lights and the fan in the bathroom. There were a few

2 air conditioners around there. There was an office in

3 the front that I imagine would have heat and air

4 conditioning. So you would expect that Florida Power

5 and Light numbers would be higher than the numbers that

6 Mr. Penon and Mr. Fabiani measured. That would be a

7 reasonable expectation.

8 Q. Florida Power and Light's measurements, how

9 were those taken?

10 A. They were taken with a smart meter located on

11 the, on the building.

12 Q. What type of smart meter?

13 A. The smart meter that's approved by the State

14 of Florida.

15 Q. You know it's approved by the State of

16 Florida?

17 A. Yes.

18 Q. How?

19 A. I looked at the Florida Public Works

20 Commission website to find out if these things were

21 approved and how they were approved. And they indicate

22 that for investor-owned utilities, that they have

23 approval and then they give you a link to Florida Power

24 and Light, and in Florida Power and Light's data they

25 give the full description of how they implemented these

02/17/2017 Joseph Alan Murray

Page 254

1 programs and what the options are for the programs.

2 Q. When was the FP&L device last calibrated?

3 A. I have no idea.

4 Q. Do you know if it's been three years?

5 A. No idea.

6 Q. Four years?

7 A. I have, still have no idea.

8 Q. Okay. So you, you have absolutely no

9 information with respect to whether their data is

10 accurate or not?

11 A. What I know is that they provided it under

12 subpoena. They may or may not be accurate.

13 Q. Okay. So you don't have any reason to

14 believe that we should rely on those results as opposed

15 to the results of Mr. Penon or Mr. Fabiani; is that

16 correct?

17 A. I disagree with that. I, I would say that we

18 have to at least look at this and understand why, why

19 would it be this way. And so my view is that if, if a

20 company like Florida Power and Light provides data under

21 subpoena, there would be an expectation that they would

22 provide, would provide proper and accurate data, and

23 it's a reasonable way to check the facility. We did

24 this, I did this kind of anticipating that Florida Power

25 and Light would always be higher than the measurements

Page 256

1 device malfunctions?

2 A. Oh, absolutely. Absolutely. In fact, I

3 believe in this facility they actually replaced a smart

4 meter at some point earlier in the year.

5 Q. Why do you believe that?

6 A. Because the registration number of the meter

7 in the subpoenaed data changed.

8 Q. When was that?

9 A. I don't recall. It was earlier in the year.

10 I would say sometime maybe in the May or June time

11 frame.

12 Q. Okay. Do you know if it was hooked up

13 correctly when it was replaced?

14 A. I do, I do not.

15 Q. Okay. So what you've got here is just a

16 comparison side by side of the two number sets. Is

17 there anything scientific about that other than looking

18 at it?

19 A. It's, it's very alarming to see a drop. I

20 mean in general when you see this, you see a very, very

21 consistent amount of power being absorbed by the reactor

22 system. And when the reactor system has a major drop

23 like here in the, let's say between July and August you

24 see a drop off, which I think corresponds to the data

25 that says, hey, we had some, some reactors go offline,

Page 255

1 that were made here.

2 Q. Okay. And, and the vast majority of the time

3 here they are?

4 A. Yes.

5 Q. With very few exceptions, in fact. And one

6 exception is between November and December 2015?

7 A. Yes.

8 Q. And during that period it, it appears that

9 the power usage drops by the FP&L measurements, right?

10 A. The FP&L measurement drops, yes, below the

11 measurements provided by Mr. Penon and Mr. Fabiani.

12 Q. Do you know why that would be?

13 A. I have no idea.

14 Q. Do you know if it's accurate? Do you know

15 if, perhaps, there is a problem with the device, the

16 measuring device?

17 A. I have no information other than the data

18 that was provided in the subpoena by Florida Power and

19 Light.

20 Q. Okay. So you have no reason to believe that

21 that information is more accurate than the measurements

22 taken by Penon and/or Fabiani, correct?

23 A. No, other than the fact that it's a Florida

24 utility, and they are regulated. I would think that --

25 Q. Do regulated Florida utilities ever have

Page 257

1 you see that drop. That makes sense. And then sometime

2 in October they brought all of the units back online and

3 the power goes up.

4 So all of the trends seem to be consistent

5 except for this period of time when, in about from

6 middle of November to the beginning of December where

7 you have a power level absorbed into the building lower

8 than the measured. So that would give -- to me, there

9 are three potential explanations. Number one, Florida

10 Power and Light could be wrong. Number two, the

11 measurements made by Fabiani and Penon could be wrong.

12 And number four or -- I'm sorry, number three, the data

13 could have been manipulated. On either part, on either

14 party.

15 Q. Do you have any evidence that the data has

16 been manipulated --

17 A. No, I don't.

18 Q. -- by either one?

19 A. Not by Florida Power and Light or by Fabiani

20 or Penon.

21 Q. Okay. So you have no evidence of

22 manipulation. So what are you opining to specifically

23 here?

24 A. Specifically, in this period it was, it was

25 determined by Mr. Penon that the measurements, the

02/17/2017 Joseph Alan Murray

Page 258

1 absorption of power was accurate and reflected what was
 2 happening in the reactors. But if, in fact, Florida
 3 Power and Light indicates that their data is valid in
 4 the data provided under subpoena, then it would be
 5 impossible for them to absorb more power than Florida
 6 Power and Light provided.
 7 Q. Now, you keep saying data provided under
 8 subpoena, as if that makes it more accurate. It's the
 9 measuring equipment that makes it more accurate or not,
 10 correct?
 11 A. Sure.
 12 Q. Not whether it was voluntarily provided or
 13 under subpoena?
 14 A. Uh-huh.
 15 Q. Correct?
 16 A. Yeah. My view is that if, if a, if a person
 17 is providing data under subpoena, they're going to
 18 probably provide the best possible data they have. We
 19 also know that Florida Power and Light has hourly
 20 measurements for this facility, and we have not received
 21 that data.
 22 Q. Okay. But you don't know whether it was
 23 measured correctly or not at that point in time. All
 24 you can tell based on this is that there is a
 25 difference?

Page 260

1 But this is a problem, and these areas down here are a
 2 problem. What they're indicating is that nothing else
 3 in the building is absorbing power, only the reactor,
 4 and that's simply not realistic.
 5 Q. And as you said, there's one of three
 6 options. Either FP&L is wrong, Penon and Fabiani are
 7 wrong, or there's manipulation on the data?
 8 A. On, on the part of some party, yes.
 9 Q. Okay. So basically one or the other is
 10 incorrect, and then the third option is that it was
 11 intentionally incorrect?
 12 A. Right, by somebody.
 13 Q. By somebody?
 14 A. That's right.
 15 Q. Okay. But you don't know which one is which?
 16 A. No.
 17 Q. Okay. So your opinion is simply that this is
 18 an area of concern where it drops below and the other
 19 areas where it drops below slightly are --
 20 A. In the context of this one plot, yes.
 21 Q. Okay. Now, the measurements taken by FP&L
 22 were taken at what time?
 23 A. Midnight.
 24 Q. Midnight. The measurements taken by Engineer
 25 Penon were what time?

Page 259

1 A. Yeah. I don't know whether or not any of
 2 these lines were measuring correctly at that time.
 3 Q. Okay. So what I'm, what I'm trying to
 4 determine, because you're, you're giving an opinion as
 5 to this, is I can see this as well as you can. I can
 6 see this graph.
 7 A. Right.
 8 Q. I can see the, the lines where they drop
 9 below the Penon number and, which would indicate that if
 10 the FP&L measurements was right, it was supplying less
 11 power than the power going into the unit. Okay. But
 12 other than that, is there anything scientific that we
 13 had to apply, any methodology to apply to, to create
 14 this graph?
 15 A. This is just a summary graph. And I think
 16 there's, might be another plot in this --
 17 Q. There is. And we'll --
 18 A. -- Exhibit B.
 19 Q. And we'll get to that one.
 20 A. Yeah, so there were a series of analyses that
 21 I completed. And we looked at the baseline power of the
 22 building, and that gets to, more to the opinion. This
 23 is just the raw data comparison. And if the raw data
 24 showed that there was no period, then I think we could
 25 have said it's potentially a reasonable expectation.

Page 261

1 A. Well, he was only in the facility I believe
 2 four times. So I would imagine he only collected the
 3 data. He didn't actually take the measurements. So
 4 that's why I believe that Fabiani actually collected the
 5 data in the logs and provided that to Mr. Penon.
 6 Q. That's your belief?
 7 A. It is my belief, yes.
 8 Q. Okay. Do you know what data Mr. Penon
 9 received directly?
 10 A. How would Mr. Penon receive data directly?
 11 Q. It's called the internet.
 12 A. Really? No, I have no idea what data. I
 13 would be interested to see. So he --
 14 Q. Do you know if he did?
 15 A. I do not.
 16 Q. Do you know if he had a computer on site?
 17 A. I believe that there were computers on site
 18 that were collecting data from, from the instruments,
 19 yes.
 20 Q. Okay. Do you know if one of those was
 21 Mr. Penon's, or Dr. Penon's I should say?
 22 A. I do not.
 23 Q. Okay. Now, now you said that FP&L's data was
 24 recorded at midnight?
 25 A. Yes.

Page 278

1 Q. How long?

2 A. Oh, I don't remember. There were, I don't

3 know. There was quite a bit of time that they provided

4 data for.

5 Q. I don't, I don't have that either.

6 A. Yeah.

7 Q. Wouldn't you agree with me that during the

8 summer in Florida power usage is going to be

9 substantially higher than the winter time?

10 A. Could be, yeah, but that would only make this

11 worse. We try to draw a very conservative estimate. So

12 if more and more power was going to more and more things

13 outside of that, that would only make it worse because

14 that line would draw up. Because let's say you had an

15 air conditioner in the office space up front. If you

16 were, had the air conditioner running, let's say 12

17 hours a day to keep the office space cool, then that

18 would actually increase the amount of power that was

19 going to --

20 Q. Well, sir, sir, you've attributed, and I, you

21 know, for the most part the line of FP&L minus Penon or

22 FP&L minus Penon 3-day rolling average is above that

23 line with the exception of a few points of your average

24 power.

25 A. Right.

Page 280

1 Q. But your average applies -- I'm sorry. I'm

2 looking at your baseline --

3 A. Yeah.

4 Q. -- power.

5 A. So there are, I need to be careful. There

6 are two things -- it's, it's actually energy per day.

7 There are two things being shown here. There is a line,

8 a dotted line shown at zero, right, meaning that

9 anything below zero is, is indicative of the power

10 absorbed by the reactor being higher than the power

11 available from Florida Power and Light, and that's a

12 problem. And why, and as I said, whether it's a problem

13 with Florida Power and Light or with Penon's

14 measurements or something else, we don't know at this

15 point.

16 Then the other line is, if you consider that

17 the building, which is the explanation in this previous

18 plot, the explanation for the difference between what

19 Penon and Fulvio Fabiani measured and what Florida Power

20 and Light said they delivered, that difference would be

21 the amount of power used outside of the reactors for

22 whatever purpose.

23 Q. Okay.

24 A. Office, whatever. So that difference right

25 there is reflective of the nominal power absorbed in, in

Page 279

1 Q. Or your baseline power as you defined it.

2 During the month of November to December 2015, what were

3 the temperatures outside?

4 A. Oh, I don't know. Florida, I'd guess

5 probably in the 70s or 80s maybe.

6 Q. Did you look?

7 A. Actually, in the simulation data we used the

8 NOAA published average temperatures to figure that out.

9 Q. Simulation data, what simulation data?

10 A. I'm sorry. That 's a different part of

11 the --

12 Q. We'll --

13 A. -- what we'll talk about later.

14 Q. Okay. We'll get to that, but so you don't

15 know what the energy usage would have been at that time

16 for the building? In any year for that matter?

17 A. No. What we would do is just to look at the

18 average of how much the building absorbed, but what we

19 should say is that anytime that the number is below

20 zero, it would indicate that there's an error somewhere

21 either with Florida Power and Light or with Mr. Penon's

22 data.

23 Q. Based on your average, but your average --

24 A. No, no, no. Oh, I'm sorry, the 3-day

25 average, yes.

Page 281

1 the building. But what we did was instead of using

2 that, because that's really difficult to say because we

3 don't know if, what was going on over in JM Products.

4 What we did is we just looked at the windows outside of

5 those periods of time to establish a very conservative

6 number and drew that very conservative number on this.

7 And so that's indicative of that number that I just

8 described. Does that make sense?

9 Q. To be honest, not really.

10 A. Okay.

11 Q. But I, I'm not going to ask you to do it

12 again.

13 A. Okay.

14 Q. The cumulative energy absorption, FP&L minus

15 Penon, what does that tell you?

16 A. So what we're doing is for each one of these

17 data points --

18 Q. I'm going to back you up for a second. What

19 conclusion were you able to draw from --

20 A. Again --

21 Q. -- that graph?

22 A. -- this was included in here. The, the only

23 area of concern is actually right here where the

24 cumulative energy is actually decreasing in that period

25 of time. So there's a slight decrease in the cumulative

Page 282

1 energy when you compare Florida Power and Light to
 2 Penon, which indicates that one of those measurements is
 3 clearly in error because you can't give energy back.
 4 Q. But you don't know which one?
 5 A. No, we don't.
 6 Q. So what does this, what does this tell you
 7 other than there's an error in one of the measurements?
 8 A. What this tells us is anywhere that the value
 9 is below zero is a, is an impossibility in the case
 10 where the measurements are correct. If the measurements
 11 are incorrect, then that may be described by an error in
 12 the data.
 13 Q. Okay. So it says that there is an error in
 14 the data, whether manipulated or --
 15 (Conference call interruption.)
 16 Q. So sir, that just tells you that there's an
 17 error, there's an error or inaccuracy in one of the data
 18 sets, correct?
 19 A. Yes.
 20 Q. Okay.
 21 A. I think that's fair to say, yes.
 22 Q. So you've got two data sets that report one
 23 thing consistently, fairly equivalent to each other, and
 24 one data set that is different. And of those three data
 25 sets, at least one of them is incorrect?

Page 284

1 did here, you came to the conclusion that the results
 2 were at odds with the amount of power reported between
 3 the three measuring entities, we'll call them?
 4 A. Yes.
 5 Q. But you make no opinion as to why they're at
 6 odds?
 7 A. Not at this point.
 8 Q. Okay. Your next opinion stated, sir, is
 9 that, "Mr. Murray compared these numbers to the actual
 10 power provided by FP&L to the Doral location and found
 11 numerous inaccuracies" -- I'm sorry. That's part of the
 12 same one.
 13 A. Which, which, what's the --
 14 Q. Okay.
 15 A. -- document number on that one?
 16 Q. That is 11.
 17 A. Oh, it's this one. I'm sorry.
 18 Q. Yes, your report. I'm sorry. The second
 19 part was, "Mr. Murray also compared Penon and Fabiani's
 20 data to the historical average amount of power data."
 21 Is that what we were discussing?
 22 A. Yes.
 23 Q. That red line?
 24 A. Yes.
 25 Q. And what did that tell you?

Page 283

1 A. I would agree with that, yes.
 2 Q. Okay. But you don't know which one?
 3 A. No, not at this point.
 4 Q. And the investigation you've done doesn't
 5 tell you whether it was Penon's or FP&L's or Fabiani's?
 6 A. Penon, FPL -- yes.
 7 Q. Okay. How did you decide on what data to
 8 review?
 9 A. In what context? What are you --
 10 Q. In, in doing this analysis.
 11 A. Oh, in this?
 12 Q. Yes.
 13 A. I took the, the data from the final report.
 14 I took the data that Fulvio Fabiani had provided us, and
 15 then I took the data from the, the Florida Power and
 16 Light subpoena. That data were the only sources that I
 17 was aware of for power absorption data.
 18 Q. Okay. Who provided you that data?
 19 A. These three sources of data? Well, I
 20 received a copy of the final report from I, I believe I
 21 may have even been on the distribution from Mr. Penon.
 22 The data from Fulvio Fabiani was what he provided when
 23 he met with us in Jones Day office. And the Florida
 24 Power and Light data was provided to me by counsel.
 25 Q. So ultimately based on the graphs that you

Page 285

1 A. That just said if we, if we had a
 2 conservative estimate for the, the amount of absorption
 3 into the building for other purposes besides the
 4 reactor, that, in fact, there were many more days where
 5 the measurements were below, but again it's the same
 6 problem. If Florida Power and Light's data was
 7 inaccurate, then it's, it's, there are equal probability
 8 of which source of data was incorrect.
 9 Q. Okay. So it doesn't tell you one way or
 10 another whether there's been manipulation or, or
 11 otherwise with respect to any set of data?
 12 A. No.
 13 Q. Your next opinion states that you "compared
 14 the reported power input to the E-Cat plant reported by
 15 Penon against the reported coefficient of power, COP,
 16 reported by Penon as reflected in Exhibit C." Let's
 17 look at Exhibit C for a moment. And in doing so,
 18 "Mr. Murray will testify that there is no logical reason
 19 why the COP should be changing inversely to the amount
 20 of power inputted given the same E-Cat plant was used
 21 throughout the guaranteed performance test." I'm sorry,
 22 what was the, the formula for COP calculation?
 23 A. It was I believe based on our reproduction of
 24 the final report data, it was the energy out over the
 25 energy in, or power out over power in on a per day

02/17/2017 Joseph Alan Murray

Page 310

1 Q. Which --

2 **A. -- the flow is actually pretty amazing how**

3 **much flow there was in the room. So because there was a**

4 **wall, there was a half wall, I don't know if you recall,**

5 **but there was a half wall. And so you heat, you cause**

6 **this flow. The flow comes up and collapses, and it**

7 **rolls back over. So that was the basis of our**

8 **assumptions for our simulation, was that the vent was**

9 **open. So air could go out the top, but the doors were**

10 **closed, like when we were there on that day in February.**

11 Q. So you didn't run a simulation with the doors

12 open?

13 **A. The doors weren't open when we were there.**

14 Q. But you do realize they open and did --

15 **A. Yeah.**

16 Q. Did you ask anyone there whether they were

17 open the majority of the time that it was running?

18 **A. No. Because --**

19 Q. It was just --

20 **A. -- we were just looking at it, why,**

21 **specifically I was looking at why wasn't it hotter and**

22 **more uncomfortable in the building when we were there**

23 **when it was dissipating all this out.**

24 Q. Were there ventilation fans?

25 **A. I'm sorry?**

Page 312

1 building?

2 **A. Meaning, what do you mean?**

3 Q. Like how often did the air circulate through?

4 **A. You mean vented outside and fresh air coming**

5 **in or?**

6 Q. Yeah, absolutely.

7 **A. We, I made an assumption about the building,**

8 **and so I have no idea.**

9 Q. What was the assumption you made?

10 **A. The assumption was that there was a vent at**

11 **the top and --**

12 Q. Just one?

13 **A. The, yes. The, where the vent hole was**

14 **above, and that it was just heating of that room.**

15 Q. Okay. If there was a second vent, would

16 that, would that change your calculations?

17 **A. Yeah. It would change the heating, yes.**

18 Q. And if the doors were open, that would change

19 the calculations as well --

20 **A. Yes.**

21 Q. -- for your simulation?

22 **A. Yeah. But they weren't there when I was**

23 **there.**

24 Q. What about if the fans were on? Would that

25 change your calculations?

Page 311

1 Q. Ventilation or, I'm sorry. Were there, were

2 there fans --

3 **A. Yeah.**

4 Q. -- to move air?

5 **A. There were two fans located kind of at the**

6 **aft end of the building, kind of the, the rollup door**

7 **side of the building.**

8 Q. Yeah.

9 **A. They were not operational when we were there**

10 **either.**

11 Q. Okay. But did you work those into the

12 simulation?

13 **A. No, because they weren't in operation when we**

14 **were there.**

15 Q. Just for that short period while you were,

16 did you ask anyone whether those were normally in

17 operation --

18 **A. Yeah, actually we did.**

19 Q. -- during the --

20 **A. We asked Fulvio Fabiani if they were.**

21 Q. What did he say?

22 **A. He said from time to time they were on, yes.**

23 Q. Okay. But how often is from time to time?

24 **A. You would have to ask Fulvio Fabiani.**

25 Q. What was the air transfer rate in that

Page 313

1 **A. For some of the convection, yeah. It would**

2 **actually change the calculation somewhat, yes.**

3 Q. How large were the bay doors?

4 **A. I would have to look in the simulation. I**

5 **believe that they were approximately 10 feet wide and**

6 **about 14 feet high, but that was an approximation.**

7 Q. Okay. What was the construction of the

8 building?

9 **A. Cement. So there were concrete walls, and**

10 **there were concrete ceiling modules with a kind of beam**

11 **structure.**

12 Q. Do all types of concrete absorb the same

13 amount of energy, same amount of heat?

14 MR. LOMAX: Objection to the form of the

15 question.

16 **A. No. All concrete is not identical.**

17 Q. Okay. So did you make any specific notation

18 as to the type of concrete?

19 **A. Yeah. We used the average for concrete for**

20 **the material, and we also used the average temperature**

21 **for that region from NOAA, and we used the average wind**

22 **flow velocity on the outside of the building.**

23 Q. Were there any windows in the building?

24 **A. There were no windows in the back section**

25 **that I had access to.**

02/17/2017 Joseph Alan Murray

Page 314

1 Q. Okay. What about the front section?

2 A. There appeared to be some windows in the

3 office area.

4 Q. In the office area, so downstairs?

5 A. Well, there were some windows in the front,

6 and there may have been some windows up above as well.

7 I was never in the office area.

8 Q. Do you know what was up on the second floor?

9 A. Huh-uh.

10 Q. Okay. What about a heat exchanger? Did you

11 see the heat exchanger?

12 A. We were not given access to anything on the

13 other side of the wall.

14 Q. Okay. Now, if there was a heat exchanger

15 there, would that affect your calculations or

16 simulation?

17 A. That's why we actually did a 10 percent waste

18 heat calculation, the 100-kilowatt calculation. Because

19 if we just gave the benefit of the doubt that maybe

20 there was some mechanism that we were not privy to

21 dissipating most of that heat, you would still have

22 losses in the system and you would still have to get

23 that heat out. So what we assumed, which actually was a

24 very generous assumption, was that in the case of the

25 100 kilowatt, that the, a 10 percent waste heat was

Page 316

1 information in preparing your simulation?

2 A. Well, it wasn't provided, yeah, so I don't

3 have that information.

4 Q. Okay. So you, you only performed a

5 simulation assuming one vent, closed doors --

6 A. Uh-huh.

7 Q. -- no heat exchanger?

8 A. Well, I mean so here's the, we have to be

9 careful when we say no heat exchanger. I assumed that

10 there must have been some mechanism to dissipate a good

11 amount of the heat because there was no, clearly there

12 was no work being done in the system because there was

13 no pressure, right. The pressure was reported at zero

14 continuously throughout the test. So there was no work

15 being completed.

16 So if you consider that, I said, well, let's

17 just give them the benefit of the doubt and say 90

18 percent of the heat they were able to get rid of in some

19 way. Maybe that was your heat exchanger. Maybe that

20 was something else, but there were still losses in the

21 system. So the rest of that heat I said was, well,

22 let's try 10 percent, and then let's try 25 percent, and

23 let's try 50 percent, different levels of efficacy of a

24 heat exchanger, and then do the simulations and look at

25 it and see what the temperature was.

Page 315

1 actually a very modest number compared to the 1,000

2 kilowatt plant waste heat.

3 Q. What temperature was the, the room at 100

4 kilowatts?

5 A. So what I did was I drew section lines along

6 two locations. I drew a line directly down the path

7 through the door that went from the front to the back,

8 and then I drew a line up above. And on those lines I

9 showed the temperature at each one of the fine element

10 points. And the temperature ranged from about 55

11 degrees Celsius up to about 68 degrees Celsius along

12 those two lines and in the section line.

13 There were other places where it was all the

14 way up at 100 degrees C, but I felt like, you know, that

15 was the area where most people were operating and

16 working, so that would be the area to be concerned with.

17 Q. Do you know what the specifications of the

18 heat exchanger were?

19 A. I was -- which heat exchanger?

20 Q. The heat exchanger used at the facility.

21 MR. LOMAX: Objection to the form of the

22 question.

23 A. I don't, I don't have any information about a

24 heat exchanger in the facility.

25 Q. Okay. And so you didn't use any of that

Page 317

1 So I was surprised to see that the

2 temperature in the simulation would reach as high as it

3 did even at 100 kilowatts, but then I reflected back on

4 the fact that it's Florida. It's pretty darn hot.

5 There was no air conditioning in the building other than

6 the air conditioner for the small ISO container lab.

7 And furthermore, the -- sorry there -- the, so, I lost

8 my train of thought with that.

9 Q. What exterior or, exterior air temperature

10 did you presume if you were --

11 A. 25 degrees Celsius.

12 Q. Which is what Fahrenheit?

13 A. I don't know. You would have to do the

14 calculation. Say about 80. Approximately.

15 Q. You don't know what the losses were on the

16 heat exchanger, do you? You're just --

17 MR. LOMAX: Objection.

18 A. I've --

19 Q. -- making an assumption?

20 A. I, I've, I don't know.

21 Q. Okay.

22 A. I didn't know about any heat exchanger.

23 Q. Okay.

24 A. So for the fourth time, I'm not aware of any

25 heat exchanger.

02/17/2017 Joseph Alan Murray

Page 350

1 Products, Inc., Henry Johnson, and James Bass. I only
 2 have a couple of questions for you. To start, did you
 3 ever meet Mr. Henry Johnson?
 4 **A. I have not.**
 5 Q. You have not. Great. Have you ever spoken
 6 with him on the phone or via e-mail?
 7 **A. I have not.**
 8 Q. Okay. Have you ever met Mr. James Bass?
 9 **A. I have not.**
 10 Q. You have not. Have you ever spoken with him
 11 via telephone or e-mail?
 12 **A. I have not.**
 13 **MR. LEÓN: Okay. That's all the questions I**
 14 **have. Go ahead, Rudy.**
 15 **THE WITNESS: That was easy. I like that.**
 16 **MR. NUÑEZ: All right.**
 17 EXAMINATION
 18 BY MR. NUÑEZ:
 19 Q. Good afternoon, Mr. Murray. My name is Rudy
 20 Nuñez. We also met the other day at Dr. Rossi's
 21 deposition. Can you hear me clearly through the
 22 speakerphone?
 23 **A. Yes.**
 24 Q. All right. You let me know if you have any
 25 problems or trouble hearing. Okay?

Page 352

1 Q. What were you told about his work
 2 performance, if anything?
 3 **A. That he, you know, he showed up, but you**
 4 **know, he was just kind of a participant in the data**
 5 **collection and, at the plant. He was kind of like**
 6 **Dr. -- or Mr. Rossi's kind of assistant, if you will, or**
 7 **technical assistant, kind of helping him out in the**
 8 **facility.**
 9 Q. Did anyone make any comments to you or talk
 10 to you about any concerns they had with him?
 11 **A. I think there was, there was a, a modest**
 12 **level of concern with how close he was with Mr. Rossi**
 13 **relative to just, you know, the close relationship and**
 14 **whether or not he would be fully -- fully disclose**
 15 **everything to us, but I think the only thing that he**
 16 **hasn't disclosed as far as I'm aware is the actual final**
 17 **report and, and I think maybe he has produced some data.**
 18 **I haven't looked at it though. So it was only a**
 19 **question of if he would release all of the data.**
 20 Q. So to your understanding, the only thing he
 21 didn't do was turn over that final report?
 22 **A. I believe that's, that's correct, yes.**
 23 Q. And I think the raw data too. I don't want
 24 to, you know, I'm not trying to trip you up or anything.
 25 **A. Right, no, no, no. Yeah, I think the raw**

Page 351

1 **A. Okay.**
 2 Q. All right. As you testified, you know,
 3 several times today, you brought up Mr. Fabiani. I
 4 represent Fulvio Fabiani and his company, an LLC by the
 5 name of United States Quantum Leap. I certainly don't
 6 have the time to go back through all that you've done
 7 that I would want to, but I did want to, you know, touch
 8 on a few points to kind of maybe clear up some questions
 9 I had.
 10 Let me ask you. When, when you first came on
 11 board with Industrial Heat with regards to Dr. Rossi's
 12 technology, E-Cat, and the plant, what were you told at
 13 the start about Mr. Fabiani?
 14 **A. I was told that Fulvio Fabiani was a close**
 15 **family friend of Mr. Rossi's wife. I, I believe her**
 16 **name is Maddalena, and that she was, you know, a close,**
 17 **almost like a mentor of his, and that Fulvio had worked**
 18 **with, with Mr. Rossi in Italy and on other activities.**
 19 **I also learned that he was a, an avid pinball machine**
 20 **both repairman and developer.**
 21 Q. Anything else?
 22 **A. Other than he had developed some hardware**
 23 **devices for the, the reactor system. And I don't, I**
 24 **don't remember the exact nature of that. And that he**
 25 **had spent a lot of time in, in Raleigh.**

Page 353

1 **data, he indicated that there was raw data stored on a**
 2 **server in Russia that was encrypted and he had to, he**
 3 **put it there for safekeeping, and I believe that that**
 4 **data has been released only maybe in the last few days.**
 5 **I, I have not looked at it. I haven't seen it. I**
 6 **haven't inspected it, but I believe that it has been**
 7 **released in the last few days. But I have not seen a**
 8 **final report, and I don't know anything about, you know,**
 9 **if a final report was actually produced.**
 10 Q. All right. Now, getting back to, I was
 11 asking you about conversations and concerns. And again
 12 I don't want to put words in your mouth, but correct me
 13 if I'm wrong that it seemed like you had heard that
 14 there may be concerns about what he was, how honest he
 15 was being with Industrial Heat. Is that a fair way to
 16 phrase it?
 17 **A. I would say that the concern was about his**
 18 **allegiance and his close relationship with Mr. Rossi**
 19 **rather than -- that's how I would characterize it.**
 20 Q. Okay. And do you think, was that something
 21 that was knew over time or would they knew that from the
 22 beginning?
 23 **A. I --**
 24 Q. I should say -- let me strike that.
 25 Was that a new concern or a concern that they

02/17/2017 Joseph Alan Murray

Page 362

1 **THE WITNESS: Chris, you weren't there, were**
 2 **you?**
 3 **A. No. I think it was --**
 4 MR. LOMAX: I guess I, I can't answer, but.
 5 **A. Yeah, I'm sorry. I'm sorry. Yeah, I**
 6 **believe, to the best of my recollection it was just the**
 7 **three of us.**
 8 Q. Were, were any, was anything offered to
 9 Mr. Fabiani for him to turn over the remaining report
 10 and data that he ended up claiming was due?
 11 **A. Well, Mr. Fabiani actually offered up, he**
 12 **said, look, I'm writing this final report and I have all**
 13 **this data. And I don't mean the specific details, but**
 14 **he said we sampled data for specific things, I don't**
 15 **know if it was every 10 seconds or 5 seconds, throughout**
 16 **the entire test period using his system.**
 17 **And he said he was completing a final report**
 18 **for Industrial Heat. And we said, great. And I believe**
 19 **that there was even a discussion of potentially trying**
 20 **to have him help with other aspects, but I don't recall**
 21 **the, the details of that. My, really I was interested**
 22 **in the data and interested in the final report to find**
 23 **out what was going on, because I had hadn't seen any**
 24 **details of how all this stuff was collected and pulled**
 25 **together.**

Page 364

1 what were you told either before or, you know, at the
 2 meeting by the Industrial Heat people of the purpose of
 3 that meeting with Mr. Fabiani?
 4 **A. This is my recollection going back to that**
 5 **time, but my recollection was that Fulvio had this data.**
 6 **We had requested data. And so we were going to meet**
 7 **with him to find out how we get a copy of the data and**
 8 **then pay him the final payment that was offer -- you**
 9 **know, that was due him. And so we actually went down**
 10 **there with the intention of, of doing that.**
 11 **And so, and I, I don't recall if on the first**
 12 **day he didn't have the data and then he went and he got**
 13 **the data, some of the data, the spreadsheets on the next**
 14 **day. And then he said he would deliver the final report**
 15 **and some of the other, the, the final report and the raw**
 16 **data, you know, within the next few days. And we said,**
 17 **great, and then we'll just pay you for the final, you**
 18 **know, payment due.**
 19 Q. And who set up that meeting? Who, who
 20 scheduled it or, do you know?
 21 **A. I suspect JT Vaughn, but I, I don't, I don't**
 22 **recall.**
 23 Q. And I think your testimony was at that
 24 meeting that Mr. Fabiani came with spreadsheets and
 25 documents to turn over?

Page 363

1 Q. Was there any offer made to Mr. Fabiani for
 2 an extension of continuing to do work for Industrial
 3 Heat?
 4 **A. I think --**
 5 MR. LOMAX: Objection.
 6 **A. Okay. I, I think there was, but I can't**
 7 **recall specifically.**
 8 MR. ANNESSER: One and a half minutes, Rudy.
 9 Q. And what were you told about the purpose of
 10 that meeting with Mr. Fabiani?
 11 MR. LOMAX: Objection to the extent it's
 12 about communications with counsel. Otherwise you
 13 can answer.
 14 **A. Okay. I was --**
 15 Q. What was that?
 16 **A. I'm sorry.**
 17 MR. LOMAX: Could you hear me Rudy?
 18 MR. NUÑEZ: Yeah.
 19 Q. I was going to say I don't want to hear what
 20 the attorneys told you. I want to hear what Mr. Vaughn
 21 or Mr. Darden told you or Mr. Dameron, whoever else was
 22 there.
 23 **A. Yeah, well, it was just JT and I. What was**
 24 **your question? The purpose of the meeting?**
 25 Q. Well, yeah. Let me clear that up. You know,

Page 365

1 **A. Well, the, the next day. He came back with**
 2 **just spreadsheets. Sorry.**
 3 MR. LOMAX: Rudy, do you have one more
 4 question? The time is up, but I, you know --
 5 MR. NUÑEZ: Well, here's the thing, guys. I
 6 mean I'm not there, but I marked my watch when the
 7 court reporter said 31 minutes. I think John had
 8 one question. Francisco made two questions. I
 9 still have, I mean by my calculation, I've got like
 10 7 minutes left. You know, time does not work
 11 differently down here, and I marked it when the
 12 court reporter said 31 minutes. So I'm not sure how
 13 I've lost these 8 minutes because John did not take
 14 up 8 minutes asking questions.
 15 MR. LOMAX: Well, the court reporter --
 16 MR. NUÑEZ: We can go back to the video or we
 17 can go back to something. I got a couple more
 18 questions left. I don't think I have 10 minutes,
 19 but I marked my watch when the court reporter said
 20 31 minutes.
 21 MR. LOMAX: Well, you know, Rudy, this is
 22 Chris. I would, I would be willing to extend 5, 5
 23 more minutes. The court reporter is telling us that
 24 the time is up.
 25 **THE WITNESS: So let's go. If you have a**

02/17/2017 Joseph Alan Murray

Page 366

1 couple more questions, go ahead, Rudy, quickly.
 2 MR. NUÑEZ: Yeah. I don't have that much, so
 3 I appreciate it, Mr. Murray.
 4 BY MR. NUÑEZ:
 5 Q. And I'll move on from the meeting at Jones
 6 Day. Let's go to the -- and I think it's in your expert
 7 report. You've been asked a lot about it. I'm not
 8 trying to retread all this stuff, but I do want to
 9 confirm a couple things just to clear up with my
 10 questions.
 11 There were -- and correct me if I'm wrong.
 12 Mr. Fabiani provided what I would call, and you correct
 13 me, electric power consumption numbers; is that correct?
 14 A. He provided us with, I think it was a
 15 spreadsheet for each month or maybe it was one
 16 spreadsheet that had numerous tabs. I don't recall
 17 which. And it had the time stamp for twice a day,
 18 cumulative energy in those 12-hour periods. And he
 19 provided us with a, a log that kind of showed dates and
 20 events when things were turned on and the power went off
 21 and this and that and different events, so what I would
 22 describe as a log of events.
 23 And I think those were the two major items
 24 that he had provided to us on the second day, and then
 25 he was going to wait and provide us with the final

Page 368

1 Q. Okay. So that was 14 out of, I think it was
 2 350 or almost a year, correct?
 3 A. I believe the number in the final report was
 4 total of 357 days, and then Mr. Penon deducted 5 or 6
 5 days. I don't remember the exact number. And so there
 6 was a cumulative number of maybe 352 days of, of
 7 operational days.
 8 Q. And for lack of a better word, I think there
 9 were discrepancies between Fabiani's numbers versus the
 10 FP&L's numbers. Do you have any reason to believe that
 11 that is a result of Mr. Fabiani manipulating the data
 12 that he was putting into his spreadsheets?
 13 A. At this point, I have no evidence of that
 14 whatsoever.
 15 Q. And do you anticipate any kind of work in the
 16 future between now and trial where you would come to a
 17 different conclusion?
 18 A. I can't say at this point because I think
 19 that there's a lot of data that's just becoming
 20 available. For example, I think the raw data from
 21 Mr. Fabiani just became available, and I have not looked
 22 at that at all.
 23 Q. Okay. Let me ask you, and this will --
 24 MR. LOMAX: And Rudy --
 25 Q. I'm close to the end here.

Page 367

1 report and the other data a few days later. He also
 2 said that he had taken data from the flow meter from
 3 time to time, and he had logged it into a spreadsheet on
 4 the desktop of his computer, but his computer was locked
 5 up and he couldn't get to it, and he was going to
 6 provide that data to us as well, but he didn't produce
 7 that data either.
 8 Q. Okay. And now my question relates -- I think
 9 you made an analysis that his power consumption numbers
 10 for the plant don't match the readings from Florida
 11 Power and Light; is that correct?
 12 A. No, which just incidentally we would not
 13 anticipate that they match. We would anticipate that
 14 the building would absorb more power than just the
 15 reactor because there was other, there were other
 16 electrical devices in the building. The primary concern
 17 is where the value goes negative, where the building is
 18 actually absorbing less, less energy per day than the,
 19 than reported by Mr. Fabiani and Mr. Penon.
 20 Q. Okay. And how many times did that happen?
 21 A. How many times? There was a 14-day period.
 22 I think cumulative number of days where it was below
 23 zero was 14 days, and that's just pure absolute
 24 negative. And, you know, and that's just assuming that
 25 nothing else in the building absorbed power.

Page 369


1 MR. LOMAX: This is Chris and --
 2 Q. Do you have any evidence --
 3 MR. LOMAX: -- time is up.
 4 Q. -- in your investigation and your work for
 5 Industrial Heat that Mr. Fabiani manipulated improperly
 6 any data?
 7 A. At this point, no, I do not.
 8 MR. LOMAX: And, Rudy, this is Chris. That's
 9 the time.
 10 MR. NUÑEZ: All right. And, yep, that's
 11 going to match up with my time. And I will say
 12 thank you, Mr. Murray. Thank you, everyone. Have a
 13 good weekend.
 14 THE WITNESS: Okay. No problem. Thank you,
 15 guys.
 16 THE VIDEOGRAPHER: This concludes the
 17 videotaped deposition of Joseph Murray. We are off
 18 the record at 5:20 p.m.
 19 (Stenotype record continued off the video record.)
 20 MR. ANNESSER: Just as a formality, sir, you
 21 have the right to read or waive, which means you can
 22 read the deposition before it's finalized, or you
 23 can waive that right.
 24 THE WITNESS: I would like to read it.
 25 MR. ANNESSER: Okay.

02/17/2017 Joseph Alan Murray

Page 370

1 MR. LOMAX: And Defendants are going to
 2 designate Mr. Murray's testimony at this time as
 3 highly confidential due to a lot of the information
 4 that was provided here today.
 5 (DEPOSITION CONCLUDED AT 5:20 P.M.)
 6 (SIGNATURE RESERVED)
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25

Page 371

1 STATE OF NORTH CAROLINA
 COUNTY OF WAKE:
 2
 3 REPORTER'S CERTIFICATE
 4 I, LAUREN McINTEE, RPR, a Notary Public in
 5 and for the State of North Carolina, do hereby certify
 6 that there came before me on Friday, the 17th day of
 7 February, 2017, the person hereinbefore named, who was
 8 by me duly sworn to testify to the truth and nothing but
 9 the truth of his knowledge concerning the matters in
 10 controversy in this cause; that the witness was
 11 thereupon examined under oath, the examination reduced
 12 to typewriting under my direction, and the deposition is
 13 a true record of the testimony given by the witness.
 14 I further certify that I am neither attorney
 15 or counsel for, nor related to or employed by, any
 16 attorney or counsel employed by the parties hereto or
 17 financially interested in the action.
 18 IN WITNESS WHEREOF, I have hereto set my
 19 hand, this the 20th day of February, 2017.
 20
 21 
 22
 23 LAUREN McINTEE, RPR, Notary Public
 Notary Number: 201616600044
 24
 25

Page 372

1 WITNESS'S CERTIFICATE
 2
 3 I, JOSEPH ALAN MURRAY, do hereby certify
 4 that I have read and understand the foregoing
 5 transcript and believe it to be a true, accurate, and
 6 complete transcript of my testimony, subject to
 7 the attached list of changes, if any.
 8
 9 _____
 JOSEPH ALAN MURRAY
 10
 11 This deposition was signed in my presence by
 12 _____, on the ____ day of
 13 _____, 2017.
 14
 15 _____
 Notary Public
 16
 17 My commission expires:
 18
 19
 20
 21
 22
 23
 24
 25

Page 373

1 CaseWorks, Inc.
 811 Ninth Street, Suite 260 (Page 1 of 2)
 2 Durham, North Carolina 27705
 3 E R R A T A S H E E T
 4 Re: Andrea Rossi, et al. vs. Thomas Darden, et al.
 5 Deposition of: JOSEPH ALAN MURRAY
 6 Please read this transcript with care, and if
 7 you find any corrections or changes you wish made, list
 8 them by page and line number below. DO NOT WRITE IN
 9 THE TRANSCRIPT ITSELF. Return the
 Certificate and Errata Sheet to this office after
 it is signed. We would appreciate your prompt
 attention to this matter.
 10 To assist you in making any such corrections,
 please use the form below. If supplemental or
 additional pages are necessary, please furnish same and
 attach them to the errata sheet.
 11 Page ____ Line ____ should
 12 read: _____
 13 Page ____ Line ____ should
 14 read: _____
 15 Page ____ Line ____ should
 16 read: _____
 17 Page ____ Line ____ should
 18 read: _____
 19 Page ____ Line ____ should
 20 read: _____
 21 Page ____ Line ____ should
 22 read: _____
 23 Page ____ Line ____ should
 24 read: _____
 25