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1	BEFORE THE
2	FLORIDA PUBLIC SERVICE COMMISSION
3	DOCKET NO. 090009-EI In the Matter of:
4	NUCLEAR COST RECOVERY CLAUSE.
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6	
7	VOLUME 11
8	Pages 1815 through 1965
9	ELECTRONIC VERSIONS OF THIS TRANSCRIPT ARE A CONVENIENCE COPY ONLY AND ARE NOT
10	THE OFFICIAL TRANSCRIPT OF THE HEARING,
11	THE .PDF VERSION INCLUDES PREFILED TESTIMONY.
12	PROCEEDINGS: HEARING
13	COMMISSIONERS
14	PARTICIPATING: CHAIRMAN MATTHEW M. CARTER, II COMMISSIONER LISA POLAK EDGAR
15	COMMISSIONER KATRINA J. McMURRIAN COMMISSIONER NANCY ARGENZIANO
16	COMMISSIONER NATHAN A. SKOP
17	DATE: Thursday, September 10, 2009
18	
19	TIME: Commenced at 2:20 p.m. Concluded at 4:55 p.m.
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21	PLACE: Betty Easley Conference Center
22	Room 148 4075 Esplanade Way
23	Tallahassee, Florida

RAY D. CONVERY

Court Reporter

(850) 224-0722

REPORTED BY:

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1	INDEX	
2	WITNESSES	
3	NAME:	PAGE NO.
4	GARY MILLER	
5	Continued Cross Examination	1819
6	by Mr. Rehwinkel Cross Examination by Mr. Brew	1869
7	•	1895
8	Redirect Examination by Mr. Walls	1915
9	HUGH LLOYD THOMPSON, JR.	
10	Direct Examination by Mr. Roach Prefiled Rebutal Testimony Inserted	
11	Cross Examination by Mr. Rehwinkel	1956
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

1			EXHIBITS		
2	NUMBER:			ID.	ADMTD.
3	114 through 124 through	123			XXX XXX
4	124 Chrough	127			22222
5	i				
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18	2				
19					
20					
21					
22					
23					
24					
25					

PROCEEDINGS 1 (Transcript follows in sequence from 2 Volume XXX.) 3 CHAIRMAN CARTER: Back on the record, and when 4 we last left, Mr. -- where is Mr. Rhewinkel? 5 MR. BREW: He was here a second ago. 6 CHAIRMAN CARTER: He was fetching another box. 7 I probably don't even want to know what that means, 8 right? Okay. Mr. Walls, have you guys talked -- you 9 and Mr. Rehwinkel, did y'all get together on that 10 confidential information? 11 MR. WALLS: Yes, sir, and as soon as he gets 12 back -- we were going to talk about one of the items, 13 and he left, but we'll talk about it. 14 CHAIRMAN CARTER: Okay. I've got -- I don't 15 want to mess up the record by going -- can you go see if 16 you can find him? I appreciate it. 17 I guess while we're waiting on Mr. Rehwinkel 18 to come back -- I did say 2:15, did I not? Okay. So 19 we'll probably -- tonight we'll go until. 20 We're waiting on Mr. Rehwinkel. 21 22 COMMISSIONER EDGAR: Mr. Chairman, I

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CHAIRMAN CARTER: I said until.

apologize. It says 2:12 in my office. Did you say a

time that you intend to go to right before I walked in?

COMMISSIONER EDGAR: Until. Okay. I've got 1 it. 2 CHAIRMAN CARTER: Mr. Rehwinkel. 3 MS. RHEWINKEL: Thank you. My apologies for 4 being late. 5 CHAIRMAN CARTER: Mr. Moyle says it was 6 dilatory. Is that the right what word? Mr. Moyle, 7 what's the right word? 8 MR. MOYLE: Yeah. It doesn't sound as bad as 9 late, but it means the same thing. 10 MS. RHEWINKEL: Well, I wasn't dilly-dallying, 11 but I was late. 12 CHAIRMAN CARTER: You may proceed. 13 CONTINUED CROSS EXAMINATION 14 BY MS. RHEWINKEL: 15 Thank you. 16 Mr. Miller, before I continue on the line of 17 questioning that we were on before, yesterday during 18 your direct I asked you about impact evaluation related 19 to Paul Rizzo work. Do you recall that question? 20 I do. 21 Α And have -- on the break you showed me some 22 information I believe that shows that -- the additional 23 costs for Mr. Rizzo's work plus the deductions from what 24 25 would be paid to the other vendor essentially resulted

in a wash. Is that correct?

- A That's correct.
- Q Okay. Thank you for that clarification.

And earlier in the day I was asking you questions about Mr. or Dr. Jacobs' testimony and I asked you where he said -- I think it was on page -- I was asking you a question about what he said, and you were looking in the deposition. Did you locate what you were referring to?

A Yes, sir; however, it was not in the deposition. It was in the direct testimony.

Q Okay.

A And so, just for clarity, you were asking me about the statement on page 12 of my rebuttal, line 5.

Q Yes.

A The basis for that statement is in the direct testimony of Mr. Jacobs on page 6 and on line number 20.

Q Yes.

A All right. So I'll just read, "Signing such a huge contract with so many risky issues remaining unresolved or the outcomes not fully understood can lead to renegotiation that can make the overall project costs more expensive," and then he's going to go on to say, "These unresolved risky issues include," and on the next page there is probably three, four, five, six items on

here, LWA schedule, joint owners, COL schedule, deterioration of capital markets, broad economic weaknesses and legislative uncertainties. And so the statement that's in my rebuttal testimony is saying that it's unlikely that you would get clarity on all of these items, particularly including those ones under No. 4 of page 7 of his direct testimony that you would at any point in time have clarity and, if you will, to use his language, issues that are resolved, more outcomes not fully understood.

- Q But he doesn't use the word "eliminate"?
- A I'm sorry, sir?
- Q I'm sorry. He does not use the word "eliminate" or "eliminated."

A You're correct; however, when you -- it's just the way I've read his direct testimony to say, "with so many issues remaining unresolved or outcomes not fully understood," meaning they're not dispositioned or -- if you will, or resolved such that you have clarity on them, and that's what my comment is about on page 12.

- Q Let's go back to your testimony on page 13 and 14.
 - A Okay.
- Q I was trying to ask you about the words you used at the top of page 14 on line 1. Did you mean to

state there, instead of the two words that you used, the sixth and seventh word on that line, "into another year"?

A No, it was not meant to read that. The specific line on page 13, if you will, and line 4, where the word starts, "In addition," that statement is an absolute statement that gives a date in it.

Q Okay. I'm talking about on page 13 going to the top of page 14.

A Right. And so my point is, if you're having trouble understanding the language on line 1 of page 14, particularly the two words you've pointed out, I would ask you to go back to page 13 where it's stated very clearly, beginning on line 4, where it starts with the sentence, "In addition."

Q But you're not trying to convey there that there would be a whole other calendar period that someone was asserting that there should be -- that that should pass, is that right?

A Let me see if I can paraphrase. There was a window of opportunity, and that window of opportunity had an end date, and that end date did not involve the phrase at the top of page 14, the two words you said, that you pointed out to.

Q You testified yesterday, did you not, that you

learned in late December that the NRC was going to give 1 you its milestone letter by January 30th or 31st; is 2 that correct? 3 That's correct. 4 Okay. Did you convey that to the Consortium? 5 I don't know if I conveyed it to the 6 7 Consortium, but I certainly conveyed it to our senior 8 management. 9 Did they convey it to the Consortium? I don't recall if they did or not. 10 So you don't know if that was a consideration 11 on when to sign the EPC? 12 There is -- that is addressed in my rebuttal 13 Α testimony, and let me see if I can locate that 14 specifically in here. That specific question you're 15 asking is identified. 16 Okay. Yes. Page 13, line 8, where it says, 17 "This decision." 18 19 Yes. How do you know that's the case? 20 We know that by virtue of the ongoing negotiations and their communication to us of the window 21 22 of opportunity. 23 Is it your testimony here that the Consortium would have preferred to not sign a contract or make a 24 sale to Progress Energy Florida at all if they could 25

not -- if you could not reach agreement as reflected
in -- as reflected in this paragraph, lines 1 through 11
of page 13?

A To answer your question, it's a

A To answer your question, it's a multiple-answer question, and so I'd like to point to parts of my text here that would answer it.

First of all, I would point you to page 14, line 8 where it starts with, "As a result." So that was an outcome from not doing that, and then I'm going to also point you to page 17, line 7. So I cannot answer your question of what would be the ultimate outcome. We just know what was available in this window of opportunity and we knew the consequences of -- beyond the window of opportunity, of what you would not get, but we still didn't have clarity on, as it says on line 7 here, of whether this would happen or not.

- Q Does it make business sense that the Consortium would have behaved in a way contrary to the first five words on line 8 of page 17?
 - A Okay. On page 17, what line, sir?
 - O Line 8.

A Line 8. The point is is we don't know because it's their decision based on their business execution of what they would do, and so I cannot tell you with certainty 100 percent what they would have done.

1	Q Okay. But we can agree, can we not, that the
2	value of the transaction was in the billions with a B;
3	correct?
4	A That is correct.
5	Q Okay. And does it make any sense in the
6	business world that that company would have foregone the
7	ability to make a sale?
8	A I would be speculating if I tried to tell you
9	what I believe they would do because I do not know the
10	other negotiations they had ongoing both that were
11	public and non-public and their willingness to continue.
12	Q Okay. Well, they did share with you, did they
13	not, some of the other negotiations that they had
14	ongoing; correct?
15	A We are aware of negotiations, for example,
16	with FPL which have been in the media.
17	Q Okay. Back on page 12 of your rebuttal
18	testimony. It's not a line number, but it's the second
19	bullet after line 21. Do you see that?
20	A Yes, sir.
21	Q Okay. Now, can you point me to somewhere in
22	your testimony where that phrase there is characterized
23	with a little more specificity?
24	A Do you mean what it's referred to as?
25	Q Yes.

1 Α Well, let me look here slowly and see if I can locate it. 2 3 I can't characterize it, so I'm depending upon you to help had me out here. I can't do it publicly, I 4 5 mean. I understand, and I'd request you not call it 6 7 out, what we refer to it as. I'm not sure if the phrase for this is 8 actually detailed out in my rebuttal testimony. 9 10 You know what that number represents, do you not, I mean, what that -- how to describe that? Okay. 11 12 I'm going to find a way to characterize that with some other information. It may be in your deposition, but I 13 don't know that that's --14 15 It could be. Okay. But we don't have that in the record at 16 Q 17 this time, and I think Mr. Lyash may refer to it in his testimony. But how do you know that -- are you 18 expecting to retain this benefit or favorable contract 19 20 term and/or condition, are you expecting to retain that 21 in a renegotiation? 22 Yes, if you're referring to the last bullet on Α 23 page 12. 24 Yes.

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Yes, we are.

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Q And how do you know you w	Will?
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A Based on ongoing discussions as part of our negotiations.

Q How do you know --

MR. MOYLE: I mean, I don't think it's fair for a witness -- he couldn't answer something a minute ago because it was speculation and it required him to speculate as to what may be the result of negotiations, so then he's asked this question and he can speculate, oh, yes, this will be retained, and they both of them call for speculation and both of them are inappropriate.

CHAIRMAN CARTER: Mr. Moyle. One second --

CHAIRMAN CARTER: To the objection, both to Mr. --

MR. WALLS: Well, I'm not sure it's an objection to a question. He's objecting to the witness' answer.

CHAIRMAN CARTER: Hang on a sec, now. The objection is to the process.

MR. WALLS: If I might clarify this process, the witness is talking about negotiations that he is involved with personally. The other series of questions were based on a hypothetical: What would happen if? This set of questions is asking specifically about negotiations that Mr. Miller is involved in.

CHAIRMAN CARTER: Mr. Moyle.

the question was along the lines of past tense, as we sit here today, do you have a representation of this, and there's probably hearsay objections and things getting into the record beyond that, but the question as I heard it phrased was, projected into an event in the future, do you expect in the future to be able to retain this when you sit down and negotiate, and there's just no way of answering that because it's wholly dependent on the actions of a third party, you know, that is going to be on the other side of the table, and I just think it's not appropriate.

MR. MOYLE: But my point is, if he said -- if

MR. WALLS: If I might briefly respond.

CHAIRMAN CARTER: Sure.

 MR. WALLS: The witness was responding based on his personal knowledge. That's not hearsay. He's involved in these negotiations today.

CHAIRMAN CARTER: Okay. Mr. Rhewinkel.

MS. RHEWINKEL: Well, I would just prefer to

speculation may or may not have been self-serving. So I

have -- I would just prefer to move on with my

in my post-hearing comments make note of where

questioning. I'm satisfied with the answer that I've

gotten so far.

1	CHAIRMAN CARTER: Let's move on.
2	MS. RHEWINKEL: Although I understand
3	Mr. Moyle's objection.
4	CHAIRMAN CARTER: Okay. Just move on.
5	BY MS. RHEWINKEL:
6	Q Do you have Mr. Lyash's testimony with you?
7	A No, I do not.
8	Q Can I show you on page 7 of his confidential
9	testimony a bullet point that's the second one after
10	line 10
11	A Yes.
12	Q and ask you if the characterization there
13	is the same one that we were referring to?
14	A It is.
15	Q Okay. How do you know that you got or you
16	received that benefit the first time around or when you
17	signed the contract?
18	A I know that from my participation in the
19	negotiation of the EPC contract and the buildup of the
20	final overnight CAPEX contract price.
21	Q Well, to know whether you've got it, would you
22	have to know whether any other entities that the
23	Consortium was doing business with would have received
24	it or been offered it, that benefit?
25	A I'm sorry, sir. Are you asking me, do I know

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for a fact that other companies have received it?

Is it a benefit -- let me ask it this way: Is it a benefit that you would receive compared to what other companies may or may not have received negotiating with the Consortium?

I believe the answer to your question is it depends when, what happened in a certain year versus some other year.

Okay. So do you know -- how would you know whether you got it or didn't get it is my question?

Α The reason I would know that is because, as we went through the negotiation and we actually had work done by the Consortium to build up an indicative price, and then, as that worked its way through the final negotiations and as I watched the numbers, that's how I know.

Now, once you renegotiate the EPC, if you do that successfully, why would you still be allowed to have that benefit?

First of all, sir, we're not renegotiating the EPC. It's a change order to the EPC. The EPC is in full effect right now. I know that from our discussions with the Consortium and the insights we're getting on dollar changes associated with the schedule changes we've asked for.

1	Q Page 14 of your rebuttal testimony, lines 2
2	through 5, there's a statement that begins with
3	"Likewise."
4	A Yes, sir.
5	Q Okay. How certain are you that that was going
6	to be the position of the Consortium?
7	A That position was communicated to us by the
8	Consortium.
9	Q Isn't it true that it was not communicated in
10	writing?
11	A That is correct, that it was not. It was done
12	through multiple interactions with the Consortium.
13	Q Was this done even in the face of you
14	expressing concern about your the timing of your LWA
15	and review milestone?
16	MR. WALLS: Objection, mischaracterization of
L7	his testimony.
18	CHAIRMAN CARTER: To the objection, Mr.
19	Rehwinkel.
20	MS. RHEWINKEL: I'll rephrase the question,
21	Mr. Chairman.
22	CHAIRMAN CARTER: Okay. Rephrase.
23	BY MS. RHEWINKEL:
24	Q Did senior management negotiating with the
25	Consortium inform them of the impending LWA review

schedule during negotiations?

A I believe they talked about the status of our schedule.

Q Okay. And you say "talked about," to the Consortium?

A Yes.

Q Okay. And is it your testimony, if you know, that the statement that is reflected in the sentence that we just referred to in your testimony was communicated to the company even in the face of those talks between the company and the Consortium?

A I'm sorry. Your question had two parts and I didn't follow it.

Q Okay. You stated that the company had talks with the Consortium about the LWA schedule.

A We had talks with the Consortium on the status of our review schedule by the NRC, which included all three parts.

Q And wasn't it important to you to make sure that the schedule was as you assumed it to be in negotiating the terms and conditions and the pricing in the EPC?

A It was important; however, we had no evidence to think that we were going to get the call on January 23rd that we received on the LWA.

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Q Okay. But you did express to them that it was important -- "them," meaning the Consortium, that it was important that you get the LWA schedule as you expected to as part of the negotiations; correct?

A I do not know if we expressly talked about LWA other than beyond the other EIS and the COL, because all three dates were important to the overall execution of our project.

Q Okay. So, to that degree, you communicated that to the Consortium; correct?

A We communicated the status of the fact that we -- the status of the review schedule.

Q Now, in the face of those communications, is it your testimony that the Consortium maintained the position as reflected in this sentence on lines 2 through 5 of page 14?

A It is my testimony that that sentence on page 14 beginning on line 2 that starts with "Likewise," that was -- that is an accurate statement and it was without regard to the review schedule by the NRC.

Q When you say "without regard," you're saying from their standpoint they didn't care what your review schedule said; right?

A Yes, sir. If I can take you back to page 13 and line 2, that was a definitive window of opportunity.

O So is it --

A And as I further state on line 8 of that same page where it says, "This decision."

Q So you expect the Public Service Commission to agree with you that, if you did not adhere to the statement on page 13 -- well, actually the statement on page 14, lines 2 through 5, that the whole deal would have been off and you would not have negotiated an EPC with Westinghouse/Shaw, Stone & Webster?

A No, sir, that's not what you would take from this. This statement on page 14, line 2 is saying what was the immediate event that would likely take place. How it would be resolved long-term and whether it would be fully resolved I don't know because that's hypothetical.

Q Okay. Let's go to page 15, line 15, the Q&A there. It's not true, is it, Mr. Miller, that Dr. Jacobs claims that PEF would not have signed the agreement if they had received the NRC review schedule that they ultimately received in early December; is it?

A What is your specific question?

Q He doesn't say what this question implies, does he?

A Under my deposition there was a hypothetical question that he asked me.

1	Q That I asked you.
2	A Excuse me, that you asked me, sorry.
3	So now I've read it, so what's your specific
4	question?
5	Q Dr. Jacobs does not say what you said he said
6	here, does he?
7	A I'll have to go back and read the language in
8	his
9	Q Well, do you have his testimony with you?
10	A I do.
11	Q Okay. And I think it's on page 11.
12	A Page 11.
13	Q Carrying over to page 12.
14	A Right. So the basis of the question on my
15	rebuttal testimony on page 15 is the Q&A that's on page
16	11 starting with the question, and then the answer is
17	no.
18	Q Well, Dr. Jacobs quotes your deposition
19	testimony correctly; does he not?
20	A He does.
21	Q Okay. I mean, he's not trying to convey to
22	the Commission something other than what's in the
23	testimony that he puts right there in his direct; is he?
24	A He is not; however, the line of questioning
25	that occurred in my deposition was very specific on the

1	questions I was asked and what I answered, and so the
2	you cannot draw a no from just that Q&A which is present
3	from my deposition.
4	Q Well, let's look at page 12 of Dr. Jacobs'
5	testimony on lines 4 and 5. Do you disagree with that
6	first sentence there starting, "The EPC contract"?
7	A Is this confidential?
8	Q No, it's not marked that way on
9	A Okay. All right. Because it says it at the
10	top of the page, that's why I asked.
11	It is a true statement that, before the final
12	contract amendment is done that incorporates the
13	schedule shift, there are extensive revisions in several
14	of the exhibits to the EPC agreement.
15	Q And that's what your deposition testimony
16	says, isn't it, that's quoted there?
17	A Where is the quote?
18	Q Well, I'm talking well, strike that
19	question.
20	Let's look on page 16 of your rebuttal
21	testimony
22	A Okay.
23	Q on line 7 through ten.
24	A Yes, sir.
25	Q Now, you did not negotiate the provisions

provision or provisions in the EPC agreement that's 1 2 described in those lines with the LWA schedule in mind; 3 did you? 4 Α The provisions this is referring to is not just for LWA. It would be for anything that would drive 5 the need for that. 6 7 But I guess my question -- let me ask it a little bit better here. You were not anticipating when 8 you were negotiating the EPC that the LWA would be 9 effectively denied, correct? 10 That is correct. To be specific, if you're 11 referring to what's in lines 7 and 8 of page 16, those 12 provisions? 13 14 Yes. Those provisions were negotiated probably 15 Α 16 early 2008. So they weren't negotiated with respect to the 17 LWA schedule list that you managed in the fall of 2008, 18 nor with the idea that the LWA would be denied; correct? 19 They were not. They were put in place to 20 21 handle exactly what it talks about on lines 7 and 8. But you're saying that that provides a 22 mechanism -- I won't ask --23 I think in the summary statements, I think 24 there is language -- there is a framework that's now 25

inside the contract.

Q Okay. On lines 20 through 23 of page 16, why would this be the case with respect to the behavior of the Consortium, whereas, if you had not negotiated -- not executed the EPC by the end of the year, their behavior would have been different?

A Let me explain without discussing what's actually written here.

Many of the large engineered equipment for the Levy Plant under the EPC agreement come from sub-parties. For example, our reactor vessel and steam generator is being fabricated by Doosan in Changwon, Korea, and those are separate companies. And so their decisions obviously can be impacted by the Consortium.

Q But you knew in late December, did you not, that by the end of January that you were going to get a decision from the NRC about your review schedule; correct?

A We anticipated getting our review schedule by the end of January.

Q But apparently you had been told with some degree of specificity that you would, correct?

A Yes, however, as I said earlier, we were also told we were going to get it in December, too. So we were, you know, expecting to get it in January based on

1	the latest information from our project manager.
2	Q Did you have a specific date instead of
3	sometime in January, you had a specific date
4	A Before the end of January.
5	Q On page 17 of your testimony in lines 3
6	through 6, that is speculation, is it not, the sentence
7	that starts, "Thus"?
8	A No, sir. That is our belief based on what we
9	have in place.
LO	Q But you don't really know that until you
11	conclude their EPC change order negotiations, correct?
L2	A I cannot say it with finality; however, based
L3	on the ongoing negotiations and our discussion with the
_4	Consortium, I think what we're seeing as early estimated
-5	indicative numbers supports what we say here.
-6	Q Okay. On page 17, lines 7 through 10 I
-7	think we've already discussed that. I'll move on.
.8	On page 19, lines 11 through 15 actually or
١9	line 12, does Dr. Jacobs use the term "mere presence"?
20	A I would have to go back and look specifically
21	in his deposition and his direct testimony to validate
22	the word.
:3	Q I guess the record will well, is have
4	you placed into evidence or into as an exhibit his
:5	deposition testimony that uses the word "mere presence"?

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A I have in my rebuttal exhibit, Exhibit No. GM-3, and I will -- that is what's attached to my rebuttal.

Q Well, let me ask you this: Rather than you spending the time to go through that, if the words "mere presence" are in his deposition, it would be in that section that you've attached?

A I don't recall, when we developed this, if it's the exact wording or if it's our interpretation of his wording.

Q Okay. On page 21 of your testimony, your rebuttal testimony --

A Yes.

Q -- lines -- well, in that Q&A at the top of the page there, you're giving a description that somewhat repeats what you said in your direct testimony describing the LWA; correct?

A It is a refresher.

Q Okay. And on lines 10 through 12 you state, "So we are excavating a hole, keeping the water out and placing rebar and forms awaiting the commencement of construction under the LWA scope," correct?

A Right. That is a sort of a generalized, paraphrased way of explaining the overall scope of work from excavation through the pouring of first concrete.

Q But the NRC doesn't look at it in that simplistic terms, do they?

A Certainly not, and if you look at our submittal letter on July 30th, we're very explicit exactly what we want to do: Placement of roller-compacted concrete, placement of permeation grouting. It's very specific and technical language.

- Q And it has a geotechnical or geological complexity to it, does it not?
 - A I'm sorry, what does?
- Q What you described there, the excavating the hole and keeping the water out.
- A And you said -- you asked me, does it have a complex geotechnical --
 - Q Does it have a geological complexity to it?
 - A The LWA or the LWA activities?
 - Q That activity in the LWA.
- A In this case it is the activity of excavating the hole which requires the installation of the diaphragm wall and grouting is difficult because of groundwater, and then, beyond that, you place roller-compacted concrete and mud mat and water membrane and forms for rebar and rebar.
- Q That's also difficult based on the type of rock that you're doing the grouting in, correct?

1	A Grouting in limestone is pretty common.
2	Q Okay. On page 22 of your rebuttal testimony,
3	are you familiar with 10 CFR parts 50 and 52?
4	A I am.
5	Q Okay. Is there anything in those rules that
6	carries with them a presumption that an LWA will be
7	approved?
8	A In both 50 and Part 52, considering the scope
9	of those two 10 CFRs, licenses for plants, ESPs, COLs
10	and LWAs, there is no presumption that the applicant
11	will be granted that permit or authorization.
12	Q Is there any statement by the NRC that gives
13	any presumption of granting an LWA under those rules?
14	A Again, there would not be because the
15	regulatory body would not give a presumption of
16	everybody will get it if they ask. They just would not
17	do that because you have to demonstrate the proper
18	information necessary to secure that approval or
19	authorization.
20	Q The LWA rule that you refer to in this on
21	page 22 of your rebuttal testimony was not written for
22	the benefit of any single company, was it?
23	A It was not. It was written for the benefit of
24	the industry.
25	Q Okay.

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A That revision of the rule that took place in 2007.

Q Now, there's nothing in the rule that is intended to address or accommodate a particular geological condition at a particular site; is there?

A I'm not aware that it's that explicit. It describes a regulatory process that says the applicant will provide the necessary information. The NRC will review that and then render a decision.

Q Okay. But there's nothing in here that says that, if you have a geologically complex site, that you're still going to get an LWA as long as you apply; does it?

A It does not say that, nor does it say, if you have a geologically easy site, you're going to get an LWA.

Q So it's not intended to shortcut the process for NRC review of geological conditions when the public, health, safety and welfare is impacted with respect to nuclear energy; correct?

A The LWA process is -- the answer to your question is -- and I'll see if I can answer it so I don't get the tense yes or no right, but the purpose of the LWA rule is to provide a mechanism for the NRC to give prior approval to work activities that should be

regulated and authorized by the NRC for the protection of the public health and safety, such as engineered backfill which can have a consequence on the foundation and the earthquake response of a plant.

Q But the activities that are governed by an LWA and under which they cannot be done without the LWA once they are within the scope of an LWA would be subject to -- could be reviewed under a COLA; correct?

A As a matter of fact, in our case the work scope that was previously under the LWA, that work scope is still in the COLA and would still be authorized under the COL.

Q So there really is no difference in the review standard by the NRC staff whether it's in an LWA or a COLA, as long as it has to be in one or the other; correct?

A It will always be in both, but the LWA would be asking for permission on a particular scope of the construction in advance of the COL issuance.

Q So my question to you is the -- by having activities authorized under an LWA is not some sort of a streamlined regulatory review, correct?

A I don't refer to that as a streamlined. The Part 52 process in general is referred to as a streamlined process. LWA is embodied in that, but it's

also under Part 50, so I don't necessarily know if 1 2 that's the right phrase to call it streamlined. 3 Okay. But there's not a lowering of the standard of review? 5 Oh, no, sir. As a matter of fact, the work 6 scope review is still the same to validate the nuclear 7 safety implications of that work. 8 Do you know anymore about the Vogtle site and 9 whether the LWA there was -- well, let me ask it this way: There was an LWA issued as a part of the ESP at 10 11 the Vogtle site, correct? Α That is correct. 12 13 And you -- do you have any knowledge today that you didn't have yesterday about the time frame that 14 that LWA was approved? 15 I do, but I have not seen the immediate direct 16 17 documents. I just know from discussions. 18 What do you know? 19 It was approximately 24 months. Okay. And was a milestone letter issued in 20 21 that regard? I don't know if, when the ESP was issued or 22 23 whether, if the LWA request came at a different time than the ESP, if a letter was issued or not. I don't 24 recall. I've not seen that information. 25

1	Q But what's clear is that, before December 31,
2	2008, you were not aware of what that milestone of
3	what the time frame for the LWA review for Vogtle was,
4	correct?
5	A Well, noting that their LWA was done under an
6	ESP, I did not review that schedule.
7	Q Because you didn't think it was particularly
8	instructive for your case, correct?
9	A I did not know if it would be instructive
10	based on the subject of the detailed information
11	provided under their ESP.
12	Q Let me ask you to turn to page 25 of your
13	testimony, and actually as part of my question if I
14	could ask you to turn back to 24, there's a sentence
15	that starts on 24 and carries over to the first three
16	lines of 25. Do you see that?
17	A I do.
18	Q Now, as part of the activities that are
19	described in this sentence here that's in these three
20	and a half lines, did you ask the NRC about the LWA
21	review timeline?
22	A At what meeting or forum?
23	Q After October 6, 2008.
24	A I think you've asked this question before, and

we asked for what is the status of the schedule on all

25

1	three items, EIS, LWA and COL.
2	Q And as a part of the activities that you
3	describe here, did you receive an answer?
4	A The schedule is coming, and then, when it was
5	not delivered in December, the schedule was coming in
6 .	January, by the end of January.
7	Q Okay. Now, did they tell you that you were
8	going to get a schedule in December with a specific
9	date?
10	A It was always typically the way they
11	communicate is "by the end of the month." That is
12	typically the way they would say it.
13	Q Okay. And at some point in December they told
14	you that they that the holiday schedule was going to
15	make it difficult, is that correct?
16	A That is correct, and the basis for that was
17	certain subject matter experts that were involved in the
18	development of the schedule were unavailable to help
19	finish the schedule development.
20	Q And that was certainly well, do you know
21	what time of the month that was?
22	A I do not remember.
23	Q But it was in December?
24	A Well, again, we had dialogue ongoing with the
25	NRC project manager in November and December, so

probably we asked him several times during those two

- On page 25, lines 4 through 16, you describe documents that you utilized to manage the risks that you
 - Yes.
 - -- in your project, correct?
 - That's correct.
- Now, just so I'm sure, each one of the -- I count an integrated project plan on line 4, on line 8, the NPD reports. Line 9 starts to describe LINC meeting documents, so you have those three documents. Is the December 4th, 2008 meeting or statement by Brian Anderson contained in or reported in any of those documents?

Unlikely. As I stated earlier, his statement was unremarkable to us. We would have expected him to state that very information.

Let's turn to page 28 of your rebuttal testimony, please. On lines 5 through 7 there, you state that the request that you received in early September to include certain activities in LWA scope indicated that the NRC was reviewing the LWA as PEF requested the NRC to do; is that correct?

That is correct, and that statement means, by

virtue of the fact they were asking us to modify the LWA scope in the September 5th call, told us that they were evaluating the LWA.

Q Okay. But the activities that they asked you to include in there were activities that you had assumed that you could do without any authorization from the NRC, correct?

A That is correct because excavation is not an activity covered by an LWA. The diaphragm and the grouting were only for the purposes of excavation.

Q But just -- I just want to make sure. These are not activities they said move it out of your COLA and move it into the LWA to get it authorized earlier. You were just not going to include it in any type of authorization request to the NRC, correct?

A It was our position that the diaphragm wall and grouting could be done in -- and excavation done in advance of an LWA, and then the LWA would cover engineered backfill forward.

Q But at the time you filed your COLA, you had an LWA that excluded these activities?

A We did; however, in the cover letter on July 30th, we identified the fact that our intent was to install a diaphragm wall and grout to facilitate dewatering and excavation.

Q So at the time that you filed your COLA, you didn't have any doubt that the NRC was going to entertain and review your LWA that you had filed as part of the COLA; right?

A We did not have any doubt July 30th that they would not review and issue an LWA.

Q So the additional activities that you added in on September 12th didn't enhance the likelihood that you were going to get an LWA review schedule the way you wanted it, did it?

A I don't know if you could say it didn't enhance it. We added scope and removed scope as part of that September 12th change. I do not see that that meant that we would not get an LWA because the fact that they asked us to modify the scope indicated to us they were reviewing it for the purposes of making an LWA decision.

Q Well, didn't they ask you to modify the scope because they believed that it needed to be reviewed as part of the LWA rather than you do it without authorization?

A They did.

Q And on page 28, line 10, there's a statement that says, "There were no inherent problems in applying the design to the site that prevented NRC review." Do

you see that?

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Yes.

Now, is that statement something that's written anywhere?

That statement is our observation of the NRC's action to docket our COL on October 6th 2008. That was an indication to us from their review that there was no inherent problems in applying the design to the site that prevented their review.

Again, there's no standard that you could point to, a staff guidance or any rule, commentary that says, if you get a COLA and an LWA docketed, that there are no inherent problems in it?

No, sir, and let me explain. To prepare a COL application, a COLA, there are certain regulatory guides that help define the content of what that COLA must contain, and they're very specific. And so, as the COL application is submitted, the NRC will take it and review it against the regulatory guide. I don't recall the reg guide number right offhand but it started as DG-1145. That does not say, however, that that guarantees that the COL will be approved, because the NRC is going to take many months to review it in quite detail.

Let me ask to you turn to page 29, please, and

I want to visit our old friend, the 18-month/30-month issue here on line 14 through 23.

A Yes.

ACTING CHAIRMAN EDGAR: Mr. Rehwinkel, would you pause for a moment? Commissioner Skop, did you have a question?

COMMISSIONER SKOP: Yes, Madam Chair. Just before we move on, I had some questions on Mr. Rehwinkel's previous line of questioning because, again, I'm trying to get a better understanding of some of the points that are being made because they are very subtle points. But on page 19, lines 18 through 23 of your rebuttal testimony, you speak to the LWA and under what federal regulations and parts that the NRC issues those under, and that the LWA allows a utility that's constructing a nuclear plant to do certain site work prior to the issuance of the COL; correct?

THE WITNESS: That's correct.

commissioner skop: And again, I'm not an expert on licensing. I've done nuclear submarines for the Navy, but the commercial nuclear is not my expertise, so I'm trying to learn along the way, but did the ability to request a limited work authorization, LWA, originate as a result of the NRC's revised licensing process?

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THE WITNESS: No, sir; it did not. matter of fact, if you go back to when Crystal River was built, they received prior approval to do some work in advance of their construction permit, but the LWA process has been around for quite a few years, and it was in two parts, LWA 1 and LWA 2. What happened in 2007 was the NRC revised the rules to remove those things which really did not have a nexus to nuclear safety, that would be governed by other state and local approvals. So -- and I'll give you a specific example. In the case of Vogtle, they're excavating right now, and that is not done under an LWA because that was removed from LWA scope under the revisions that took place in Part 50 and Part 52 in 2007, and a way of looking at it is, for those kind of activities that you may do to build like a WalMart, the NRC concluded they have no safety nexus so they don't need to review those; however, for any work activity that clearly does have some nexus to safety through the foundation or how the nuclear island will behave in a seismic event, then they, you know, reserve the right to provide prior approval of that work.

COMMISSIONER SKOP: So I guess this was not the first LWA that the NRC has ever considered, correct?

THE WITNESS: It's not. They were called

1 Limited Work Authorization 1 and Limited Work 2 Authorization 2 in the past. COMMISSIONER SKOP: How about in the current 3 review of new nuclear plants, is this the first LWA? 5 THE WITNESS: In the current wave of new 6 plants, our application included an LWA and, as we 7 stated earlier, the Southern Company application for an ESP, early site permit, included -- subsequently 8 included an LWA for that. 9 10 COMMISSIONER SKOP: Okay. Which -- if I may 11 ask, which LWA has been actually considered and acted 12 upon by the NRC? 13 THE WITNESS: The LWA that was part of 14 Southern's -- for the Vogtle site. 15 COMMISSIONER SKOP: And was that granted or denied? 16 17 THE WITNESS: It was granted about a month 18 ago. COMMISSIONER SKOP: All right. And with 19 20 respect to the current licensing process, would you agree that that's still relatively untested and not 21 22 fully robust? 23 THE WITNESS: It is going through a testing. 24 The new Part 52, which is the new part, has three 25 components: ESP, design certification and COLs. ESPs,

there have been several of those issued. The design certification, there are at least two technologies that are design certified, including the AP1000. And the COL applications, under the third part, COLs, that's now in progress.

COMMISSIONER SKOP: And with respect to exercising its authority, the NRC makes its own independent decisions with respect to regulatory approvals; is that correct?

THE WITNESS: That is correct.

COMMISSIONER SKOP: Based upon some of the prior questioning from Mr. Rehwinkel, did PEF reasonably expect that, upon submitting the necessary information and, you know, providing all that was required, that the NRC would act favorably upon its LWA submittal?

THE WITNESS: Yes, we did reasonably expect we would get one.

COMMISSIONER SKOP: Okay. And then, just adding upon that, because I know that there was some discussion in the examination about the change of scope, either adding or removing work scope from the LWA application, would adding or removing scope be fatal to an LWA application if all of the necessary information was provided?

THE WITNESS: No, it would not.

COMMISSIONER SKOP: Okay. All right. Thank you.

CHAIRMAN CARTER: Mr. Rehwinkel.

BY MS. RHEWINKEL:

Q Thank you, Mr. Chairman.

Mr. Miller, on page 29, lines 14 through 12, this is essentially reiterating a point you made in your direct testimony; correct?

- A I'm sorry, which lines again?
- Q I apologize. Fourteen through 23.
- A Yes. I had made this statement earlier.
- Q Okay. Does NRC staff have the ability to devote additional resources to the same degree that a private electric utility does for purposes of making reviews of geological information and other information in the COLA?

A Yes, they have flexibility on any particular skill set or subject matter. The NRC, however, does have total cost constraints. While they're fee-based, in other words, applicants like Progress Energy pay for their application, the Congress sets a budget for them and they must live within the budget. How they spend that budget in terms of what areas and the way they spend it, that's under their cognizance to do that.

Q Now, Progress Energy Florida can spend as much

as they need to get the COLA filed if they have a 1 2 deadline involved; correct? 3 State your question again, please. 4 0 Progress Energy has the ability to spend as 5 much as is necessary to get a COLA application filed by a deadline that they find is necessary to meet a need, a 6 7 generation need? We have control over the development of our 8 Α 9 application, yes, but we would do that within a reasonable expectation of cost. It's not do it no 10 matter what it costs. 11 But in the case of getting the COLA filed by 12 July 30th, 2008, that was a very high priority for your 13 company; correct? 14 15 Α It was. It was, in fact, probably one of the highest 16 17 priorities; correct? It was very high for our company, yes, because 18 it supported the overall execution of the Levy project. 19 20 And cost would have been a relatively small 21 consideration if you needed to get the data done and get 22 the work done, get the data collected, the analysis done and get the application filed to meet a deadline; 23 24 correct? 25 Not exactly, and let me explain. The purpose Α

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of the July 30th for us was not only the COL in-service date, but also to maintain eligibility for production tax credits, which meant your COLA had to be accepted by the end of the year, and so we would weigh the value of that versus the cost it takes to accelerate the COL application development and make sure that those were balanced and reasoned.

Q Well, isn't it also true that you had negotiated the pricing for the EPC prior to the filing of the COLA?

A We had not concluded the negotiations on the total contract price before the COLA was submitted.

Q A significant amount of it had been done, correct?

A A significant amount of work had been done toward it, but it was not complete.

Q Okay. So you were fairly committed to getting an EPC signed and getting a need -- a generation need met by 2016 in the first half of 2008, correct?

A Yes. As submitted in our need determination back in March of last year, we were taking the necessary actions to advance the project to meet that in-service date. Those included submitting the COL application and further, later in the year executing the EPC contract.

Q And as we discussed yesterday in your direct,

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there was a significant effort expended by the company to advance the target date for your COLA for one month; correct?

A We didn't -- I didn't say the word "significant." We took actions to advance it one month.

- Q Because it was important to do so, correct?
- A Correct.
- Q Okay. And you did identify a deadline in the September timeframe to make sure that you met the NRC's deadlines for getting COLAs docketed before the end of the year, correct?
 - A State your question again.
- Q There was a September timeframe that you were trying to beat to get COLAs filed -- to get your COLA filed, that the NRC had to give an indication of that you needed to do in order to get docketed by the end of the year; correct?

A It's not quite that simple. There are two things going on. First of all, the federal government works on a different fiscal year than everybody else, and they allocate resources for a particular project based on information you send them in advance. So they reserve the resources, but they are reserved by calendar years -- or, excuse me, by fiscal years, which I believe is October 1st for them. So our application, as planned

by the NRC in their resource loading, was intended to go in in the fiscal year governed by July, 2008.

The second issue, though, is this issue with the eligibility for production tax credits by having your COL accepted by the end of 2008. The issue there was there was ambiguity in whether it had to be submitted or accepted, and so we wanted to make sure there was no concern for us, so we wanted to get it in in time to go through its necessary review and be docketed in advance of the end of December.

Q Hadn't the NRC put utilities on notice that they had to have their applications in by the end of September in order to get docketed to ensure that they got docketed by the end of the year, 2008?

A There was dialogue in the industry, yes, that the NRC was telling utilities that, you know, if you're concerned about this deadline of production tax credits, do not expect to submit your application late and then guarantee that it will be docketed by the end of the year. That was in informal industry meetings that they would say that.

Q But that dialogue was reflected, was it not, in certain monthly reports that were produced by your organization?

A Most likely it was because clearly we were

1	intent on ensuring that our application would be
2	submitted on time to make us eligible.
3	Q Now, you had a pretty you had established a
4	goal of filing your COLA by July 30th, and that was an
5	important goal within your company; correct?
6	A That is correct.
7	Q You had a significant amount of money invested
8	in the site, the land; correct?
9	A In this case, and based on the dollar value,
10	to me the number was significant.
11	Q And you had a significant amount invested
12	already in terms of the COLA preparation, correct?
13	A That's correct.
14	Q And you had a significant amount of money
15	invested already in the long-lead purchases under the
16	NOI, correct?
17	A Under the LOI.
18	Q LOI, I apologize.
19	A We had authorized that LOI in March, and so
20	there was money being spent on the long-lead procurement
21	chain.
22	Q And how much millions of dollars?
23	A I believe that number is confidential.
24	Q Okay. Millions?
25	A Oh, yes.

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- Q Many millions?
- A It was -- without giving the number --
- Q Okay. So you had all this invested, so it was important for you to meet that deadline; correct?
 - A Yes, sir; it was.
- Q Okay. Now, on the other side, you're saying the NRC -- it's your belief that the NRC could have met the review schedule that -- of your data you had collected in your 18 months in 30 months, correct?
 - A Yes.
- Q Okay. But they didn't have the same considerations at stake that you did, did they?
- A They did not; however, that's why my 18 months versus their 30 months, I'm giving them allowance for the fact that they're not under the same pressures as I was. So I would reasonably believe that, if I could do all this work, including the borings, and complete that in 18 months, reasonably, at their pace they should be able to do that review in 30 months.
- Q Okay. But I think, as we reviewed yesterday, you acquired your site at the end of December, 2006; correct?
- A Actually what I said was we announced the site December of 2006. We then closed it at a later date, closed the property.

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1	Q But you began work
2	collection and site characte
3	around that time if not shor
4	A We were yes. I
5	we were collecting data at t
6	Q Okay. So and t
7	before your COLA deadline, o
8	A That's correct.
9	Q So that really def
10	collecting, analyzing and su
11	NRC; correct?
12	A That's correct. J
13	took from when we were mobil
14	geotechnical borings, doing
15	foundation design, packaging
16	submitting it, about 18 mont
17	Q And that was about
18	a month or two, that you cou
19	all of the licensing, tax cr
20	deadline; correct?
21	A No, I wouldn't say
22	were docketed on October 6th
23	with respect to December 31s
24	Q I was talking abou
25	application in, you've got t

on the site, data erization on the site right ctly thereafter; correct? In the late 2006 timeframe, the site.

hat was about 18 months correct?

fined your timeframe for abmitting the data to the

Just to be clear, the time it lized at the site, collecting all the analysis, doing the g the application and ths.

t the last time, give or take ald have done this and met redit deadlines and your COD

y that's correct because we n. So we still had margin st.

ut, as far as getting the to get it in time to get it

It takes a couple of months, maybe 90 days to 1 docketed. 2 get it docketed? Α Typically 60. 3 But again, the NRC staff, under totally different set of time constraints, correct, budgetary 5 time constrains, resource time constraints, and they're 6 doing a different thing. They're reviewing data. 7 They're not collecting it. They're not packaging it. 8 9 They're not submitting it. Correct? 10 They're not; however, we've done the work, 11 collected the raw data, package it, analyze it, provide the results of that analysis, and we hand that over to 12 13 them in great detail. Did you look at a discovery response that was 14 15 provided to Public Counsel's Office that constituted 16 your LWA analogous request for Crystal River 3? 17 I don't recall looking at it, but that was Α 18 done what, 30 years ago? 19 Would you accept my representation that this 20 set of correspondence is essentially the correspondence 21 between the company and the NRC staff to get the LWA 22 activity -- type activity done for CR 3? 23 Α I've not seen the document and I cannot 24 comment on if that's the package --25 Can I show it to you? Do you mind if I show

it to him?

CHAIRMAN CARTER: You may approach.

MR. WALLS: Is Mr. Rehwinkel representing that this is, based on his research, all of the documents that were submitted for that?

MS. RHEWINKEL: I'm representing to you this is the documents that were provided to me in response to that question in discovery.

MR. WALLS: Do you mean from the company?

MS. RHEWINKEL: Yes.

MR. WALLS: As to what they might have that remains from that long ago?

MS. RHEWINKEL: That's correct.

THE WITNESS: Without going through every page and reading every word, I generally understand what this document is.

BY MS. RHEWINKEL:

Q Can you tell me what it is?

A If appears to be a request where they note the fact that a construction permit was filed, but they're requesting to start some work in advance of the decision on the construction permit.

Q Was the NRC staff's -- the NRC's level of documentation that was required in 1967, '68 similar to what they request today for an LWA?

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- A No, sir.
- Q Is it much more extensive today?
- A The analysis in general for most licensing activities is much more detailed today than in 1968.
- Q Okay. So -- and what we're talking about here is you being a company that's in the very first wave of applications in the last 30 years essentially, correct, for nuclear power plants?
 - A Can you state your question again?
- Q Your company's application, your COLA that was filed is part of the first wave, if you will, of COLA applications since the late '60s, early '70s; correct?
- A Yes, there's been approximately 30 years since the licensing process for new plants took place.
- Q Okay. So -- and you state I think in your testimony that your LWA was only one of 17 COLAs, correct?
- A Yes. Of the COL applications, and they include all the various sites, ours had an LWA. No others did, and then we had -- the ESP at Vogtle had one.
- Q Okay. Is it fair to say that, in your company's management, there's nobody that's at a senior level today that was at a senior level 30 years ago in the last wave of nuclear power plant construction?

1	A I believe your question is asking me about the
2	demographic makeup of our company, and
3	Q Is it correct that today there's nobody in
4	senior management in a nuclear development organization
5	that was in senior management 30 years ago in the last
6	wave of nuclear power plant construction?
7	A It's unlikely.
8	Q Okay. What about the NRC, is there anybody
9	there today that was a senior NRC official today that
10	was there 30 years ago, or was it even called the NRC
11	back then?
12	A No. If you look at this letter, this is the
13	U.S. Atomic Energy Commission. This is before the NRC
14	was formed.
15	Q Okay. So is there anybody that's senior today
16	in NRC in that was senior back then?
17	A I would not know the answer to your question.
18	Q But probably not?
19	A Probably 30 years later, probably not.
20	Q So you're making a judgment about comparing
21	your 18 months to their 30 months and you're the very
22	first LWA ascended to a COLA in 30 years?
23	A That's true, however, again I have to
24	reiterate that we did the work in 18 months and we hand
25	over the results of that work and the analysis as a

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package that's already completed. So they don't have to go back out and do the borings and collect the rock samples and do the analysis because we've already done that.

Q The document I've asked you about from the CR 3 LWA analogous activity, that's less than 15 pages; correct?

MR. WALLS: I'm going to object to this line of questioning.

MS. RHEWINKEL: This is my last question.

MR. WALLS: Okay. Again, if Mr. Rehwinkel would like to look at the discovery response, the response asked for any documents that existed at that time. I just want it to be clear from the record that this is not and we cannot represent that this was all the documents that were submitted at the time. It's what remains.

CHAIRMAN CARTER: To the objection, Mr. Rehwinkel.

MS. RHEWINKEL: I'll withdraw the question.
CHAIRMAN CARTER: Okay.

MS. RHEWINKEL: Mr. Miller, as fun as it's been talking to you today and yesterday and in your deposition, this is the last question I'm going to have for you in this docket.

1 THE WITNESS: Okay. MS. RHEWINKEL: Thank you. 2 CHAIRMAN CARTER: Mr. Brew. 3 CROSS EXAMINATION 4 BY MR. BREW: 5 Q Thank you, Mr. Chairman. 6 Good afternoon, Mr. Miller. 7 Good afternoon. Α 8 Just to avoid the code, I'll just ask half my 9 0 questions and you can nod. 10 Α Okay. 11 As a cleanup matter from yesterday, I had 12 asked you if the CO2 price figures in your exhibit from 13 your direct GM-2 were the same numbers that the company 14 had used in their need case, and you said you'd get back 15 to us when you came up on rebuttal. 16 Can you confirm for me now that the numbers 17 used on your exhibits in your direct were in fact the 18 same numbers as the need case? 19 I have validated that our system Α 20 planning organization updated the GM-2 exhibit, 21 including, for example, the NOx, SOx, et cetera; 22 however, in the case of the CO2 columns, after their 23 review and analysis, the numbers are numerically the 24

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same.

1	Q So the only change then was the footnote in
2	that exhibit noting the existence of the Waxman Markey
3	Bill, but not changing any of the values for CO2 prices?
4	A If your question's specific to CO2
5	Q Yes.
6	A your answer is correct, the footnote 2 is
7	the change.
8	Q Okay. Thanks.
9	For rebuttal purposes, both you and Mr. Lyash
LO	introduced testimony on the project feasibility issues;
L1	is that right?
L2	A That's correct.
L3	Q And on page 48 of your testimony in lines 9
L4	and 10, you describe the feasibility from a project
L5	management perspective. Do you see that?
L 6	A Line 9.
L7	Q Page 49, excuse me.
L8	A Yes, but from a project management perspective
19	meaning from my perspective.
20	Q That's exactly what I wanted to get to.
21	So if I were to ask questions from a financial
22	or other perspective, those would be better addressed to
23	Mr. Lyash, but from a project management perspective, I
24	can go ahead and ask them to you?
25	A I think that's probably accurate.

1	Q Okay. From a project feasibility perspective,
2	you've already got your need certification; correct?
3	A That is correct.
4	Q And the site certification from the state,
5	right?
6	A Yes, the site certification order was issued
7	August 26th for the Levy site.
8	Q Okay. Based on those two approvals, is the
9	company prepared to say that it will definitely move
LO	forward with the projects?
11	A As we state in our testimony, my testimony in
L2	several places, we say we are committed to this project,
13	and I could locate that for you, but it's stated in here
14	either in my May 1st or my direct, but in a broader
15	sense, we are committed to the project and we're
16	executing and taking the necessary actions and
17	deliberate steps. As always, we're continuing to
18	evaluate on an ongoing basis moving forward.
19	Q Okay. And that's pretty much what you say on
20	page 49 on lines 17 and 18. Do you see that?
21	A Yes.
22	Q Okay. So that you're continuing to determine
23	whether to proceed?
24	A That's correct.
25	Q And so, if a circumstance is developed such as

you reference, the review of the Vogtle COLA, which is the reference COLA for the AP1000?

- A Currently the reference COLA is the Vogtle COLA.
- Q Right. And that the NRC's approval of the reference COLA is a predicate to review of yours?
- A It is. It is -- our COLA points to our COLA content which is embodied in the reference COLA for Vogtle.
- Q Okay. And so, if the NRC approved the COLA for Vogtle, would the company then positively say that they're going to moved forward with Levy, or would they still need to consider other factors on an ongoing basis?
- A The company would consider other factors on an ongoing basis.
- Q Okay. And so, just to follow straight through, if the company received its COLA from the NRC, would the answer still be the same; the company would still need to look at that and other factors in deciding whether to continue to proceed?
- A Yes, and this is through the life of the project we always consider all of the considerations which are applicable to this project, and you do that on an ongoing basis.

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Q So, if I can refer you back to page 10 of your rebuttal. Do you have it?

A I do.

Q And on line 15 you begin a sentence that says -- see, we can talk about this without code. "No one would ever build a nuclear power plant or any other long-term baseload generation based on yearly changes in fuel costs or load projections." Do you see that?

A I do.

Q Would it also be true on the flip side that no one would ever build a nuclear power plant or any other long-term baseload generation based on a single-snapshot determination?

A That is correct. For a number of factors, you would consider that on an ongoing basis, not just a single snapshot on any day.

Q Okay. And that being the case, wouldn't it also be appropriate for the Commission in overseeing the project to continue to review those questions on a continuing, ongoing basis?

A I think that -- yes, I think that's what's established in the Capacity Cost Recovery rules that require us to come back on an annual basis to review our project.

Q Okay. That's fine.

I'm trying not to retrace the items covered by 1 Mr. Rehwinkel, but I did have one question on your 2 discussion that referred to your testimony on page 17. 3 Α Okay. 4 Oh, I'm afraid I have to resort to code, I'm 5 Line 3, the sentence that begins "Thus." 6 sorry. 7 Α Yes. In your discussion with Mr. Rhewinkel, you 8 characterized this sentence as reflecting the company's 9 Did I hear you right? belief. 10 Yes, based on -- it's the company's belief 11 Α based on what we know that that action has resulted in. 12 Okay. For the Commission to test that belief, 13 wouldn't we need to sit down and do a review after the 14 facts are known and you've finally resolved the EPC 15 issues? 16 I'm sorry. What are the EPC issues you're 17 Α referring to? 18 Resolving the change order renegotiation and 19 the items that you have ongoing. 20 If you're asking me, do they need to wait to 21 Α see the outcome of that -- is that your question? 22 No. My question is whether or not -- to test 23 what you just said was the company's belief, wouldn't we 24 need to know how things actually turned out in terms of 25

what you've actually negotiated?

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I don't think so. I think the fact that we know what was in the executed EPC agreement and we know what framework that provides, and we know what would have been outcomes had we not executed, I think that evidence is present today to make that conclusion.

- Does the Commission have in front of it how things have changed from what you signed in the EPC? They can't because you haven't completed those negotiations, right?
 - There is a change order in progress.
- 0 So the only way to test how things have changed is to actually have an explanation from the company once you've effected those changes, right?
- Yes, but your question's more general. In the long-term execution of this project, there will be changes, both scope additions and scope removals to the EPC contract as part of our project execution, and so I would expect through this proceeding yearly that, through discovery, those kind of things would be reviewed.
- No, but my question here was specific as to this statement in this section of your rebuttal and how the Commission could test whether your belief that you're stating today is accurate, and my question is:

Isn't the only way to test that is to actually see what you finally negotiate in terms of the change order?

A No, sir, because you cannot quantify the other outcome if you have not taken this action.

Q No, I'm not asking for a counterfactual. I'm asking for -- to compare what you signed, what's in effect now and what will change, which will be what will be in effect once you execute the change order. That's not a counterfactual argument. That's this is A and this is B, right?

A Correct, but what's your question with regard to A and B?

Q My question with regard to A and B is, the only way to test what you stated your belief was in this sentence is as to actually have both of those pieces of information in front of the Commission?

A No, sir, because what you're asking me is, under the existing framework of an executed EPC, we're going make a schedule shift and that will produce a certain change. The question you're asking me to compare that to, because of the word that's on line 4 -- one, two, three, four five, six -- the sixth word starts with an S. To be able to judge that, you would have to know what would have been the outcome had no action occurred on December 31st.

Q Well, to evaluate that one word, to evaluate the -- where you ended up, you'd have to actually have the executed change order, wouldn't you, in terms of the benefits that you claimed that may have been retained or changed?

A If you're asking me, sir, do you need to see the change order after it's executed to confirm that those items that are on page 12 are still there, you could look at the EPC contract agreement after that point.

MR. BREW: Thank you. That's all I have.
CHAIRMAN CARTER: Thank you, Mr. Brew.

Mr. Davis.

CROSS EXAMINATION

BY MR. DAVIS

- Q Thank you, Mr. Chair.

 Mr. Miller, good afternoon.
- A Good afternoon.
- Q I'll try to be brief.

You mentioned in your opening summary that, in response to an exhibit that Mr. Gundersen had placed in the record, that you -- and I'll identify the specific exhibit in a minute, but that the slippage in your schedule that that letter could cause has been accounted for in your schedule as you have today; is that right?

A No, that's not correct, what I said. What I said was our existing schedule prior to the movement of the design certification amendment SER date had float just like it did with the reference COLA. So when the April 3rd, 2009 letter went to WEC that changed the design certification amendment schedule which moved the SER into December of 2010, we had some float in our schedule. So that helps mitigate some of the impact of that change. That was what my statement was.

Q So you weren't talking about the extra 20 to 36 months which you now have in your schedule?

A No. I was referring to the changes that are driven in the COL schedule.

Q Okay. Now what about the July 28, 2009 letter that came to Progress with regard to your schedule.

A Well, that's the letter I'm referring to.

That letter --

Q You said April 3rd.

A Right. The April 3rd letter was from NRC to Westinghouse which is what moved the DCD Rev 16 and Rev 17 review schedule, and it refers to it in that document that the design certification schedule is changing.

Well, it changed and it was announced and transmitted on April 3rd of 2009, which moved it's dates, and then that had a ripple effect and it moved the -- our COLA date

also, and both of those dates have now been republished. 1 Well, just to be clear for the record that 2 what we're talking about is the first letter, the 3 April 3rd, 2009 letter from the NRC -- I'm trying to 4 find -- was Gundersen 62, that's -- no. The April 3rd 5 letter is the new start letter, is that right? 6 I think you should see that the April 3rd 7 letter is a letter from NRC to Westinghouse providing a 8 revised DCD amendment review schedule, which moved the 9 10 SER date to December, 2010. Okay. And the letter, the second letter that 11 you're referring to, we've not made -- is Gundersen's --12 you called it a late-filed exhibit, right, that -- the 13 NRC letter from July 28th, 2009? 14 I believe you're referring to the letter from 15 Sara Kirkwood to the ASLB judges? 16 Yes, I am. 17 Q Α Yes. 18 19 And that, for the record, is Exhibit 69, okay. 20 So, now, obviously, when you received this 21 July 28, 2009 letter which is Exhibit 69, you had additional float in your schedule at that point; right? 22 That letter points out the fact there has 23 been movement in the design certification schedule. 24 25 There has been movement in the reference COLA schedule,

and my statement earlier is we had float in our schedule 1 because our COLA went in after many of the first wave 2 AP1000s because our site was announced later. So that 3 gave us some float to help mitigate some of that change; 4 however, obviously the letter does state there still 5 could be some change to our schedule. 6 And just so we're clear, this is an exhibit 7 that I'm going to talk about from the -- that we've 8 previously entered when we were discussing FPL, and this 9 is SACE Exhibit 132, and I'd like to go ahead and place 10 that in the record for Progress as well. 11 CHAIRMAN CARTER: Okay. That would be -- hang 12 13 on a second. Let me go to the back pages. MR. DAVIS: Well, that' what -- I asked a 14 15 question of the --CHAIRMAN CARTER: It's going to have to be a 16 new exhibit. 17 MR. DAVIS: I was told that I needed to make 18 19 it an exhibit for this part of the matter. 20 CHAIRMAN CARTER: Right. I'm going to give you a number for it, for this one, for the Progress --21 MR. DAVIS: I believe that was 153 --22 23 CHAIRMAN CARTER: Hang on a second. Staff? 24 MR. YOUNG: I just got an indication from 25 Progress that they don't mind it being labeled as 132.

1	Just to keep the record clean, if they don't object to
2	it, that's fine.
3	CHAIRMAN CARTER: Okay. Then, Mr. Walls, is
4	that correct?
5	MR. WALLS: Yeah, if it's already been entered
6	in the record, I would assume we could use the same
7	number rather than making it more confusing by having it
8	in twice.
9	CHAIRMAN CARTER: That's fine. You may
10	proceed.
11	MR. WALLS: I would just like to have a copy
12	of it.
13	MR. DAVIS: I'll pass one out. Thank you.
14	CHAIRMAN CARTER: You may proceed. Less is
15	more. And this is Exhibit 132.
16	Mr. Davis, make sure you leave for both the
17	Commissioners here
18	MR. DAVIS: And for the Court Reporter?
19	CHAIRMAN CARTER: No, no, for both the
20	Commissioners here. There we go.
21	COMMISSIONER ARGENZIANO: I can't hear you,
22	Mr. Chairman.
23	CHAIRMAN CARTER: I'm talking to Mr. Davis and
24	I'm trying to get Mr. Davis to get him to leave another
25	exhibit so you'll have a copy, Commissioner.

COMMISSIONER ARGENZIANO: Thank you very much. 1 CHAIRMAN CARTER: Thank you. And it's listed 2 in -- Commissioner Argenziano, from our current list, 3 it's listed as Exhibit No. 132. 4 COMMISSIONER ARGENZIANO: 132, okay. 5 CHAIRMAN CARTER: But, for ease of operation, 6 I wanted just to have a copy for each one of us. 7 COMMISSIONER ARGENZIANO: Thank you. I 8 appreciate that. 9 CHAIRMAN CARTER: Mr. Davis, you may proceed. 10 BY MR. DAVIS: 11 Let me identify this exhibit for the record. 12 It is Exhibit 132, but this is a letter from a Mr. David 13 Matthews, Director, Division of New Reactor Licensing 14 with the NRC to David Matthews, and let me ask you, 15 Mr. Miller, who is David Matthews. 16 David Matthews is in charge of the new reactor 17 licensing organization. 18 And is he affiliated with Westinghouse/Shaw or 19 is he --20 No, sir; he is NRC. 21 Α He's NRC. So this letter that Mr. Matthews 22 has received has to do with further delays to the NRC's 23 review of the AP1000 design certification, correct? 24 Α That's not correct what you state. 25

letter is from Dave Matthews to Robert Sisk. Robert Sisk is a Westinghouse manager. So, just for correctness --

Q Thank you for pointing that out. I knew Westinghouse was in here somewhere.

A Right, and then to follow that -- the specific comment is -- what they're saying in here is they are not going to be able to meet a specific ACRS Committee date in November of 2009.

Q And that was -- in paragraph 2, that was as a result of Westinghouse not providing the design information necessary to resolve staff concerns; right?

A That is correct.

Q And I've double-sided this. If you'd look on the second page, please, that in the second to the last paragraph, at this point in time, which was August 27th of 2009, the NRC is saying that they cannot support a schedule that had previously been provided in reviewing this particular issue, and they say that it's very much up in the air; is that correct?

A I wouldn't say it's very much up in the air.

I would say what they're saying here specifically is

there was -- Chapter 6 was scheduled to be reviewed in
an Advisory Committee on Reactor Safeguards -- what
we've heard as ACRS. That was scheduled for November,

,

 2009. Because that was not ready for that meeting, they will have to take an action to figure out when to reschedule that work.

Q And you're much more familiar with the issue than I am. Can -- there's a sentence here that says, "The submitted information failed to resolve the long-standing fundamental questions related to the design basis, debris source term, the limiting system flows, in-vessel testing, the magnitude of debris bypassing the pump screens and the choice of the limiting accident scenario." Can you describe what that means in sort of shorthand?

A In paraphrase, in a loss-of-coolant accident where water is on the floor of containment, it is recirculated back into the reactor vessel. And so, if there's debris inside the containment, that will get into the fluids such as if you leave fibrous material in there. And so when they refer to source term, they're talking about material like some fibrous material. As it recirculates in the -- as part of the passive core cooling system there, there are limiting system flows based on the pressure drops across various places where this debris would carry, such as, if you had a small orifice, it may block it and create a change in the pressure. So what this is describing is the resolution

of analysis associated with the amount of the source term, its transport as it's moving in the passive cooling through the vessel in a post-loss-of-coolant accident scenario.

Q So, in other words, if you've got debris that's being picked up by your pumps, it could plug the pipes that are responsible for cooling the reactor and preventing a meltdown; is that right?

A That's not correct, sir. Because this is a passive containment cooling system that's part of the AP1000, there are no pumps. It is all driven by natural convection.

Q Okay. You could still plug the pipes, though?

A In this case the pipes are a large diameter. So they're concerned about the flow rate through the smaller places that would -- and how much bypass flow is around those to ensure that there is adequate flow through the core post-shutdown do keep the core cooled down.

Q And the NRC says this is a long-standing fundamental question or questions. Does this refer even back to the first generation of reactors?

A When you say "first generation of reactors," do you mean the ones operating now?

Q The ones operating now which I guess would be

specifically a Westinghouse design reactor, would it not?

- A You cannot compare these because this information -- the concept of recirculating is applicable to existing power plants, but this is a very technology-specific calculation based on how recirculation flow takes place in containment. This is a passive core cooling system, so it works very different than what's, say, at Crystal River or St. Lucie or Turkey Point.
- Q When it says "long-standing," how long-standing does this -- how long-standing has this issue been, is what I'm trying to get to?
- A I do not now the answer to the question. Dave Matthews wrote this letter, and from his perspective related to the review of the design certification, that's the phrase he used, but I don't know how long it is.
- Q Now, this is the most recent information we could obtain from NRC about this issue. Have you followed any subsequent releases about this issue?
- A I am not aware of any additional published information on this subject.
- Q And so there's no new schedule for this ACRS review?

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A I am not aware that an ACRS substitute meeting has been scheduled for this Chapter 6.

Q Okay. And this could be an additional delay to the final design certification of the AP1000?

A While it could be, it doesn't have to be. It depends on how the schedule is resolved to incorporate an additional ACRS meeting to review this Chapter 6 content associated with the containment sump recirculation.

Q And you've said in your prior testimony this afternoon that the AP1000 is certified, and it's in Revision 17 at the moment; right?

A The answer is yes, it is certified, and it is in Rev 17, and let me explain. AP1000 is a certified design. That design is certified based on a design control document that's Revision 15, and that certification is included in Appendix Delta, Appendix D, to 10 CFR Part 52. There are two revisions outstanding, Rev 16 and Rev 17, that make changes to the certified design. And so what's being processed is a design certification amendment that incorporates Rev 16 and Rev 17.

- Q Does one of those have to do with the certification for hard-rock sites versus other sites?
 - A Yes. I believe Rev 16 includes that change.

1	Q And your site, I believe you testified, is not
2	considered a hard-rock site?
3	A It is not, and our application points to Rev
4	17 content.
5	Q Okay. And Rev 17 is what's being held up
6	right now, is that correct?
7	A I don't know if this is a Rev 16 or a Rev 17,
8	but it's one those two is what this subject is
9	regarding.
10	Q Okay. Thank you. Just one second and I'll
11	proceed. I might have passed my notes out to somebody
12	when I was passing out the exhibit.
13	CHAIRMAN CARTER: Well, I didn't get them. I
14	only got this one page here. I probably couldn't read
15	your writing anyway.
16	MR. DAVIS: I wouldn't think so.
17	MS. RHEWINKEL: You may have given them to
18	Mr. Walls.
19	MR. DAVIS: In which case he can continue with
20	my cross-examination. I'll be happy to let him.
21	MR. WALLS: No, I don't have them but I'd be
22	glad to take them.
23	BY MR. DAVIS:
24	Q You'd be glad to throw them out.
25	All right. I think I remember what I was

1 going to ask anyway.

I believe you -- Mr. Miller, you told Mr. Brew that you were talking about the definition of feasibility when we talk about long-term feasibility from the standpoint of a project manager; is that right?

A It's correct to say that in my rebuttal testimony -- I gave a perspective in the rebuttal testimony from project management and it refers to Jeff Lyash would give that perspective from an executive level, I believe is the language he pointed to.

Q And your perspective as a project manager is that the Commission should not consider the cost effectiveness of an already approved need determination facility such as this in its feasibility review, correct?

A Sir, define "cost effectiveness."

Q Well, you specifically said that you thought feasibility involved technical feasibility and regulatory feasibility, and neither of those have cost effectiveness in them; right?

- A Those two are not costs.
- Q Okay. And that was all you defined as feasibility, correct?

A In the direct testimony, however, in the rebuttal testimony I answered this question

specifically, and I'm looking for the location where that is, the question about do we consider costs, and the answer is, yes, costs would be considered.

- Q Well, page 49, I believe, line 7.
- A Yes.
- 0 And --
- A But it starts on page 48 with a question on line 15.
- Q And your response to that question is the company always considers total costs, and we're not asking your opinion about what the company considers in its feasibility. The question here today is what the Commission should consider in determining long-term feasibility as it decides not whether to build a reactor, but whether to put the ratepayers financially on the hook for paying for your reactor; is that right?
- A Are you asking me what the Commission's decision has to be based on?
- Q Well, I mean, your commentary on costs has to do with what you as a project manager consider for moving forward with a reactor; is that right?
- A It is, but it's also representative of my company's position that we do not believe that a CPVRR analysis done yearly is the correct vehicle to judge that the project is feasible from a cost perspective.

Q Well -- but you're talking about from your company's cost perspective, but the Commission has responsibilities to the ratepayers; right?

A The Commission is, you know, responsible for the ratepayers.

Q And as a project manager, you believe that the Commission should trust Progress to manage costs and weigh those costs against the benefits of the project as part of the company's decision-making process?

A I believe the Commission should consider the following things: Is the plant technically able to be built? Is that technology viable? Can we deploy it at that site? Can it be feasably completed? Can you secure all the regulatory approvals as part of that to make sure that you can indeed license and operate that plant, such as site certification, such as a nuclear COL license? I think cost is relevant, but I don't believe that a cost algorithm or analysis that's so specific as the CPVRR is the correct way to do that. And I'll give you an example where cost comes into play.

We're negotiating a change order currently, right now, that will result in a contract amendment that changes the schedule dates in it. If the Consortium was to come back with an unreasonable, unprincipled dollar value -- and I'll just make an absurd one, they doubled

the contract price -- then we would say this project is no longer feasible from a cost perspective.

Q But that's, again, your company's decision-making process. We're talking hear today about the Commission's decision-making process in looking at long-term feasibility. So, I mean, despite the billions that you hope to recover from the ratepayers prior to one kilowatt-hour of electricity being generated by Levy 1 and 2, you believe that the need determination is the only time that the PSC should look at the economic feasibility of the plant; is that correct?

A Sir, what do you define as economic feasibility?

Q Well, what do you define as economic feasibility?

A I define it as they will on an annual basis review our costs and they would look at how those costs have changed and what drives those changes, and, as I stated earlier, if there is some unprincipled, unreasonable change to the cost, then we will say the plant is no longer feasible.

Q Excuse me. You have no --

MR. WALLS: Can I object a second. I think the witness wasn't finished with his answer.

THE WITNESS: Yes. I will tell you what it is

not. It is not a CPVRR calculation that compares -does this comparison on an annual basis comparing the
gas and the CO2 when those things are volatile and
change year to year.

BY MR. DAVIS:

Q Now, you do know that your need determination is based upon a CPVRR calculation; right?

A I do because the statutes required us to submit that as part of our need determination filing.

Q And that is a one-time projection into the future upon which a decision to build a nuclear power plant is made?

A We submitted that per the regulations, the statutes for the need determination filing.

Q And a need determination is based upon -- at least in part, upon those calculations; correct?

A It was last year when the order was issued.

Q And you're saying that the Commission shouldn't consider a similar economic analysis as it looks at long-term feasibility each year?

A What I'm saying is I do not believe that is the proper algorithm or vehicle to make a decision whether a project is feasible year to year.

Q As the only part of the decision, is that what you're saying?

1	A That's correct, because you cannot ignore
2	technical, regulatory, other things that are associated
3	with this.
4	Q So you agree to add to your definition of
5	feasibility economic feasibility as long as it's not
6	solely based on a CPVRR calculation?
7	A I believe that it is relevant to consider
8	costs when you consider feasibility. The example I gave
9	earlier of an unprincipled doubling the contract price
10	would tell me the project is not feasible from a cost
11	perspective.
12	Q But again, we're not talking about your
13	decision-making. We're talking about the Commission's
14	decision-making. So you didn't provide any basis for
15	the Commission to make a decision on the economic
16	feasibility of the project, did you?
17	MR. WALLS: I'm going to object. Asked and
18	answered.
19	CHAIRMAN CARTER: To the objection, Mr. Davis.
20	MR. DAVIS: I'll withdraw the question. It
21	has been answered.
22	Thank you. That's all I have.
23	CHAIRMAN CARTER: Thank you.
24	Mr. Moyle, good afternoon.
25	

CROSS EXAMINATION

BY MR. MOYLE:

Q Thank you, Mr. Chairman.

Just when I thought I was beginning to understand this, the followup to the conversation that you just had with counsel I found interesting because yesterday we had some conversations, and it sounds like you are indicating that economic analysis and the cost is a key component of long-term feasibility; correct?

A Cost is a consideration for feasibility. If you go back to the rule and you ask yourself feasibility to complete the power plant, I have to technically be able to do it, I have to be able to license it and get all the regulatory approvals. The cost is relevant to whether you'd move forward if you had some unprincipled change.

Q I appreciate that, and, you know, we're going to try to hit this as quickly as we can, yes/no, and explain it if need be.

So the cost is relevant. You said that you didn't think the CPVRR calculation was the appropriate algorithm or vehicle to determine those costs necessarily. Is that correct?

A It is correct I said that the CPVRR method done annually is not the right vehicle to make a yes/no

1	feasibility determination.
2	Q Okay. And as we sit here today in front of
3	this commission, I mean, isn't the CPVRR calculation
4	attached to Mr. Lyash's testimony? That's the best cost
5	information that we have as we sit here today that's
6	been filed with this commission, correct?
7	A That was filed with the Commission per a
8	request from staff.
9	Q Okay. So the answer is yes?
LO	A Yes.
11	MR. WALLS: I'm going to object. That
L2	mischaracterized his testimony.
13	CHAIRMAN CARTER: Mr. Moyle, to the objection?
14	MR. MOYLE: I think he answered the question.
15	He said that was the best cost information that we have
16	as we sit here today, so I don't
17	CHAIRMAN CARTER: Mr. Walls?
18	MR. WALLS: I didn't get my objection in, but
19	I'll let him stand on the record.
20	CHAIRMAN CARTER: Mr. Moyle, you may proceed.
21	BY MR. MOYLE:
22	Q You also, to explore your suggestion about
23	unprincipled and unreasonable numbers, the you said,
24	if the price doubled, clearly that would be unreasonable
25	and unprincipled; correct?

A Correct.

Q And I'm not really comfortable with unprincipled because most negotiations I've been in are kind of dollars and cents, and principle is -- you know, the reasonableness issue is what I'm more comfortable with, so let's focus on reasonableness. You would agree, would you not, given the fact that, if the price doubled, that would be unreasonable, then it becomes a matter of degree as to when the price becomes unreasonable; correct?

A No. The issue is I don't think there is a specific dollar value that's a litmus test of it's a go or no go.

Q But you would agree that a finder of fact that has to determine reasonableness or prudence or long-term feasibility would need to make a judgment as to the all-in costs and what those costs were, and then say, you know what, I think this is either prudent, reasonable or feasible or not, that the cost component needs to be part of the calculus; correct?

A I believe that, in terms of feasibility, cost is a consideration, and you look at the changes that are occurring year to year and see what drove those changes and see if those are reasonable and principled.

Q Okay. So you said that doubling the cost

would be unreasonable, and in this situation we don't have an executed change order to the contract, and I think we've established yesterday that potentially it could be up to four billion dollars on a 25-percent band increase. Given that --

MR. WALLS: Objection, that mischaracterizes the testimony.

CHAIRMAN CARTER: I think he was referring to the hypothetical he asked yesterday. You may proceed.

BY MR. MOYLE:

Q I guess -- wouldn't you believe it would be reasonable and prudent for this commission, if it so desired, to tell the company, when you get better information as to the overall impact of this change order and we can determine the order of magnitude as to what it would be, would you please bring that back in front of us so that we can use that information to make our judgment? Wouldn't that be a reasonable way to proceed in your judgment?

A No, sir; I do not degree with your series of events that took place. I believe that we have provided information of the feasibility of the project as it exists today. We are in the process of doing a change order. That information will be available in the next round of this review because this is an annual process.

It will be ongoing. This is one change order. There will be others in the future. I don't think it's necessary for them to hold judgment until that's resolved.

Q If this commission said to you in their result, they said, you know, we applied our rule that requires detailed information about long-term feasibility, we interpret it that we feel we need more information with respect to costs, and given the variability, that could range between 17 billion and 20 billion, please bring the number back to us when you get it, you would be able to do that; correct? I mean, the company could actually bring that number back after the change order was negotiated; correct?

A You said a lot of things in your statement here, and so I'm going to -- first of all, you used a range like 17 to 20 billion, and we've not said that anywhere in our discussion that we expect our value to be 20 billion. We've not said that. Beyond that, though, obviously the Commission has the prerogative to direct and request whatever they see fit and we would be responsive to whatever they asked for, but we do not believe it's necessary to provide that information in advance of the normal process that's been established in the rules for the Capacity Cost Recovery review.

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Q And just so that we're speaking on the same wavelength here, hopefully. I mean, right now you're at 17.2 billion; correct?

A Correct.

Q And with respect to projected changes, you had a discussion yesterday that, you know, the top end of the increase could be approximately 25 percent; correct?

A No, sir. What I said specifically is the -there is an exhibit in Jeff Lyash's testimony that has a
CPVRR calculation, and it has, I want to say from
memory, a minus 15, minus 5, plus 5, plus 15, and plus
25 differences in the CAPEX, and what I said was the
information we're getting from the Consortium insights
in terms of estimated indicative prices for the schedule
shift is well within that range.

Q Yes, sir. But if we assume that it was at the top end at 25 percent, that would be over four billion; correct?

A I would have to do the calculation, but I didn't say it was at the top end of the range.

Q Yes, sir. Are you familiar with environmental permitting as somebody who's been involved in nuclear permitting? Have you ever secured environmental permits, ERP, environmental resource permits?

A I am involved -- we just received an ERP for

the barge slip at the Levy project.

Q Are you aware of a legal construct in environmental permitting that, to the extent that there is a range of possibilities, that the regulator will assume the worst case scenario for the purposes of considering the permit?

A I am not a lawyer and I'm not aware of what you're discussing.

- Q So you're not aware of that construct at all?
- A I am not aware of what you're describing.
- Q And I have some questions with respect to the contract, and there's been a lot of conversation about that, it's confidential, it's difficult to wade through. But you and Mr. Lyash both have testimony with respect to contract provisions. So is it a safe for me to assume that, to the extent you both have testimony about certain provisions and things like that, that both of you are capable of commenting on contract negotiations and contract revisions?
 - A Yes, sir.
- Q Okay. So I'm going to limit my conversation with you on that given your answer.

Could I direct you to page 7 -- wait a minute.

It's page 12 of your rebuttal. You see the first bullet point there in 12 that talks about fixed or firm?

- A That is a confidential bullet.
- Q Yes, sir. The percentage -- your counsel has told me that the percentage is confidential, but the fact whether it's fixed or firm or not is not considered confidential. You would agree with that, would you not?

A Yes, I would agree, and as a matter of fact we have said in our SEC 8-K when we announced the EPC signing that we said it was greater than 50 percent.

- Q That what was greater than 50 percent?
- A The fixed/firm percentage. That's in the public record.
- Q Okay. So we can talk about the fact that greater than 50 percent of your contract price is fixed, correct?
 - A Yes, that has been announced, fixed/firm.
- Q Okay. Now, using the 72-point -- I'm sorry, the 17.2 billion, given what you've stated publicly about more than 50 percent being fixed, wouldn't it be reasonable to then assume that there's an unfixed portion that could have wide variability with respect to the overall price?
- A No, sir. First of all, I didn't say greater than 50 percent, or let's say greater than half which is way the language was in the 8-K. Greater than half is fixed or firm. The other part is target.

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- A That is correct.
- Q Okay. And prior to this, it had been a very long time since nuclear technology had been put in place in the United States; correct? I mean, we're talking a 20, 30 year hiatus; is that right?
 - A That is correct.
- Q And Westinghouse is in the business of selling equipment, nuclear reactors, nuclear services; correct?
 - A That is their business.
- Q And it's hard to second-guess or judge negotiations when you're not there, but I found something in your testimony interesting that's on page 13, line 9, where it starts, "The Consortium's." Do you see that?
 - A Yes.
 - Q Do you consider that sentence confidential?
 - A Yes, I do.
- Q This suggests to me that the -- there were key factors on the Consortium's end that greatly influenced these negotiations. Is that a fair reading of that?
- A Let me paraphrase to avoid discussing what's in here. We were one customer of Westinghouse and Shaw. They had other customers that were also in negotiations. Our negotiations have been ongoing for two years.
 - Q Do you -- have you ever purchased a house?

- A I have purchased several.
- Q Have you ever had a situation where you are presenting a contract and the realtor says, well, you know, you better hurry up and put your best offer in because I think there's another one coming in? Has that ever happened to you in buying a house?
 - A I have experienced that, yeah.
- Q Do you think that maybe in the course of negotiations things like that could have happened in the negotiations with the Consortium?
- A No, sir, because, as I stated earlier, our negotiations have been ongoing for two years beginning in December of 2006. So I would not consider that to be rushed.
- Q There was a few areas -- just to shift gears a little bit. You've covered a lot of ground and I'm going to try not to be duplicative. Page 35, line 14, and I'll quote, you stated, "The NRC would not have docketed the PEF COLA if the NRC doubted the ability to construct the AP1000 nuclear power plants on the Levy site because of the site geology or other characteristics."
- Now, you're not suggesting that the mere fact that the matter has been docketed is tantamount to the NRC signing off on the site, particularly with respect

to the geotechnical aspects of the site; are you?

A No, sir, and this sentence does not state that. What we're saying here is based -- they docketed it, and if they had some serious doubt that was present based on their review of the materials during the docketing review, they wouldn't docket it.

Now, that's not to say they've made a decision because it's going to take many months of RAIs on various issues, including geology, hydrology, et cetera, they will go through. This was just an acknowledgement of the fact that, if they felt like there was a fatal flaw of that site that was not addressed in the application, they would not docket it.

- Q And I'm confused as to how you get that from -- the October 6th letter is the docketing letter, is that right?
 - A That's correct.
- Q And we talked about that yesterday, and they specifically raised geotechnical concerns in that letter; correct?
- A They did not raise concerns. They asked geotechnical questions.
- Q Okay. But you interpret that letter -- is it your testimony you interpret that letter that the NRC does not have doubt about the ability to construct the

AP1000 at the Levy site? Is that how -- did you glean that from the October 6th letter?

A What I gleaned is what I stated here, and specifically as it reads, we do not believe they would have docketed the COLA if they had reviewed the content and then doubted seriously the ability to place those plants on that site.

Q Did they confirm that? Did you talk to anybody about that or is that --

A It's not written anywhere. It's just our observation of their action.

Q And then yesterday I had asked you, in terms of gleaning from the letter, couldn't you glean that maybe the LWA schedule wasn't going to proceed as requested, and you've said you couldn't glean that from the letter; correct?

A No. What I said was I could not glean that we would not get an LWA from that letter.

Q The LWA is a important piece of the Levy Power Plant, correct?

A It is.

Q I have a couple of questions. You talk about risk and risk associated with the project. Have you all done a risk analysis as it relates to the location physically of the proposed Levy project vis-a-vis the

Cry

Crystal River Nuclear Power Plant?

A I don't understand your question. Are you asking about emergency planning?

Q Well, the proposed power plants are supposed to be within nine miles of each other, approximately; correct?

A Yeah, approximately that much, nine, 10 miles.

Q And I'm questioning as to whether that presents any kind of risk with respect to your generation assets being located within a close proximity. Is that a risk that you have identified and evaluated?

A Yes. As a matter of fact, I would characterize -- that risk that you're asking about is exactly why the Levy Plant is not at the Crystal River site. As we did a site selection and considered various sites around the state, the short list included the Crystal River site. It has approximately 3200 megawatts at that site. The addition of 2200 more at that site would be a concentration of resources that would not be in the best interests of our ratepayers because that would represent too much asset at one physical location that could be subject to some weather event or something like that. So that was clearly considered, and that's why it's not at Crystal River.

Q And what weather events did you analyze in making the determination that you couldn't co-locate?

A A weather event might be a hurricane, for example. That site is at a ten-foot elevation at Crystal River. The Crystal River Unit 3 is actually built on a berm up above the rest of the site, but, more importantly, the transmission lines coming out of that site run close to each other. So, in a hurricane that's spinning off tornadoes or just a tornado event, you could have a tornado take out several transmission lines and separate those stations from the grid. And so that's why system reliability considers the location of all those assets at one place.

Q You're familiar hurricanes can have a breadth and scope of damage greater than nine miles, correct?

A Oh, certainly.

Q Did you all identify as a risk in your evaluation as to the ability to dispose of spent fuel rods?

A And when you -- ask your question more specifically, please.

Q Did you consider the risk of not having a place to dispose of the spent nuclear fuel rods other than on site as part of your risk evaluation?

MR. WALLS: Commissioner, can I object to this

line of questioning?

We've gotten rather far afield of what's at issue in this case. I mean, if Mr. Moyle wanted to ask those questions, he should have asked them in the need case last year. We're getting into all kinds of risks. Is he going to go through every risk that possibly existed of siting the plant at Levy? This is getting pretty far afield, and it's 4:30 and we have three witnesses to go.

CHAIRMAN CARTER: To the objection, Mr. Moyle.

MR. MOYLE: Well, a couple of things. First of all, he talks about risk specifically in his rebuttal testimony.

Secondly, you know, my cross is coming up maybe on, I don't know, 20 minutes at this point. You know, this is the last line of questions that I'm going to ask.

Thirdly, you know, there's a feasibility rule that charges you all with making a decision with respect to feasibility. I think it's surely within the ambit of the -- and the scope of the rule to ask as to whether that risk has been part of the evaluation and whether there's a plan to dispose of these rods going forward.

CHAIRMAN CARTER: Ms. Helton.

MS. HELTON: If you'll give me a minute, Mr.

Chairman, to look at the testimony, I would like to see 1 what he says about risk in his prefiled testimony. 2 CHAIRMAN CARTER: Take a moment. 3 MR. YOUNG: Mr. Moyle, can you point to the 5 page? 6 MR. MOYLE: I had -- I think it was a number 7 of places. I had 17 and 22 written down, "All other 8 risks were known or clarified." It states on line 22, quote, "Risk can only be known or clarified with 9 10 certainty when the risk occurs or the passage of the time or events eliminate the risk." 11 MS. HELTON: If you'd let me read to myself, 12 we'll get through this much more quickly. 13 Mr. Chairman, from what I've seen in the 14 prefiled testimony, it does seem to me that this witness 15 testifies to risk. So this does seem to me an 16 appropriate subject for cross-examination. 17 CHAIRMAN CARTER: Overruled. You may proceed. 18 19 BY MR. MOYLE: Why don't you take a stab? 20 Sir, I'd like to answer this question in two 21 First of all, spent fuel disposal is addressed 22 in our application, our COL application, and if I can --23 24 I don't know if this the right order, but if I can ask a question of the Chairman, permission here. 25

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CHAIRMAN CARTER: Mr. Miller, you had a question of the Chair?

THE WITNESS: Yes, sir. The question was in regard to spent fuel disposal or high level waste, and we have -- under a separate docket under the NRC, our COL application has parties to -- intervention on that application and subjects related to waste of the plant. So I would like to look limit my discussion to avoid getting into those issues because we have this other proceeding going on under the ASLB.

CHAIRMAN CARTER: You may do so, and -- I mean, you may do so. We'll tread lightly.

Mr. Moyle, you may proceed.

BY MR. MOYLE:

Q Yes, sir, and in response to that, is that a secret docket or a confidential docket that you just

referenced?

A Oh, no, sir. What I'm saying is, in our COL application, there's a process for individuals, organizations to intervene, and there has been intervention on our COL application and contentions have been admitted, and those contentions are still pending for a hearing.

Q Yes, sir. And I guess -- I don't want to get into the weeds on this. All I want to do is ask a

couple of high-level questions with respect to your plan for handling the spent nuclear fuel rods with respect to the Levy project.

- A Okay.
- Q Do you have a plan to handle those?

A Well, first all, the AP1000 is designed for approximately 19 years of storage of discharged fuel that's been used in the rector. So that's the first point.

The layout of the site accommodates a potential future expansion for dry storage on the site. So we have that.

Then the third is, the federal government, under the Waste Policy Act of 1982, still has the obligation to receive our spent nuclear fuel and process that from a federal perspective.

Q So how many years capacity will you have at the Levy site for spent fuel rods?

A Well, as I said, when you start up the reactor, there will be 19 years of storage in the spent fuel pools, which is a significant amount of time to watch the resolution of the federal waste repository process and then from there take an action, if necessary, to construct spent fuel storage on site, dry storage, if necessary.

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- Q Okay. The project obviously is designed for greater than 18, 19 years; correct?
 - A Oh, that's correct.
- Q Thank you. Thank you for that, Mr. Chairman.

 And the final point, just to draw your

 attention to page 48, line 18, you were asked the

 question about the total project cost.
 - A Line 18.
- Q Your response to the question about total project, you say, no, I do not, and I quote, "The company always considers the total project cost of the project." Wouldn't you agree that, in addition to the company considering the total project cost of the project, that this commission should also consider the total project cost of the project cost of the project when making its determination and analysis of the long-term feasibility?
- A Well, there is a separate requirement under the rules to provide the total project costs separate from the long-term feasibility rule.
- Q Okay. And if you could just answer that yes or no, I'd appreciate it.
- A Oh, yes, they should -- it is right -- it is appropriate for them to consider it because it's in the rules for us to provide it.
 - MR. MOYLE: That's all I have. Thank you.

1	CHAIRMAN CARTER: Thank you, Mr. Moyle.
2	Staff?
3	MR. YOUNG: No questions.
4	CHAIRMAN CARTER: Commissioners, anything from
5	the bench?
6	COMMISSIONER EDGAR: No, sir. Redirect?
7	REDIRECT EXAMINATION
8	BY MR. WALLS:
9	Q Just one.
10	Mr. Miller, you may recall that Mr. Brew was
11	asking you questions about page 17, lines 3 to 6.
12	A Page 17, line 3 through 6.
13	Q Yes.
14	A Yes.
15	Q And he was asking you questions about whether
16	you had to wait to see how the amendment worked. Do you
17	recall that?
18	A Are you asking me what his questions were?
19	Q Yes. Do you recall that?
20	A He was asking a question in regard to seeing
21	how the amendment plays out.
22	Q Okay. But you do have a signed EPC agreement
23	right now, right?
24	A Yes, and we have an executed EPC contract in
25	full effect.

1	Q And you can go to that EPC agreement and look
2	at it and see that it has the benefits in it that you
3	identified on pages 12 and 13 of your rebuttal
4	testimony?
5	A That's correct. Those benefits listed on page
6	12 and 13 as bullets are in that executed EPC.
7	MR. WALLS: No further questions.
8	CHAIRMAN CARTER: Okay. Exhibits?
9	MR. WALLS: We'd like to move into evidence
10	Exhibits 114 through 123.
11	CHAIRMAN CARTER: Are there any objections?
12	Without objection, show it done.
13	(Exhibit Nos. 114 through 123 admitted into
14	the record.)
15	CHAIRMAN CARTER: Anything further for this
16	witness from any of the parties?
17	Thank you, Mr. Miller.
18	MR. WALLS: May Mr. Miller be excused from
19	this hearing?
20	CHAIRMAN CARTER: He may be excused.
21	Call your next witness.
22	MR. ROACH: Hugh Thompson.
23	CHAIRMAN CARTER: One second.
24	Okay. You may proceed.
25	/ / / / /

1 Whereupon, HUGH LLOYD THOMPSON, JR. 2 was called as a witness on behalf of Progress Energy 3 Florida and, having been previously sworn, was examined 4 and testified as follows: 5 DIRECT EXAMINATION 6 BY MR. ROACH: 7 State your name and work address. 8 Hugh Lloyd Thompson, Jr., 1000 Potomac Street 9 Α 10 Northwest, Washington, D.C. Have you previously been sworn in this 11 proceeding? 12 13 Α Yes. By whom are you employed and in what position? 14 I am employed by Talisman International as a 15 16 vice-president. Has your rebuttal testimony of 34 pages and 17 Q accompanying exhibits been prefiled on August 10th in 18 this proceeding? 19 20 Α Yes. Do you have any changes or corrections to your 21 22 testimony? 23 Yes, I do. 24 What are they? 0 25 First, on page 23, line 3 and 4, delete the Α

1	word "at the regulatory information conference in March,
2	2008."
3	Q Okay.
4	A Second, on page 32, line 8, the NRC accession
5	number should be MLO33640024.
6	Q With those corrections, if I asked you the
7	same questions today, would you give the same answers?
8	A Yes, I would.
9	MR. ROACH: I'd like to ask that the prefiled
10	testimony be inserted into the record as though read.
11	CHAIRMAN CARTER: The prefiled testimony of
12	the witness will be inserted into the record as though
13	read.
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IN RE: NUCLEAR COST RECOVERY CLAUSE FPSC DOCKET NO. 090009

REBUTTAL TESTIMONY OF HUGH L. THOMPSON, JR.

1	l.	INTRODUCTION AND EXPERIENCE.
2	Q.	Please state your name, occupation, and address.
3	A.	My name is Hugh L. Thompson, Jr. I am Vice President of Talisman
4		International, LLC. My business address is 1000 Potomac Street, NW
5		Suite 300 Washington, DC 20007.
6		
7	Q.	What is the purpose of your testimony in this proceeding?
8	A.	I have been asked to evaluate certain assertions and conclusions in
9	:	the direct testimony filed in this proceeding by William R. Jacobs, Jr.,
10		Ph.D. (Jacobs) on behalf of the Florida Office of Public Counsel. My
11	 	testimony presents the results of my evaluation, in rebuttal to the
12		testimony of Jacobs, as it relates to the Nuclear Regulatory
13		Commission (NRC) licensing process for the Levy Nuclear Project
14		(LNP) and certain aspects of the Crystal River Unit 3 Extended Power
15		Uprate project.
16	i	• •
17	Q.	Please state your professional experience and education.
18	A.	I have more than 35 years of nuclear safety experience, including
19		senior level management positions at the U.S. Nuclear Regulatory

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Commission (NRC). From 1996 to 1998 I was the Deputy Executive Director for Regulatory Programs at the NRC. In that position, I directed the licensing, inspection, and rule making activities for all NRC licensed nuclear reactors, the oversight of the U.S. Department of Energy's (DOE's) high-level radioactive waste program, the decontamination and decommissioning of contaminated sites, and the material licensees regulated by both the 29 Agreement States and the NRC. I also held the positions of Director of the Office of Nuclear Material Safety and Safeguards, Director of the Division of Licensing and Director of the Division of Human Factors Safety for the Office of Nuclear Reactor Regulation. I was an NRC Environmental Project Manager for draft and final NEPA statements for both construction permits and operating licenses. I have provided expert testimony in NRC licensing hearings and testified in state and local governmental hearings. I have testified before Congressional committees and the NRC Commission on topics such as safety issues at licensed nuclear facilities, NRC's high-level waste program, potential NRC oversight of DOE facilities and Y2K safety concerns.

During the period that I was the Deputy Executive Director for Regulatory Programs, I was directly involved in NRC Chairman Jackson's initiative to establish the Commission's Direction Setting Issues, which included one issue that focused on reactor licensing for

future applications. That strategy was the foundation for the current NRC licensing approach which includes early site approvals, standardized plant approvals, limited work authorizations (LWAs), and combined construction and operating licenses.

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At Talisman, I have provided expert regulatory assistance in cases involving NRC regulatory actions, including lost spent fuel, independent reviews of safety allegations at reactors and fuel cycle facilities and operational issues at fuel cycle facilities. I have also supported DOE and DOE contractors. I chaired an Independent Technical Review Panel evaluating safety concerns related to planned DOE remediation at a low-level radioactive waste burial site and have supported both the National Nuclear Safety Administration and the Idaho National Laboratory in safety programs. I was the Team Leader for the Talisman review of the regulatory breakdown between the Canadian Nuclear Safety Commission and Atomic Energy of Canada Limited that resulted in the temporary shutdown of the AECL NRU medical production reactor in Canada. I am currently advising the Babcock & Wilcox Company in its plans and interactions with the NRC for the licensing of their new Medical Isotope Production System reactor. I have been advising and supporting Caldon (now Cameron) in its interactions with the NRC concerning their measurement uncertainty recapture power flow meter. I currently am serving as a

member of the Environmental, Safety, Security and Health Committee 1 2 of the Board of Governors for the Argonne National Laboratory Oversight Board. 3 4 5 Earlier in my career, I served for five years as an officer in the U.S. Navy nuclear submarine program and for two years as a nuclear 6 7 licensing engineer at Alabama Power Company. 8 9 I received a B.S. degree in Naval Science from the U.S. Naval 10 Academy, an M.S. Degree in Nuclear Engineering from the Georgia 11 Institute of Technology, and a J.D. degree from George Washington 12 University. 13 Q. Are you sponsoring any exhibits to your testimony? 14 15 Yes, I have prepared several exhibits to my testimony. Exhibit No. Α. (HT-1) is my current curriculum vitae. Exhibit No. (HT-2) is 16 the December 3, 2008 Meeting Slides, "Levy Nuclear Plant Limited 17 18 Work Authorization Scope" also found at www.nrc.gov, NRC ADAMS #ML090760470. Exhibit No. (HT-3) is an excerpt of the NRC 19 20 December 4, 2008 public scoping meeting transcript that I quote later 21 in my testimony. Exhibit No. ___ (HT-4) is a table that lists 127 power 22 uprates that have been approved by the NRC. This table was

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compiled by me from publically available information. All of these exhibits are true and correct to the best of my knowledge and belief.

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What methodology have you used to conduct your review? Q.

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I reviewed the direct testimony and the exhibits submitted by Jacobs in this docket and the direct testimony of Garry Miller. I also reviewed documents available from the NRC including NRC regulations governing Combined License applications (COLA); documents related to the Limited Work Authorization Rulemaking in 2007; correspondence between the NRC and PEF regarding the COLA submitted by Progress Energy Florida (PEF) for the Levy plants; NRC press releases, transcripts of public meetings; the status of Design Certification Reviews being conducted by the NRC; and documents related to power uprate applications submitted to the NRC. I also contacted the two most recent NRC staff members who had and currently have direct oversight of the NRC power uprate program to verify my understanding of the NRC's past actions approving power uprates.

Q. What standard did you use to determine whether decisions made by PEF during the period being reviewed in this Docket were prudent?

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I have used the standard articulated by the Florida Public Service

Commission in the Final Order under Docket No. 080009-EI,

(November 12, 2008) which states (at page 28), "... the standard for determining prudence is consideration of what a reasonable utility manager would have done, in light of conditions and circumstances which were known, or reasonably should have been known, at the time the decision was made."

Q. How did you apply this standard?

A. In reviewing Jacobs' testimony, I evaluated his criticisms of decisions made by PEF managers in light of information that was available to the Company at the time the decisions were made.

Q. Is this the standard that Jacobs applied in his review and evaluation of PEF's cost recovery application?

A. No, I do not believe so. In explaining how he determined whether the costs submitted for recovery in this Docket are prudent and reasonable, Jacobs states (at page 4) that, "The Company must employ prudent contracting and project management and risk management procedures and practices to ensure that the costs are prudently incurred. The scope of work must be reasonable and the Company must ensure that the costs are reasonable by means of competitive bidding or other methods . . ." To state that "the

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procedures and practices must be prudent to ensure that the costs are prudent and that the scope of work must be reasonable to ensure that the costs are reasonable" is a circular standard that begs the question of how he determined whether the decisions made by PEF were prudent and whether PEF's management of the Levy project had been reasonable. Most importantly, it's not clear from that standard whether Jacobs evaluated the prudence of PEF decision making based on information that was available to the Company at the time decisions were made or whether he relied mainly upon hindsight. This flaw in his standard is evident in several of his conclusions which appear to be based on his knowledge of events that occurred subsequent to the decisions, rather than information that was available to the Company at the time the decisions he is evaluating were made. In some cases he is even conjecturing on what decisions the NRC staff will be making in the future.

II Levy Nuclear Project.

- Q. Please describe the NRC licensing process for new nuclear power plants.
- A. Prior to 1989, nuclear power plants were licensed by the NRC pursuant to regulations at 10 CFR Part 50. These regulations provided for a two-step licensing process that required applicants to first apply for and obtain a Construction Permit to authorize construction of the

plant, then, approximately two years before construction was complete, they had to apply for and obtain an Operating License from the NRC to authorize commercial operation. All nuclear power plants currently operating in the United States were initially licensed using this two-step process.

In 1989, the NRC established an alternative licensing process for new nuclear power plants with the issuance of 10 CFR Part 52. The NRC's intention in establishing this alternative process was to "achieve the early resolution of licensing issues and enhance the safety and reliability of nuclear power plants." (54 FR 15372) Under these regulations, an applicant may submit a combined license application (COLA) authorizing both construction and operation of the plant. The application must contain essentially the same information as would have been provided in an Operating License application and specify the inspections and tests that the applicant would perform and the acceptance criteria that would demonstrate that the completed plant had been constructed in compliance with NRC requirements.

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In addition to establishing a one-step application process, the 10 CFR Part 52 regulations contained other provisions intended to streamline the licensing process, including the ability to reference a certified

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standard power plant design, to obtain an early site permit, and to obtain a limited work authorization.

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Q. Please explain the design certification process.

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Under the 10 CFR Part 52 regulations, reactor designers may apply for a standard design certification from the NRC. An application for design certification must include sufficient information to allow the NRC to determine whether the design complies with all applicable NRC requirements and can be built and operated safely. A design certification application is independent of any specific site where the design may be built. If the NRC determines that the design satisfies all applicable requirements, it will certify the design through a rulemaking, which then may be referenced by COLA applicants. Issues that have been resolved in the design certification rulemaking do not need to be reconsidered during the COLA review. Design certification applications currently under review by the NRC have been submitted by GE-Hitachi, Areva Nuclear Power, and Mitsubishi Heavy Industries. The NRC also has under review an amendment to the previously approved Westinghouse AP 1000 design certification.

Q. What topics are evaluated by the NRC during its review of a design certification application?

1	A.	The NRC safety review of a design certification application evaluates
2		the design basis, limits on operation and the applicant's safety analysis
3		of structures, systems, and components of the plant. These safety
4		evaluations are made independent of any site-specific issues.
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6	Q.	What are the benefits of design certification in expediting the new
7		reactor licensing process?
8	A.	These provisions of 10 CFR Part 52 were included in the regulations
9		for the purpose of expediting the NRC's review of COLAs. An
10		applicant for a COLA may reference a certified design in its application
11		If the design already has been certified by the NRC, any issues that
12		were resolved in the design certification proceeding do not need to be
13		reconsidered in the COLA review. The COLA submitted by PEF
14		references the AP 1000 design that has been submitted by
15		Westinghouse for NRC certification. The Westinghouse design
16		certification application is currently being reviewed by the NRC.
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18	Q.	Is the status of the design certification of the AP 1000 nuclear
19		plant a risk to the successful completion of the Levy project, as
20		stated by Jacobs in his testimony (at page 7)?
21	A.	No. While there are schedule uncertainties as to when the NRC's
22		licensing review will be completed, the status of the design certification
23		reviews is not a risk to the successful completion of the Levy project.

In fact, of the 17 COLAs that have been submitted to the NRC, 16 of them reference designs that are currently still under review by the NRC and have not received design certification approval. Seven of the pending COLAs, including PEF's application for the Levy plants, reference the AP 1000 design currently being reviewed by the NRC. The only pending COLA that references a certified design that is not under review at this time is the application for South Texas Project Units 3 and 4, which references the GE Advanced Boiling Water Reactor (ABWR).

It is not a risk to the approval of any of the pending COLAs that the designs they reference have not been certified because it is very unlikely that any of these advanced reactor designs will ultimately not be approved by the NRC. The process being used by the NRC to review the design certification applications is set forth in a detailed Standard Review Plan. The technical acceptance criteria that must be met are well known by both the NRC reviewers and the reactor designers and have been met for these submittals. The design certification reviews currently being conducted by the NRC ultimately will obtain sufficient information from the applicants to demonstrate that the requirements have been met either by the original submittals, augmented by RAI responses, or by amendments to the applications.

An additional reason for not regarding the NRC review of the AP 1000 design as a risk to the Levy project is that the NRC has previously approved an earlier Design Certification Application (DCA) for the AP 1000 by rulemaking on January 27, 2006 (71 FR 4464). The current NRC AP 1000 design certification proceeding is reviewing modifications and improvements to the earlier approved design to address issues that would otherwise need to be resolved on a case-by-case basis by the COLA applicants and address additional issues that the NRC staff had left as open items in its prior approval. As noted in Mr. Miller's testimony, Progress Energy has joined a consortium of utilities in the NuStart Energy Development program as a cost effective approach to ensure technical issues regarding new reactor designs are adequately addressed in a timely manner.

Q. What topics does the NRC evaluate in its review of a COLA?

A. Initially, the NRC determines whether the application contains sufficient technical detail to demonstrate that the proposed plant will satisfy the NRC requirements for a detailed review. If the application is sufficiently complete and provides adequate bases to determine whether the NRC licensing requirements will be met, the NRC dockets the application for review. The NRC technical staff then reviews the application pursuant to a Standard Review Plan (SRP) that specifies the acceptance criteria for satisfying each licensing requirement. The

areas reviewed generally include site characteristics, design of the plant, analyses about how the plant would respond to hypothetical accidents, plans for plant operations, technical qualifications of the applicant to operate the plant, environmental impacts of the plant, and emergency plans, among other topics. If the COLA references a certified design, any issues that were resolved during the design certification review do not need to be reconsidered in the COLA review. In conducting its review, it is typical for the NRC staff to send requests for additional information (RAIs) to the applicant to make sure that it has sufficient information to determine whether the licensing requirements have been met.

Q. What is a limited work authorization?

Α.

A limited work authorization (LWA) allows a COLA applicant to perform safety-related site preparation work in advance of a COLA being issued by the NRC. In 2007, the NRC made revisions to its limited work authorization regulations to clarify the activities that require an LWA and the approval process for obtaining an LWA. The NRC stated that it was making these revisions "to enhance the efficiency of its licensing and approval process for production and utilization facilities, including new nuclear power reactors" (72 FR 57416). The NRC's review of PEF's application for an LWA to conduct site preparation activities at the Levy site is discussed later in my testimony.

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Q. When did the NRC update its LWA rule and why?

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The NRC began its initial efforts to update its LWA rule in 1998, while I was still the Executive Director for Regulatory Programs. This was part of NRC's efforts to update its regulatory program in anticipation of future reactor license applications. That effort was placed on hold when the NRC staff decided, based on public comments it had received, that the proposed rulemaking was not sufficient to improve the effectiveness of its processes for licensing future nuclear power plants (71 FR 12782). In March 2006, the Commission issued a new proposed LWA rule for public comment. After considerable public comment and input, much of it led by the Nuclear Energy Institute (NEI) and including comments from Progress Energy (Progress Energy letter from B. McCabe to A, Vietti-Cook, dated May 30, 2006), the proposed LWA rule was revised to the one that we have today. I should note that Progress Energy is identified in the NRC rulemaking SECY paper as one of seven nuclear power plant licensees that commented on the proposed rule. I reviewed the Progress Energy comment letter and I saw that Progress Energy highlighted, very early in its pre-licensing communications to the NRC, the importance of an LWA. In its comment letter, Progress Energy stated that an LWA could accelerate a plant's construction completion date by more that a year. This new rule became effective in 2007, just in time for the anticipated

new reactor license applications. This rule established the site activities that could be conducted without prior NRC staff approval and focused the NRC LWA review on those activities that had a reasonable nexus to radiological, health and safety, or the common defense and security. There are three key provisions. First, redefining "construction" of a nuclear site so that work that involves only non-safety related activities can be conducted without prior NRC staff approval. This included site excavation. Second, requiring NRC approval to conduct excavation, the setting of piles, and foundation construction, for any structure which is required to be included in the various Safety Analysis Reports. And, third, requiring the preparation of an Environmental Impact Statement for an LWA request.

Q. Would the NRC have amended its LWA Rule in 2007 if it did not intend for licensees to use the process?

A. No, it is clear that the NRC and the nuclear industry wanted to have an LWA process available for new license applicants that was compatible with and part of the new 10 CFR Part 52 licensing process.

Q What is the basis for your opinion?

A. First, I was directly involved in the Direction Setting initiative that focused on the licensing of future reactors while I was the Deputy

Executive Director for Regulatory Programs at the NRC. That effort led

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to the initial NRC rulemaking efforts to clarify and to make the LWA regulatory process compatible with the new 10 CFR Part 52 regulation. (See SECY-98-282, www.nrc.gov, NRC ADAMS #ML032801416). As I described earlier, this proposed rulemaking effort covered a number of areas; however, the changes proposed for the LWA regulations were not sufficient to address industry needs and expectations. Based on comments from the Nuclear Energy Institute (NEI), the organization that represents the nuclear industry in generic interactions with the NRC, the proposed regulation that resulted from that initial effort did not go far enough and NEI proposed more extensive changes. The NRC evaluated the NEI comments and essentially agreed with them. However, NRC concluded that the changes were sufficiently different from the proposed rule that it elected to treat the NEI comments in a new rulemaking. NRC then started the rulemaking for the LWA all over again in 2006. Thus the NRC clearly indicated to the public and the nuclear industry that it was worth spending NRC resources on the LWA process and that the NRC expected the nuclear industry to be in a position to use LWAs if needed to meet projected construction schedule needs.

In addition, in July 2006, the NRC announced the planned creation of a new NRC office to prepare for the industry's interest in licensing and building new nuclear plants in the near term. (NRC Press Release 06-

096). The new Office of New Reactors was formed in January 2007 and, to ensure timely licensing reviews, it is focused only on the licensing and environmental reviews of new reactors. In this new Office, NRC established the Division of Site and Environmental Reviews. That Division's sole responsibility is to conduct the environmental portion of early site permit reviews and all environmental reviews needed for COLA applicants, including LWAs. Thus by the time that PEF had decided to request an LWA, the NRC had not only established a new regulation for reviewing and issuing LWAs, but it had also established an Office that was responsible for conducting those reviews in a timely schedule, provided that an acceptable application had been submitted.

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Q. Was the process you have described the process that was used by PEF in its LWA request for the Levy sites?

A. Yes it was. First, consistent with the NRC process, PEF notified the NRC staff in March 2008 that the Company intended to request a LWA in parallel with the COLA application. (PEF letter from Garry Miller to NRC March 5, 2008). This is consistent with the guidance that the NRC staff gave at a public meeting with NEI on February 20, 2008. At that meeting the NRC staff specifically stated:

"... applicants who notify the NRC that they will be requesting an LWA at the same time that they notify the NRC that they will be submitting a

combined license application will get their LWA request scheduled in concert with their combined license request and resources will be allocated to both reviews." (NRC March 11, 2008 Memorandum from Nanette Giles to William Reckley, www.nrc.gov, NRC ADAMS #ML080630030).

The NRC staff then noted that applicants who request an LWA after submitting their COLA do so at the risk of impacting their COLA schedule. (Id.).

Clearly PEF was fully in conformance with the NRC staff guidance for early notification of plans to request a LWA and for including it as part of the COLA.

Q. Was it appropriate for PEF to request an LWA for initial site work?

A. Yes. PEF had decided that the LWA was needed to meet the planned construction schedule. As I stated earlier, not only had the NRC promulgated a new LWA rule to permit new reactor licensees to request an LWA so that critical safety related work could begin early, but it also established a new office whose responsibility was to conduct the requested licensing reviews in a timely fashion, so that the licensing schedule would not adversely impact the planned completion of construction date.

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Q. When was the Levy site COLA submitted?

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PEF submitted the COLA application on July 28, 2008 and the NRC staff started its 60 day acceptance review on August 4, 2008. In that application, PEF included its request for an LWA to be issued in advance of the COL to allow the early performance of certain safetyrelated construction activities. PEF provided requested specific milestone dates for the Final Environmental Statement, the LWA and the COL. PEF then noted that they looked forward to meeting with the NRC staff to further discuss the review schedule.

When did the NRC staff complete its acceptance review? Q.

A. The NRC staff informed PEF on October 6, 2008 that the COLA was sufficiently complete and the staff could docket the application and commence its review.

Did the acceptance letter set forth a schedule for the Levy COLA Q. review?

No. The letter stated that the PEF COLA review schedule would be dependent on the design certification review of the AP 1000 application and the NRC review of the reference COLA, which at the time was the application that had been submitted by the Tennessee Valley Authority for the Bellefonte plant. The letter also stated that the NRC would

require additional information from PEF about the "complex geotechnical characteristics of the Levy site" before it could develop an integrated review schedule. Thirteen RAIs were appended to the NRC letter. PEF provided the additional information requested by these RAIs to the NRC by November 20, 2008.

- Q. Do the NRC standards that apply to COLA submittals require more complete applications and more robust analysis in support of those applications than it previously required for operating license applications submitted under 10 CFR Part 50?
- A. Yes, they do. Because of the large number of COLA submittals that the NRC anticipated and the work load required to review a large number of applications, the NRC advised applicants and stated publicly that it would require COLA submittals to be more complete and technically adequate than it had historically required for docketing.

 Additionally, the NRC Commissioners directed the staff to allocate resources for COLA reviews based on several factors, including "the quality and completeness of the application itself." (NRC Staff Requirements Memorandum for SECY-06-187).
- Q. Have there been any changes in the scope and depth of the NRC acceptance reviews since the Levy site was announced?

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Yes, the NRC has raised the acceptance review standard in 2007, at the Commission's direction. Acceptance reviews had been a standard part of the regulatory processing that ensured that new license and license amendments were complete and that all the sections were addressed. The regulations in 10 CFR Part 2 prescribe the requirements for determining the acceptability of an application. In accordance with 10 CFR 2.101(a) for a COLA or Section 2.815 for a design certification, an application will be assigned a docket number after the tendered application had been evaluated for completeness. These sections provide that the NRC may determine, at its discretion, the acceptability for docketing of an application based on the technical sufficiency of the application as well as the completeness of the application.

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The NRC staff's previous practice had been to conduct these acceptance reviews within 30 days. However, in June 2007, the Commission directed the staff to determine acceptability of COL applications on the basis of the technical sufficiency as well as its completeness, within a period of 60 days. This additional review time was provided to raise the acceptance bar on the technical quality of the license applications, reduce the need for NRC requests for additional information, and to enable the staff to establish a reasonable baseline review schedule. As noted in the guidance to the staff for conducting

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review standard?

these reviews, set out in NRO Office Instruction NRO-REG-100,
"Acceptance Review Process for Design Certification and Combined
License Applications," the baseline schedule was 30 months for a COL
review. The performance measure for the staff's acceptance review
was set at 75 calendar days.

Q. What was the intent behind the NRC's change in the acceptance

The intent was to make the process of the NRC reviewing the COLA and docketing much more than simply verifying that an applicant has submitted all of the sections required to be addressed in the license. Rather, it was changed to ensure that the application would not be docketed unless its technical content had been reviewed in sufficient depth to determine that it was of high quality and that the NRC staff could establish a realistic schedule. Acceptance for docketing meant that the NRC was ready to devote resources to the particular application, because the technical quality of the design could be applied to the site. The NRC would never docket a COLA if it did not have reasonable assurance that the site and the certified design would be likely to meet the NRC regulatory requirements. This is consistent with what occurred here.

1	Q.	Were there other indications from the NRC that it intended to
2		conduct its COLA reviews in a timely manner?
3	A.	Yes, there were. In a speech at the Regulatory Information
4		Conference in March 2008, NRC Chairman Klein said, "Our agency
5		has in place the staff, the expertise, and the policies to oversee a safe
6		expansion in domestic nuclear power – assuming that our high
7		standards for safety and security are fully met." and later "I
8		mentioned earlier that the NRC has become a much more efficient
9		agency, and this includes our new streamlining approach to licensing
10		potential new plants." (NRC Chairman Klein, May 1, 2008 Remarks at
11		the North American Energy Summit, www.nrc.gov, NRC ADAMS
12		#ML081260274; also at http://www.nrc.gov/reading-rm/doc-
13		collections/commission/speeches/2008/s-08-018.html).
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15		As I will discuss in more detail later, once the NRC has completed its
16		acceptance review and concluded that the license application is
17		technically sufficient that the NRC staff can conduct its review, the staff
18		establishes a review schedule that is consistent with its performance
19		measures.
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21	Q.	Was it unreasonable for PEF management to expect that the NRC
22		would complete the licensing review of the LWA in a timely
23		manner?

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No, it was not unreasonable to expect that the NRC would complete the entire LWA process in a timely manner. As I noted earlier, in order to grant an LWA, the NRC staff will need to conduct both the environmental review required by the National Environmental Policy Act (NEPA) and the related review of the safety related items requested by the licensee as part of the LWA. The NRC's baseline planning assumption for producing a Final Environmental Impact Statement (FEIS) is 24 months. As the NRC states on its public web page:

"Currently, the NRC staff estimates that the environmental review process will take approximately 24 months. This includes scoping, issuance of the Draft EIS, a comment period, and issuance of the Final EIS. The NRC staff currently conducts its environmental reviews using NUREG-1555, "Environmental Standard Review Plan (ESRP)." (see http://www.nrc.gov/reactors/new-reactors/regs-guides-comm.html#erp).

As I stated earlier, the NRC had long been aware of PEF's plans and need for obtaining a LWA. This dialogue had begun in 2007. In 2008, PEF provided a 90-day early LWA notification before COLA submittal and then included the request for an LWA in its COLA, consistent with the NRC's guidance for a timely review. PEF's request for an LWA

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came as no surprise to the NRC. In fact the NRC had received preapplication briefings from PEF on the LWA in order to ensure there would be no surprises and that NRC staff would be able to plan its review of the PEF LWA request.

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Based on my review of the publically available documents, the clearest statement of what the NRC baseline for conducting the entire LWA review and approval process was provided at the NRC's public scoping meeting. These scoping meetings, typically held in the local vicinity of the proposed reactor site, are one of the key steps in the environmental review process for a new license application. For the Levy plant, that meeting was held on Thursday December 4, 2008. The NRC staff at that meeting included both the NRC Licensing Project Manager, Brian Anderson, and the NRC Environmental Project Manager, Doug Brunner. The senior NRC manager present at the meeting was Drew Persinko, who was the Deputy Division Director of the Site and Environmental Review Division, Office of New Reactors. He had management oversight responsibility for all environmental reviews underway at that time. At that meeting, a member of the public asked a question directly addressing the issue of timing of the review for the Levy LWA. Mr. Anderson responded with the following:

Just to give you a ballpark time frame, we expect that somewhere on the order of two years will be required to complete our **entire** (emphasis added) review process for the limited work authorization. And that's a ballpark time frame. The detailed review schedule activities will be made publically available once we've completed the development of our schedule." (see Exhibit No. ___ (HT-3), page 28 of 29, also at www.nrc.gov, NRC ADAMS #ML083520102).

If the NRC project managers or even the Deputy Division Director, who was present, had any expectation that the review time would not be in the two year time frame, they would have said so. My experience with the NRC is that it strives to be open and to provide applicants and the public with honest answers to questions. If they had known of any serious LWA review delays, it is my opinion that they would have simply said that there are some issues with this site that will take longer than our usual schedule and we cannot provide any ball park estimate at this time. Just to state again, both NRC Project Managers were present and their Deputy Division Director were present at this meeting.

Q. When it signed the Engineering, Procurement and Construction (EPC) contract on December 31, 2008, did PEF have reason to

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believe that the NRC would not review its LWA application in a timely manner?

No, not based on my review of the information that was available to PEF management at that time. As I have just stated in response to earlier questions, the information available to PEF when it signed the EPC contract was that the NRC had revised its licensing process to expedite the licensing of new nuclear power plants, it had established an Office of New Reactors to provide timely licensing reviews and it had promulgated a new rule to clarify the process for applicants to obtain limited work authorizations. The Chairman of the NRC was stating to the public that the NRC intended to review license applications in a timely manner. PEF management had clearly informed the NRC that they were requesting a LWA to meet the planned construction schedule. They knew that the COLA was technically sufficient for the NRC licensing review because it had been docketed by the NRC. Most importantly, at the NRC public meeting that had just been held on December 4, 2008, the NRC stated that the baseline schedule for the entire LWA process would be on the order of two years. Both NRC Project Managers for the Levy project and their Deputy Division Director were aware that PEF had requested an LWA, having been briefed on the details of the requested LWA on December 3, 2008 (see Exhibit No. ___ (HT-2), "Response to Information Need No. TL-2-003 - 12/03/2008 Meeting Slides, "Levy Nuclear Plant Limited

Work Authorization Scope.", www.nrc.gov, NRC ADAMS # ML090760470). The NRC Licensing Project Manager stated publicly the next day, during the same month that the EPC contract was signed, that the NRC intended to complete its review process for the LWA "somewhere on the order of two years." Based on the information available to PEF in December 2008, it would have been reasonable for PEF management to believe that its application for an LWA would be reviewed by the NRC in a timely manner, even if not on the specific schedule initially requested.

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Q. When did PEF learn that the NRC intended to review its LWA request on the same schedule as its COLA review?

A. The NRC staff held a scheduling telephone conference with PEF on January 23, 2009. In that call, the NRC representatives told PEF that the LWA as requested and the COLA geotechnical review "require the same critical path duration" and that the NRC staff does not "have the resources to process an LWA." Based on my review, this appears to be the first time that availability of NRC resources was raised as an issue that would affect the timing of the PEF LWA request.

Since the NRC had identified complex geotechnical issues at the Q. Levy site in its docketing letter of October 6, 2008, should PEF management have anticipated that the review of geotechnical

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issues would delay the NRC's consideration of PEF's LWA request because the NRC does "not have the resources to process an LWA?"

No, I don't believe so. The October 6 letter was accompanied by RAIs requesting information the NRC would need to address geotechnical issues at Levy. PEF had responded to those RAIs in a timely manner, completing its response to the NRC by November 20, 2008. After submitting this information, PEF had reason to believe that it was working with the NRC staff to resolve the geotechnical issues at the Levy site. The following month, on December 4, the NRC Licensing Project Manager, who was the author of the October 6 NRC acceptance letter, stated publicly that he expected the entire LWA review to be completed in "somewhere on the order of two years." (See Exhibit No. (HT-3) to my rebuttal testimony).

In addition, PEF held periodic telephone conferences with the NRC staff to discuss COLA and LWA status and progress. The summary of the NRC and PEF January 6, 2009 teleconference included a discussion of LWA vs. COL impacts, with no indication that the NRC did not have resources to conduct an LWA review. The summary notes indicate that, as late as January 6, 2009, both the LWA and COLA reviews were in progress. (see email from Douglas Bruner to

1		Paul Snead, January 12, 2009, <u>www.nrc.gov</u> , NRC ADAMS #
2		ML091510037).
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4		Based on the ongoing dialogue it had with the NRC about the status
5		and process for reviewing the Levy COLA and LWA requests, as
6		described above, it would have been reasonable for PEF management
7		to have been surprised to learn in the January 23 phone call that the
8		NRC did not have adequate resources to process the PEF LWA
9		request.
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11	III.	Crystal River 3 Power Uprate Project.
12	Q.	Did you review Jacobs' Testimony regarding the Crystal River 3
13		Extended Power Uprate Project?
14	Α.	Yes I did.
15		
16	Q.	Do you agree with his testimony?
17	A.	I agree with the part of his testimony that describes the planned
18		uprates but I disagree with his statements concerning risk
19		management.
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21	0	Please explain your disagreement.
21	Q.	riease explain your disagreement.

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I disagree with Jacobs' testimony because it attempts to portray

Extended Power Uprates as risky business when in fact it is not a risky business for a number of reasons.

First, the NRC has been granting power uprates since the 1970's as a

way to generate more electricity from licensed nuclear plants. This

program is well established and there have been 127 power uprates

approved by the NRC staff as of July 22, 2009. This currently totals

approximately 15,600 MWt or approximately 5,700 MWe. Exhibit No.

(HT-4) provides a list of the power uprates that have been approved by the NRC.

Second, since 2001, power uprates applications have been given high priority and the NRC staff has been conducting these reviews on accelerated schedules. (See SECY 01-0124). This means that the Commission and the NRC staff highly support this program and want to see power uprates approved smartly. The Commission has been holding out the success of this program as one of its key accomplishments, stating that "[c]ollectively, these uprates have added generating capacity at existing plants that is equivalent to more than five new reactors." . (see NRC Backgounder "Power Uprates for Nuclear Plants," www.nrc.gov/reading-rm/doc-collections/fact-

sheets/poweruprates.pdf). As part of the planning for new uprates, 1 2 NRC is currently projecting uprates that are being planned out to 2012. (See Table 3, NRC webpage for Power Uprates). 3 4 5 Third, to help ensure regulatory predictability for Extended Power 6 Uprates, NRC adopted Review Standard RS-001, "Review Standard 7 for Extended Power Uprates (www.nrc.gov, NRC ADAMS # 8 ML023610659), in December 2003. This standard went through 9 extensive public review and comment and has been endorsed by the 10 NRC's Advisory Committee on Reactor Safeguards (ACRS). 11 Endorsement by the ACRS provides additional assurance that the 12 licensee will know what is needed to get NRC's approval for Extended 13 Power Uprates. This guidance is over 300 pages long and is very 14 comprehensive. It ensures that a sound safety basis is demonstrated 15 for the requested Extended Power Uprate. 16 17 Q. Does meeting this guidance mean that the PEF License Amendment Request addressed all the substantial engineering 18 19 issues in order to support the detailed technical analysis that the 20 NRC expects? 21 A. Yes, it does. Similar to the acceptance review done for the COLA, the 22 LAR will undergo an NRC staff acceptance review. If it is technically 23 complete the NRC staff will then docket the LAR request and establish

the licensing review schedule. Extended Power Uprate amendment 1 requests require the most significant amount of engineering and 2 analysis and typically involve substantive physical changes in the 3 plant. 4 5 Q. Are you aware of any instances where the NRC staff has not 6 approved the full amount of the Extended Power Uprate 7 requested? 8 No. Based on my review of the NRC staff annual status update reports 9 Α. to the NRC Commissioners since 2001 and my discussions with the 10 NRC Power Uprate project managers for the Power Uprate Program, 11 for the power uprates that the NRC has completed the licensing 12 review, there have been no cases where the requested power uprate 13 was not granted. Also, there have been no cases where a power level 14 approved by the NRC was smaller than that requested by the licensee. 15 16 Does the fact that the CR3 uprate will increase the approved 17 Q. power level by the largest percentage of any B&W plant create an 18 unreasonable risk? 19 No it does not. As I have stated earlier, NRC has given the power 20 Α. uprate program a very high priority and it has never reduced the power 21 level that a licensee has requested. While the NRC will clearly require 22 23 the LAR to meet the acceptance requirements and be sufficient to

address the technical requirements and licensing issues set forth in 1 RS-001, that process is well established and includes a straight 2 forward path to completion. 3 4 Q. How long does it normally take to get NRC approval of an 5 **Extended Power Uprate?** 6 A. Review and approval of an LAR for an Extended Power Uprate 7 typically takes about a year. The NRC process also includes 8 interactions with the NRC staff before submittal to clarify any issues 9 10 regarding the scope of the LAR, thus resulting in a more complete application when submitted. 11 12 Q. Does this complete your testimony? 13 A. Yes, it does. 14 15

MR. ROACH: And, Mr. Chairman, there are four exhibits to the testimony, HT-1 through HT-4. I think they've been previously identified as Exhibits 124 through 127.

CHAIRMAN CARTER: On page 19, Commissioners, No. 124 through 127. You may proceed.

(Exhibit Nos. 124, 125, 126 and 127 admitted into the record.)

BY MR. ROACH:

Q Mr. Thompson, could you summarize your testimony?

A Yes, I would.

Mr. Chairman, Commissioners, thank you for the opportunity to be here today.

I guess a little bit about my background. I was 35 years of nuclear experience, actually a little bit more. Twenty-five years of that were at the Nuclear Regulatory Commission. I had multiple positions there, including a project manager, Director of the Division of Licensing, and then the final positions I held were the Deputy Executive Director for Operations, which is the number two position at the NRC.

I've been asked by Progress Energy to review

Dr. Jacobs' testimony and provide my remarks in rebuttal

to some of the positions that he presented.

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In my summary I'd like to talk about two in particular. The first deals with the Levy LWA schedule and the EPC contract when it was signed. My view was --Dr. Jacobs -- in my words, Dr. Jacobs says that the company should have assumed that the LWA schedule and the COLA schedule would be the same. I disagree based on my review of the information that was available at the time that the EPC was signed. For example, in 2007 NRC established the regulatory framework for requesting an LWA, and then also in 2007 NRC established the Office of New Reactors who had the responsibility for reviewing all of the details associated with the licensing application reviews which included the LWA, the safety review, and the environment -- supporting environmental reviews. In the following year, the latter part of that year and in 2008, NRC put out the quidance that a licensee should follow if they wanted an LWA. during 2008, Progress Energy followed that guidance, submitted the application. In fact, it was sufficient to be docketed. And then NRC, in following its environmental process, held a scoping meeting in December which we've heard about earlier today, and at that scoping meeting the individual who was responsible for both the licensing review of the COLA and the

license review schedules for the LWA described to the public in one of the NRC's formal meetings what those different review schedules were, and then he provided the ballpark figure of two years for doing the reviews associated with that.

So at the time the EPC contract was signed in December, it was reasonable for Progress Energy not only to think that they would have a COLA, an LWA review schedule that was earlier than the COLA review schedule, but they also thought it would be received in a timely timeframe.

The second item I'd like to discuss is the Crystal River Extended Power Uprate. In the extended power uprate program, Dr. Jacobs says that's a significant licensing risk, and I disagree having reviewed the documentation and the program that currently is in place by the NRC.

The NRC's had the power uprates in place since the late 1970s, and they actually have granted more than 127, at least according to my record, of power uprates by the end of -- by July. And, secondly, they've also -- that program has received high priority by the Commission for doing the licensing reviews. The Commission gets reports annually on how well they're doing in the projections.

And, finally, there have been no cases where 1 NRC has not granted the extensions the uprates have 2 requested or have granted power uprates at a lower level 3 than was requested. And to ensure the applications are 4 complete and the NRC knows what they're doing and 6 licensees know what they're doing, NRC has adopted very 7 detailed guidance documents for everybody. So the 8 process that's in place is one that does basically the 9 very low-risk licensing aspect. And that completes my 10 summary. 11 MR. ROACH: Mr. Thompson is available for 12 cross-examination. 13 CHAIRMAN CARTER: Mr. Rehwinkel. 14 CROSS EXAMINATION 15 BY MS. RHEWINKEL: 16 Q Thank you, Mr. Chairman. 17 Good afternoon, Mr. Thompson. 18 Α Good afternoon. 19 My name is Charles Rehwinkel with the Office 20 of Public Counsel. 21 Are you familiar with the LWA rule that you 22 reference in your testimony? 23 Α Okay. 24 Q Did you say yes? 25 Α Yes, that's fine.

- Q And have you read the rule?
- A I'm sorry?
- Q Have you read the rule?
- A Have I read the rule in detail? No
- Q Have you ever read it?
- A I read the Commission paper that -- that promulgated the rule. I basically -- when I was in NRC, I dealt with the rulemaking with LWAs earlier in my life, but in this particular specific rule, I read the statement of considerations and those aspects associated with what the Commission wanted to do with the rule, why were they putting the process in place. My aspect is looking at the process, not the detailed specifics of the rule.
- Q So you don't know whether the rule is intended to encourage favorable consideration of LWAs?
- A The rule puts in place a framework for someone who wants to request an LWA to be able to know what is required and what information they need to supply, how they need to supply it and what they can expect to get from the NRC when they submit that if the NRC approves it. The rulemaking was developed after a substantial number of interactions with the industry, and in particular when the NRC initially started the rulemaking activities, it didn't allow the excavation to the extent

that the industry really thought that it ought to be, and in fact the rulemaking started over and had a second rulemaking that specifically culled out the -- and improved the excavation rule as part of the requirements that did not require -- part of the activities that did not require a detailed LWA approval while the -- and it did identify those things related to system structures and components related to reactor safety which did. I think that has been pretty much addressed in some detail earlier by Mr. Miller in more detail than I have.

Q And you're saying you know this because you've read a summary of the rule or a report about the rule but not the rule itself?

A I'm saying that because I read the NRC papers that had the rule, sent the rule up and summarized it and identified what the purpose was.

Q So the answer to my question is yes, you know this even though you haven't read the rule?

A Yes, I know that because I've read the material that submitted the rule and promulgated the rule up to the Commission and they approved it.

- Q Have you read parts of the rule?
- A Yes.
- Q Which parts?
- A I don't recall.

1	Q Have you read parts of the rule that relate to
2	the application that PEF filed for their LWA?
3	A I don't understand your question.
4	Q Have you read parts of the rule that are
5	relevant to your testimony here today?
6	A My testimony goes to process, not to the rule.
7	I didn't come here to testify about the rule. I came
8	here to testify about the process, the regulatory
9	framework that had been put in place, and the NRC put in
10	place a rule. I did read and have identified the rule.
11	There is a Federal Register notice that promulgated that
12	rule formally. If you want to know that Federal
13	Register notice, I'll give it to you.
14	Q Page 15 of your testimony, could you turn to
15	that?
16	A Okay.
17	Q Well, actually if you could turn to page 14 of
18	your testimony, and starting on line 2, you're
19	testifying about the rule; aren't you?
20	A On line 2
21	Q Yes.
22	A on page 14?
23	Q Yes, the Q&A there.
24	A That was a rule that started in 1998 when I
25	was there.

1	Q Okay.
2	A And that was starting the rulemaking process.
3	Q Now, at the bottom well, on line 10,
4	starting with March, 2006, is this the rulemaking
5	process that resulted in the rule that's in existence
6	today?
7	A No. It started the process that resulted
8	let me correct myself. That started the process of the
9	rule that's in place today, but it went through many,
LO	many different changes to be able to become final.
11	Q Okay. But in on line 23 of page 14
12	A Right.
13	Q are you testifying there about a new rule
14	that became effective in 2007 is the extant rule?
15	A That's correct. That is the rule that's in
16	place today.
17	Q Okay. Now, on page 15, line 1, isn't it true
18	that you're telling the Commission about what the rule
19	does, starting
20	A That's correct.
21	Q Yes?
22	A That's correct.
23	Q Okay. So you are here testifying about the
24	rule?
25	A I am. I'm testifying about the rule and the

things that are in the rule. 1 You asked me had I read it in detail, and I 2 have not read it in detail. I read the Commission 3 documents that were proposed and the summary statements 4 5 in the rulemaking itself. But you haven't read the rule --6 I have read those portions of the rules that 7 relate to these issues --8 9 You have? 10 -- that are in my testimony. So you can -- if I give you a copy of the 11 rule, you can show me what you've looked at? 12 Α I believe so. 13 MS. RHEWINKEL: Okay. Mr. Chairman, I'd like 14 to ask for an exhibit to be passed out. 15 MR. YOUNG: And where is this? Is this the 10 16 CFR --17 CHAIRMAN CARTER: Do you need a number, 18 Mr. Rehwinkel? 19 20 MS. RHEWINKEL: Yes, Commissioner. I actually 21 have an exhibit that's in two parts. CHAIRMAN CARTER: Hang on, hang on. We're not 22 picking you up on the mikes when you turn away like 23 24 that. 25 This is No. 154, Commissioners. Short title?

1	MS. RHEWINKEL: This is 10 CFR Part 50 and 52,
2	and it's in two parts. I apologize, Commissioners.
3	This is an extensive document and I'll try to be
4	expeditious about getting it passed out.
5	CHAIRMAN CARTER: Give me a short title again,
6	Mr. Rehwinkel, 10 CFR
7	MS. RHEWINKEL: 10 CFR Part 50 and 52, Parts
8	50 and 52.
9	CHAIRMAN CARTER: Okay. Parts 50 and 52.
10	THE WITNESS: Is this this is a different
11	one? Oh, okay.
12	CHAIRMAN CARTER: This is going to be a
13	composite then, since you've got two parts, so it would
14	be 154-A and 154-B.
15	MS. RHEWINKEL: That sounds good. Thank you.
16	CHAIRMAN CARTER: So let's go with, Part 50
17	will be 154-A, Commissioners, and Part 52 will be 154-B.
18	Okay. Mr. Rehwinkel, does that work for you?
19	MS. RHEWINKEL: Yes, thank you.
20	CHAIRMAN CARTER: Okay. You may proceed.
21	COMMISSIONER EDGAR: Mr. Chairman, just a
22	question, do we need to mark if it's part of is this
23	a
24	CHAIRMAN CARTER: Is it the entire rule or
25	parts of the rule or

1 COMMISSIONER EDGAR: Do we need to mark it and enter it if it's --2 3 CHAIRMAN CARTER: Let me ask Ms. Helton. COMMISSIONER EDGAR: -- a federal regulation? 5 MS. HELTON: If I'm understanding what this 6 is, this is from the Code of Federal Regulation, which 7 is the FERC's rules, or I guess it's the NRC's rules, and is readily available and is similar to our rules in 9 the Florida Administrative Code, and I think this is 10 something that we can just all rely on and not have to have it marked, if that's your pleasure, Mr. Chairman. 11 12 COMMISSIONER EDGAR: Mr. Chairman, whatever is your pleasure. I think we've probably in my experience 13 14 done it both ways. CHAIRMAN CARTER: Well, I've already embarked 15 on this journey with 154-A and B. 16 MS. RHEWINKEL: It's possible that we won't 17 need to move this into evidence either way. 18 19 CHAIRMAN CARTER: Commissioners, let's just 20 cancel Block No. 154. So we'll just cancel that exhibit 21 number. That block will just be cancelled. And, 22 Mr. Rehwinkel, you may proceed with your cross-examination. We won't enter it, but this No. 154, 23 for the record, that block will be canceled. 24

Mr. Rehwinkel.

COMMISSIONER EDGAR: And I would say, Mr. Chairman, I apologize for interrupting you and the attorney, but even though it's a lot of trees, if you are going to ask questions about it, I appreciate having a copy provided because I don't have it memorized. MS. RHEWINKEL: Okay. Thank you. And it was a fair question to ask, and I appreciate it. CHAIRMAN CARTER: It's only 700 pages. You may proceed. (The transcript continues in sequence with Volume XXX.)

1	CERTIFICATE OF REPORTER
2	STATE OF FLORIDA)
3	COUNTY OF LEON)
4	I, RAY D. CONVERY, do hereby certify that I was
5	authorized to and did stenographically report the
6	foregoing proceedings at the time and place herein
7	stated.
8	IT IS FURTHER CERTIFIED that the foregoing
9	transcript is a true record of my stenographic notes.
10	I FURTHER CERTIFY that I am not a relative,
11	employee, attorney, or counsel of any of the parties,
12	nor am I a relative or employee of any of the parties'
13	attorney or counsel connected with the action, nor am I
14	financially interested in the action.
15	DATED this 11th day of September, 2009, at
16	Tallahassee, Leon County, Florida.
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20	Ray D. Convery
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22	RAY D. CONVERY
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