

ORIGINAL

COMMONWEALTH OF PENNSYLVANIA

PUBLIC UTILITY COMMISSION

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 :
 4 Pennsylvania Public Utility Commission : Docket Nos.
versus Pennsylvania Power & Light Company : R-943271
 5 Investigation into a proposed \$261,000,000 : R-943271C0001
 annual rate increase. : through
 6 : R-943271C0130
 Further Hearing :
 7 :
 ----- x

Pages 944 through 1066

Executive Chambers
North Office Building
Harrisburg, Pennsylvania

**DOCUMENT
FOLDER**

Thursday, March 30, 1995

Met, pursuant to adjournment, at 9:30 a.m.

BEFORE:

ROBERT A. CHRISTIANSON, Administrative Law Judge

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C O N T E N T S

WITNESS	DIRECT	CROSS	REDIRECT	RECROSS
Thomas S. LaGuardia				
By Mr. Gadsden	948	----	1060	----
By Mr. Mickens	----	950	----	1062
By Ms. Kenney	----	975	----	----
By Mr. Williamson	----	997	----	----
By Mr. Epstein	----	1012	----	----

E X H I B I T S

NUMBER FOR IDENTIFICATION IN EVIDENCE

NUMBER	FOR IDENTIFICATION	IN EVIDENCE
<u>Pennsylvania Power & Light Company</u>		
✓ 11	Statement 13 (LaGuardia-Direct) →	947 949
✓ 12	Exhibit TSL-1 (LaGuardia)	947 949
✓ 12	Exhibit TSL-2 (LaGuardia)	947 949
13	Exhibit I	---- 1064
14	Exhibit Historic 1	---- 1064
14	Exhibit Future 1	---- 1064
<u>OTS Cross-Examination Exhibits</u>		
✓ 16	✓ 17 (OTS-RB-39 and OTS-RB-40)	971 974
<u>OCA Cross-Examination Exhibits</u>		
✓ 18	✓ 15 (Various Interrogatory Responses)	976 976
✓ 19	✓ 16 (AIF/NESP-036 Excerpt)	983 996
✓ 20	✓ 17 (OCA-II-15 and OCA-II-16)	991 996
✓ 21	✓ 18 (OCA-II-17 and OCA-II-20)	995 996

SEE EXHIBIT FOLDER TO TEST 3/21/95

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P R O C E E D I N G S

ADMINISTRATIVE LAW JUDGE ROBERT A. CHRISTIANSON:

Let's be on the record. I am Administrative Law Judge Robert Christianson.

We are here this morning up in the Executive Chambers at 9:30 to do the cross-examination of what has ended up as the last PP&L direct case witness, Thomas LaGuardia, who is here for decommissioning, basically, both fossil and nuclear, as I recall.

We have several people here, and we'll just go through the parties probably in the standard order. We do have a follow-up on Mr. Epstein's Cross-Examination Exhibit 1, which we can maybe discuss when he gets up to cross-examine. I've looked it over and of course looked over the testimony and such.

Unless there's something preliminary, we can just go ahead with the company and introduce the witness.

MR. GADSDEN: Thank you, Your Honor. The company calls as its final direct case witness Mr. Thomas S. LaGuardia.

JUDGE CHRISTIANSON: Let me swear in the witness. Whereupon,

THOMAS S. LaGUARDIA

having been duly sworn, testified as follows:

JUDGE CHRISTIANSON: Proceed, counsel.

1 MR. GADSDEN: Thank you, Your Honor.

2 Mr. LaGuardia will be sponsoring direct testimony as
3 well as two exhibits this morning, all of which were
4 distributed to the parties with the initial filing or
5 shortly thereafter and to the court reporter at the pre-
6 hearing conference, but they do need to be identified at
7 this time.

8 Consequently, I would ask to have marked for
9 identification as Pennsylvania Power & Light Company
10 Statement No. 13 a multi-page document entitled, "Direct
11 Testimony of Thomas S. LaGuardia;" secondly, as Exhibit
12 TSL-1 a document entitled, "Dismantling Cost Study for the
13 Holtwood, Sunbury, Martins Creek, Brunner Island and Montour
14 Steam Electric Stations," dated December, 1994; and finally,
15 as Exhibit TSL-2, a document entitled, "Decommissioning Cost
16 Study for the Susquehanna Steam Electric Station, Units 1
17 and 2," dated December, 1993.

18 JUDGE CHRISTIANSON: Yes, they're so identified. The
19 two exhibits are bound together, and together they're about
20 an inch, a little more than an inch, I guess.

21 So the documents are identified as you've indicated.

22 (Whereupon, the documents were marked as PP&L
23 Statement No. 13 and PP&L Exhibits Nos.
24 TSL-1 and TSL-2 for identification.)

25 MR. GADSDEN: Thank you, Your Honor.

DIRECT EXAMINATION

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BY MR. GADSDEN:

Q. Mr. LaGuardia, would you state your full name for the record and spell your last name, please?

A. Thomas S. LaGuardia, L-A capital G-U-A-R-D-I-A.

Q. Mr. LaGuardia, by whom are you employed and in what capacity?

A. I am employed by TLG Services. I'm the president of the company.

Q. Do you have a copy of what has been marked for identification as PP&L Statement No. 13?

A. Yes, I do.

Q. Was that statement of direct testimony prepared by you or under your direction and supervision?

A. Yes, it was.

Q. If I were to ask you the questions set forth in Statement No. 13 today, would your answers be as contained therein?

A. Yes.

Q. And would they be true and correct to the best of your knowledge?

A. Yes.

Q. Mr. LaGuardia, do you also have copies of the two documents which have been identified as Exhibits TSL-1 and TSL-2?

1 A. Yes.

2 Q. And was the data set forth in those two exhibits
3 assembled and compiled under your direction and supervision?

4 A. Yes.

5 Q. And is that data true and correct to the best of
6 your knowledge?

7 A. Yes.

8 Q. Your Honor, at this time, I would move the
9 admission of PP&L Statement No. 13, Exhibits TSL-1 and 2,
10 all subject to the standard conditions and qualifications,
11 and offer Mr. LaGuardia for cross-examination.

12 JUDGE CHRISTIANSON: Yes, the three documents are now
13 accepted into the record subject to the standard conditions
14 about possible motions on cross-examination.

15 (Whereupon, the documents marked as PP&L
16 Statement No. 13 and PP&L Exhibits Nos.
17 TSL-1 and TSL-2 were received in evidence.)

18 JUDGE CHRISTIANSON: I gather -- well, I can check
19 explicitly -- no corrections?

20 MR. GADSDEN: No, Your Honor.

21 JUDGE CHRISTIANSON: It's all set to go?

22 MR. GADSDEN: All set.

23 JUDGE CHRISTIANSON: Well, then, the witness I guess
24 is available for cross, and we might as well start with Mr.
25 Mickens, if you'd like.

1 MR. MICKENS: Thank you, Your Honor.

2 CROSS-EXAMINATION

3 BY MR. MICKENS:

4 Q. Good morning, Mr. LaGuardia.

5 A. Good morning, Mr. Mickens.

6 Q. My name is Ken Mickens. I represent the Office
7 of Trial Staff in this proceeding.

8 Looking at your Statement No. 13, page 2 --

9 A. Yes.

10 Q. -- here you identify the 16 fossil fuel power
11 plants for which TLG has prepared dismantling cost studies;
12 is that correct?

13 A. Yes.

14 Q. And you have estimated that the cost to
15 dismantle and demolish the 16 fossil fuel power plants will
16 be approximately \$628.5 million; is that correct?

17 A. That's correct.

18 Q. Now, would you refer to your TSL-1, please, page
19 3-3?

20 A. 3-3, yes.

21 Q. Would you agree that here, you identify the 48
22 major assumptions employed in developing the fossil fuel
23 plant dismantling cost estimates?

24 A. 49, I believe.

25 JUDGE CHRISTIANSON: The first five are on that page,

1 and then they just continue.

2 MR. MICKENS: It just continues on.

3 THE WITNESS: Yes.

4 BY MR. MICKENS:

5 Q. I think there are 48. There may be 49.

6 A. It says 49, but -- okay.

7 Q. Would you accept that?

8 A. Yes.

9 Q. Now, those are referred to as major assumptions;
10 is that correct?

11 A. That's correct.

12 Q. How did you define a major assumption?

13 A. A major assumption is one that would have a very
14 significant effect on the cost in terms of interpretation of
15 how we approached the estimate: the disposition of fuels at
16 the end of operation, for example, the fact that we assumed
17 all the fuel would be burned prior to the start of
18 dismantling operations; the disposition of the site at the
19 time the plant would be turned over for the dismantling;
20 major assumptions in terms of physical configuration and
21 what we had to deal with at the time the estimate was
22 assumed to begin the decommissioning process.

23 Q. Okay. Now, I assume then or I take it that
24 since you have identified some as major assumptions, that
25 there were minor assumptions as well; is that correct?

1 A. Yes. Obviously, one has to assume certain
2 conditions, assumptions as to the conditions under which one
3 would make an estimate, yes.

4 Q. Now, those minor assumptions, are they
5 identified anywhere in your exhibits?

6 A. Not specifically, beyond that list there, no.
7 There was no -- the schedule of estimate assumptions, for
8 example, that's shown on page 4-1 is specific to the
9 schedule.

10 Q. But are those additional assumptions or part of
11 the major assumptions that we were just discussing?

12 A. On page 3-3, the major assumptions deal with the
13 disposition of the site and the conditions under which the
14 estimate would be started. The schedule of assumptions deal
15 with how we developed the schedule.

16 Q. Okay. Now, would you refer again back to your
17 Statement No. 13, page 10?

18 A. Yes.

19 Q. Now, roughly lines 13 to 19 on that page, here
20 you identify five companies for which TLG has previously
21 prepared site-specific dismantling studies for fossil fuel
22 plants; is that correct?

23 A. Yes.

24 Q. And these companies are identified as
25 Indianapolis Power & Light, Alexandria Power System, Kansas

1 City Power & Light Company, Texas Utilities Company, and
2 Public Service Electric & Gas; is that correct?

3 A. That's correct.

4 Q. For which of these companies did you also
5 recommend that a decommissioning annuity be initiated?

6 A. Our work in each of these cases was to prepare
7 the cost estimate, and the company made the decision as to
8 how it was going to handle the funding of the dismantling in
9 each of these cases.

10 JUDGE CHRISTIANSON: So a more direct response, you
11 don't actually know, necessarily?

12 THE WITNESS: Not necessarily in each case. We don't
13 usually recommend a method of funding or how costs are to be
14 accumulated.

15 BY MR. MICKENS:

16 Q. Specifically with your knowledge with regard to
17 each company that I identified, do you know whether, in any
18 of these companies, that a request was made for a
19 decommissioning annuity?

20 A. Yes. In each of the cases, they did -- you're
21 using the term "annuity" -- in each of the cases, the
22 companies requested funding to be set aside in some manner
23 for decommissioning.

24 Q. What I'm particularly interested in is a
25 pre-funded plan, meaning the money would be set aside prior

1 to the actual decommissioning of the plants.

2 And with regard to those five companies that I've
3 identified, I'm asking you which one of those if any was
4 there a pre-funded annuity set aside prior to the actual
5 dismantling of the plant.

6 JUDGE CHRISTIANSON: And I guess if you don't know as
7 you sit here, maybe you or PP&L could find out.

8 THE WITNESS: Yes. To my recollection, none of them
9 had a separate plan, a funding plan set aside, but I would
10 like to research --

11 JUDGE CHRISTIANSON: It's subject to check?

12 THE WITNESS: Subject to check, right.

13 BY MR. MICKENS:

14 Q. So as far as you're concerned, none of them had
15 a separately pre-funded, set aside decommissioning fund
16 similar to the type that's requested by PP&L in this
17 proceeding?

18 A. To my recollection, yes.

19 Q. So that in all of those instances with regard to
20 all five companies that we have been discussing and have
21 been previously identified, the costs for decommissioning
22 were recovered on an after-the-fact basis; is that correct?

23 A. How do you mean by "after-the-fact"?

24 Q. After or as the dismantling and decommissioning
25 was occurring.

1 A. Oh, no, I'm sorry. In each case, the company
2 requested that funds be set aside for decommissioning,
3 either as an internal sinking fund, internal reserve within
4 the company in some manner -- and I'm not familiar with how
5 it was structured within each company -- but it was intended
6 to include the cost for dismantling within the rates
7 recovery process.

8 JUDGE CHRISTIANSON: So they got revenues during the
9 life of the plant?

10 THE WITNESS: That's correct. I'm sorry, I may have
11 misunderstood what your question was.

12 BY MR. MICKENS:

13 Q. You totally misunderstood what I was asking you,
14 if that's the case.

15 A. I'm sorry, yes. I thought you were referring to
16 the equivalent of an externally funded trust. When you said
17 the term "annuity," that's what was throwing me a little
18 bit.

19 JUDGE CHRISTIANSON: They didn't put the money aside
20 and earmark it?

21 THE WITNESS: That's correct, as in the nuclear
22 decommissioning fund, for example, where the Nuclear
23 Regulatory Commission requires funds to be set aside in an
24 external trust.

25

1 BY MR. MICKENS:

2 Q. Right. What we're talking about here are fossil
3 fuel plants.

4 A. Yes.

5 Q. We're not talking about nuclear plants.

6 A. I understand.

7 Q. We're talking about the five fossil fuel plants
8 that you've identified on page 10 of your testimony, okay?

9 A. Yes.

10 Q. Now, with regard to these plants, what I'm
11 asking you now is, did the five companies request that a
12 separately funded annuity fund be set aside to handle the
13 cost of decommissioning and dismantling those plants?

14 JUDGE CHRISTIANSON: Let me try to clarify so we
15 don't get into trouble again. I think he's going to say no,
16 because it wasn't the particular annuity you're describing.

17 THE WITNESS: That's correct.

18 JUDGE CHRISTIANSON: In each case, there were
19 revenues accrued --

20 THE WITNESS: That's correct.

21 JUDGE CHRISTIANSON: -- during the life of the plant
22 to get money for the decommissioning.

23 THE WITNESS: Thank you, that's correct.

24 JUDGE CHRISTIANSON: And it was not handled in that
25 method.

1 BY MR. MICKENS:

2 Q. What was the difference between the way those
3 funds were handled and the way that PP&L is requesting that
4 the funds be handled in this proceeding, if you know?

5 A. I'd rather not testify to that. I'm not exactly
6 familiar with each of the cases and how they would compare,
7 how PP&L -- but in general, they requested a decommissioning
8 reserve be set aside for handling the dismantling, each of
9 these efforts, in advance.

10 Q. But you have no knowledge specifically with
11 regard to how that request, the specifics of those requests
12 compare to the type of request that PP&L is making in this
13 proceeding; is that your testimony?

14 JUDGE CHRISTIANSON: You've indicated they probably
15 were different.

16 THE WITNESS: They may have been different, but in
17 general, they had similar characteristics in that they were
18 requesting monies to be accumulating during the remaining
19 life of the operations of these plants.

20 MR. MICKENS: Your Honor, I understand
21 clarifications, here, but I would like to try to get an
22 answer to the question that I posed, if I could --

23 JUDGE CHRISTIANSON: Yes; go ahead, counselor.

24 MR. MICKENS: -- because it would make it easier for
25 me.

1 BY MR. MICKENS:

2 Q. So the answer to my question would be basically
3 yes; is that what you're saying?

4 A. Yes.

5 Q. Thank you.

6 Mr. LaGuardia, are you aware of whether this
7 Commission has ever allowed for a decommissioning annuity in
8 connection with the projected retirement of a fossil fuel
9 plant?

10 A. I don't know all the cases. No, I don't know
11 that.

12 Q. You're not aware of that?

13 A. I'm not aware if they have.

14 Q. Would you refer to TSL-1, page 1-5, please?

15 A. Yes.

16 Q. Now, this schedule provides the station
17 dismantling costs and schedule summary for the fossil fuel
18 plants at Holtwood, Sunbury, Martins Creek, Brunner Island
19 and Montour; is that correct?

20 A. Yes.

21 Q. Would you agree that the last line, which is
22 entitled "duration in months," makes reference to the amount
23 of time it is assumed it will take to dismantle the various
24 stations?

25 A. Yes.

1 Q. And would you also agree that durations vary
2 from 20.18 months for Holtwood to 34.97 months for Brunner
3 Island

4 A. Yes.

5 Q. Mr. LaGuardia, can you identify where you have
6 identified the dates that the cost estimates assume the 16
7 fossil fuel plants will be retired?

8 A. For the purposes of our estimates, it doesn't
9 matter when the plants would specifically be dismantled.
10 The estimates --

11 Q. I understand. I'm not sure that's responsive to
12 my question. I'm asking you, can you identify where in your
13 studies you've identified when it assumes or the estimate is
14 that these fossil fuel plants will be retired?

15 A. Starting at page 4-2 of TSL-1, we indicate the
16 dismantling activity schedule, and we give one example of
17 the Montour Unit 2.

18 And the schedule is shown. This is only one example
19 for the sake of brevity of the report. Otherwise, it'd be
20 quite bulky.

21 Q. Are you on page --

22 A. 4-3 now, I'm sorry. We indicate across the top
23 of that graph or that schedule the years 2017-2018. These
24 were the years assumed for the purposes of preparing a
25 schedule starting from year zero through year of completion.

1 And we just selected these dates that were provided
2 to us by PP&L.

3 Q. I see. So, with regard to the stations that are
4 indicated on page 1-5 that we were just discussing, you
5 assumed that all of the units would be retired at the same
6 time, basically?

7 A. No. We assumed, as we indicated in our
8 assumptions, that as each unit at each station is retired,
9 as the last one is retired, then decommissioning of that
10 station would begin.

11 Q. So looking at page 4-3, what do the years 2017
12 and 2018 represent?

13 A. For the Montour Unit 2, it represented the time
14 when that station would begin decommissioning in the year
15 2017. And there were different years for each of the
16 stations.

17 Q. Okay. But you're saying that you only have
18 Montour that's actually in the study?

19 A. That's the only schedule we're showing, for the
20 purposes of illustrating how the schedule was developed.

21 Q. So can you identify the other years that are
22 appropriate for the other stations?

23 A. I don't have those dates with me, when they were
24 expected to be retired.

25 MR. MICKENS: Your Honor, we would request that that

1 be provided to us as a data response.

2 JUDGE CHRISTIANSON: The projected retirement dates
3 for all the plants?

4 MR. MICKENS: That's correct, Your Honor.

5 JUDGE CHRISTIANSON: Fine.

6 THE WITNESS: We have those in our records. We
7 didn't include them in the study. Again, they're not
8 pertinent to how the estimate was prepared.

9 MR. MICKENS: Well, OTS will make a determination
10 about how pertinent they are. I'm merely asking for the
11 information.

12 THE WITNESS: That's fine.

13 JUDGE CHRISTIANSON: Yes, you deserve the
14 information.

15 MR. MICKENS: Thank you, Your Honor.

16 BY MR. MICKENS:

17 Q. Now, if you're aware, Mr. LaGuardia, with regard
18 to the years that you're going to provide me for the other
19 stations other than Montour, are all of these plants
20 currently scheduled by PP&L to be retired on those dates, as
21 far as you're aware, or are those just dates that were
22 estimated for purposes of the study?

23 A. That's correct. The latter is the case.

24 Q. Would you refer to page 23 of your testimony,
25 please, roughly lines 22 through 25 of that page? Here you

1 state that generally, contingency factors for fossil fuel
2 plants are set at 15 percent on average; is that correct?

3 A. Yes. They're calculated in each case on a
4 line-by-line basis and they average about 15 percent.

5 Q. Now, what is the contingency factor that you
6 have employed in PP&L's fossil fuel dismantling cost
7 estimate?

8 A. Again, they were calculated individually for
9 each of the stations, and in general they average about 15
10 percent.

11 Q. Can you identify whereat in the study that that
12 information is provided?

13 A. Yes, TSL-1, for example on page C-6 of TSL-1,
14 for the Holtwood station, Units 15 and 16 at the top of that
15 page, the total cost to dismantle with 15.81 percent
16 contingency is \$20,116,000.

17 That contingency is a build-up of the contingency
18 calculations beginning on page C-2 on the top column under
19 the word "contingency" abbreviated, "Cntgcy."

20 Those are the contingency dollars that are calculated
21 individually for each of the activities on a line-by-line
22 basis, and they are summed in contingency dollars on page
23 C-5 as \$2,746,000.

24 And when compared to the total cost without
25 contingency, the overall cost turns to be 15.81 percent

1 contingency.

2 Q. Now, that's for Holtwood, right?

3 A. That's for Holtwood. And that's repeated for
4 each of the stations individually.

5 Q. And are those on the ensuing pages?

6 A. Pardon me?

7 Q. Is that information for the other stations on
8 the ensuing pages?

9 A. Ensuing pages, yes.

10 JUDGE CHRISTIANSON: Appendix D is Sunbury and such?

11 THE WITNESS: Yes, page C-12 is Holtwood Station Unit
12 17, at 15.63 percent contingency and so forth.

13 BY MR. MICKENS:

14 Q. Okay. Now, Mr. LaGuardia, have you personally
15 inspected the 15 fossil fuel power plants for which the
16 dismantling cost estimates have been provided?

17 A. Yes, I did. I toured it with my staff, with
18 members of PP&L to guide us through the units.

19 Q. Now, with regard to these plants that you've
20 personally inspected, can you identify any unusual safety
21 concerns with regard to these fossil fuel plants as opposed
22 to other fossil fuel plants for which you have provided
23 dismantling cost estimates?

24 A. Nothing more unusual than dealing with asbestos,
25 for example, in some of the older units. That's always a

1 safety concern in terms of making sure it's handled properly
2 as it should according to federal and state regulations, and
3 some potential for hazardous materials that may exist in
4 terms of PCBs or acids and caustics that might be residual
5 after operations.

6 But that's common in all power plants, so that's not
7 an unusual hazard from that standpoint.

8 Q. Exactly. So with regard to other power plants
9 of the same vintage, you would expect to find the same
10 situation with regard to needing to deal with things like
11 asbestos?

12 A. That's correct.

13 Q. Mr. LaGuardia, are you familiar at all with the
14 term extraordinary financial event?

15 A. Not specifically, no.

16 Q. Are you familiar with it generally?

17 A. I can only surmise what it refers to. I don't
18 have a technical understanding of what you're referring to.

19 Q. Would you care to share with us what you think
20 it may be, generally?

21 A. Some unusual cost due to some unexpected
22 occurrence, either an accident or an expense that was not
23 anticipated.

24 Q. Okay. In your years of experience in dealing
25 with the decommissioning of fossil fuel plants, have you

1 ever run across such an incident in connection with the
2 dismantling of one?

3 A. Well, then you get into the details of how that
4 might be applied on any specific dismantling. In our
5 experience in decommissioning of nuclear and related
6 equipment, we encounter unusual expenditures like that every
7 single day.

8 An accident of a worker, an industrial accident of a
9 worker, for example, can cause additional expense when the
10 job shuts down to investigate the accident, to make sure the
11 worker is properly cared for.

12 Those things do happen, and on a microscopic scale
13 you might consider those to be unusual events. Those kinds
14 of activities we deal with in an estimate as contingencies.

15 Q. Could those kinds of occurrences also be dealt
16 with as they occur, meaning let's say you're dismantling a
17 fossil fuel plant and something that has not been
18 anticipated has occurred, something that could be described
19 as an extraordinary financial event.

20 Could something like that be handled by returning to
21 the Public Utility Commission involved for that jurisdiction
22 and requesting additional funds in order to respond to that
23 extraordinary event?

24 A. No. It's not likely that it would be
25 appropriate. The return process would probably in many

1 cases be more expensive than the individual occurrence that
2 you're trying to cover.

3 Q. Okay, let me ask you this: Have you ever heard
4 of that occurring?

5 A. No.

6 Q. You have never heard of that occurring?

7 A. Not in my experience in decommissioning.

8 Q. So you never experienced or heard of a situation
9 where an extraordinary financial event occurred in
10 connection with the dismantling and decommissioning of a
11 facility in which the company then requested from the
12 appropriate Public Utility Commission additional funds to
13 cover that event which was unanticipated?

14 A. Again, I'd have to go back to the terms. For
15 utilities that have been operating -- and in that case I can
16 cite some examples, if that's what you're referring to,
17 where they did not anticipate a premature shutdown of the
18 plant, and it was determined for whatever reason to shut the
19 plant down and there were insufficient funds set aside to
20 pay for decommissioning.

21 Yes, in that situation, the utilities or companies
22 have gone back to the Public Service Commissions for relief
23 or recovery of those decommissioning costs.

24 But again, on a microscopic scale that I was
25 referring to, if you have an incident at a site, you're not

1 going to run back to the Public Service Commission and
2 request recovery for the incident at the site. That's too
3 small.

4 Q. I was referring to the first instance that you
5 were talking about.

6 A. All right. That's better clarification.

7 Q. That's why I was expressed some shock when you
8 indicated that you were not familiar with such --

9 A. Okay, clarification of terms.

10 Q. Would you agree that up until this rate case,
11 PP&L has recovered the cost for the decommissioning of
12 non-nuclear property on a current basis?

13 A. I'm not familiar with how they have been
14 recovering costs.

15 Q. Okay, you're not aware at all?

16 A. No.

17 Q. Are you familiar with the term, net negative
18 salvage?

19 A. Generally, yes.

20 Q. And in what way are you familiar with that?

21 A. In terms of the definition, that it refers to,
22 that the cost to remove the property at the end of the
23 useful life is more than the salvage value that can be
24 received from the sale of that property.

25 And so it's a negative salvage, a net negative

1 salvage experience.

2 Q. And that amount is -- what happens to that
3 amount, the net negative salvage under the scenario that you
4 have just indicated? How is that used?

5 A. In some cases, it is used as a basis for
6 establishing an accrual for decommissioning, anticipated
7 accrual for decommissioning in the future.

8 Q. To cover the cost of actually decommissioning
9 and dismantling the plant; is that correct?

10 A. That's correct.

11 Q. Are you aware, has PP&L recovered for the
12 decommissioning and dismantling of fossil fuel plants up
13 until now using the recovery method of net negative salvage
14 in Pennsylvania?

15 A. I don't know that.

16 Q. You're not aware of that?

17 A. No, I'm not aware of what they have recovered.

18 Q. Would you refer back to page 2 of your
19 statement, sir?

20 A. Yes.

21 Q. I think I said page 2. I believe I may mean
22 page 3, lines 15 through 16. Here you state that the
23 decommissioning of the two nuclear units at the Susquehanna
24 Steam Electric Station are estimated to cost approximately
25 \$804 million; is that correct?

1 A. That's correct, in 1993 dollars.

2 Q. Okay. Would you refer to your TSL-2, page
3 1-3?

4 A. Yes.

5 Q. Table 1-1 on that page, this schedule provides
6 the Susquehanna Steam Electric Station cost and schedule
7 estimate for the decon and safe store decommissioning
8 methods; is that correct?

9 A. That's correct.

10 Q. Did your study consider the entombment method,
11 sir?

12 A. No, we did not.

13 Q. Has the Nuclear Regulatory Commission found that
14 entombment is an acceptable decommissioning alternative?

15 A. They have allowed it as an acceptable
16 decommissioning alternative. They do not endorse it as one
17 of the preferred alternatives.

18 Q. Now, when you talk about endorsement, what
19 exactly are you referring to?

20 A. In the regulations that the NRC promulgated
21 regarding decommissioning and decommissioning funding, they
22 described in the supplemental information and introduction
23 of the rule the various decommissioning alternatives and
24 their approaches and the problems associated with that.

25 And in the text of that statement, they describe the

1 difficulties associated with entombment and the additional
2 costs and difficulties of entombing a facility, and the
3 resulting problems associated with that.

4 In reading that, it is clear to a technical reviewer
5 that they do not favor that method, although they allow it.

6 Q. And as a result of that, would you conclude that
7 they are not saying that entombment would not be acceptable
8 to them or the preferred method in a particular
9 circumstance?

10 A. That's correct. And the reason they did that is
11 that there have been several smaller, older facilities that
12 have been entombed where, for example, the radioactivity
13 levels would decay to unrestricted access levels within a
14 short period of time, less than 100 years.

15 And in fact, I was involved in one of those programs
16 in Puerto Rico, the BONUS nuclear reactor, where the
17 radioactivity content was estimated to decay in about 112
18 years.

19 And so we entombed that facility for that period, and
20 it's still there. And at that time, it can be free released
21 without further work.

22 But that's a very unique situation because of the
23 small reactor that operated for a very short time.

24 Q. Is Susquehanna Steam Electric Station fully
25 owned by PP&L?

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A. No.

Q. In fact, 10 percent is owned by Allegheny Electric Cooperative; is that correct?

A. That's my understanding, yes, sir.

Q. Have you reduced the cost estimate to properly represent the ownership share that PP&L would actually have to pay, given this ownership percentage?

A. Our report just covers the entire cost for decommissioning. We did not reduce it.

Q. So the answer to my question is no?

A. No, that's correct.

MR. MICKENS: Your Honor, I'd like identified as OTS Cross-Examination Exhibit No. 17 copies of two interrogatory responses to interrogatories proposed by the Office of Trial Staff.

JUDGE CHRISTIANSON: So identified, your No. 17.

MR. MICKENS: Thank you.

(Whereupon, the document was marked as OTS Cross-Examination Exhibit No. 17 for identification.)

FORM 2

1 BY MR. MICKENS:

2 Q. Did you have an opportunity to look at that, Mr.
3 LaGuardia?

4 A. Yes.

5 Q. OTS Cross-Examination Exhibit No. 17 includes
6 responses to OTS-RB-39 and OTS-RB-40; is that correct?

7 A. Yes.

8 Q. Would you agree that OTS-RB-39 indicates that
9 the amount of contingencies included in the nuclear plant
10 estimates is approximately \$122,804,000 for the decon
11 alternative?

12 A. Yes.

13 Q. Would you agree that the response to OTS-RB-40,
14 Attachment 1, line 1, indicates that the total estimate, the
15 amount scratched out, is \$804,259,000 in 1993 dollars?

16 A. Yes. The one that is not scratched out?

17 Q. The one that is scratched out.

18 A. Yes; that's correct.

19 Q. And the handwritten number above this number is
20 \$681,455,000, which represents the total decon cost in 1993
21 dollars without the contingency; is that correct?

22 A. I did not make those numbers. I'll accept them
23 subject to check.

24 Q. You haven't seen the response to 40 before? It
25 was addressed to Mr. Bernini.

1 A. Yes. It was not my response.

2 Q. But you do identify that at least those are the
3 numbers that appear on this document?

4 A. I haven't checked the math but I'll accept them
5 subject to check.

6 Q. Okay. Thank you.

7 Would you agree subject to check that if you divide
8 the \$122,804,000 of contingencies by the \$804,259,000 total
9 cost estimate, it demonstrates that 15.3 percent of your
10 cost estimate is attributable to contingencies?

11 A. Will you repeat that question? I'm sorry.

12 Q. Would you agree subject to check that if you
13 divide the \$122,804,000 of contingencies by the \$804,259,000
14 total cost estimate, it demonstrates that 15.3 percent of
15 your cost estimate is attributable to contingencies?

16 A. No. That's not the way that number should be
17 calculated. The \$804 million includes the contingency.

18 Q. Okay.

19 A. Bear with me a moment.

20 (Pause.)

21 A. The appropriate way to calculate that would be
22 to take the \$122 million and divide it -- bear with me for a
23 minute.

24 (Pause.)

25 A. Take the \$122 million, subtract it from the \$804

1 million and divide -- oh, forgive me. Bear with me a
2 moment.

3 (Pause.)

4 A. The appropriate way to calculate it is to take
5 \$804 million, subtract \$681 million from that, and that
6 amount, divide that by the -- to answer your question, yes.

7 Q. That's what I thought.

8 A. I'm sorry. I want to be careful because it can
9 be interpreted the wrong way. I apologize for the delay.

10 Q. Just to make sure that the record is clear, if
11 you divide the \$122,804,000 of contingencies by the
12 \$804,259,000 total cost estimate, it demonstrates that 15.3
13 percent of your cost estimate is attributable to
14 contingencies?

15 A. Overall, yes.

16 MR. MICKENS: Your Honor, that's all that I have at
17 this time. I would ask that OTS Cross-Examination Exhibit
18 No. 17 be admitted into the record.

19 MR. GADSDEN: No objection.

20 JUDGE CHRISTIANSON: Then 17 is accepted now into the
21 record.

22 MR. MICKENS: Thank you, Your Honor.

23 (Whereupon, the document marked as
24 OTS Cross-Examination Exhibit No. 17
25 was received in evidence.)

1 JUDGE CHRISTIANSON: We might as well go ahead.
2 We'll take a break after a bit, but go ahead with Consumer
3 Advocate.

4 MS. KENNEY: Thank you, Your Honor.

5 CROSS-EXAMINATION

6 BY MS. KENNEY:

7 Q. Good morning, Mr. LaGuardia. My name is Mary
8 Kenney. I represent the Office of Consumer Advocate.

9 A. Good morning.

10 MS. KENNEY: Before we get started I would like to
11 have marked for identification OCA Cross-Examination Exhibit
12 No. 15, which contains the following responses: the
13 response to OCA Set I, No. 3; the response to OCA Set I, No.
14 27; the response to OCA Set I, No. 30; the response to OCA
15 Set I, No. 33; the response to OCA Set II, No. 2; the
16 response to OCA Set II, No. 14; the response to OCA Set II,
17 No. 30; and the response to OCA Set VIII, No. 1, No. 3; and
18 also the response to OTS-RB-37.

19 These responses were prepared by G. T. Jones or G. T.
20 Jones in conjunction with another PP&L witness, and as we
21 discussed on Monday, Mr. Jones has not been called as a
22 witness by the company in this proceeding. The OCA has
23 previously provided copies of these interrogatory responses
24 to the company, and it is my understanding that they have no
25 objection to having them come in as a cross-examination

1 exhibit.

2 JUDGE CHRISTIANSON: Then 15 is identified.

3 MS. KENNEY: I will provide copies. Copies have
4 already been provided to the company.

5 (Whereupon, the document was marked
6 as OCA Cross-Examination Exhibit No.
7 15 for identification.)

8 JUDGE CHRISTIANSON: You're intending to go ahead and
9 move them right now?

10 MS. KENNEY: Yes. I would like to move that in.

11 JUDGE CHRISTIANSON: They are then accepted into the
12 record, or this Exhibit No. 15 is accepted, including those
13 various responses.

14 MS. KENNEY: Thank you, Your Honor.

15 (Whereupon, the document marked as
16 OCA Cross-Examination Exhibit No. 15
17 was received in evidence.)

18 BY MS. KENNEY:

19 Q. Mr. LaGuardia, are there any permit requirements
20 that require non-radiological decommissioning?

21 A. You're referring to Susquehanna?

22 Q. Yes.

23 A. The only requirements that exist are those
24 contained in the Uniform Building Code that is adopted by
25 each of the states within the United States, and that code

1 identifies that you cannot abandon a facility or cannot
2 leave a facility in an unsafe condition. After
3 decommissioning these nuclear units, most of the facilities
4 will be, because of the destructive methods used, would be
5 potentially unsafe and unusable, and either they would have
6 to be guarded indefinitely or dismantled. And it is
7 generally easy to show that it's cheaper to dismantle these.

8 Q. I would like to refer you to your response to
9 OCA Set II, No. 25. I have a copy here if that would speed
10 things along.

11 (Document handed to witness.)

12 A. Yes.

13 Q. Am I correct that in response to that
14 interrogatory you stated that there are no known permit
15 conditions or other regulatory requirements which compel
16 PP&L to decommission the non-radiological portions of
17 Susquehanna SES?

18 A. Correct. No permit conditions, and the
19 regulatory requirements, again, as I mentioned, was the
20 Uniform Building Code.

21 Q. Does the NRC require non-radiological
22 decommissioning?

23 A. Their position -- to answer your question, they
24 don't require it, they have not required it in the rule,
25 however, the NRC has required that non-radioactive

1 structures be dismantled at nuclear power plants. In
2 particular, Davis Besse cancelled Unit 2 at River Bend,
3 cancelled Unit No. 2 and I believe two other units. When
4 the plant was determined not to be constructed, the NRC,
5 through the Atomic Safety and Licensing Board, required that
6 those facilities, non-radioactive facilities, be demolished
7 back to the pre-construction condition.

8 Q. Do the NRC decommissioning regulations leave
9 open alternatives such as the conversion of non-radiological
10 portions of plants?

11 A. Yes, they do. If I may continue in my response
12 to the last question; is that permissible?

13 JUDGE CHRISTIANSON: Go ahead.

14 THE WITNESS: The NRC specifically does not want any
15 portion of the nuclear decommissioning trust amounts to be
16 used for non-nuclear decommissioning. They are trying to
17 reserve those funds to be uses to terminate the site
18 license. They don't want the funds to be drawn off for any
19 other purpose other than decommissioning and termination of
20 license. It doesn't prohibit them. They don't prohibit
21 that from being done. Their statement has been that the
22 dismantling of non-radioactive portions of the plant would
23 be dealt with at the state public utility commission level.

24 So they know it has to be done. They do not want the
25 external trust fund to be used for any portion of that work.

1 That was the clarification I wanted to give.

2 Sorry. Your next question?

3 BY MS. KENNEY:

4 Q. Do the estimates that you prepared for
5 decommissioning Susquehanna include the non-radioactive
6 components of the plant?

7 A. Yes, they do.

8 Q. Am I correct that some of the structures at
9 Susquehanna could be used by the company if the plant were
10 converted to another power generation source or used for
11 another use?

12 A. In our opinion, that is not very likely the
13 case. The plant, if it continues to operate for its full
14 license life, will have -- the physical plant will be tired,
15 if I can use that expression, layman's term; the physical
16 plant will be partially dismantled to remove the components
17 that need to be taken out to remove radioactivity and to
18 dispose of the radioactivity. The remaining structures
19 would be at least 50 years old in design, would probably not
20 meet then current code, would probably not meet the design
21 configuration for whatever the new type of power plant might
22 go in there. In fact, experience has shown us that even the
23 two plants that have been converted that were never operated
24 as nuclear plants, namely Midland and Zimmer, very little of
25 the existing plant was used in the new power plant

1 configuration, and these plants had never operated as
2 nuclear power plants. Very little of the existing plant was
3 used in the new configuration, and these are brand new
4 facilities.

5 Q. Am I not correct that new power plants, if that
6 were the decision of PP&L, that new power plants could be
7 designed to take into consideration the existing non-
8 radiological structures that are at the site?

9 A. It could but there would be a significant cost
10 and possibly a cost penalty associated with doing that.

11 Q. Why would the gate houses need to be demolished
12 at Susquehanna?

13 A. The gate house is probably the highest traffic
14 piece of building on the site, and new current design
15 configuration probably would be more responsive to what the
16 needs would be.

17 Q. Has your study considered the impact on the
18 Susquehanna decommissioning of proposed regulations that
19 would allow decommissioning without cleaning up to a level
20 of non-restricted use?

21 A. We identified the amount of money -- in answer,
22 yes. We identified the amount of money necessary to
23 terminate the license, and that's in the study.

24 Q. Does that discuss decommissioning without
25 cleaning up to a non-restricted use?

1 A. I'm sorry. I'm sorry. I misstated. Would
2 you --

3 Q. My question originally was: has your study
4 considered the impact on the Susquehanna decommissioning of
5 proposed regulations that would allow decommissioning
6 without cleaning up to a level of non-restricted use?

7 A. No, we did not. I'm sorry. I misread your
8 question.

9 Q. Am I correct that your company worked on the
10 decommissioning of the Shippingport reactor?

11 A. Shippingport; yes.

12 Q. When you bid on that project, how much
13 contingency was built into your estimate?

14 A. The answer is about 15 percent for the scope of
15 work that we were contracted to do, which did not include
16 the reactor vessel or its internals or burial of waste.

17 Q. What was the decommissioning cost estimate; do
18 you recall?

19 A. For the entire program?

20 Q. Yes.

21 A. The overall program was estimated to cost
22 \$98 million and change, if you can call that change.

23 Q. What was the final cost of decommissioning
24 Shippingport?

25 A. About \$92.5 million according to

1 government-reported information.

2 Q. Was the full amount of the contingency spent?

3 A. Yes, and then some. Actually, I was involved in
4 the original estimate for the Shippingport decommissioning
5 project, and as of 1982 when I completed the estimate, the
6 portion that I had worked on, our estimate for the job was
7 \$54 million to remove radioactivity and terminate the
8 license, so to speak. After that period the government,
9 which was the responsible agency, added funds to cover
10 government oversight of the program; they added funds to
11 cover delays in the start of the program and monitoring and
12 surveillance at the site during the delay period until
13 funding could be authorized. They added additional
14 contingency because of these delays and associated
15 uncertainties because of when the program would start and
16 the conditions under which it would start. So the real
17 contingency is probably closer to 35 percent, I've
18 calculated, and they've spent almost all of that.

19 MS. KENNEY: Your Honor, at this time I would like to
20 have marked for identification as OCA Cross-Examination
21 Exhibit No. 16 a portion of the AIS/NESP-036 report, which I
22 believe was prepared by Mr. LaGuardia, and the portion that
23 we're referring to is Section 5.4.6 to Section 5.6.1.

24 JUDGE CHRISTIANSON: Okay. Go ahead and hand that
25 out.

1 Off the record.

2 (Discussion off the record.)

3 JUDGE CHRISTIANSON: We can go ahead and be back on
4 the record.

5 Then we have 16 identified for the record.

6 (Whereupon, the document was marked
7 as OCA Cross-Examination Exhibit No.
8 16 for identification.)

9 BY MS. KENNEY:

10 Q. Mr. LaGuardia, are you familiar with what has
11 been marked as OCA Cross-Examination Exhibit No. 16?

12 A. Yes.

13 Q. Is this your basic guide for estimating
14 decommissioning costs?

15 A. This is the basic guide that we started with
16 back in 1986, yes. We have modified it only to incorporate
17 more current information since that time.

18 Q. Am I correct that the excerpt contained in OCA
19 Cross-Examination Exhibit No. 16 addresses work difficulty
20 factors?

21 A. Yes.

22 Q. How are work difficulty factors used?

23 A. In the preparation of the estimate, and in
24 particular for the Atomic Industrial Forum for which this
25 report was prepared, what we tried to do is to capture the

1 degree of difficulty associated with performing work in a
2 radioactive environment.

3 What we did is to develop unit cost factors that
4 addressed the removal of pumps and valves and tanks, heat
5 exchangers, piping and so on, on the assumption, first, that
6 it was clean, there was no radioactivity; that all of the
7 components were at waist height working level, no
8 obstructions or unnecessary or extreme difficulty in terms
9 of access; to identify the effects of working in a
10 radioactive environment where potentially higher radiation
11 levels would be exhibited, where there is loose
12 contamination to deal with; to reflect the fact that workers
13 would have to be dressed in protective clothing, wear full-
14 face respirators or supplied air masks; that they would have
15 to work up on scaffolding, dressed accordingly; they would
16 have to crawl in some cases in pipe chases on their bellies
17 to do some of this work; they would have to be given breaks
18 during the day, usually a break in the morning and a break
19 in the afternoon. We accounted for these degrees of
20 difficulty by means of these work difficulty factors.

21 JUDGE CHRISTIANSON: So it sort of scales up normal
22 costs to what you would have here.

23 THE WITNESS: That's correct, on an item-by-item
24 basis.

25

1 BY MS. KENNEY:

2 Q. Mr. LaGuardia, approximately how many nuclear
3 power plants will be decommissioned prior to the
4 decommissioning of the Susquehanna plants?

5 A. That's a good question.

6 JUDGE CHRISTIANSON: A bunch, I would guess.

7 THE WITNESS: A bunch. Potentially, the license
8 expires -- a large number of the licenses expire in the year
9 2015, roughly.

10 BY MS. KENNEY:

11 Q. Have you included any learning curve assumptions
12 in your decommissioning cost estimates for Susquehanna?

13 A. Yes, we have. We continually review every bit
14 of learning experience that we can identify from the plants
15 that have been decommissioned, and this includes
16 Shippingport where we developed a large volume of a data
17 base, and have subsequently modified it based on information
18 we've received from Yankee Rowe, at the Rowe decommissioning
19 project, from information that we have learned from Shoreham
20 to some extent. Pathfinder is another smaller one but still
21 had some information that we gained from it.

22 In each of the cases we have been able to verify to a
23 large extent the data base that we are currently using, and
24 we incorporate the latest technology, including some of the
25 off-site decontamination facilities that are in operation

1 right now -- they're called recycle centers -- one at SEG in
2 Tennessee, another one in Pennsylvania, outside of
3 Pittsburgh, run by Alaron, and another one out in Washington
4 State run by Allied, where they are able to recycle some of
5 this material, up to about 80 percent of the material, 80 or
6 90 percent of the material, that is sent to them and free
7 release it. The amount that they cannot clean up for free
8 release is sent back to the licensee for processing. And we
9 have factored that type of technology into the Susquehanna
10 estimate.

11 Q. Mr. LaGuardia, in determining your
12 decommissioning estimates, have you considered possible life
13 extensions of the plants?

14 A. We did not include that in our study.

15 Q. Have the work difficulty factors that are
16 addressed in OCA Cross-Examination Exhibit 16, have they
17 been updated since I believe the report was done in 1986?

18 A. No, but we adjust -- each of these factors are
19 adjusted for the particular situation that we deal with. In
20 the case of Susquehanna, we assume the plant is going to
21 operate for its full license life, and the radioactivity
22 levels that we expect to see 40 years down the line from
23 start-up are the equilibrium values of radioactivity typical
24 of what we would expect to see at that time. For that case
25 we assume that the high end of these work difficulty factors

1 would be applied.

2 In plants that have shut down very early in their
3 operating life, such as Shoreham that only operated for two
4 effective full power days, we took the work difficulty
5 factors on the very low end, and in some cases eliminated a
6 few of them that did not apply. So these are adjustable
7 based on the engineers' and the estimators' understanding of
8 the situation and the available information as to when the
9 plant is expected to shut down.

10 MS. KENNEY: Could I just have a moment, Your Honor?

11 JUDGE CHRISTIANSON: Yes.

12 (Pause.)

13 JUDGE CHRISTIANSON: Let me ask what might be a
14 question other people have the answer to. We're talking
15 about several decades here. Do you think PP&L might come in
16 like in a rate case ten years from now, 15 years from now,
17 with a revised estimate of cost?

18 THE WITNESS: I would expect they will.

19 JUDGE CHRISTIANSON: That's enough for me. Go ahead.

20 BY MS. KENNEY:

21 Q. Mr. LaGuardia, you were just talking a little
22 bit about the topic of waste disposal, and I would like to
23 turn to the topic of low level radioactive waste or LLRW.

24 A. Yes.

25 Q. Am I correct that the total cost for LLRW burial

1 in 1993 dollars totals \$225 million out of a decommissioning
2 cost estimate of \$804 million?

3 A. I'll accept your number subject to check.

4 Q. My source is OCA Set II, No. 30.

5 JUDGE CHRISTIANSON: She asked subject to check. You
6 don't have to do it now necessarily.

7 THE WITNESS: Did we provide that data?

8 MS. KENNEY: I believe it was either you or Mr.
9 Jones.

10 JUDGE CHRISTIANSON: They can then have the ability
11 to check it.

12 MR. GADSDEN: We'll check it during the break.

13 BY MS. KENNEY:

14 Q. I would also ask this subject to check; that
15 \$225 million is approximately 27 percent of your overall
16 estimate?

17 A. That sounds in the right order of magnitude,
18 yes.

19 Q. Would you please describe for me where
20 Pennsylvania stands in terms of siting for a LLRW disposal
21 facility?

22 A. My understanding is that the Appalachian States
23 Compact is in the process of identifying sites, potential
24 sites, where a low level radioactive waste facility would be
25 constructed. I believe they have gone through their second

1 round of exclusions of potential sites and they have not yet
2 selected a particular site that will be identified as the
3 final site.

4 Q. Am I correct that Pennsylvania is a member of
5 the Appalachian States Compact?

6 A. Yes. I'm sorry. Thank you.

7 Q. To the best of your knowledge, has the
8 Appalachian Compact made a forecast of burial costs?

9 A. Not to our knowledge in terms of any confirmed
10 estimate. There have been lots of numbers, lots of cost
11 estimates proposed and discussed. At the time we did our
12 study there was no such reliable source that we could rely
13 on, and so we used then-existing burial cost information.

14 Q. Have you undertaken any investigation or review
15 of future or current costs of LLRW disposal?

16 A. We do this on a continuing basis within our
17 company. We discuss these costs with every estimate that we
18 do. We discuss them with the utility and in many cases try
19 to get the commission to give us an estimate, and the cost
20 estimates range from \$200 per cubic foot up to \$500 or \$600
21 a cubic foot depending on the facility and the location and
22 the position it is in its licensing process.

23 Q. Is that a recent forecast of burial costs?

24 A. As recent as I can keep up to date. We do this
25 on a continuing basis.

1 Q. Do you know the annual capacity of the low level
2 radioactive waste facility being planned for Pennsylvania?

3 A. I don't know it specifically. I know I've seen
4 it and we have records of it. I don't have that available.

5 Q. At this time does PP&L have a place to send its
6 low level radioactive waste?

7 A. No, they do not. They are currently storing
8 that waste on site, to my knowledge.

9 Q. Does the Barnwell, South Carolina facility
10 accept PP&L waste at this time?

11 A. I believe they have been closed to -- all of the
12 waste generators outside the Southeast Compact have been
13 denied access to Barnwell.

14 Q. In your decommissioning cost estimate did you
15 use the Barnwell rates for the low level radioactive waste
16 burial cost estimates?

17 A. Yes, we did, at that time.

18 Q. How was the decision to use the Barnwell rates
19 arrived at?

20 A. We discussed this with PP&L, again, we tried to
21 pursue any local information regarding the Appalachian
22 Compact estimates, and based on very little data, reliable
23 data, being available, we jointly made the decision to use
24 the Barnwell base burial charge as modified for higher level
25 radioactive materials that we have seen and experienced at

1 Barnwell.

2 MS. KENNEY: Your Honor, at this time I would like to
3 have marked for identification as OCA Cross-Examination
4 Exhibit No. 17 the responses of the company to OCA Set II,
5 No. 15, and Set II, No. 16.

6 JUDGE CHRISTIANSON: So identified, your No. 17.

7 (Whereupon, the document was marked
8 as OCA Cross-Examination Exhibit No.
9 17 for identification.)

10 BY MS. KENNEY:

11 Q. Mr. LaGuardia, are you familiar with the
12 information provided in response to what has been marked as
13 OCA Cross-Examination Exhibit No. 17?

14 A. I'm looking it over. Just bear with me a
15 moment.

16 Q. Sure. Let me know when you're ready.

17 (Witness perusing document.)

18 A. Yes, I'm familiar with it.

19 Q. The first response, OCA Set II, No. 15, we asked
20 you whether your assumptions regarding waste burial costs
21 include surcharges for waste generated by facilities in
22 states not belonging to a compact, and you indicated that
23 the assumptions did not include such a surcharge; is that
24 correct?

25 A. As a surcharge per se; correct.

1 Q. Then looking at the response to OCA Set II, No.
2 16, which is the next page in the exhibit, I believe that
3 you note that you used the Barnwell rates to calculate the
4 disposal cost; is that correct?

5 A. We use it as a proxy, yes.

6 Q. Am I correct that you indicate that the Barnwell
7 rate includes an out-of-compact surcharge component of \$220
8 per cubic foot?

9 A. That's correct.

10 Q. What is an out-of-state compact surcharge?

11 A. The out-of-state compact surcharge of \$220 was
12 the charge that the State of South Carolina imposed on
13 generators from out-of-compact, meaning the Southeast
14 Compact, area. Again, the value was used -- the total value
15 of \$279 was used as a proxy for the Susquehanna cost
16 estimate for what we think the Appalachian States Compact
17 would be, because that number represents approximately the
18 type of estimate that we have seen throughout the country
19 for other compacts that are in the formation stages. In
20 fact, the \$279 does include South Carolina's surcharge, but
21 again, the total dollar value matched up closely with what
22 we would expect to see in the Appalachian States.

23 Q. In the second paragraph --

24 A. To finish the question --

25 Q. I'm sorry.

1 A. -- we don't expect the Appalachian States
2 Compact to charge a surcharge when they go into operation.
3 That will be folded in, if you will, into the base burial
4 cost.

5 Q. I would like to refer you also to OCA Set II,
6 No. 16, the second paragraph of your response, where you
7 mention curie and weight surcharges. What is the basis for
8 these surcharges?

9 A. Chem-Nuclear Systems that operates the Barnwell
10 facility has published costs for handling high curie content
11 and high weight packages at the burial facility. The base
12 burial charge of \$59 plus the surcharge handles low, low
13 level radioactive waste. This is drums of contaminated
14 clothing, masks, filter cartridges and so on. When they
15 receive shipments that are much higher in curie content that
16 come from reactor components, and in particular the reactor
17 vessel internals, which are very highly radioactive but
18 still considered low level waste by definition, the Barnwell
19 facility, Chem-Nuclear Systems, has to bring in extra
20 cranes, extra protection for the workers. In some cases
21 they dig dedicated trenches for these higher level
22 components to separate them from the standard trenches where
23 the low level waste is provided. Those charges are related
24 back to the number of curies that you're shipping them as a
25 means of billing, and those are charged on a

1 shipment-by-shipment basis. We calculate how many curies we
2 expect to ship of low level waste, although high in curie
3 content, and the cask -- these are shipped in casks, which
4 are 50 tons, and we calculate the amount of weight surcharge
5 that would be applied.

6 We expect that same type of surcharge structure to be
7 imposed by any regional compact, and so we have applied them
8 here as well.

9 Q. I would like to refer you to the third paragraph
10 of OCA Set II, No. 16. There you refer to Greater-Than-
11 Class C, or GTCC, material and note that it will likely be
12 accommodated in a Department of Energy repository. In what
13 other decommissioning cost estimates have you estimated the
14 cost of GTCC if it were to go to a government repository?

15 A. In all of our studies that we have done since
16 the issue of disposition of Greater-Than-Class C waste has
17 been identified we have assumed the same thing, that this
18 waste, Greater-Than-Class C waste -- which, for information,
19 are those materials closest to the fuel in the reactor
20 vessel. There's a relatively small quantity, unfortunately.
21 In every case we have assumed that that waste would be
22 shipped to the Department of Energy's geologic repository.
23 As a means for estimating that, we have approximated the
24 cost of disposal of spent nuclear fuel since it's going to
25 occupy essentially the same type of space.

1 MS. KENNEY: Your Honor, at this time I would like to
2 have marked for identification as OCA Cross-Examination
3 Exhibit No. 18 the company's response to OCA Set II, No. 17
4 and No. 20.

5 JUDGE CHRISTIANSON: So identified, your No. 18.

6 (Whereupon, the document was marked
7 as OCA Cross-Examination Exhibit No.
8 18 for identification.)

9 JUDGE CHRISTIANSON: We'll probably take a few-minute
10 break soon.

11 MS. KENNEY: I'm almost finished.

12 JUDGE CHRISTIANSON: Okay.

13 BY MS. KENNEY:

14 Q. I would like to refer you to page 5 of 5 of what
15 has been marked as OCA Cross-Examination Exhibit No. 18,
16 page 5 of 5 of Set II, No. 17.

17 A. Yes.

18 Q. On page 5 of 5 you arrive at a \$20,909 per cubic
19 foot burial charge. Am I correct that you assume that the
20 GTCC waste could be as contaminated or would be as
21 contaminated on a curie per gram basis as spent fuel rods in
22 that estimate?

23 A. Actually, some of the components would be
24 higher, in terms of radioactivity levels, higher than spent
25 nuclear fuel.

1 Q. Am I also correct that you added 25 percent to
2 this amount for contingency?

3 A. For waste disposal contingency, yes.

4 MS. KENNEY: Your Honor, that's all the cross-
5 examination I have.

6 Thank you, Mr. LaGuardia.

7 At this time I would like to move in OCA Cross-
8 Examination Exhibits 16 through 18 into the record.

9 JUDGE CHRISTIANSON: Hearing no objection, the three
10 exhibits are accepted. You got 15 in before. Sixteen, 17
11 and 18 are accepted now.

12 (Whereupon, the documents marked as
13 OCA Cross-Examination Exhibits Nos.
14 16 through 18 were received in
15 evidence.)

16 JUDGE CHRISTIANSON: Let me check before we break in
17 a moment, anything from Small Business?

18 MS. MOURY: No, Your Honor.

19 JUDGE CHRISTIANSON: Do we have anything from the
20 large industrials?

21 MR. WILLIAMSON: I think I'll have about ten minutes,
22 Your Honor.

23 JUDGE CHRISTIANSON: Let's take that after the break.
24 Let's take a few minutes. Let's take about ten minutes, if
25 we could, because we are a little tight for time. Try to be

1 back about five of.

2 (Recess.)

3 JUDGE CHRISTIANSON: Let's be back on the record
4 then.

5 We are pretty well back from the break and we might
6 as well take the cross-examination from the industrial
7 folks, whatever you're calling yourselves in this case.

8 MR. WILLIAMSON: I don't know.

9 (Laughter.)

10 JUDGE CHRISTIANSON: Go ahead, Mr. Williamson.

11 MR. WILLIAMSON: Thank you, Your Honor.

12 CROSS-EXAMINATION

13 BY MR. WILLIAMSON:

14 Q. My name is Derrick Williamson. I represent the
15 Industrial Customer Alliance. How are you doing this
16 morning, Mr. LaGuardia?

17 A. Good morning. Fine, thank you.

18 Q. Most people are usually really happy to see me
19 instead of Mr. Kleppinger. You look happy.

20 If I could refer you to page 11, page 11 and 12,
21 actually, your response to the question at line 15 regarding
22 any codes that might be applicable to the dismantling of
23 fossil fuel plants.

24 A. Yes.

25 Q. You testified in the West Penn base rate case,

1 the most recent one, didn't you?

2 A. Yes.

3 Q. I seem to recall then that you were somewhat
4 uncertain as to whether Pennsylvania had adopted the
5 National Building Code.

6 A. Yes.

7 Q. You're more certain now, you have verified that
8 Pennsylvania has adopted the National Building Code?

9 A. Yes, we have verified it.

10 Q. For this code to apply each of PP&L's 16 fossil
11 fuel plants that you reference in your testimony would need
12 to be deemed "unsafe" structures, wouldn't they?

13 A. Yes.

14 Q. Are all 16 currently "unsafe" in your
15 estimation?

16 A. No. They are currently operating units.

17 JUDGE CHRISTIANSON: Would they become unsafe?

18 THE WITNESS: If they were to be abandoned and opened
19 a door or window, which is the criteria that Building
20 Officials adopted, they would be deemed unsafe, and either
21 be guarded indefinitely or dismantled.

22 BY MR. WILLIAMSON:

23 Q. Based on the text that you incorporated into
24 your testimony here from the National Building Code, once a
25 building or structure is deemed unsafe, then this code can

1 be satisfied if the structure is made "safe and secure"; is
2 that correct?

3 A. Yes.

4 Q. Now, making a building safe and secure doesn't
5 necessarily mean that a complete dismantling or plant
6 removal is necessary, does it?

7 A. It doesn't mandate that, but in the
8 determinations we have made, and we've done some studies
9 for, in fact, Indianapolis Power & Light as part of my
10 testimony in that case, the cost to maintain a facility
11 indefinitely -- and when you say indefinitely you're talking
12 about a thousand years or longer -- the costs are
13 prohibitive, much greater than the costs for dismantling the
14 units.

15 Q. But what the code says, which you've highlighted
16 here, that "All unsafe structures shall be taken down and
17 removed or made safe and secure," is to be taken literally,
18 no alternatives?

19 A. Yes; that's correct.

20 Q. Did you explicitly compare and consider the cost
21 of the dismantling process versus the cost of rendering
22 these plants safe through ongoing maintenance and repair?

23 A. We did not do that for Susquehanna, no -- I'm
24 sorry; for PP&L.

25 MR. WILLIAMSON: I have no more questions, Your

1 Honor.

2 JUDGE CHRISTIANSON: Just one follow-up, I guess,
3 just comes to mind. Would it ever be cost effective to
4 guard them for several years and then take them apart?

5 THE WITNESS: To answer your question, I have not
6 looked at that. Any time you have expense to guard it and
7 maintain it and protect it, if you will, you're adding costs
8 and no benefit is gained. If your ultimate objective is to
9 take it down at a later time, the sooner you do it is better
10 usually.

11 JUDGE CHRISTIANSON: Your rule of thumb would be just
12 do it right at the beginning?

13 THE WITNESS: As soon as possible. In my experience,
14 I've bid on old power plants that have been allowed to sit
15 without protective care; they are quite dangerous. As a
16 matter of fact, for one client -- I had better not name them
17 -- not represented here, we were asked to tour a facility to
18 estimate the job to take it down, and the physical plant was
19 so dangerous because asbestos had fallen off the pipes; we
20 were standing on piles of asbestos to stay out of the water
21 that had accumulated in the basement. The main supporting
22 beam for one of the main boilers, which was a 50 megawatt
23 boiler, had actually bowed about one foot in depth. None of
24 the gratings, the steel gratings, were secure, and I told my
25 folks to walk on top of the steel beams so they don't poke

1 their foot through. It becomes a very unsafe structure even
2 from a decommissioning standpoint.

3 JUDGE CHRISTIANSON: And more expensive to take
4 apart.

5 THE WITNESS: And therefore more expensive because
6 you've got to collect all the asbestos. The entire building
7 becomes the asbestos containment envelope, which means the
8 entire building is contaminated with asbestos. It's much
9 better if you've got it contained around the pipe; you can
10 put a bag around the asbestos and move the asbestos without
11 it contaminating the rest of the building.

12 JUDGE CHRISTIANSON: Well, then you've answered my
13 question. I see why that option is not considered too
14 actively.

15 THE WITNESS: That's correct.

16 JUDGE CHRISTIANSON: Then we have I guess one more
17 series of questions from Mr. Epstein.

18 MR. EPSTEIN: Would this be the appropriate time to
19 revisit the issue of entering Exhibit 1?

20 JUDGE CHRISTIANSON: Yes, we might as well.

21 Just for the witness, you've probably been alerted to
22 it by counsel, Mr. Epstein came forward with this Exhibit 1,
23 which sort of goes through events at the Susquehanna plants,
24 and there was opposition from PP&L to accepting it into the
25 record sort of on a hearsay line of thinking I guess.

1 At this point I understand Mr. Epstein is again
2 moving your Exhibit 1, Cross-Examination --

3 MR. EPSTEIN: Yes. I was able to do some research at
4 the law library and I found under the PUC exceptions, I
5 think it's Section 5.406 for public documents. If you'll
6 indulge me, I'll have to read because I'm not really
7 conversant. It takes just a moment.

8 JUDGE CHRISTIANSON: Go ahead.

9 MR. EPSTEIN: It says, "Report, decision, opinion or
10 any other document or part thereof need not be produced or
11 marked for identification but may be offered in evidence as
12 a public document by specifying the document or part thereof
13 and where it may be found that the document is one of the
14 following." And then .2 stipulates, "An official report,
15 decision, opinion, published scientific or economic
16 statistical data or similar public document," which most of
17 this is, "which is issued by a government department or
18 agency, committee, commission or similar entity which is
19 shown by the offerer to be reasonably available to the
20 public." For the most part this material comes from NRC
21 inspection reports, so I think it would at least fulfill
22 that criteria. And even if you look in terms of state rules
23 of evidence for hearsay material, even under the business
24 records exception or under the official records exception,
25 where you balance probativeness and prejudicial effect,

1 clearly this material should be entered in the official
2 record.

3 JUDGE CHRISTIANSON: I guess the main trouble the
4 company has is that the exhibit actually is a synopsis.

5 MR. EPSTEIN: I've brought the records to take care
6 of that issue, if you would like me to bring them.

7 JUDGE CHRISTIANSON: Well, let's hear briefly from
8 the company.

9 MR. GADSDEN: I don't know whether it's going to be
10 brief or not, Your Honor.

11 JUDGE CHRISTIANSON: Well, as briefly as you can make
12 it then.

13 MR. GADSDEN: At Monday's hearing Mr. MacGregor
14 expressed the company's position that in our view it would
15 be entirely inappropriate to admit this document and that
16 even if any consideration was to be given to its admission,
17 that determination should only be made after Mr. Epstein has
18 presented a witness to authenticate the document, to support
19 it, to stand questioning upon it, and to explain certain
20 entries in it.

21 In the past three days we have had an opportunity to
22 review Epstein Cross-Examination Exhibit No. 1. Our review
23 is far from complete, but we believe more strongly now than
24 we did Monday afternoon that the admission of this document,
25 particularly at this stage, would be a serious mistake. In

1 support of that I would note the following.

2 First, we have uncovered a number of flaws in Mr.
3 Epstein's chronology. In certain instances references have
4 been made to NRC inspection reports which are in error,
5 which do not in fact discuss the subject matter which they
6 are identified as discussing. In other instances NRC
7 findings have been mischaracterized in our view. In a
8 number of cases, for example, it is asserted that the NRC
9 cited PP&L for several violations when in fact only one
10 violation was noted, or in certain instances a non-cited
11 violation was indicated. If we're pressed to get into all
12 of this, we're prepared to show that in NRC parlance there
13 is a distinction, and a critical distinction, to be made
14 between what is characterized as an NRC violation, a cited
15 violation and a non-cited violation.

16 There are, in addition, several items where NRC
17 inspection reports appear to have been misquoted, and as a
18 result the language presented simply does not make any sense
19 and would be of absolutely no assistance to anyone in this
20 room or the Commission because it's incomprehensible.

21 Apart from those flaws, there are numerous instances
22 where Mr. Epstein has purported to quote or summarize
23 material from articles or reports allegedly issued by the
24 UPI, by local newspapers or public interest groups, such as
25 the "Public Citizen," which I think is well recognized as

1 having a longstanding bias against nuclear power.
2 Regardless of whether those publications have been
3 accurately summarized or quoted from, they clearly have no
4 probative force in this proceeding until and unless they are
5 substantiated. They are not official documents.

6 Thirdly, we have identified at least 18 items where
7 no source whatsoever has been provided. Perhaps the most
8 egregious and most irresponsible example of this is the
9 allegation that PP&L tried to fire two engineers who had
10 charged that the Susquehanna Station's spent fuel pools were
11 unsafe. Another example is the claim that PP&L and other
12 utilities are "actively pressuring the Mescalero Apaches to
13 accept high level radioactive waste." These are serious
14 charges for which no support whatsoever has been offered,
15 and we are prepared to prove, if necessary, that they
16 represent gross distortions of the facts. However, in order
17 to do so, and in order to address the 208 separate items
18 listed in this document, we would be forced to submit
19 extensive testimony and documentary support. In our view
20 that will only serve to disrupt this proceeding and
21 sidetrack the parties from addressing the issues which we
22 should be addressing.

23 Finally, Your Honor, we question the relevance of
24 this entire exercise. On Monday Mr. Epstein appeared to
25 suggest that this document was germane because it allegedly

1 cast doubt on the likelihood that the Susquehanna units
2 would continue to operate until the expiration of their
3 current licenses. Yet nearly one-third of the entries in
4 the document relate to events that pre-date the placement in
5 service of Unit No. 1. Consequently, they have absolutely
6 nothing to do with the operation of the plant but rather
7 relate to its construction and its start-up, and as you may
8 recall, those were all issues that were extensively examined
9 in the Unit 1 case 12 years ago.

10 Moreover, if Mr. Epstein were correct in his belief
11 that the company has overstated the useful life of these
12 facilities, the only logical conclusion one could reach was
13 that the company has understated its decommissioning expense
14 claim and its depreciation expense claim, and I seriously
15 doubt that he is prepared to propose that the company ask
16 for more money than it already has.

17 Simply stated, we believe that Mr. Epstein, having
18 chosen to participate in the evidentiary phase of this case,
19 should be held to the same evidentiary standards as all the
20 other parties. We submit that this document is inaccurate,
21 it's incomplete, and it's irrelevant, and we therefore move
22 that its admission be denied.

23 MR. EPSTEIN: May I respond, Your Honor?

24 JUDGE CHRISTIANSON: Yes. I'll just mention it's
25 been identified already and it's physically there. We'll

1 worry about admissibility.

2 One thing before you begin, Mr. Epstein, just let me
3 check very briefly, do you expect to provide testimony in
4 the second phase of the case?

5 MR. EPSTEIN: No, not at this point, but I can
6 elaborate and respond to Mr. Gadsden's motive attack.

7 JUDGE CHRISTIANSON: Go ahead.

8 MR. EPSTEIN: First of all, anything that pre-dates
9 the construction of the plant should be part and parcel of
10 whether or not the plant is structurally sound. It has a
11 lot to do with whether the plant will survive for 40 years.

12 In terms of me producing NRC witnesses, there are
13 four different branches of the NRC that oversee
14 Susquehanna's operation. You have site supervision staff,
15 King of Prussia Region I, Bethesda for special issues, and
16 then the Commission in Washington. Now, since the NRC
17 rotates its staff every five years, we're talking about
18 producing several hundred witnesses to testify about
19 inspection reports, some of which were manufactured over 17
20 years ago.

21 In regard to the violations, I don't know if Mr.
22 Gadsden has ever read a notice of violation, but in many
23 instances and usually they have more than one part. They
24 usually have one or two or three subparts.

25 In addition, I can accept that perhaps UPI stories or

1 even things by a public interest group, which he
2 characterized as having a bias -- which is fine; it does
3 have a bias in just the same way that his experts, which
4 rely on EEI or Atomic Industry Forum for their credentials,
5 are biased. So it goes both ways.

6 Perhaps one way we can address the issue -- let me
7 just address two other things. In terms of the spent fuel
8 pools, there was a Commission level meeting addressing the
9 allegations by these two engineers, Mr. Lochbaum and Mr.
10 Prevatte. That is open to substantial substantiation, which
11 can be provided if necessary. I mean this should not be an
12 issue.

13 In terms of the Mescalero Apache, initially the
14 Mescaleros voted against accepting high level radioactive
15 waste. The utility joined a consortium that is actively
16 pressuring them to accept the waste even though they're not
17 a generator.

18 Perhaps one way we can strike a balance is to strike
19 everything that emanates from UPI or what you would presume
20 to be public interest groups. Moreover, at great personal
21 expense to me I've brought all the documents where this
22 chronology was derived from. What I did, I ordered from
23 Peter Kuhns, who is the Information Agent for the Nuclear
24 Regulatory Commission. I asked Mr. Kuhns to send me a
25 receipt for the information I requested along with the

1 information he provided, which is a summary of the NRC
2 inspections.

3 In terms of being relevant, Mr. Hill in his direct
4 testimony stated, on page 5, line 16 to 20, that Susquehanna
5 has an outstanding operating record since it began
6 commercial operation in the early '80s. In addition, PP&L's
7 Vice President of Marketing and Economics, Raymond Suhocki,
8 stated on page 2, I quote, "Since its commercial operation
9 date, Susquehanna has had an outstanding operating record."

10 What we can do perhaps to find a balance, and what I
11 would be willing to submit to, is to strike the material
12 that emanates from UPI or what you would term a biased
13 group, as Public Citizen apparently he terms to be, and
14 submit either the chronology as it stands or the information
15 where I derived the chronology from.

16 If that doesn't appease counsel, I can offer myself
17 for cross-examination, sign an affidavit and swear to the
18 veracity of the document.

19 JUDGE CHRISTIANSON: I would rather not take further
20 argument at this point on this topic. We have a witness
21 here who I would like to get out of the room. At this point
22 I am reserving judgment on the matter. We have
23 authentication problems and other problems. It's not the
24 typical cross-examination exhibit where it's almost self-
25 authenticating or is essentially authenticated by the

1 witness being cross-examined. I don't think this is the
2 appropriate witness to go through all this, and I will just
3 reserve on the matter.

4 MR. EPSTEIN: Can I make a copy of the information
5 where it came from available for you?

6 JUDGE CHRISTIANSON: Certainly, if you would like.
7 Do you have copies?

8 MR. EPSTEIN: Sure. I made copies.
9 How many will you need?

10 MR. GADSDEN: One is fine.

11 MR. EPSTEIN: Should I make one for the court
12 reporter?

13 JUDGE CHRISTIANSON: No. The court reporter doesn't
14 need it. It is more like discovery here at this point.

15 MR. EPSTEIN: Anybody else?

16 MR. GADSDEN: Actually, if you have a second one.

17 MR. EPSTEIN: I do. I'll tell you what we'll do, why
18 don't I get you a copy and I'll make you another copy and I
19 can send it to you.

20 MR. GADSDEN: We'll make the copy if you haven't got
21 an extra. That's fine.

22 JUDGE CHRISTIANSON: Then the Trial Staff, Consumer
23 Advocate, the company and I have copies. I'm not sure I
24 should have a copy, but I'll take a look at this and perhaps
25 I'll end up with my copy going to the company, unless the

1 witness would like a copy.

2 THE WITNESS: No. I have enough material on my desk
3 right now.

4 JUDGE CHRISTIANSON: I thought that might be the
5 response.

6 Then we'll reserve this and see how we go further on
7 it. I think it's more appropriate for the case in chief in
8 the second phase rather than at this point.

9 MR. EPSTEIN: Okay. Since Mr. LaGuardia is not up to
10 100 percent, maybe we should proceed, because I don't want
11 to keep him any longer --

12 JUDGE CHRISTIANSON: That's what I thought. There's
13 a realistic thought I had along those lines.

14 So go ahead with your cross.
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CROSS-EXAMINATION

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BY MR. EPSTEIN:

Q. Mr. LaGuardia, I am Eric Epstein representing myself. How are you doing today?

A. Fine. Thank you.

Q. Are you any relation to Fiorella LaGuardia?

A. Only when it makes a difference.

Q. Well, today you might need it.

A. Directly, to answer your question, not that I can tell. I'm trying to find that out.

Q. What does TLG stand for, by the way?

A. Tom LaGuardia.

Q. Okay. So you're Tom LaGuardia for Tom LaGuardia?

A. Yes.

Q. I just want to follow up briefly on one line of questioning introduced by OTS, and that had to do with -- I think you answered that you really didn't find any significant problems at any of the fossil fuel plants or anything that would be unusual. Would that be a correct characterization?

A. That's correct.

Q. Are you aware of the environmental degradation that is taking place at Brunner Island?

A. I'm not aware of any unusual environmental

1 degradation, no.

2 Q. Are you aware that the Annual Report 1990
3 maintained it would cost \$133 million to repair that
4 degradation?

5 A. I'm not aware of that.

6 Q. The following year, the cost was put at
7 \$155 million?

8 A. I'm not aware of that. In any case, from our
9 standpoint, that would be treated as an operations cost.

10 Q. Okay. So it wouldn't affect your estimate?

11 A. That's correct.

12 JUDGE CHRISTIANSON: That's not your area,
13 essentially?

14 THE WITNESS: That's not my area.

15 JUDGE CHRISTIANSON: Go ahead.

16 BY MR. EPSTEIN:

17 Q. I believe when you answered OTS, as you
18 stipulate in your direct testimony at page 3, line 15, that
19 your estimate for the total cost of decommissioning was \$804
20 million for the Susquehanna nuclear power plant. \$804
21 million, is that your estimate?

22 A. Yes.

23 Q. Okay. Is that figure the real figure for
24 decommissioning or is that a target figure?

25 A. That is our estimate of the cost to complete the

1 total project.

2 Q. Okay. The cost for the total project is \$804
3 million.

4 A. In 1993 dollars without inflation or any --
5 without any inflationary effects on that.

6 Q. On page 39 --

7 A. Of my testimony?

8 Q. Yes. Do you need some time to get there?

9 JUDGE CHRISTIANSON: Probably no more than a couple
10 seconds. What is the page number again?

11 MR. EPSTEIN: Page 39.

12 JUDGE CHRISTIANSON: Okay, right near the end.

13 BY MR. EPSTEIN:

14 Q. I believe you made a recommendation that PP&L
15 should conduct a site-specific study on a regular basis to
16 revise costs. Would that be a fair characterization of your
17 recommendation?

18 A. Yes.

19 Q. Do you honestly -- one of the things you wanted
20 them to account for is increases or decreases in the cost of
21 decommissioning. Do you honestly feel the price for
22 decommissioning will decrease?

23 A. It can in the sense of the decommissioning
24 activities associated with the removal of components, there
25 is a possibility that potentially new techniques out there

1 for decontamination, which could potentially release
2 materials from unrestricted access, might show some very,
3 very small reduction in the physical activity cost, but that
4 would be clearly offset by any increases in costs for low-
5 level waste disposal.

6 Q. So for all intents and purposes, you would
7 assume the cost to be steady or increase?

8 A. It would probably increase over the years
9 because of inflationary effects, if nothing else. A large
10 portion of the cost is labor intensive and would track
11 whatever the labor cost market does.

12 Q. What companies are responsible for
13 decommissioning the Susquehanna nuclear power plant?

14 A. Pennsylvania Power & Light and Allegheny, as far
15 as I know.

16 Q. And your estimates really are based on PP&L's
17 share of the decommissioning or the total share to
18 decommission the plant?

19 A. Repeat your question again.

20 Q. I believe, if I read your testimony correctly,
21 you would argue that PP&L's share to decommission
22 Susquehanna was \$724 million out of the \$804 million.

23 A. I don't know if I testified to that.

24 Q. I'll come to that later in your testimony. I
25 just need you to clarify --

1 JUDGE CHRISTIANSON: I think it was testified that
2 you did it on the plant.

3 THE WITNESS: On overall plant, yes, total plant.

4 JUDGE CHRISTIANSON: Not worrying about ownership?

5 THE WITNESS: That's correct. We didn't split it.

6 BY MR. EPSTEIN:

7 Q. Are you aware that the project cost to
8 decommission the plant as predicted by Albert Weinstein of
9 PNL in '81 was \$135 to \$191 million?

10 A. I know that there were early estimates done by
11 Mr. Weinstein, yes.

12 Q. Are you aware that it increased to \$285 million
13 in 1985?

14 A. I'm generally familiar that there were increases
15 along the way.

16 Q. And then in 1988, Mr. Weinstein estimated the
17 cost of the radioactive portion to increase to \$350 million.

18 Your estimate now is \$804 million or at least
19 Susquehanna's share, \$724 million; is that correct?

20 A. That's correct.

21 Q. To the best of your knowledge, were these
22 estimates based on existing state-of-the-art technologies?

23 A. To my knowledge, Mr. Weinstein applied reference
24 plant cost estimates. I believe he was using the Battelle
25 Pacific Northwest Laboratories' reference plant estimates

1 and adjusting them for various size factors.

2 I would not characterize them as site-specific
3 factors or site-specific estimates in the same context that
4 we have prepared these estimates.

5 Q. But would it be fair to say at the time when Mr.
6 Weinstein conducted the studies, they were based on state-
7 of-the-art technologies that existed?

8 A. At that time as defined by Battelle Pacific
9 Northwest Laboratories; and in my experience -- and I have
10 extensively reviewed the Battelle studies -- Battelle's
11 methodology and their state-of-the-art methods are not
12 necessarily state of the art.

13 Q. So it is based on your assumptions. For
14 instance, TLG and PP&L have different assumptions as to what
15 constitutes state of the art?

16 A. That's correct.

17 Q. I believe on page 39, lines 1 to 3 of your
18 testimony, you said your studies were based on state-of-the-
19 art technology.

20 A. That's correct.

21 Q. Well, since 1981, the cost to decommission this
22 facility has increased by 553 percent. Doesn't this
23 indicate an inability for you or any one else to make
24 reliable estimates with any degree of confidence?

25 A. No, not at all. As a matter of fact, I think it

1 points to the fact that decommissioning has been influenced
2 by factors associated with the disposal of low-level waste
3 and the changes in the technology -- changes in regulatory
4 guidance I should say. We have reflected those changes, and
5 I would continue to expect there to be changes in the
6 remaining years of life, and these should be reflected in
7 periodic updates.

8 And while you might compare percentages and get some
9 outrageously high percentages, they also have to take into
10 account inflationary effects of labor -- and labor has gone
11 through some very wide variations over those years -- take
12 into account, as I said, the low-level waste disposal
13 factors and the technology changes that have taken place
14 requiring more concern for the worker, better protection for
15 the worker, concern for the environment, and so on.

16 Q. Well, state of the art then is a fluid science
17 in terms of decommissioning technology?

18 A. I hope it will be so that we can reflect those
19 changes.

20 Q. That 553 percent increase I don't think is
21 attributable to labor costs. I mean, as a history
22 professor, the only labor costs I've seen increase like that
23 was in the Weimar Republic, to be frank with you. So I
24 think it is mostly low-level radioactive and high level
25 radioactive waste disposal.

1 A. That's correct.

2 Q. Isn't it true that the costs for decommissioning
3 the Susquehanna plant do not include site restoration to
4 Greenfield? That is unrestricted, unlimited use so that the
5 facility could be recommissioned or used for any other type
6 of industrial activity.

7 A. Are you asking does not include that?

8 Q. It does not include.

9 A. It includes bringing the site back to grade, to
10 making it available for alternative uses.

11 Q. But it would not bring it back to, for instance,
12 before the plant was built, and Greenfield stipulates that
13 the plant could be and should be brought to a point where it
14 was at its original site status?

15 A. That was not the intent of the estimate.

16 Q. Okay. And I believe your study did not include
17 spent fuel storage costs or disposal costs, did it?

18 A. It did not include spent fuel disposal costs.
19 It accounted for the five-year delay necessary to store the
20 last core load of fuel on-site prior to shipment since that
21 cannot be shipped in that condition.

22 Q. Does your cost include the costs for site
23 demolition?

24 A. How do you mean site demolition?

25 Q. Well, there are some parts of the facility which

1 will probably need to be demolished through deconstructive,
2 decontamination techniques. Did your study include those
3 techniques as well?

4 A. Yes. We addressed those structures that need to
5 be taken out.

6 Q. Isn't it true the NRC estimates these activities
7 -- I think this is from a 1988 Secy -- that these activities
8 which you estimated would probably cost an additional \$100
9 million per plant?

10 A. I believe that was an NRC estimate.

11 Q. Right.

12 A. It was not specific to any particular site.

13 Q. But a generic?

14 A. A generic estimate.

15 Q. They predicted \$100 million more per reactor,
16 per se?

17 A. That was their basis.

18 Q. As you stated earlier, Allegheny Electric
19 Cooperative has a portion of the decommissioning
20 responsibilities. I believe it is 10 percent.

21 A. I believe so, yes.

22 Q. So according to your estimate, Allegheny
23 Electric Cooperative should be, if their 10 percent is
24 accurate, they should be paying 78 million to make up the
25 difference.

1 A. I presume that's the number.

2 Q. Are you aware that in their Annual Report on the
3 cost of decommissioning, that they are only saving money for
4 \$37.8 million?

5 A. I'm not aware of that.

6 Q. Based on your estimate, it should be 78 or 79
7 million. What would you predict the differentiation to be?
8 In other words, they're supposed to be putting aside 78
9 million based on your estimate and they're only putting
10 aside 38.

11 MR. GADSDEN: Objection, Your Honor. Mr. LaGuardia
12 is not a company witness on the funding of a decommissioning
13 trust fund. In any event, we went through the whole series
14 of questions the other day with Mr. Hill.

15 JUDGE CHRISTIANSON: I recall the questions. This
16 witness probably is not able to fully respond. Your basic
17 thrust is that there should be more money saved?

18 MR. EPSTEIN: My basic thrust is that he,
19 essentially, has projected a decommissioning for 90 percent
20 of the plant. The other 10 percent apparently is
21 unaccounted for, because Allegheny Electric Cooperative
22 could be saving money assuming that the decommissioning mode
23 might be ENTOMB or might be SAFSTOR.

24 I think your earlier witness says that he can
25 coordinate but not control what they do. What I'm trying to

1 illustrate is that 90 percent of the plant is being -- the
2 funding may be put away for one mode of decommissioning
3 while 10 percent is being put away for another mode of
4 decommissioning.

5 MR. GADSDEN: That certainly has not been established
6 as a fact in this record.

7 JUDGE CHRISTIANSON: Yes. He's --

8 MR. GADSDEN: It is pure speculation.

9 MR. EPSTEIN: But I've been unable at Allegheny
10 Electric Cooperative to get anybody to talk to me about this
11 issue, and I've persistently been there for the last five
12 days.

13 In fact, on Friday when I went for an Annual Report,
14 they said they had none. I finally got one over the
15 weekend. Their witness and their expert on decommissioning
16 has not been available on the phone, but I think this is
17 important to establish if they're trying to save funding for
18 decommissioning using two different modes.

19 MR. GADSDEN: It can't be established through this
20 witness, because he has no idea what Allegheny Cooperative
21 is doing in terms of developing a decommissioning trust
22 fund, and he was not asked to look into that subject.

23 MR. EPSTEIN: But as an expert, shouldn't he be aware
24 of where the other 10 percent of the funding is coming from?

25 MR. GADSDEN: Absolutely not. His job is to

1 establish a reasonable estimate of the total cost of
2 decommissioning the plant.

3 JUDGE CHRISTIANSON: I'd suggest you try that on
4 perhaps further discovery with PP&L.

5 MR. EPSTEIN: Okay.

6 JUDGE CHRISTIANSON: It's fairly clear to me he is
7 not the proper witness. Is that the case? The witness has
8 heard what you said.

9 THE WITNESS: That's correct.

10 BY MR. EPSTEIN:

11 Q. Then you would have really no idea how they are
12 raising funds or what mode of decommissioning Allegheny
13 Electric Cooperative is saving monies for?

14 A. That's correct.

15 Q. Now, on page 3, lines 16 to 18, your
16 decommissioning estimate is based on the assumption that
17 both units will complete their full operating lives; is that
18 correct?

19 A. That's correct.

20 Q. Forty years. How many commercial nuclear power
21 plants in this country have completed their full operating
22 lives?

23 A. None, essentially.

24 Q. Zero. So you base your estimate on the hope
25 that this one will be the first one to operate for 40 years?

FORM 2

1 A. There will be others before that. If you're
2 talking about hopes, I think there will be many that will
3 continue their full operating lives.

4 Q. That's not based on any factual evidence.
5 That's just your hope?

6 A. I don't know if I'd call it hope. That's what I
7 think is going to happen.

8 Q. All right. But till this date, there hasn't
9 been any that have done that so far?

10 A. Not in that sense, no; correct.

11 Q. In fact, there is no commercial nuclear power
12 plant that has completed their full operating life?

13 JUDGE CHRISTIANSON: That's a broad question. Take
14 your time.

15 THE WITNESS: That's a very broad question.

16 BY MR. EPSTEIN:

17 Q. Well, the first question was none have operated
18 for 40 years. The other question is: have any operated to
19 the extent that their license was completed?

20 A. That's correct.

21 Q. You state at page 39, lines 18 to 19, between
22 '60 and '61, 92 licensed nuclear reactors were designated or
23 were in the process of being decommissioned in the U.S.

24 Isn't it true that at least 15 nuclear power plants
25 have been shut down over the last 16 years?

1 A. How many?

2 Q. Fifteen shut down over the last 16 years, if you
3 could look back based on the availability of checking your
4 records. Does that sound like a ballpark figure?

5 A. It sounds high.

6 JUDGE CHRISTIANSON: Are you talking about shut down
7 permanently?

8 MR. EPSTEIN: Shut down permanently.

9 THE WITNESS: These plants that had operated as
10 nuclear power plants?

11 BY MR. EPSTEIN:

12 Q. That's correct.

13 A. And the number was again?

14 Q. Fifteen in the last 16 years; San Onofre 1,
15 Rancho Seco --

16 JUDGE CHRISTIANSON: Let's not go through the detail.
17 You're suggesting shut down prematurely and permanently?

18 MR. EPSTEIN: Both. They were shut down prematurely
19 and permanently before their operating lives. Basically, I
20 think we've been able to --

21 JUDGE CHRISTIANSON: He can agree to several, I
22 guess. Maybe not several.

23 THE WITNESS: I know of six in the last four or five
24 years.

25 MR. EPSTEIN: Okay. Well, we'll let that alone for

1 now.

2 BY MR. EPSTEIN:

3 Q. To your knowledge, as an expert, because you are
4 an expert in this field, what commercial plant over 100
5 megawatts operated for the longest period of time?

6 A. That would be Yankee Rowe.

7 Q. Right. Earlier several experts have testified
8 that they feel the electric industry is becoming a more
9 competitive environment. I don't know if you can answer
10 this question.

11 In your opinion, do you feel the electric industry is
12 becoming more competitive?

13 A. That's not part of my testimony.

14 Q. But do you have an opinion on it?

15 A. I have lots of opinions.

16 Q. Do you think it is becoming more competitive?

17 A. I'd rather not voice that opinion.

18 Q. Okay. The reason I'm asking is because a
19 kilowatt-hour of nuclear electricity is much more expensive
20 than gas or oil; and if it is becoming more competitive, it
21 is likely that this plant won't operate for 40 years.

22 JUDGE CHRISTIANSON: I'll accept the general
23 competition scenario as the times we have, and go ahead with
24 your questioning.

25 MR. EPSTEIN: Sure.

1 BY MR. EPSTEIN:

2 Q. Do you know the reason Yankee Rowe was shut down
3 prematurely?

4 A. In general, yes.

5 Q. And that was?

6 A. The plant could not compete economically in the
7 northeast region and they ran into potential problems with
8 the reactor vessel. Although I believe they had those
9 resolved, when they looked at the economics of the plant,
10 the continued operation of the plant, they felt the
11 additional costs to meet that or demonstrate that
12 satisfactory vessel integrity were not warranted, and they
13 decided to shut down the plant. They were only a few years
14 away from license expiration anyway.

15 Q. Right. They operated for about 80 percent of
16 their life. I think 32 out of 40.

17 A. Higher than that, I believe, yes.

18 Q. So that the plant that has operated the longest
19 in this country was essentially shut down for economic
20 reasons, Yankee Rowe?

21 A. At the end of its -- very near the end of its
22 life, right.

23 Q. Eighty percent.

24 MR. GADSDEN: Mr. LaGuardia indicated he did not
25 agree with your 80 percent.

1 THE WITNESS: That's correct.

2 JUDGE CHRISTIANSON: He thought it might have been a
3 little low, but let's not get too much into it.

4 MR. EPSTEIN: Well, 32 out of 40 years.

5 BY MR. EPSTEIN:

6 Q. Isn't it true Yankee Rowe was initially
7 scheduled for immediate dismantlement or DECON?

8 A. How do you mean scheduled?

9 Q. I mean the mode for decommissioning was supposed
10 to be DECON.

11 A. They had done estimates for DECON. No firm
12 commitment was made at that time to take any particular
13 approach, and the funding that was set aside was aimed as
14 DECON as the reference mode.

15 Q. That's right, as you've done for Susquehanna.
16 You used DECON as a reference mode?

17 A. That's correct.

18 Q. But in fact, Yankee Rowe is in SAFSTOR now?

19 A. They are in partial SAFSTOR. They have actually
20 gone ahead and have accelerated the decommissioning program.
21 They have removed the reactor vessel internals, the steam
22 generator and the pressurizer and the reactor coolant
23 piping. They are currently planning the next phase of
24 dismantling to go forward with more of the contaminated
25 systems.

1 Q. Well, at this point, it would be conjecture to
2 say that it will be able go through, because there were
3 strenuous objections voiced by both the Nuclear Regulatory
4 Commission and people who lived in that community.

5 MR. GADSDEN: Your Honor, we have to have some rules
6 here. All Mr. Epstein is doing is testifying. If he wants
7 to frame his testimony as a question and ask Mr. LaGuardia
8 whether he agrees with it or not, then that's fine.

9 MR. EPSTEIN: Well, I'll just cut to the chase. Two
10 quick questions.

11 BY MR. EPSTEIN:

12 Q. One, I think we established that Yankee Rowe,
13 the oldest operating nuclear power plant, was shut down for
14 economic reasons. I think more or less you agreed to that.

15 A. Yes.

16 Q. Are you aware that the cost has increased for
17 the decommissioning of Yankee Rowe from \$247 million to \$370
18 million over the last two years?

19 A. Yes. I'm aware of what that estimate concludes.

20 Q. And half of that cost was attributable to spent
21 fuel storage costs?

22 A. That's correct.

23 Q. How many metric tons of spent fuel waste does
24 Susquehanna generate annually?

25 A. I don't know that number.

1 Q. Are you aware that the fuel storage capacity for
2 Susquehanna Unit 1 runs out in 2001 and the fuel capacity
3 for Unit 2 runs out in 2002?

4 A. I'm not aware of that.

5 Q. So at this present date, since there is no place
6 to take high level radioactive waste, if their spent fuel
7 storage capacity runs out in those years, the plant will be
8 forced to shut down prematurely.

9 A. I'm not aware that that is the conclusion.
10 There may be other alternatives.

11 Q. But you based your study on the assumption that
12 there would be a high level radioactive waste site for the
13 spent fuel to go, another high level radioactive waste
14 component?

15 A. That's correct.

16 Q. Isn't it true that DOE's future legal obligation
17 to accept this material is ambiguous?

18 MR. GADSDEN: Objection, Your Honor. It asks for a
19 legal conclusion which Mr. LaGuardia is not qualified to
20 give.

21 JUDGE CHRISTIANSON: That's probably the case. I'm
22 vaguely aware of this whole area and probably experts can
23 speak to it, but he is not speaking as a lawyer.

24 MR. EPSTEIN: Okay.

25

FORM 2

1 BY MR. EPSTEIN:

2 Q. Let me ask you this then: that DOE is not
3 unanimous in their -- there is not unanimity within DOE that
4 they should be taking title to this waste; that there is
5 some debate within the agency concerning this issue. Are
6 you aware of that?

7 A. I'm aware there is some debate on this issue,
8 yes.

9 Q. Okay. Let me ask you: are you aware that Yucca
10 Mountain, where the spent nuclear fuel is supposed to go,
11 probably won't open until at least the year 2010?

12 A. Yes, I'm aware of that.

13 Q. So any further delay --

14 A. Let me clarify my comment.

15 Q. Sure.

16 A. I'm aware that there is speculation that it may
17 not open till the year 2010.

18 Q. Well, that is the minimum date, but I understand
19 your answer, sir.

20 If there is no place for the spent fuel to go and if
21 the license expires for Susquehanna or if their spent fuel
22 is filled up in the year 2001 and 2002, it's likely that the
23 plant will have to be put in SAFSTOR.

24 JUDGE CHRISTIANSON: Do you care to comment on that?

25 THE WITNESS: No. There are other alternatives that

1 can be taken.

2 BY MR. EPSTEIN:

3 Q. Such as?

4 A. Including on-site spent fuel storage for a
5 temporary period of time.

6 Q. But to date, they haven't increased their
7 capacity to do that?

8 A. Not to my knowledge. I'm not an expert in that
9 area.

10 JUDGE CHRISTIANSON: You're just assuming that the
11 plant will be able to run a full life?

12 THE WITNESS: That's correct.

13 JUDGE CHRISTIANSON: And you don't really care
14 exactly how?

15 THE WITNESS: That's correct.

16 JUDGE CHRISTIANSON: For your purposes of expertise?

17 THE WITNESS: That's correct.

18 BY MR. EPSTEIN:

19 Q. So your decision to exclude spent fuel disposal
20 costs was arbitrary? It was a decision you made?

21 A. No. None of the estimates that we have prepared
22 include the cost of disposal of spent nuclear fuel. The
23 cost of disposal for spent nuclear fuel is included in the
24 1 mil per kilowatt-hour that utilities pay to the U.S.
25 Department of Energy, and that's how that cost is accounted

1 for.

2 Q. Right.

3 A. We do not include that in our estimates.

4 Q. Which are contributions to the nuclear waste
5 trust fund, if I remember.

6 A. That's right.

7 Q. However, if there is no place for the fuel to
8 go, it must stay on-site?

9 A. At this present time, yes. That is the concept.

10 Q. And I think you talked about it before and
11 you're probably aware that after the Susquehanna station
12 shuts down, that spent fuel will have to stay on-site
13 maximally up to 60 years anyway in order to cool down?

14 MR. GADSDEN: I'm sorry. Could I have the question
15 again?

16 BY MR. EPSTEIN:

17 Q. How long after the Susquehanna nuclear power
18 plant shuts down will the spent fuel pools remain in
19 operation?

20 A. Spent fuel pools would remain in operation until
21 such time as DOE is prepared to take the fuel off-site or
22 the fuel could be discharged to dry storage casks and stored
23 on-site until such time as DOE can remove that fuel.

24 JUDGE CHRISTIANSON: Again, let me clarify slightly.
25 Is this part of your problem?

1 THE WITNESS: No. It was not included in our cost
2 estimate.

3 JUDGE CHRISTIANSON: You're just aware of it?

4 THE WITNESS: We are aware of that as an alternative
5 in the event the Department of Energy does not meet the 2010
6 date.

7 JUDGE CHRISTIANSON: Would that cause you any
8 physical problems in the work you're talking about?

9 THE WITNESS: Not in terms of removing the fuel, no.
10 The fuel could be removed and stored and we could work
11 around that.

12 BY MR. EPSTEIN:

13 Q. Your assumption in your study is based on that
14 there will also be a facility to store low-level radioactive
15 waste; isn't that correct?

16 A. I'm sorry?

17 Q. The assumption in your study is that there will
18 be a facility available within the Appalachian Compact to
19 store low-level radioactive waste?

20 A. Yes.

21 Q. Right now it is being stored on-site?

22 A. Yes.

23 Q. And as you stated earlier, you are aware of the
24 dramatic cost to store low-level radioactive waste fuel at
25 Barnwell. I believe the increase was from \$165 to \$285 from

1 1992 to 1993.

2 A. It sounds about the right order of magnitude.

3 Q. Do you feel this increase is indicative of the
4 uncertainty of disposing or storing low-level radioactive
5 waste?

6 A. No. Actually, the actual storage costs at
7 Barnwell are only \$59 a cubic foot. In the case of South
8 Carolina, South Carolina during the period where they
9 imposed a surcharge of \$220 a cubic foot was in severe
10 financial stress as a state and decided that this was a
11 unique way to generate some income. So they imposed a \$220
12 a cubic foot surcharge. The actual cost of disposing of the
13 waste is only \$59 a cubic foot.

14 Q. Right. But still --

15 A. Excuse me. The federal government at its Nevada
16 test site only charges \$10 a cubic foot.

17 JUDGE CHRISTIANSON: North Carolina sort of had
18 monopoly power I guess you'd call it.

19 THE WITNESS: Yes.

20 MR. GADSDEN: South.

21 THE WITNESS: South Carolina.

22 JUDGE CHRISTIANSON: South Carolina; excuse me.

23 BY MR. EPSTEIN:

24 Q. But you have to send it away somewhere, and
25 basically, you're hostage to whatever that facility wants to

1 charge.

2 A. Not necessarily hostage. It's going to have to
3 be something that will be closely scrutinized and perhaps
4 even regulated by a regulatory authority.

5 Q. I believe you stated in response to an OCA
6 interrogatory that for the purposes of the 1993 cost
7 estimate, low-level radioactive waste was assumed to be
8 shipped to a regional burial facility within the Appalachian
9 States Compact approximately 500 miles from Susquehanna; is
10 that correct?

11 A. We assumed the radius of 500 miles; correct.

12 Q. Have you been in the Susquehanna nuclear power
13 plant?

14 A. Yes.

15 Q. If you went 500 miles to the east from
16 Susquehanna, do you know where you'd be?

17 A. Probably in Ohio.

18 JUDGE CHRISTIANSON: East.

19 THE WITNESS: East. I'm sorry.

20 JUDGE CHRISTIANSON: Probably in the Atlantic Ocean
21 somewhere.

22 THE WITNESS: In the Atlantic Ocean just about.

23 BY MR. EPSTEIN:

24 Q. If you went 500 miles north, do you know where
25 you'd be?

1 A. You'd probably be in one of the lakes.

2 Q. You'd be in Canada.

3 A. In Canada. Could be.

4 Q. 500 miles west, do you know where you'd be?

5 A. That's probably in Ohio somewhere.

6 Q. Right. And 500 miles south.

7 JUDGE CHRISTIANSON: Not far from South Carolina, I
8 guess.

9 THE WITNESS: South Carolina, North Carolina.

10 MR. EPSTEIN: You'd be in Virginia.

11 BY MR. EPSTEIN:

12 Q. So your study is based on waste going 500 miles
13 from Berwick. I doubt you're encouraging the waste be
14 disposed of in the Atlantic Ocean. New York is not a
15 Compact state. Ohio is not a Compact state. Virginia is
16 not a Compact state.

17 How did you draw 500 miles as being within the
18 Compact region?

19 A. It is a reference calculation of distance for
20 the purposes of identifying transportation costs, allowing
21 that in the Appalachian Compact that in the worst extreme,
22 which would be maybe a corner of the Appalachian Compact
23 states, the distance could be as much as 500 miles or close
24 to 500 miles.

25 For cost estimating purposes, the cost of

1 transportation is a very, very small component of the total
2 cost of decommissioning. Less than 1 percent of the cost of
3 decommissioning is transportation. The farther you ship it,
4 the lower the per-mile charge. So if it's anything shorter,
5 the cost will go up slightly. The cost per mile goes up and
6 the distance is reduced, so the differential cost is truly
7 minimal.

8 Q. Are you aware that the low-level radioactive
9 waste facility for the Appalachian Compact will be in
10 Pennsylvania?

11 A. I am aware that they are looking for sites
12 within Pennsylvania, that's correct.

13 Q. So the price, as you were saying before,
14 although it's minimal, when it is shipped to a shorter
15 distance will be more expensive?

16 A. The per-mile charge will be greater, but the
17 mileage distance would be smaller, so the one compensates
18 for the other.

19 Q. Are you aware of any problems with the
20 containment structure at the Susquehanna nuclear power
21 plant, the Mark II design?

22 A. I know of no containment problems.

23 Q. So you're unaware of the \$55 million settlement
24 that PP&L had with General Electric over these containment
25 flaws?

1 A. I'm aware of settlement that GE had with its
2 owners. I'm not familiar with this particular case, and it
3 is not pertinent to our -- it was not pertinent to our
4 study.

5 Q. Well, if there are problems with the containment
6 structure, then it's not likely the plant will operate for
7 40 years. That's why I asked you the question.

8 MR. GADSDEN: There are no facts on this record which
9 would establish that there is a problem with the containment
10 structure. In any event, that issue was fully addressed in
11 the Unit 1 case.

12 MR. EPSTEIN: I'm glad GE is that generous with \$55
13 million.

14 MR. GADSDEN: I would also point out the \$55 million
15 is flowed back to ratepayers.

16 MR. EPSTEIN: I appreciate that delineation, but the
17 fact of the matter is there was a problem and there was an
18 out-of-court settlement. I won't pursue it further.

19 JUDGE CHRISTIANSON: Again, I just note for the
20 record Mr. LaGuardia is testifying at this hearing.

21 MR. EPSTEIN: Okay.

22 BY MR. EPSTEIN:

23 Q. Mr. LaGuardia, are you familiar with any
24 problems with Thermo-Lag, which is used in both Susquehanna
25 nuclear power plants as a fire barrier?

1 A. I know of the product. I'm not familiar with
2 any problems with it.

3 Q. Let me ask you -- we're getting to the end,
4 finally. Let me ask you a couple of questions about some of
5 the plants that you've had experience with.

6 You were involved in decommissioning Elk River in
7 '74, I believe.

8 A. That's correct.

9 Q. What was the size of that facility?

10 A. That was a 20 megawatt electric plant.

11 JUDGE CHRISTIANSON: Just to help the court reporter,
12 Elk River like the large deer?

13 MR. EPSTEIN: Yes, Elk River. I can stay after to
14 help her.

15 JUDGE CHRISTIANSON: Nobody leaves the room until she
16 gets the words right.

17 MR. EPSTEIN: All right.

18 JUDGE CHRISTIANSON: Okay. Go ahead.

19 BY MR. EPSTEIN:

20 Q. Elk River, if I understood you correctly, was 20
21 megawatts?

22 A. That's correct.

23 Q. How would that compare in size to the
24 Susquehanna nuclear power plant?

25 A. Smaller.

1 Q. Much smaller?

2 A. Yes.

3 Q. Roughly, 2 percent of the size.

4 How long did that facility operate for?

5 A. It operated for about five years or so. My
6 memory is starting to fade now. It has been 20 years since
7 that time, 25 years.

8 Q. I think it was four years, '64 to '68.

9 A. Close enough.

10 Q. You also had experience with the Shippingport
11 project, I believe.

12 A. Very much, yes.

13 Q. Right. What was the size of that reactor?

14 A. That was a 70 megawatt -- actually, it was a 100
15 megawatt plant that operated at 70 megawatts electric.

16 JUDGE CHRISTIANSON: Just for my memory, is
17 Shippingport near Pittsburgh?

18 MR. EPSTEIN: Yes.

19 THE WITNESS: That's correct; west of Pittsburgh.

20 BY MR. EPSTEIN:

21 Q. How does this compare to the size of the
22 Susquehanna nuclear power plant?

23 A. Smaller.

24 Q. And how long did it operate for?

25 A. It operated about 25 years, I believe.

1 Q. Can you explain how the reactor vessel was
2 decommissioned at that plant?

3 A. Yes. In the case of Shippingport, because it
4 had operated initially for the first two core loads as a
5 pressurized water reactor and later converted to a light
6 water breeder reactor, the breeder core design was such that
7 all of the external neutrons of the core were captured by
8 breeder fuel and converted and made into breeding new fuel.

9 The reactor vessel itself was as a result very lowly
10 activated, and based on studies that we had done for the
11 U.S. Department of Energy, we found that in that case in
12 particular, that reactor vessel could be lifted out in one
13 piece by pumping concrete grout into the surrounding shield
14 tank, which was an integral part of the reactor vessel, and
15 the concrete would act as a shield for transportation
16 purposes; and that vessel was lifted out in one piece and
17 transported down the Ohio River, down the Mississippi,
18 through the Panama Canal, and up the coast of California,
19 the west coast, to the Columbia River, and buried in
20 Richland, Washington.

21 Q. And this is the largest nuclear power plant that
22 was decommissioned in America to date?

23 A. No. Actually, the Shoreham was a larger plant
24 that was decommissioned.

25 Q. Well, we'll get to Shoreham.

1 A. Okay.

2 Q. In any case, it wouldn't be very practical,
3 though, to take the reactor vessel from Susquehanna and put
4 it in a barge in the Susquehanna?

5 A. No.

6 JUDGE CHRISTIANSON: The river is smaller. I'll
7 agree to that.

8 MR. EPSTEIN: Well, I'm not sure we'd want to go
9 through the Panama Canal right now either.

10 BY MR. EPSTEIN:

11 Q. In addition, for the Shippingport plant, did
12 their owners have a unique agreement with DOE that they
13 would in fact accept the reactor vessel, which most other
14 commercial nuclear power plants don't enjoy that type of
15 agreement?

16 A. That was a consideration, certainly.

17 Q. You were also involved -- you've been involved
18 in a lot of projects. You were also involved with the
19 Pathfinder project?

20 A. Yes.

21 Q. What was the megawatt size for that facility?

22 A. Pathfinder was about 60 megawatts electric.

23 Q. How would that compare to the Susquehanna?

24 A. Smaller.

25 Q. How many years did that operate?

1 A. That operated for 283 effective full power days.

2 Q. So practical decommissioning experience for you
3 and TLG has been limited for the most part to nuclear power
4 plants that are 72 megawatts or less?

5 A. No. We've been involved with every large power
6 plant that has been decommissioned in the United States,
7 every large nuclear power plant, in one way or another.

8 Q. Is your estimate at all factored on proportional
9 radiation buildup over 40 years?

10 A. Repeat your question. I'm sorry.

11 Q. For instance --

12 A. Just repeat what you said.

13 Q. A nuclear power plant that operates for 40 years
14 has a lot of radiation buildup embrittlement. Do your
15 estimates for Susquehanna include that type of radiation
16 proportional buildup?

17 A. We calculate the amount of curies that will be
18 resultant from operation for 40 full years, yes.

19 JUDGE CHRISTIANSON: You mentioned curie. You spoke
20 about embrittlement. You're worried about materials
21 handling?

22 MR. EPSTEIN: Well, yes, and I'll get to that in just
23 a moment. That was a concern we did have.

24 JUDGE CHRISTIANSON: Go ahead.

25

1 BY MR. EPSTEIN:

2 Q. From '89 to '92, five larger size plants have
3 been slated for decommissioning. I think we're talking
4 Yankee Rowe, San Onofre 1, Trojan, Ft. St. Vrain and Rancho
5 Seco.

6 Now, these reactors, some of which have been
7 decommissioned; is that correct?

8 A. That's correct.

9 Q. For instance, Shoreham has been decommissioned?

10 A. That's correct.

11 Q. How long did it operate for?

12 A. Two effective full power days.

13 Q. All right; two days. And Rancho Seco, how long
14 did that plant operate?

15 A. About 10 or 11 years or so; maybe 15 years.

16 Q. So the larger plants that you dealt with haven't
17 really operated for a period of time that is going to be
18 analogous to what you plan the Susquehanna nuclear power
19 plant to operate for.

20 A. That's not true. Actually, the plants that have
21 operated for ten years or more represent the same level of
22 difficulty and problems that we would expect to see after 40
23 years of operation.

24 The equilibrium levels of radioactivity that build up
25 in the reactor vessel internals after only ten years of

1 operation are about 85 percent of what they would be at the
2 end of 40 years of operation. So the same degree of
3 difficulty that we would see for all intents and purposes
4 for a plant that operated for 40 years we've seen at plants
5 that have only operated for 15 years; and Rancho Seco is one
6 of them that we're actively involved with right now.

7 Q. But we don't know that for sure because no
8 nuclear power plant has operated for 40 years. We're
9 extrapolating based on the experience you have today.

10 A. We know based on our calculations, and the
11 calculations have been verified by actual capsules that have
12 been removed from the reactor vessel internals and measured
13 as to their content of radioactivity -- I'll use that term
14 in layman's terms -- and they have verified the calculations
15 with excellent results.

16 Q. But we haven't actually done it yet, so we're
17 basing it on -- they are assumptions that you think have
18 been verified based on limited data?

19 A. It's not limited data. It is very accurate
20 data, and it has been verified and documented.

21 Q. You were also involved in the Trojan nuclear
22 power plant, I believe.

23 A. That's correct.

24 Q. Wasn't this facility also closed for economic
25 reasons?

1 A. Yes.

2 Q. Isn't it also true that Trojan was initially
3 slated for DECON?

4 A. Yes; and they are looking at the same program
5 that Yankee is pursuing. We have won the contract to remove
6 the steam generators and pressurizers. The licensing
7 documentation to ship them in their own containers has been
8 submitted to the NRC. We expect to start removing the steam
9 generators and pressurizers the end of the summer. We with
10 other contractors I should say.

11 Q. But initially, at this point it is in SAFSTOR?
12 It hasn't been decontaminated?

13 A. It would have to be, yes.

14 Q. And your cost, your projected cost for
15 decommissioning was about 81 percent, I think, greater than
16 PLG's?

17 A. Say that again.

18 Q. Your projected cost for decommissioning this
19 facility was greater than somebody else. I have PLG. It
20 might have been PNL for decommissioning this facility.

21 A. I don't know who PLG is.

22 Q. It is PNL.

23 A. If it's PNL, I'll presume that your numbers are
24 correct. I don't know which numbers you're referring to.

25 Q. I have a cost of \$124.6 million as opposed to

1 \$226 million, which I think is what your estimate was for
2 decommissioning the facility.

3 A. I'm not sure which year you're referring to for
4 even our own estimate, because we've had an ongoing updating
5 of that estimate.

6 Q. That's fair enough.

7 JUDGE CHRISTIANSON: Can you agree that those sorts
8 of variations are plausible?

9 THE WITNESS: Yes, they are plausible, because our
10 estimates have been higher than Battelle estimates. That's
11 the only basis I can make that statement.

12 BY MR. EPSTEIN:

13 Q. But all of the reactors that you dealt with over
14 100 megawatts to date have been retired for the most part
15 for financial reasons?

16 A. The Ft. St. Vrain plant owned by Public Service
17 Colorado really was decommissioned for technical reasons.
18 They had severe technical problems with that design and
19 could not get it to run at more than a 15 percent
20 availability factor.

21 Q. Let me rephrase the question then. So the five
22 plants that are over 100 megawatts that you've had
23 experience with have either been shut down prematurely for
24 economic or technical reasons. Is that a fair
25 characterization?

1 A. Yes.

2 Q. Given that, wouldn't it be more prudent to make
3 estimates at Susquehanna based on SAFSTOR rather than DECON?

4 A. No. We have done estimates for SAFSTOR, and the
5 SAFSTOR estimates indicate they are higher than the cost for
6 DECON, and we don't see any -- there is nothing in the
7 record and nothing in our experience has indicated
8 Susquehanna is not going to operate for 40 years.

9 Q. Well, that's an opinion.

10 JUDGE CHRISTIANSON: Reasonable people can differ.

11 MR. EPSTEIN: Right. Well, I don't know if PP&L
12 would consider me reasonable.

13 BY MR. EPSTEIN:

14 Q. You stated at I think it was page 11, lines 10
15 through 13, that the NRC has approved decommissioning plans
16 for Yankee Rowe, Trojan and San Onofre, San Onofre 1.

17 JUDGE CHRISTIANSON: You're looking mainly at page
18 11, I guess.

19 MR. EPSTEIN: Yes, lines 10 through 13.

20 THE WITNESS: Yes.

21 BY MR. EPSTEIN:

22 Q. These are plants that were shut down
23 prematurely?

24 A. Yes.

25 Q. So no nuclear decommissioning plans have been

1 approved for Susquehanna as of this date?

2 A. No. They have not applied for it.

3 Q. In fact, they can't apply for it until five
4 years prior to the cessation of operations?

5 A. That's correct.

6 Q. Now, I'm curious. On page 11, lines 16 through
7 28, you mention the Building Officials and Code
8 Administrators National Building Code. Would they apply to
9 a possession only license?

10 A. They apply to any facility that is deemed to be
11 in unsafe condition.

12 Q. Are you aware of the possession only license
13 concept?

14 A. Yes. Under a possession only license, the
15 operator is required to maintain the facility in a safe
16 condition.

17 Q. But it technically doesn't generate electricity
18 anymore?

19 A. That's correct.

20 Q. Aren't these requirements meaningless since the
21 Atomic Energy Act supersedes all other regulations?

22 A. No. This code would apply to the post-
23 decommissioning condition of the remaining facility. It
24 would be after the NRC has terminated the license and freed
25 PP&L of any regulatory responsibility to the NRC. The

1 remaining structures would then have to satisfy the
2 conditions of the BOCA Code that the facility be left in a
3 safe condition.

4 JUDGE CHRISTIANSON: You're figuring that by then
5 there is no federal preemption on the matter?

6 THE WITNESS: That's correct.

7 BY MR. EPSTEIN:

8 Q. You discussed the difficulties of isolating
9 radioactive structures. I think it was page 13. Have you
10 considered the impact that radioactive embrittlement would
11 have on the structural integrity of these components?

12 A. In the studies for disposal by DECON and
13 segmenting of the reactor vessel internals, none of those
14 factors are important. We would segment reactor vessel
15 internals and the reactor itself into pieces small enough to
16 fit into waste disposal casks, which are themselves
17 structurally sound for transport of radioactive materials
18 for disposal.

19 Q. Assuming there is a site for them to go to?

20 A. Yes.

21 Q. I believe earlier you mentioned SEG, which
22 recycles radioactive waste. In fact, it doesn't actually
23 decrease the radioactivity in the material. It just makes
24 the volume smaller. Would you agree with that
25 characterization?

1 A. No. In some cases, they remove the
2 radioactivity and capture it on filters or basically in the
3 filtration system, and the material that they have cleaned
4 is available for free release and recycle.

5 Q. Right. But they've just transferred the
6 radioactivity to the filters. It doesn't disappear.

7 A. That's correct.

8 JUDGE CHRISTIANSON: We can agree that today you just
9 wait for it to decay. You don't make it cease to exist as
10 far as radioactivity is concerned.

11 THE WITNESS: Ultimately, that's correct.

12 BY MR. EPSTEIN:

13 Q. Could this material be sold as salvage or
14 consumer products?

15 A. It can, yes, and it's how they are disposing of
16 that material that is deemed to be free releasable.

17 Q. So in the free release material in terms of your
18 study, you didn't factor in liability in the event that
19 somebody would allege some kind of adverse health effects
20 after being contacted by a piece of --

21 A. There would be no health effects from this
22 material. That's what the NRC regulations have been
23 striving to demonstrate and will ultimately be the basis for
24 releasing this material.

25 Q. But you're aware there are no standards for

1 radioactive scrap metal to date?

2 A. The NRC is developing those standards right now,
3 and that program is underway. I can't quote you the next
4 step in the process.

5 Q. That's all right. I'm involved with the
6 program, by the way.

7 A. I know you are as well. I saw you at the
8 Philadelphia meetings for the residual workshop.

9 Q. Okay. Just a couple more questions. We're
10 actually at the last page.

11 You were asked -- this was page 29, line 16 -- I
12 quote: "What are your recommendations regarding the
13 alternative selection?" And then you responded that DECON
14 "provides the most reasonable means for terminating the
15 license for the site in the shortest possible time.
16 Furthermore, this alternative avoids the long-term costs and
17 commitments associated with the maintenance, surveillance
18 and security requirements of the conventional delayed
19 dismantling alternatives."

20 My question for you is it appears that your
21 methodology is based not on state-of-the-art technology but
22 on economic expediency.

23 A. No. I believe our approach and methodology is
24 based on state-of-the-art technology; that we would apply
25 those techniques for the dismantling and removal of

1 radioactivity as part of the process.

2 The recommendation for planning purposes that the
3 fund be based on DECON is related to the constraints
4 associated with long-term surveillance and maintenance of
5 the facility. The fact that the existing plant staff is
6 knowledgeable of the plant is a major asset in the program
7 for decommissioning.

8 We have been endeavoring to use at all of the
9 existing decommissioning projects underway right now, like
10 Rancho Seco and Trojan and Yankee and so on, use the
11 existing staff before these people are lost to the industry
12 by retirement or passing on.

13 These are very real and important factors that make
14 DECON a very important consideration and as endorsed by the
15 NRC for that very reason.

16 Q. Actually, I agree with you, and that was the
17 argument I presented at Three Mile Island; that there losing
18 a very valuable and experienced staff for decommissioning
19 purposes. So we might find agreement on one thing today.

20 A. I don't think they've lost anybody. We're
21 working with them right now.

22 Q. They lost a thousand employees in the last
23 several years.

24 A. They were not necessarily all decommissioning
25 related folks.

1 Q. Well, the plant hasn't been decommissioned. It
2 has simply been defueled.

3 You just mentioned something about the staff, and I'd
4 like to follow up on that. On page 30, lines 1 through 3,
5 you said: "The recommended alternative also allows use of
6 the plant's knowledgeable, current operating staff, a
7 valuable asset to a well-managed, efficient decommissioning
8 program," which essentially you just said again.

9 How many of PP&L employees have experienced
10 decommissioning a nuclear power plant?

11 JUDGE CHRISTIANSON: And if you don't know, just say
12 you don't know.

13 THE WITNESS: I don't know.

14 BY MR. EPSTEIN:

15 Q. Do you know if any PP&L employees, for instance,
16 attend the Annual Robotics Forum on Environmental
17 Remediation?

18 A. I don't know that they do. I know that we had a
19 conference on decommissioning last October in Florida that
20 we sponsored, and I believe PP&L had a representative there.

21 Q. What about the Robotics Users Group known as
22 UMRUG?

23 A. I'm not familiar with that.

24 Q. What about the Association for Robotics in
25 Hazardous Environments?

1 A. I'm not familiar with whether they've sent
2 someone.

3 Q. There are several utilities that aggressively
4 pursue this issue and attend there.

5 In fact, what research and development does PP&L
6 conduct on this issue?

7 A. I'm not familiar with that.

8 Q. How much of your decommissioning estimate is
9 based on knowledgeable staff that have no knowledge of
10 decommissioning?

11 MR. GADSDEN: Objection, Your Honor. It has not been
12 established they have no knowledge of decommissioning. Mr.
13 LaGuardia made it clear he did not know whether they did or
14 whether they did not.

15 JUDGE CHRISTIANSON: We'll take that as surplusage.

16 Can you respond? How much do you rely on using the
17 plant people?

18 THE WITNESS: We rely very heavily, because the
19 systems that we need to support decommissioning have to be
20 maintained operable during decommissioning, such things as
21 cranes, radioactive waste, liquid and gas processing
22 equipment. The existing operators are very valuable
23 resources to maintain that equipment operable so that we can
24 use it for decommissioning activities.

25

1 BY MR. EPSTEIN:

2 Q. But you're unaware to any extent if PP&L as an
3 organization or any of their employees have been actively
4 involved with decommissioning?

5 A. That's correct.

6 Q. I think on page 42, lines 13 to 14, in response
7 to a question on NRC cost requirements, you stated, "The
8 rule, as published, requires licensees to assure the
9 availability of funds by submitting a decommissioning
10 funding plan to the NRC," which I think we'll all agree on.

11 Can the NRC mandate ratepayers pay for a funding
12 plan?

13 JUDGE CHRISTIANSON: I guess there are two levels to
14 that, constitutionally and existing law and practice.

15 THE WITNESS: That gets outside my area of law. I'm
16 not a lawyer. I can't answer that one.

17 BY MR. EPSTEIN:

18 Q. You state that the NRC requires that there be
19 enough funds available for decommissioning. The NRC
20 mandates that; is that correct?

21 A. I didn't see the word "mandate" in my statement.
22 I said that the law as published requires the licensees to
23 assure the availability of funds. How they do that is
24 outside my area of testimony.

25 Q. Okay. What I'm saying is that is what the NRC

1 has mandated. Yet, the NRC has no ability to raise funds to
2 meet this mandate.

3 JUDGE CHRISTIANSON: I guess one remedy or one
4 punishment would be to pull the license if there is an
5 indication that there is no money there to decommission.

6 THE WITNESS: I believe they can also impose civil
7 penalties as well.

8 BY MR. EPSTEIN:

9 Q. On page 42, lines 21 to 23 in response to a
10 question, "Is it necessary to select a decommissioning
11 method at this time," your answer was no.

12 Don't you think that undermines the premise of your
13 study that decommissioning cost estimates be predicated on
14 DECON?

15 A. No.

16 Q. Then later on 43, lines 3 to 4, you state,
17 "However, for financial planning purposes, the
18 decommissioning cost funding should be based upon the DECON
19 methodology."

20 Isn't your basis for financial planning arbitrary
21 since you chose DECON over SAFSTOR?

22 A. It's not arbitrary. It's what we recommend as
23 the preferred method because of the facts as I described in
24 the previous pages, and it does not commit the company to
25 use that alternative at the time the decision has to be

1 made.

2 Q. But they are setting aside funds based on your
3 recommendation to use DECON?

4 A. That's correct.

5 Q. The last question. How are you doing?

6 A. I'm fine.

7 Q. Good.

8 JUDGE CHRISTIANSON: He's over the flu, largely.

9 THE WITNESS: Largely.

10 MR. EPSTEIN: That wasn't the last question.

11 JUDGE CHRISTIANSON: Okay.

12 BY MR. EPSTEIN:

13 Q. Well, apparently, if PP&L shareholders -- which
14 I am one, by the way -- want to embark on decommissioning a
15 nuclear power plant based on the methodologies you mention,
16 if your predictions or other predictions have vacillated so
17 widely, shouldn't those differences be made up by the
18 shareholder and not the ratepayer?

19 A. That's not in the area of my testimony.

20 JUDGE CHRISTIANSON: You just don't have a view you
21 want to express about that?

22 THE WITNESS: Personally, I believe -- and this is my
23 personal feelings -- these costs should be borne by the
24 ratepayer.

25

1 BY MR. EPSTEIN:

2 Q. Even though they've escalated dramatically and
3 there hasn't been a reliable prediction on how much it will
4 cost over the last ten years?

5 MR. GADSDEN: Objection, Your Honor.

6 JUDGE CHRISTIANSON: Well, that is editorializing.
7 You've gotten a response to your question.

8 MR. EPSTEIN: Okay. Lunchtime.

9 JUDGE CHRISTIANSON: Yes, just about high noon.

10 I'm assuming now we're done with cross. We need a
11 little break to see if there is possible redirect. I'll
12 check. I think we have this room till 1:00; but again,
13 major parties don't leave until they get spellings to the
14 court reporter.

15 Let's take a few minutes.

16 (Recess.)

17 JUDGE CHRISTIANSON: Let's be back on the record.

18 MR. GADSDEN: We have some limited redirect, and it
19 is solely in the nature of a clarification.

20 JUDGE CHRISTIANSON: Go ahead.

21 REDIRECT EXAMINATION

22 BY MR. GADSDEN:

23 Q. Mr. LaGuardia, do you have a copy of what was
24 admitted as Office of Trial Staff Cross-Examination Exhibit
25 No. 17?

1 A. Yes, I do.

2 Q. Do you recall questions from Mr. Mickens
3 requesting that you either calculate a contingency
4 percentage under the DECON alternative or accept subject to
5 check a specific number?

6 A. Yes, I do.

7 Q. Do you have any further clarification with
8 respect to that?

9 A. Yes. As you may recall, I was stumbling and
10 trying to calculate the contingency percentage and I
11 accepted, subject to check, your 15 percent, but in having
12 the chance to look it over during the break, the proper way
13 and the way we've calculated contingency for the Susquehanna
14 plant is to take the \$804,259,000 total cost, subtract out
15 the cost without contingency as listed on our tables, the
16 cost without contingency of \$681,455,000. The net of that
17 calculation should be divided by \$681,455,000 to arrive at
18 an overall contingency of about 18 percent. It is just a
19 clarification of how we calculated it.

20 JUDGE CHRISTIANSON: If you want to check on that off
21 the record. I think you know better than I do what is going
22 on.

23 MR. MICKENS: Yes.

24 JUDGE CHRISTIANSON: I didn't follow that, quite
25 frankly.

FORM 2

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BY MR. GADSDEN:

Q. Am I correct that it is simply a question of whether the denominator is the \$681 million figure, which is net of the contingency, or the \$804 million figure, which includes the contingency?

A. That's correct.

JUDGE CHRISTIANSON: Oh, I see what you mean. Which is the denominator, the smaller one or the bigger one?

THE WITNESS: The smaller one is the appropriate one to use.

JUDGE CHRISTIANSON: It becomes sort of a matter of definition.

THE WITNESS: Correct.

JUDGE CHRISTIANSON: Go ahead. Follow up.

RE-CROSS-EXAMINATION

BY MR. MICKENS:

Q. Just to be clear, that the record is clear, that is the way to calculate the actual contingency that is contained in the overall estimate?

A. That's how the contingency is calculated as a total of the total cost. Contingencies are calculated on a line item basis, and there are different levels of contingency for each line item.

Q. Okay.

A. There is one for decontamination, one for

1 removal, one for packaging, one for shipping, and so on.

2 Q. Okay. But the overall contingency percentage is
3 18 percent?

4 A. Is 18 percent, yes.

5 MR. MICKENS: Thank you.

6 JUDGE CHRISTIANSON: Fifteen might be based on the
7 other number, the other denominator?

8 THE WITNESS: That's correct, the other denominator.

9 JUDGE CHRISTIANSON: Okay. Then that's it for your
10 redirect. Then, obviously, the recross is fairly limited
11 and Mr. Mickens has done his element there.

12 Then I assume there is no further examination for the
13 witness.

14 MR. GADSDEN: There is not, Your Honor. We have one
15 final item, and that is simply at this time to move into the
16 record PP&L Exhibit 1, PP&L Exhibit Historic 1, and PP&L
17 Exhibit Future 1, those documents having not been moved
18 previously.

19 JUDGE CHRISTIANSON: I guess they're an amalgamation
20 of the whole thing.

21 MR. GADSDEN: That's correct.

22 JUDGE CHRISTIANSON: Those two are accepted. They
23 are in a light blue binder.

24 MR. GADSDEN: There are actually three. There is
25 PP&L Exhibit 1, which are the four green bound volumes.

1 JUDGE CHRISTIANSON: Oh, yeah.

2 MR. GADSDEN: And then the two accounting exhibits,
3 which are in light blue and dark blue binders, respectively.

4 JUDGE CHRISTIANSON: Yes. Those are accepted.

5 (Whereupon, the documents marked as
6 PP&L Exhibit No. 1, PP&L Exhibit
7 Historic 1 and PP&L Exhibit Future 1
8 were received in evidence.)

9 JUDGE CHRISTIANSON: As a general matter, everything
10 in the company filing is accepted unless there has been a
11 specific provision for not accepting it into the record.
12 This holds true of other documents where we perhaps forgot
13 about it, but there were certain objections to certain
14 documents and those were recorded on the record.

15 MR. GADSDEN: Thank you, Your Honor.

16 JUDGE CHRISTIANSON: Then also, the witness is
17 excused with our hopes for his increasing good health.

18 THE WITNESS: Thank you.

19 (Witness excused.)

20 JUDGE CHRISTIANSON: We can be done then. We'll be
21 back again for the next series of hearings, and we have the
22 schedule in Judge Schnierle's second Prehearing Order about
23 prefiled testimony and the whole matter, so that I think
24 we've all got our marching orders.

25 Thank you, all. I think we did fairly well. It is a

1 difficult area here, and I appreciate all of the cross-
2 examination bringing out the various points.

3 At this point, we're done for the record for this
4 morning. You're all invited to the public input hearing
5 this afternoon.

6 We're off the record.

7 (Whereupon, at 12:15 p.m., the hearing was adjourned,
8 to be reconvened Monday, April 24, 1995, in Harrisburg,
9 Pennsylvania.)

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C E R T I F I C A T E

I hereby certify, as the stenographic reporter, that the foregoing proceedings were taken stenographically by me, and thereafter reduced to typewriting by me or under my direction; and that this transcript is a true and accurate record to the best of my ability.

COMMONWEALTH REPORTING COMPANY, INC.

By: Sandra Milus-Brown

Sandra Milus-Brown

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