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STATE OF SOUTH CAROLINA
COUNTY OF HAMPTON

IN THE COURT OF
COMMON PLEAS

- - -

RICHARD LIGHTSEY, LEBRIAN CLECKLEY, PHILLIP COOPER, ET AL., ON BEHALF OF THEMSELVES AND ALL OTHERS SIMILARLY SITUATED,	:	CASE NO. 2017-CP-25-335
Plaintiffs,	:	
vs.	:	
SOUTH CAROLINA ELECTRIC & GAS COMPANY, A WHOLLY OWNED SUBSIDIARY OF SCANA, SCANA CORPORATION, AND THE STATE OF SOUTH CAROLINA,	:	
Defendants,	:	
SOUTH CAROLINA OFFICE OF REGULATORY STAFF,	:	
Intervenor.	:	

(Case Caption Continues on Page 2)

VIDEOTAPED DEPOSITION OF RONALD ALAN JONES

DATE TAKEN: Tuesday, October 16, 2018

TIME BEGAN: 9:00 a.m.

TIME ENDED: 6:33 p.m.

LOCATION: COURTYARD BY MARRIOTT
105 Southpark Drive
Blacksburg, VA 24060

REPORTED BY: Karen Kidwell, RMR, CRR, CBC
EveryWord, Inc.
P.O. Box 1459
Columbia, South Carolina 29202
803-212-0012

(Case Caption Continued)

THE PUBLIC SERVICE COMMISSION
OF SOUTH CAROLINA
DOCKET NOS. 2017-207-E, 2017-305-E, AND 2017-370-E

IN RE: Friends of the Earth and Sierra Club, Complainant/Petitioner vs. South Carolina Electric & Gas Company, Defendant/Respondent

IN RE: Request of the South Carolina Office of Regulatory Staff for Rate Relief to SCE&G Rates Pursuant to S.C. Code Ann. § 58-27-920

IN RE: Joint Application and Petition of South Carolina Electric & Gas Company and Dominion Energy, Incorporated for Review and Approval of a Proposed Business Combination between SCANA Corporation and Dominion Energy, Incorporated, as May Be Required, and for a Prudency Determination Regarding the Abandonment of the V.C. Summer Units 2 & 3 Project and Associated Customer Benefits and Cost Recovery Plans

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18 Subject: Response to
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20 Confidential, Bates
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1 TUESDAY, OCTOBER 16, 2018, BLACKSBURG, VIRGINIA
2 P R O C E E D I N G S
3 -oOo-
4 VIDEOGRAPHER: I'll read a brief
5 introduction.
6 Going on record. On record at 9:00 a.m.
7 Today's date is October 16th, 2018.
8 This is the videotaped deposition of
9 Ron Jones taken in the matter of Richard
10 Lightsey, et al., Plaintiffs, versus South
11 Carolina Electric & Gas Company, et al.,
12 Defendants, South Carolina Office of Regulatory
13 Staff, Intervenor, Case Number 2017-CP-25-335,
14 taken in the Court of Common Pleas of Hampton
15 County, South Carolina.
16 Also in the matter of the Public Service
17 Commission of South Carolina, Docket Numbers
18 2017-207-8, 2017-305-8, and 2017-370-8.
19 Would counsel now please introduce
20 themselves and whom they represent.
21 MR. COX: Jim Cox from the Wyche Law Firm
22 appearing on behalf of the South Carolina Office
23 of Regulatory Staff.
24 MR. ALPHIN: John Alphin on behalf of the
25 Strom Law Firm on behalf of the customer

1 Plaintiffs.
2 MR. SOLOMONS: Gibson Solomons on behalf
3 of the customer class.
4 MR. HATCH: Ben Hatch, McGuire Woods, on
5 behalf of Dominion Energy in the PSC
6 proceedings.
7 MS. MOODY: Leah Moody on behalf of SCE&G
8 and SCANA.
9 MR. WATSON: Benjamin Watson, King &
10 Spalding, on behalf of SCE&G and SCANA.
11 MR. CHALLY: John Chally, also King &
12 Spalding, on behalf of SCE&G and SCANA.
13 MR. MITCHELL: Rick Mitchell and Kara
14 Silverman with Arnall Golden Gregory on behalf
15 of Ron Jones.
16 MR. COX: Telephone appearances?
17 MR. SMITH: Emory Smith from the South
18 Carolina Attorney General's Office with the
19 State of South Carolina, and Arkin Hunter and
20 Ian Wesler may be on the phone later in my
21 place.
22 MS. PITTMAN: Jenny Pittman for the South
23 Carolina Office of Regulatory Staff.
24 MR. BELL: Kevin Bell on behalf of Central
25 Electric Power Cooperative.

1 MR. CROTTY: Brian Crotty on behalf of
2 South Carolina Public Service Authority. Last
3 name is spelled C-R-O-T-T-Y.
4 - - -
5 RONALD ALAN JONES, being first duly sworn,
6 testified as follows:
7 - - -
8 EXAMINATION
9 - - -
10 BY MR. COX:
11 Q. Good morning, Mr. Jones.
12 A. Good morning.
13 Q. Mr. Jones, we met just before your
14 deposition began. My name again is Jim Cox. I'm an
15 attorney from the Wyche Law Firm. I represent the
16 South Carolina Office of Regulatory Staff, commonly
17 called ORS.
18 I represent that agency in a couple
19 different proceedings, and I'm going to just briefly
20 describe the proceedings so you understand --
21 A. Okay.
22 Q. -- exactly what proceedings are occurring
23 in conjunction with your deposition.
24 One proceeding is an action in State
25 Court -- or a consolidated set of actions -- brought

1 by customers of SCE&G against SCE&G and SCANA.
2 And there's also consolidated proceedings
3 before the South Carolina Public Service Commission.
4 Those proceedings, three different dockets, and they
5 collectively involve issues regarding the recovery of
6 costs associated with the V.C. Summer Units 2 and 3
7 construction project.
8 Now is the time set for your deposition in
9 this matter.
10 Can you go ahead and state your full name
11 for the record, please?
12 A. Yes. It's Ronald Alan Jones, A-L-A-N.
13 Q. And, Mr. Jones, have you had your
14 deposition taken before?
15 A. No.
16 Q. Let me just briefly describe to you a
17 little bit about the procedure of a deposition.
18 First, you just took an oath from the
19 court reporter. That oath is the same oath that you
20 would take if we were inside a courtroom in a trial,
21 and it carries the same weight, penalty of perjury,
22 as an oath that's taken in a courtroom.
23 Do you understand that?
24 A. I do.
25 Q. I'll be asking you questions this morning,

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and other attorneys will be asking you questions as well today.

If at any point you don't understand a question that I ask, I can improve the question. I can try to find out what the problem with the question was and try to improve the question so that you understand it. However, I can't do that unless I know that you don't understand a question. And the only way I'll know that is if you let me know that you don't understand a question.

A. Right.

Q. So will you let me know if you don't understand a question?

A. I will.

Q. This isn't an endurance contest. You will need breaks at some point during the day, and if you ever need a break, that's no problem for us to take one. Again, the only way that I'll know that you need a break if you ask for one.

So will you let me know if you need a break?

A. I will.

Q. This deposition is being taken down on a record, and it's important that we have a clean record as far as what's being asked and answered.

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There will be a number of times today where you probably understand what my question is before I've even finished asking it. I would ask in those situations that you go ahead and try to hold off until I finish the question, and that's good for a couple reasons: It helps ensure that the question is what you think it is, but it also helps ensure that we're not talking at the same time for the record.

Will you do that?

A. Yes.

Q. So I'd like to start just with some background information about you.

One thing I want to establish probably up front here is a couple different terms. We'll be talking today about the V.C. Summer Unit 2 and Unit 3 project in which you worked. And instead of referring to the whole project name, we'll probably be referring -- I'll be referring to it simply as "the project."

If I use that term, will you understand that I'm referring to the V.C. Summer project?

A. Yes.

Q. And my client, the South Carolina Office of Regulatory Staff, if I refer to the "ORS," will

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you understand that that's who I'm referring to?

A. Yes.

Q. And the Public Service Commission is commonly referred to as the "PSC." If I use the term "PSC," will you understand that that's what I'm referring to?

A. Yes.

Q. So let's talk about your background. First, what is your current employment?

A. I'm retired. I do some part-time consulting, but I've retired from full-time employment.

Q. What type of consulting do you do now?

A. Energy consulting. My focus throughout my entire career has been on nuclear, so that's primarily what I would be consulting in.

Q. How much time do you spend consulting now?

A. The past year, my family had a couple kids graduating, a sale of a home, a movement to Blacksburg, so my time this year has been -- past year has been fairly limited, but I'm still actively talking to folks about potential opportunities.

Q. Are you consulting currently on any nuclear construction projects?

A. As far as new nuclear construction?

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Q. Correct.

A. I have a consulting agreement with SCANA.

Q. And what services do you provide to SCANA under that agreement?

A. I provide, per their request, if they have a request for information that can be helpful in the demobilization of the unit, continuing questions they might have about anything related to shutting the unit down, the project down, demobilizing, that sort of thing.

Q. And just to clarify, there's no request that they have currently for nuclear construction of the project, correct?

A. No, no.

Q. Have they made any requests of you for services since you entered that agreement with them?

A. No.

Q. What are the terms of your compensation under that agreement?

A. It's an 18-month contract and -- for a total of $100,000.

Q. When did that contract begin?

A. It began in November, November 1st of last year, and it runs for 18 months. So it will expire the end of April this coming year.

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Q. Are you surprised that you haven't had to do any work under that contract?
A. I think -- no, not necessarily. I mean, the contract was there in case they needed my knowledge of something that would be helpful in the demobilization of the unit or had SCANA chose to go down a path of preservation of the unit or those sort of things.
So the -- it was -- in my mind, it was more of an opportunity for them to draw on my knowledge of being with the project for five years that might be helpful as the project's shut down.
Q. When you entered into that consulting agreement with SCANA, did you have any sort of anticipation of what types of information they would need from you under the agreement?
A. No, because I entered into that fairly quickly. The project bankruptcy -- or, sorry -- project closure was at the end of July. I stayed another month with SCANA to help in the initial demobilization efforts.
We put together a small organization. We started identifying the issues as far as demobing a project. But once that was set up, I left SCANA at the end of August, you know, the 60-day WARN period,

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and then that terminated at the end of October.
Q. You said "60-day" what period?
A. WARN. WARN Act.
Q. Okay. Is that -- what does that stand for, to your knowledge?
A. Worker something, something. I can't remember the acronym.
But basically when we -- the project was shut down July 31st, we laid off the entire Unit 2, Unit 3 staff. And they all -- for those folks that were direct employees for SCE&G -- entered a 60-day WARN period.
Q. What types of information were you providing to SCE&G during the time period before you were laid off?
A. For the month of August basically.
Q. Good point. And that's -- that's a good point about sometimes my questions may be vague about time period --
A. Right.
Q. -- and I appreciate your clarification. You're correct.
I'm referring specifically to what type of information did you provide to SCE&G regarding demobilization during that month.

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A. Okay. So, again, the -- the cancellation of the project was a surprise to many folks. We did not have a demobilization plan in place. So during the initial month, we tried to address the more significant issues with respect to securing the site from a physical security perspective.
During the month I was there, we actually got into developing a process for how we would allow subcontractors back on site that had their own equipment there, for example, and needed to retrieve that equipment.
We also established a process to go through and figure out who owned which equipment. This was not going to be open the gates and, "Gee, come on back and grab whatever is yours." So there was a pretty tight control we put in place during that first month as to how different contractors would be able to come on site and retrieve what is rightfully theirs versus property that was part of the project.
Q. Were you leading up that effort?
A. It was under my organization, that's correct.
Q. And once you were laid off, do you know who took your spot in leading that effort?

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A. So one of my direct reports when the project was active and also during that time period of August was Alan Torres, who was general manager of construction that worked for me. So basically, when I left, Alan assumed much of that responsibility.
Q. Were you hoping to stay on and continue leading the demobilization effort?
A. No. It was my option. I could have stayed longer if I wanted to, to help lead that effort. But honestly, after about a month, we had put together the initial plan, we had good people running it -- Alan and several members from his team -- and there really wasn't a need for me to stay at that time.
Q. I'd like to talk a little bit about how this consulting agreement with SCANA came about. Who initially proposed this kind of consulting agreement after your layoff?
A. Jeff Archie.
Q. And what did he tell you when he proposed that?
A. That SCANA was going to offer me an 18-month consulting agreement. We talked some about what that might entail.
It was not a full-time contract. It was

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1 basically for any part-time consulting that was
2 needed. Again, relating -- again, after I was
3 stepping out at the end of August, if they needed
4 some additional knowledge from the project as to
5 anything from recommendations on demobilization or
6 the aftereffects of that, if they needed any
7 information that I had from -- for example, if there
8 was a -- and this is just my speculation -- if there
9 was a dispute between a subcontractor and us as to
10 who owned what, then I might be drawn upon to weigh
11 in as to what my remembrance was as to contractually
12 what the deal was with those folks, that sort of
13 thing.
14 Q. Have you had any conversations with
15 Mr. Torres since you were laid off from the project?
16 A. Yes.
17 Q. Can you describe what those conversations
18 consisted of?
19 A. Well, Alan and I not only were coworkers,
20 but we were friends, too, along with many of the
21 other folks that I worked with. It wasn't a pure
22 business relationship. So keeping up with each
23 other's families, what was going on, that sort of
24 thing.
25 Alan stayed for a while longer with SCANA

Page 23

1 and then left SCANA and went to work for another
2 company. So some of that was talking about his --
3 his new position and what was going on there, talking
4 about folks that we had worked with as to where they
5 had ended up after the project shut down, that sort
6 of thing.
7 Q. Did he ever contact you during these
8 conversations to get information or advice on
9 demobilization?
10 A. You know, I can't recollect for sure. It
11 may have been during the initial months afterwards;
12 but, honestly, that's a year ago, and I don't
13 remember.
14 Q. When was the last time you were at the
15 project site?
16 A. The end of August.
17 Q. So you haven't returned since you were
18 laid off?
19 A. No.
20 Q. Do you know where Mr. Torres is working
21 now?
22 A. He is working for Babcock & Wilcox and is
23 responsible for a number of power-generating
24 facilities that they're building overseas in the UK.
25 Q. Are any of those facilities nuclear, to

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1 your knowledge?
2 A. No.
3 Q. Just to be clear, you're saying none of
4 those -- you're aware of what those facilities are,
5 and none of them are nuclear?
6 A. Correct.
7 Q. Okay. And so he currently resides in the
8 UK, to your knowledge?
9 A. Well, his residence is still in Columbia,
10 but he -- temporarily living accommodations, I guess
11 you would say, he lives over there and then travels
12 back to the U.S. periodically.
13 Q. Do you know if he's currently in the U.S.?
14 A. I do not know.
15 Q. And just to confirm, I understand the
16 compensation terms of your consulting agreement with
17 SCANA, it's a flat 100,000-dollar fee for the
18 18-month period regardless of how much work is
19 performed, correct?
20 A. Correct. It's paid monthly.
21 Q. And there's no increase for any additional
22 work that you provide?
23 A. No, no.
24 Q. And going back to my initial question
25 regarding your consulting work since you left SCANA,

Page 25

1 you haven't consulted on any nuclear construction
2 projects, correct?
3 A. I have not.
4 Q. So let's walk back in time now in your
5 career, and I'd like to get an understanding of the
6 different positions you've held in your career. We
7 can go backwards in time or forwards in time. I
8 don't know if there's a way that you feel would be
9 easier for you to kind of set forth your background.
10 A. I think -- let's go back, and I'll move
11 from the ancient history to the more recent history.
12 How is that?
13 Q. That sounds like a plan.
14 A. Okay. So I attended Virginia Tech,
15 graduated in 1980 with a bachelor's degree in
16 electrical engineering, and worked for Duke Power
17 fresh out of school.
18 I ended up working for Duke Power and Duke
19 Energy for over 31 years. My initial career with
20 Duke, I was an engineer at Catawba Nuclear Station
21 just south of Charlotte, North Carolina. That plant
22 was under construction in 1980. First unit's not due
23 to come on line for about another five years or so.
24 For the initial three -- three or four
25 years, I guess, I spent writing preoperational tests,

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1 start-up testing, hot functional testing, all the
2 preoperational testing that has to be done at a
3 nuclear plant before you're actually ready to load
4 fuel and start it up.
5 I was an individual contributor for
6 several years, and then I became supervisor over the
7 group that did that sort of testing for the second
8 unit and did that for a couple years.
9 And then I went to license class, was
10 licensed as a senior nuclear reactor operator for
11 Catawba Units 1 and 2.
12 Once I completed that, then I went into a
13 position, a managerial position, over a group which
14 provided maintenance engineering services to the
15 site. Did that for two or three years and then
16 became manager over a group that provide
17 instrumentation and electrical technician support to
18 the site.
19 By that time, I had spent about 13 and a
20 half years at Catawba, and I was then transferred to
21 McGuire Nuclear Station north of Charlotte where I
22 was the operations manager for four years.
23 And then back to Catawba again in 1997 as
24 the plant general manager or "station manager" as we
25 called it. I did that job for about four years.

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1 Then went to Oconee Nuclear Station near
2 Seneca, South Carolina as plant manager for one year
3 and then site vice president for three years.
4 And then my last six years with Duke were
5 in the corporate office in Charlotte; the first five
6 years as senior vice president over the three plants
7 that I just mentioned -- Oconee, McGuire, and
8 Catawba -- and then my final year with Duke doing
9 new-plant development for Duke.
10 And I left Duke at the end of 2011,
11 retired from Duke.
12 Q. That last position you held with Duke, the
13 new-plant development, can you describe what that
14 involved?
15 A. Yeah. At that time, Duke was considering
16 building a new nuclear power plant at a site they had
17 near Gaffney, South Carolina. It was going to be the
18 Lee Nuclear Station, two-unit AP1000, the same design
19 that V.C. Summer 2 and 3 were.
20 And so Duke had had that project running
21 for a few years, and I took -- basically took over
22 that responsibility at the -- I guess it was right at
23 the end of 2010, November time frame.
24 Q. Can you describe what oversight of that
25 program involved?

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1 A. There were two aspects. Prior to me
2 moving into that role, there were two individuals.
3 Actually, one individual was responsible for the --
4 the regulatory aspect. And by that, I don't mean
5 Nuclear Regulatory Commission aspect but the
6 regulatory aspect of building a plant that was going
7 to serve both North and South Carolina. So
8 interfaces that would occur with the PSCs in both
9 states, looking towards filings, that sort of thing,
10 involvement with folks that -- at that time, Duke was
11 considering having other folks buying into that
12 plant, buying shares of that plant. So that was one
13 part.
14 The other part was the technical aspect,
15 which is getting some preconstruction work actually
16 accomplished on site prior to getting the license
17 from the NRC, other regulatory activities,
18 engineering reviews, things like that.
19 Q. Did Duke have a contract with Westinghouse
20 to build a plant at that site?
21 A. No. There was no contract. Duke, when
22 they filed their license application, though, in that
23 application, it -- to simplify it, basically said,
24 "Here's where we want to build a plant," and then it
25 said, "Here's the technology we want to use."

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1 And in that application, they stated they
2 wanted to use the Westinghouse AP1000 technology.
3 Q. Was that an application for a COL?
4 A. Correct.
5 Q. And what does "COL" stand for?
6 A. It's basically a combined construction and
7 operating license which is a different -- different
8 than was done 30 or 40 years ago for nuclear plants
9 where you had to get a construction permit first,
10 build the plant, and then apply for and hopefully
11 receive an operating license. This was a one --
12 one-step process.
13 Q. So Duke went ahead and applied for that
14 COL license without having entered into an agreement
15 with Westinghouse to build the plant?
16 A. Correct.
17 Q. Did that strike you as unusual?
18 A. No, not at all. There were a number of
19 applications for licenses submitted, you know, around
20 that same time frame by other utilities. I would say
21 most of those utilities did not have a contract with
22 the company that provided the technology that they
23 had put in their license application.
24 Q. At what point in time would those
25 companies enter into a contract, if any?

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A. Well, more than likely, they would enter into that contract -- if they were going down the path of building and kept on that path all along, then more than likely, they would enter in that contract before they got the license so that once the COL was issued, they could immediately not only commence the nuclear construction, but leading up to that, before the COL was issued, doing pre -- there was a term for it, but basically activities that are allowed before you get the license: Site grading, clearing, for example, excavations, building support buildings on the site to support the nuclear construction when it started once the license was issued.

Q. And what was the reason that Duke did not move forward with constructing this plant?

What was the name of the site? I forgot.

A. It was -- well, it was near Gaffney, South Carolina, and it was the Lee Nuclear Station.

Q. And can you explain why that plant was never -- construction never began?

A. I really can't because I left Duke at the end of 2011. At that point in time, we had submitted our license application. I can't remember how many years we were expecting before we actually got that

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approved, but Duke was still going down the path of eventually constructing.

They made a decision after I left Duke, in fact, in not too -- not too far back, they decided basically to cancel the license. But as to the reasons why, I don't have any knowledge of that.

Q. And it's correct to say that you were not involved in construction on the Lee plant, correct?

A. Not nuclear construction because, again, we did not have a license. We did not have a contract with an architect, engineer, or constructor.

There were some presite activities we were doing. That site was a site that Duke, back in the late '70s, had actually started another nuclear plant on. So there was some demolition activities that needed to happen to get that site ready for the point of building a different, new nuclear project there.

Q. You made a -- you referred to a term that I think is -- sounds significant from -- from what I understand.

You referred to "nuclear construction." I was wondering if you could explain what "nuclear construction" is in the context of constructing a nuclear power plant.

A. Yeah. So as I alluded to before, there

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are certain activities you can do on a site that you're going to build a new nuclear plant, and you don't have to have an NRC license to do it. Again, the grading, excavating, support building, construction, things like that.

To do actual nuclear construction -- meaning we're now doing something that, in the nuclear world, is designated as safety-related; it's under the NRC auspices -- you have to have your license in hand to do that. You can't start it and then receive the license.

So there are certain activities. One of the fundamental ones is pouring first -- what's called "first nuclear concrete."

You've got to have that license in hand before you're allowed to do nuclear-safety-related activities on that site.

Q. In your experience on that Lee project, how far was Duke going in the presite construction, the nonnuclear construction, at the time you left?

A. We had not really -- we had -- there had been demolition that had been accomplished, but as far as nonnuclear construction, about the time I left, we had -- we had not issued any contracts to start any of it yet.

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We were headed to that point, though. There was some engineering that was being done to support that. You don't just go in and start clearing, for example, or grading or excavating. There's got to be certain engineering that's been accomplished.

And some of that engineering was being performed, but it was not to the point where any on-site activities that would lead to being ready for the nuclear construction could -- they couldn't be started until the engineering had been accomplished.

Q. And I'd like to go back to the earlier positions that you held for Duke.

I guess the global question I want to ask is: Is it correct to say that the work you did with Catawba at the beginning of your career was the only nuclear construction work that you were involved in?

A. I would say no. So nuclear plants that were built in the '70s and '80s, there is certain maintenance work you do, but there's also what I would call -- well, there's significant changes that are made to plants as they operate.

So, for example, during my time at Oconee, four years there, Oconee was undergoing a billion-dollar refurbishment that included putting

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1 new steam generators in, new reactor vessel heads,
2 upgrading analog control systems to digital control
3 systems as kind of the high-end technology stuff all
4 the way down to structural modifications; for
5 example, redoing the yard drain system to ensure
6 proper drainage from the site.
7 So for the four years I was there, I was
8 responsible for about a billion dollars' worth of
9 ongoing work at Oconee and, in particular, two big
10 parts being steam generator reactor head replacement
11 that were done during refueling outages, along with
12 my responsibilities for operating those three units
13 safely.
14 So there's a pretty good analogy between
15 that work in particular and construction work. And,
16 in fact, we were reconstructing many parts of Oconee
17 Nuclear Station during that time period.
18 Q. And were you in charge of that
19 reconstruction effort on Oconee?
20 A. We had a project team that was responsible
21 for that that reported to the corporate office but
22 basically took daily direction from the site, from
23 me.
24 Q. Did you -- did Duke use subcontractors to
25 do some of the work --

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1 A. Yes.
2 Q. -- on reconstructing Oconee?
3 Did -- did your team or your contractors
4 prepare schedules to completion date on that
5 reconstruction effort on Oconee?
6 A. Yes.
7 Q. Would your team prepare estimates of cost
8 to complete the reconstruction?
9 A. So there were many different contractors
10 involved in this.
11 Again, the biggest job we were doing was
12 reactor head and steam generator replacement. We
13 contracted with a company called SGT. We were
14 responsible for negotiating that contract,
15 administering that contract, monitoring work
16 activities. Very similar to nuclear construction.
17 And the other projects were a little
18 bit -- little bit smaller, more isolated, but the
19 same elements apply there: Contracts with one or
20 more contractors to support those activities, on-site
21 monitoring by our team to make sure they were meeting
22 their expectations, resolving contract disputes when
23 they come up because for any large project, you're
24 going to have contract disputes that come up.
25 So, in essence, although those folks, we

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1 had the contract and they were responsible for doing
2 the hands-on work, we were responsible for providing
3 all the oversight.
4 Q. Did your team prepare the schedule for
5 completion of that work, or did STG do that?
6 A. It was -- you know, the schedule was
7 responsible -- the responsibility for that schedule,
8 as best I can remember, because this was a while
9 back -- was that it was the contractor's
10 responsibility to develop that schedule and present
11 it to us, and then we had input into it.
12 Q. Do you recall what level construction
13 schedule the contractor maintained there?
14 A. No.
15 Q. Are you familiar with the different levels
16 of construction schedules?
17 A. Basically, but I am not a scheduling
18 expert.
19 Q. Generally, can you describe what you know
20 about the levels of constructions, nuclear
21 construction schedules?
22 A. Well, the highest-level schedule is a
23 Schedule 1. It's -- it's basically here's the
24 beginning, here's the end, and the major steps it
25 takes to get there.

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1 As you go down through progressive levels,
2 you get down to, I guess, Level 4, which is much more
3 intensive in the number of activities, resource
4 allocations, things like that.
5 But for me to try to describe exactly the
6 delta between 2 and 3 and 3 and 4, I can't do that.
7 Q. Okay. Is it correct to say that the
8 schedule on the V.C. Summer project was far more
9 complicated than the reconstruction schedule on
10 Oconee?
11 A. In many ways, yes, because this, you know,
12 V.C. Summer and the Vogtle project were the first
13 brand new nuclear plants to be built in the United
14 States in over 30 years. There have been some other
15 plants that were finished in that past 30 years, but
16 they were started back in sometimes the '70s or, at
17 the latest, the '80s. So these were first of a kind
18 in many ways.
19 There had been many changes in the years
20 from the '70s and '80s, vintage plants to these
21 plants, as far as not just technology. For example,
22 these were all digital-control plants.
23 I talked about Oconee where we were
24 retrofitting analog controls and changing them to
25 digital. These were all digital to begin with.

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1 There had never been another plant in the United
2 States built with all digital controls.
3 The licensing process, we talked about
4 that being different. So the -- just to get a
5 license was very different in how you did that and
6 what the NRC was requiring versus 30 or 40 years ago.
7 Techniques for construction had changed
8 quite a bit. The -- the NRC's requirements in many
9 cases had become much more stringent, not that the
10 old plants are unsafe at all. That's not the case.
11 But the NRC just -- over the years had tightened up
12 requirements, put new requirements in place that we
13 had to comply with.
14 So these were unique projects,
15 first-of-a-kind projects.
16 Q. You mentioned "first of a kind" several
17 times there. How does the project being first of a
18 kind make -- make the project construction more
19 challenging?
20 A. Well, I mean, just a simple example is
21 if -- if you have built a house and it's a unique
22 house and you have a first-of-a-kind house there,
23 there's probably some things you're going to
24 encounter along the way that you'll go, "Okay, that
25 wasn't right. The architect didn't design this

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1 right. You can't build it the way he designed it.
2 We're going to have to change that." There may be
3 other things in that design that, along the way, you
4 have to adjust and correct.
5 The second time you build that house, it's
6 pretty easy, though, because all that's been worked
7 out.
8 It's really kind of the same analogy with
9 a new nuclear plant. While these plants are
10 pressurized water reactors just like many of the
11 plants built in the '70s and '80s, the whole design
12 of them, the method for controlling them, the process
13 for constructing them, the exactness with which you
14 need to construct them, is night-and-day difference.
15 Q. In your experience working on the
16 V.C. Summer project, is that something that SCE&G
17 realized that this was a first-of-a-kind project
18 throughout that time period?
19 A. So I wasn't at SCE&G when SCE&G made the
20 decision to build the plant. I wasn't there as the
21 license application was prepared. I wasn't there
22 when the license was awarded. That was awarded in
23 the spring of 2012.
24 I arrived in July of 2012, so I can't tell
25 you exactly what discussions occurred back then. But

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1 after being at the project, my belief is that SCE&G
2 recognized that these were first of a kind, yeah.
3 Q. And I'm going to turn to your time at the
4 project, the V.C. Summer project in a minute. I did
5 want to finish up a couple --
6 A. Okay.
7 Q. -- points on your background. You
8 mentioned the maintenance efforts on Oconee. How
9 long did that maintenance period last?
10 A. It lasted the four years I was there, and
11 then once I left Oconee and I was senior vice
12 president over Oconee and the other two sites from
13 the corporate office, it went through the remaining
14 five years that I was in that senior VP of nuclear
15 plant operations position.
16 So this is a very long, drawn-out process
17 because you're basically, again, operating a
18 three-unit plant and at the same time reconstructing
19 many features on it.
20 Q. And the plant was not in operation during
21 that nine-year period, correct?
22 A. No, it was.
23 Q. Okay.
24 A. Yeah. You know, the work that we were
25 doing, some -- you had to wait until a refueling

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1 outage to actually do the work, which means that was
2 going to be a complicated and probably
3 longer-than-normal refueling outage. Other work
4 could be done with the plant operating.
5 So yard drains -- I mentioned yard drains,
6 for example. They're not safety-related, but they're
7 an important function. Those could be worked on
8 while the plant was operating.
9 Q. Were there times when the plant had to be
10 shut down to do certain types of activities?
11 A. Refueling outage is when we would bundle
12 those activities and try to accomplish all those
13 then.
14 Q. All right. Are you able to give any kind
15 of estimate as to what the cost was, the total cost,
16 on that maintenance effort on Oconee?
17 A. I can't give you the final cost. The cost
18 when I assumed that responsibility was over a billion
19 dollars.
20 Q. Was that the projected estimated cost to
21 complete the maintenance?
22 A. It was -- it was the projected cost to
23 complete all the projects; not just generator and
24 head replacement, but digital system upgrades, yard
25 drain system, pump change-outs, things like that.

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1 Yeah. It was a "bundled cost," I guess
2 you would say.
3 Q. Other than Oconee, were there any other
4 plants that you worked on that also had significant
5 maintenance efforts that you would classify as being
6 akin to a reconstruction?
7 A. Well, again, the other -- Catawba and
8 McGuire, for example, and any other operating nuclear
9 plant, during refueling outages, there are time
10 periods where you will be making substantial changes
11 to that plant.
12 Other plants, for example, have changed
13 out from analog controls to digital controls because
14 they're more reliable. We had done that on -- on the
15 McGuire units and the Catawba units. That work was
16 planned -- designed, planned, and then accomplished
17 during a refueling outage.
18 Q. How long do refueling outages typically
19 last?
20 A. If you're not doing the work that I just
21 talked about, if you're just basically replacing fuel
22 and doing your normal preventive maintenance,
23 probably the -- I don't have the most current average
24 in the United States, but it's less than 30 days.
25 Q. In your work at the beginning of your

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1 career on Catawba, was Catawba being constructed
2 initially at that time?
3 A. Yes.
4 Q. And what was your job during that time?
5 A. Preoperational testing. As the
6 construction folks finished building systems, the
7 group I was in was responsible for testing those
8 systems. So electrical distribution systems, control
9 systems, piping systems, pumps, that sort of thing.
10 Q. And the work that you did in that position
11 is the type of work that never occurred at the
12 V.C. Summer project, correct?
13 A. We never got to that point to do those
14 traditional -- traditionally, they're called
15 "preoperational tests and start-up activities," which
16 you basically are doing as the plant nears
17 completion.
18 Q. And when was Catawba completed?
19 A. First unit went online in -- if I'm
20 remembering right -- 1984, and the second unit a year
21 or two later.
22 Q. Was Catawba the last plant that was
23 constructed at the time that V.C. Summer was starting
24 up construction?
25 A. No. Other plants were completed after

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1 Catawba was completed.
2 Q. So let's turn to your time at SCE&G. Can
3 you explain what led you to start working at SCE&G?
4 A. Well, I guess, a couple things. One, I
5 had been involved in new nuclear at Duke for my last
6 year there. I'm a nuclear proponent. I believed in
7 the -- going down the path of building new nuclear
8 plants.
9 And the other thing that kind of combined
10 with that is the nuclear industry is a small
11 industry. You know a lot of folks, you work with
12 folks over the years on different committees,
13 industry meetings, things like that.
14 I had known Jeff Archie and Steve Byrne
15 for a long period of time. And in discussion with
16 Jeff, I knew that SCANA, for V.C. Summer 2 and 3, was
17 moving from a project that was primarily focused on
18 getting a contract and getting the license from the
19 NRC to now executing that and actually accomplishing
20 construction.
21 The person that was the vice president at
22 that time was retiring, and Jeff called and we
23 talked, traveled down to Cayce, and talked to Steve
24 Byrne and talked to Kevin Marsh about that
25 opportunity. And that's what resulted in me starting

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1 with SCANA in July of 2012.
2 Q. So was it Jeff or Steve who initially
3 contacted you about the opportunity?
4 A. It was Jeff.
5 Q. And how did you know Jeff Archie?
6 A. Small nuclear industry. Jeff had been the
7 plant manager at V.C. Summer about the time I was a
8 plant manager at Catawba and Oconee. He had been the
9 site vice president about the time I was a site vice
10 president, so . . .
11 Q. What did he tell you about the opportunity
12 that he had?
13 A. Well, I was familiar with what -- what the
14 project entailed because we -- there was actually an
15 industry group that was put together for those
16 utilities that were interested or committed already
17 to building an AP1000, a Westinghouse design plant,
18 and there was a AP1000 working group that involved
19 Duke.
20 At that time, projects that -- at the time
21 I was at Duke, Progress was not -- had not been
22 acquired by Duke yet, so Progress Energy was
23 interested, Florida Power and Light, Southern
24 Company, and SCANA. So there was an industry working
25 group that had been put together a year or more

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before I moved into the new nuclear activities at Duke to look at things that the utilities, those five utilities, could work on and kind of combine resources to support them moving into eventually building plants.

So there was an operations function. There was a maintenance function. There was a licensing function there. And this working group kind of provided oversight of the resources that each utility was providing to those functions, and I chaired that working group for the last year that I was at Duke doing new plant development.

Q. Did Mr. Archie make any statements to you about -- and I should broaden this to include Mr. Byrne -- is it fair to say that you also had talks with Mr. Byrne and Mr. Marsh before you were hired?

A. Yes.

Q. Did any of those three individuals -- Mr. Archie, Mr. Marsh, Mr. Byrne -- make any statements to you about why they needed you on the project?

A. Well, I think I was a good fit for the project because of my past experience that we just talked about.

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Q. And I understand that --

A. Right.

Q. -- and I hear what you're saying about your background.

I'm wondering if they gave you kind of a pitch as to -- as to -- to get you on board about what the needs were on the project, whether there were any problems that they felt you could help address, concerns, that sort of thing?

A. Well, again, I think my background, especially at Oconee but also as the senior VP over an operating fleet for five years, would be an asset in this position, working for them.

Q. Fair to say that you just felt, everyone felt that you would be a good fit? You got that impression?

A. Yes.

Q. And did any of those three individuals -- Mr. Marsh, Byrne, and Archie -- did any of them make any comments to you about the -- the progress on the construction being troubled and them needing you to help fix problems?

A. No. So at the time I joined in July of 2012, again, SCANA had received the license from the NRC, I think, in April. The receipt of that license

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had been delayed because of the NRC was new at issuing COLs. So both the Vogtle license and the Summer license were being delayed in being issued. So I was well aware of that.

I had also been down to the Summer site prior to being employed there while I was at Duke as part of my role leading the AP1000 working group, so I had seen the on-site activities that were going on, the preconstruction activities, earth-moving, excavating, support buildings being erected, things like this.

So I was -- I had seen the site before, but -- and I guess the only other thing I was aware of prior to starting employment there was, again, Duke was interested in building AP1000s also, so we were following fairly closely the work that Westinghouse was doing on the design, the work that -- at that time, it was Shaw as the constructor was doing as far as things like module construction.

And we were aware that there had been some problems in getting the module construction facility down in Lake Charles, Louisiana started up smoothly. While I was at Duke, we had meetings with Shaw to talk about that and understand what was going on with the module facility that they were trying to

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start-up. There was some quality concerns on the front end, some regulatory issues. So we had meetings with Shaw while I was working for Duke to understand what they were doing to try to improve that.

Q. So is it fair to say that you already felt that you were pretty informed about what was going on as far as the progress of construction when you were hired?

A. Yes, for two reasons. One, because Duke was pursuing a license and eventually building a plant and actually doing -- was doing some preconstruction work on our site, demolition, plus the fact that through the AP1000 working group, it was a pretty close relationship and good sharing of information between the five utilities I mentioned, in particular from SCANA and Vogtle, as to what was going on with their projects because those were the lead projects.

Q. When you were at Duke, did the senior management at Duke -- were you part of senior management at Duke at the time that you left Duke?

A. I -- well, Duke was a larger company than SCANA, so many more layers in there. I reported to the chief nuclear officer, who reported to the CEO.

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Q. You were involved while you were at Duke in the discussions Duke was having about whether to move forward on an AP1000 reactor, correct?
A. To some degree. There was still discussions that occurred above me that I was not privy to, and -- but yeah, I mean, about the same types of discussions that I was involved in at SCANA.
Q. In those discussions that you had with management at Duke about whether to move forward with an AP1000 reactor, were there any discussions about Duke not wanting to deal with the issues of being a first-of-a-kind project?
A. Not that I recall. I, you know, and every utility, the two that were building -- Duke, Progress -- you know, had different timelines for when they were going to get their license from the NRC.
Vogtle and V.C. Summer were the lead license applications with the NRC. Although Duke had submitted an application, those two were taking priority with the NRC. They were going to be issued first.
So just from that perspective, Duke wasn't going to have a license in the same time frame.
And the licensing process with the NRC,

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since that was first of a kind, also, not only pushed out the two lead utilities' licenses and delay those, but it delayed the Duke license, the FP&L license, the Progress licenses.
Q. Did FP&L submit a license as well?
A. They did.
Q. You're referring to Fluor?
A. No, Florida Power and Light.
Q. Florida?
A. Yeah.
Q. You mentioned the COL for V.C. Summer being delayed. Do you have any knowledge of why COL was delayed?
A. I did at the time, but honestly, I don't remember. I mean, again, part of it was the regulatory process was a new one. The NRC was working through just exactly what they needed to accomplish to be able to sign off and approve the license.
And then the NRC has five commissioners that oversee the NRC, and the chair was a person that was a little bit of an obstructionist, I guess I would say, in getting a license issued at that time.
Q. So what position were you hired at on the V.C. Summer project?

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A. Vice president of new nuclear operations.
Q. And who had held that position before you?
A. It had a different title before me, but Ron Clary was the person that held that position earlier and kind of led the project team through the licensing phase for the plant.
Q. And did you overlap with Mr. Clary on the project?
A. I did for about -- I guess it was two months.
Q. To your knowledge, if you have any, why did Mr. Clary leave the project?
A. Because he was older than me.
Q. He was ready to retire?
A. He was ready to retire. Yeah.
Ron had done a good job with the licensing process. When I stepped in, again, the title changed. Parts of the job remained the same, meaning the licensing part, but I also picked up the part of not only the -- overseeing the construction project but also putting together the organization that would eventually operate and maintain the plant.
That, up until that point in time, had been reporting directly to Jeff Archie, but with me coming on board, it started reporting to me.

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Q. What was the title of the position under Mr. Clary?
A. For his position?
Q. Correct.
A. I think it was vice president of new nuclear development or something to that effect.
Q. And I want to just understand the differences, to your knowledge, of his position and yours.
Is the only difference that the -- the operational effort was added to your job title?
A. Correct. So two major functions that I had was, one, the construction project; two, the organization that's now going to have to operate it once it's complete. So those are operators, maintenance technicians, engineers, lots of different responsibilities, chemistry technicians, health physics, that sort of thing.
You can't just build a plant and then a couple weeks before you finish it go hire all those people because in the nuclear world, training and licensing an operator, for example, takes years. So you have to project when you might be finished and when do I want to hire those folks in, develop the training materials, make sure you got classroom

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1 space, for example. Operators have to be tested and
2 licensed by the Nuclear Regulatory Commission. So
3 it's a very involved process.
4 It's a little bit easier in the
5 nonoperations roles, but still, the training that's
6 given to a maintenance technician, health physics
7 technician is very extensive. It typically
8 encompasses a year and a half or more.
9 Q. To your knowledge, who made the decision
10 to add the operational start-up duties to your
11 position along with the construction duties?
12 A. I -- well, I don't know who made the final
13 decision. I know that that had been decided before I
14 started there, that that was what was going to
15 happen.
16 Q. And you were told that before you started?
17 A. Yes.
18 Q. Did that give you any concern that you
19 would be responsi- -- or overseeing not only
20 construction, but also overseeing the setup of the
21 operational efforts?
22 A. No. In many ways, it was like the time
23 that I spent at Oconee that I mentioned earlier as
24 the vice president there. I was responsible for
25 overseeing the reconstruction of Oconee and at the

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1 same time operating three 900-megawatt reactors
2 safely. Hiring in operators. As you know, attrition
3 occurred. Many of the same responsibilities.
4 Q. Do you know how many individuals were
5 involved in the construction at Oconee?
6 A. Oh, that occurred back in the early '70s.
7 That was a much smaller number.
8 Well, I don't know on construction.
9 Operating initially was a smaller number.
10 Construction back then was, again, very different
11 than construction nowadays in that you filed with the
12 NRC a very basic license which said, "Here's what
13 we're going to build." They issued a permit to build
14 it. They monitored that as it went along. As
15 technical issues came up, the NRC might raise them
16 during the construction. You might have to change
17 something then. And then at the end, you had to get
18 the operating license.
19 So it was a very, very different process,
20 you know, 30 or 40 years ago than it is now.
21 Q. Well -- and the point that I was going to
22 raise with you, and I'll just kind of set it up for
23 you, is that wasn't the construction effort on
24 V.C. Summer a much more mammoth construction effort
25 than the maintenance effort that you oversaw on

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1 Oconee?
2 A. It was certainly bigger, but many of the
3 same principles involved.
4 I don't want to overplay nor underplay the
5 effort on Oconee, but you don't just decide one day
6 I'm going to replace steam generators and reactor
7 heads and then you do it the next week. So there is
8 fabrication that's got to occur.
9 In this case for Oconee, these were
10 first-of-a-kind designs for new reactor heads and new
11 steam generators. So the fabricators that existed in
12 Canada for the steam generators, Korea for the
13 reactor heads, this was new work that they were doing
14 that we had to monitor, very similar to what we had
15 to do on V.C. Summer with components that were being
16 built.
17 We had folks out in the field, in some
18 cases full-time residents assigned to some of those
19 fabrication facilities; in other cases, periodic
20 visits we would send. Both quality control folks out
21 to look at it. Also management, engineering folks,
22 that sort of thing. So the principles were basically
23 the same.
24 There really wasn't a significant
25 difference in my mind between the responsibilities at

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1 Oconee and the responsibilities at Summer. The
2 difference was we weren't operating Summer yet. I
3 was operating Oconee.
4 But if you go back and just look at the
5 construction, while you might -- I don't disagree
6 that building a two-unit nuclear plant from the
7 ground up physically is more work than rebuilding an
8 existing three-unit plant because you're not
9 replacing everything there, but the principles don't
10 change between how you manage and provide oversight
11 for those projects.
12 Q. During your time on the V.C. Summer
13 project, can you give an estimate as to how much of
14 your time was spent devoted to the construction
15 efforts versus the amount of time that was spent
16 getting the operational side set up?
17 A. Well, it's tough for me just to give you a
18 number --
19 Q. Right.
20 A. -- because as time went by, my focus might
21 have to change from week to week, month by month,
22 from one to the other a little bit more. But, again,
23 that's why I had an entire organization working for
24 me, to provide the construction side, the oversight
25 of construction, licensing part, the engineering

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1 oversight.
2 And then another part of my organization
3 with a senior leader driving the staffing of and
4 hiring folks, training new operators, that sort of
5 thing.
6 Q. And who was your lead direct report
7 heading up the construction effort?
8 A. Alan Torres was the general manager of
9 construction, but I also had managers on that same
10 side reporting to me that covered engineering. There
11 was a general manager of engineering, a manager of
12 licensing, business manager, performance improvement
13 manager, and quality control manager.
14 Q. What did you say before quality control?
15 A. Business manager.
16 Q. And you said a performance improvement
17 manager?
18 A. Performance improvement, yeah.
19 Q. And each of those individuals reported
20 directly to you; they didn't report to Mr. Torres?
21 A. Correct.
22 Q. Who was your engineering manager?
23 A. Brad Stokes.
24 Q. That was your whole time on the project?
25 A. Yes.

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1 Q. And Mr. Torres was your construction
2 general manager your whole time on the project?
3 A. Correct.
4 Q. Who was your business manager?
5 A. Skip Smith.
6 Q. And who was your licensing manager?
7 A. April Rice.
8 Q. And your quality control manager?
9 A. Larry Cunningham for the majority of the
10 time. At the very end, a new quality control manager
11 came in, but Larry Cunningham for the vast majority
12 of the time I was there.
13 Q. And the performance manager?
14 A. Roosevelt Word.
15 Q. And all of those six direct reports were
16 involved in the construction effort; is that correct?
17 A. Primarily the construction effort. That's
18 correct.
19 Q. You say "primarily." Were they also
20 involved in the operational?
21 A. Well, the reason I say that is Roosevelt
22 Word for performance improvement, for example, not
23 only looked at things going on in the construction
24 side but also the operational side, licensing,
25 engineering, the construction.

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1 And most of the business finance was
2 looking at the new -- the new -- the construction
3 part, basically. And then I had a separate manager
4 that reported to me that oversaw the operational
5 side.
6 Q. And who was that?
7 A. Dave Levine, and he had a number of
8 managers reporting to him.
9 Q. And who did you report to during your time
10 on the project?
11 A. Jeff Archie.
12 Q. Did you have any responsibilities with
13 respect to V.C. Summer Unit 1?
14 A. None.
15 Q. Did Mr. Archie oversee Unit 1 as well?
16 A. Yes.
17 Q. So were you the highest-ranking manager
18 whose duties were exclusively devoted to Units 2
19 and 3?
20 A. Yes.
21 Q. Were you involved in the schedule
22 reassessment that SCE&G presented to the PSC in 2012?
23 MR. CHALLY: Object to form.
24 THE WITNESS: Can you restate your
25 question?

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1 BY MR. COX:
2 Q. Sure. In 2012, SCE&G presented to the PSC
3 a new schedule for the project that was approved with
4 extended substantial completion dates. I was
5 wondering if you recall if you were involved in that.
6 A. I was not. Again, I started in July of
7 2012.
8 Q. Can you describe generally what efforts
9 you made when you got to the project to get familiar
10 with the status of the project at that time?
11 A. Well, a lot of it was boots on the ground.
12 I mean, first meeting my staff, understanding our
13 capabilities. At that time, it was Westinghouse and
14 Shaw. Shaw was the constructor. Meeting those
15 folks, understanding their capabilities, what they
16 were working on.
17 It was a -- typically like any other new
18 job. You're on a steep learning curve for the first
19 couple of months until you figure out who does what
20 and how things are working, and then things become a
21 little more integrated, I guess I would say, after
22 that.
23 Q. Did you reach any conclusions about the
24 health of the project in those first couple months?
25 MR. CHALLY: Object to form.

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1 MR. MITCHELL: Same.
2 THE WITNESS: No conclusions, no.
3 I mean, I was -- I mentioned earlier that
4 while at Duke, I was aware of some of the
5 challenges with module fabrication and the
6 start-up of that facility in Louisiana. So the
7 fact that they were still trying to work through
8 some challenges there was not a surprise to me.
9 BY MR. COX:
10 Q. What were the nature of those challenges?
11 A. Well, again, this -- that -- I'll go back
12 to what I said before. These plants were
13 first-of-a-kind plants, very unique designs. The
14 whole concept of modular construction was new.
15 Existing plants in the United States had never done
16 that before.
17 The plants that were charged with
18 constructing those modules off site were start-up
19 facilities also. The whole -- at that time, it was
20 called SMS, Shaw Modular Solutions, in Lake Charles,
21 Louisiana. That did not exist prior to the AP1000s
22 being built. So that was a facility that Shaw built
23 to fabricate those modules.
24 Shaw had some problems with getting those
25 facilities started up, which I talked about a little

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1 bit earlier. I was aware at Duke while I was -- in
2 2011 -- with some of the challenges there. And while
3 that was unfortunate, that's not really a surprise on
4 anything that you do that's new in the nuclear
5 industry because it's very, very complicated.
6 So there, even in an operating plant, we
7 would have challenges with suppliers because maybe
8 they were a new supplier, and they were providing a
9 part that had to be safety-related, and they had a
10 breakdown in their quality program. Maybe they were
11 an existing supplier that over the years or for
12 whatever reason weren't putting the proper focus on
13 their nuclear side of their business, and all of a
14 sudden there was a quality breakdown or a production
15 breakdown in providing parts for a nuclear plant.
16 So same thing for a new nuclear plant. A
17 lot of new suppliers involved there, even existing
18 suppliers maybe having more business than they had
19 had in the past because they had just been supplying
20 replacement parts. Now they're supplying parts for
21 four new nuclear units between the two that SCANA was
22 building and the two Southern was building. So it
23 wasn't a huge surprise to me.
24 Q. Was the problem both with respect to the
25 module quality and the timeliness of the module

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1 delivery, or was it one or the other?
2 A. You can't really separate the two. So if
3 you're fabricating something and you've got a quality
4 problem that you've got to correct, it's probably
5 going to impact your delivery date. The modules are
6 engineered modules.
7 If you looked at a picture of one, you
8 know, to an outsider, they look pretty simple. It's
9 steel plate. Most of them are two pieces of steel
10 plate separated by a couple feet and then structural
11 steel and other things in between to hold the plates
12 apart, allow penetrations through the walls for
13 piping and things like that. Looks very, very
14 simple. But the tolerances with which you have to be
15 able to manufacture those are very, very tight. A
16 lot of welding involved. A lot of heat involved,
17 which warps metal. Dissimilar metal welding that has
18 to occur between stainless steel and carbon steel.
19 So they are very, very complicated
20 engineered pieces for this plant. So just the nature
21 of the design is -- is challenging to begin with.
22 The fact that Shaw had some quality problems on the
23 front end was another challenge on top of that.
24 Q. What efforts did SCE&G make to address the
25 issues with respect to module fabrication and

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1 delivery?
2 A. Well, I think we -- we made -- the efforts
3 we made were basically -- we didn't just stand back
4 and say, "Well, you're late, you're late" and yell at
5 them.
6 We sent folks out both on our site on a
7 daily basis to look at construction and what was
8 going on, report back to where they saw things going
9 good, if they saw things that weren't going as well.
10 We interfaced with site management. We
11 also interfaced with the off-site facilities like SMS
12 to understand what was going on and why and, number
13 one, let them know our displeasure if they're not
14 meeting expectations; but, number two, trying to
15 understand what their problems are and do they have a
16 plan in place to resolve those problems.
17 And, number three, offer advice if we
18 think they're missing something.
19 Q. Were those efforts successful?
20 MR. CHALLY: Object to form.
21 THE WITNESS: It depends on how you want
22 to look at that, really. Absent our pushing
23 back and driving -- and the same thing, I'll
24 give the Southern folks credit for doing the
25 same thing, too -- I don't know that they would

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1 have improved as rapidly as they did.
2 Now, did they get to the point where they
3 were perfect? Certainly not. But there were
4 improvements over time, but yet there was still
5 continuing challenges which we would have loved
6 to have seen resolved earlier.
7 BY MR. COX:
8 Q. And did those challenges in that area,
9 module fabrication/delivery, did those exist all the
10 way until the abandonment of the project?
11 A. To a great degree, that would be true. I
12 mean, that was the reason for changes in schedule,
13 primarily tied back to modules, not just a particular
14 set of modules, but there were a number of large
15 structural modules in the nuclear island.
16 There was also a shield building that
17 surrounded the containment vessel. Those were
18 particular challenges there that impacted schedule.
19 Q. These steps that you mentioned that SCE&G
20 took, would you classify those steps as mitigation
21 efforts?
22 And let me step back. Can you define what
23 a "mitigation effort" is, to your knowledge?
24 A. Well, so one way --
25 MR. CHALLY: Object to the form of the

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1 question.
2 But go ahead.
3 THE WITNESS: One way to look at a
4 mitigation effort is what are you talking about
5 when you talk about mitigation?
6 So if I'm talking about, gee, I'm building
7 a house -- let's just keep it simple -- and all
8 of a sudden, my bricklayer doesn't show up the
9 day I need him, and that's -- critical path is
10 getting the bricks up. And he shows up two days
11 later, but he didn't bring my more people with
12 him.
13 I'm going to suggest to him, "You get some
14 more people and help mitigate so that you can
15 hold that end date constant for the brick work."
16 So that's a mitigation effort.
17 You know, another mitigation might be,
18 well, you have a bricklayer that's -- that needs
19 some -- some not just worker help, but some
20 leadership help there. They need to run two
21 shifts, and so they need somebody on back shift
22 along with the workers to be able to supervise
23 them. That's a mitigation effort because you
24 want to, again, try to stay on that same
25 schedule.

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1 BY MR. COX:
2 Q. So is it fair to say that a mitigation
3 effort is a step to have an event occur when it is
4 scheduled to so that the schedule does not get
5 extended?
6 A. It can be used to refer to that.
7 Q. Is there any other way in which you're
8 familiar with it being used in nuclear construction?
9 A. No. That's generally how it's used.
10 Q. These steps that you are referring to that
11 SCE&G took with respect to module fabrication and
12 delivery, were those steps already in place when you
13 arrived on the project, or did you -- were those
14 implemented after you arrived?
15 A. Some of those were in place when I arrived
16 on the project. As time went on, we used more
17 full-time residents at the module suppliers than we
18 were on the very beginning.
19 So by "full-time resident," I'm talking
20 about a person that worked for us, reported back to
21 us, basically lived where the facility was, worked a
22 full week at that facility, monitoring what was going
23 on in all aspects of whatever it was that facility
24 was manufacturing.
25 So everything from are they getting the

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1 raw material in on time? Do they have enough people?
2 Is their quality control doing what the quality
3 control is supposed to be doing? Are they keeping an
4 accurate projection of when completion of certain
5 activities is going to occur? And that sort of
6 thing.
7 Q. When did those efforts start?
8 A. I don't remember exactly. If -- we may
9 have already had a resident at SMS in Louisiana when
10 I got there. If it wasn't then, it was shortly
11 after, but I don't remember exactly.
12 Q. And you may not be able to answer this due
13 to your time frame, but do you know when SCE&G became
14 aware that construction module fabrication/delivery
15 was becoming an issue?
16 A. I can't say because, again, it was prior
17 to me arriving there.
18 Q. You mentioned earlier the term "critical
19 path." Can you explain what that means?
20 A. Well, I mean, the best explanation, the
21 simple explanation is like I gave you with a house.
22 If -- if your brick work has to be done by a certain
23 day so that rest of the housing activities can occur
24 and it can be delivered to the buyer when it was
25 promised, that's a critical path activity.

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On the other hand, landscaping for your house is probably not going to be critical path because you can pretty much do that any time as you approach completion, and it's a fairly simple activity, too. You've got a plan already, and you just need to get a couple guys in there for a couple days and put some bushes and trees in the ground.

Q. Is it fair to say that the critical path is the path that is driving the completion date?

A. It's driving the completion date. That's correct.

Q. And is it fair to say that if something occurs that delays an event on the critical path, then that will cause an effect on the schedule completion date?

A. Not necessarily.

Q. Why is that?

A. You may have an opportunity for activities that come under -- after that particular activity to shorten their duration or rearrange them and work some of those in parallel.

Q. Would that be mitigation effort?

A. It's a mitigation effort. And the types of efforts we're talking about here for a nuclear construction project are no different than the

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philosophy and the tools you use at an operating nuclear plant when you're shut down in a refueling outage, for example.

If you've got a 30-day outage schedule and there is something that either doesn't complete on time or an unexpected problem that pops up during that refueling outage that's impacting your critical path, the mode you go into then is "Well, what can I do to reduce the duration of those activities afterwards and still stay on that same completion date?"

Sometimes you can work out mitigation. Sometimes you can't.

Q. Would increasing productivity be one step to shorten the time frame on an event that occurs later in the critical path?

A. It could be.

Q. I think you said earlier -- and I just want to confirm -- that the module fabrication and delivery issue was an issue that was a critical path issue that affected the completion date of the project; is that correct?

A. It -- yes. Yeah.

Q. To your recollection, what other issues arose during the project that -- that created changes

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to the completion date of the project?

A. Well, worker productivity was a challenge.

I'm trying to think, was there -- I mean, the biggest one was modules. That was the biggest reason for -- for the delays. That was the biggest -- one of the big reasons for in 2015 going before the Commission and pushing the completion dates out.

MR. MITCHELL: Are we at a stopping point any time soon?

MR. COX: Absolutely. Let's go off the record.

VIDEOGRAPHER: Off record at 10:15 a.m.

(A recess transpired from 10:15 a.m. until 10:30 a.m.)

VIDEOGRAPHER: On record at 10:30 a.m.

BY MR. COX:

Q. Mr. Jones, we're back on the record. Before the break, we had been discussing issues that arose during the life of the project that affected the critical path of the project.

You had mentioned fabrication/delivery of modules as one issue; is that correct?

A. Correct.

Q. Was the fabrication and delivery of shield

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building panels another issue that affected the critical path on the project?

A. Yes. They are really modules also, but they're typically talked about separately from the five big modules that make up the nuclear island.

These are a little bit different design than those. These are actually an enclosure around the containment vessel, whereas the other modules we're talking about are typically large structural rooms, tanks, things like that.

Q. And the shield building panels were fabricated at Newport News; is that correct?

A. Newport News Industrial.

Q. Commonly referred to as "NNI"; is that correct?

A. Correct.

Q. Do you know if SCE&G ever sent an observer to that location?

A. We did.

Q. Do you recall when that was?

A. Well, we had a resident there for a period of time. We made a number of management visits to all of the module fabrication facilities: Myself; Alan Torres, my engineering manager; quality control folks, things like that. We also had our quality

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1 folks go out periodically on checks at these
2 facilities.
3 So it wasn't -- we didn't -- again, we
4 didn't just stand back and say, "You're late on
5 delivery." We wanted to keep our eyes on things, see
6 when problems were occurring, try to understand what
7 those particular module manufacturers were doing to
8 correct those problems, provide our observations if
9 we thought there was another thing they could do to
10 help improve, that sort of thing. So it was a pretty
11 active relationship on our part.
12 Q. These steps that you took, the having
13 residents at these facilities and conducting site
14 visits, is it fair to say those events occurred, but
15 you don't remember exactly what time period they
16 began?
17 A. I can't give you a time frame. I mean,
18 just -- I don't have my notes from my five years
19 there as to when we started doing certain things, so
20 I can't tell you.
21 Q. Did you keep any -- do you have any notes
22 still in your possession from your work on the
23 project?
24 A. No. I mean, the same thing applied to me
25 as everyone else there, which was basically walk away

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1 from everything and leave it as it was in your office
2 or your cubicle or whatever.
3 MR. SMITH: Excuse me. This is Emory
4 Smith. I'm going to have to get off the line.
5 Wesley Vorberger will be substituting for me,
6 V-O-R-B-E-R-G-E-R.
7 Sorry for the interruption.
8 MR. COX: No problem. Thank you, Emory.
9 BY MR. COX:
10 Q. You mentioned productivity as being an
11 issue at the project as well; is that correct?
12 A. Yes.
13 Q. Can you describe how that was an issue?
14 A. Well, in general terms, I could describe
15 it as if you made an estimate to do a piece of work
16 and you said, "I need ten people for a week," and I'm
17 going to assume that they're working X number of
18 hours that week, and here's my assumptions for how
19 much work they can get done per hour. If they meet
20 that expectation, then -- that's good product -- I
21 mean, that's what you expect as far as productivity.
22 If for some reason they accomplish more
23 than you expected, then that's good too. If they
24 don't accomplish as much as you expected, then
25 there's some decrease in productivity which you then

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1 have to understand, well, what's causing that
2 decrease.
3 Q. And is it fair to say that during the life
4 of the project, the productivity was not at the level
5 that SCE&G anticipated at the time of the EPC
6 contract?
7 MR. CHALLY: Object to the form.
8 THE WITNESS: I don't know what SCE&G
9 anticipated at the time of the EPC contract. I
10 wasn't there.
11 BY MR. COX:
12 Q. Are you familiar with the term
13 "performance factor" or "PF"?
14 A. I am informed what the basic term, yes.
15 Q. And can you explain what that means?
16 A. So performance factor of 1 basically
17 says -- I said that -- I'll just go back to my
18 previous example. I had X number of people working
19 for a week. Here's what they were supposed to
20 accomplish in that week.
21 If that matches up with my original
22 projection, then it's a PF of 1. I got the expected
23 productivity out of them. If it's less than 1, that
24 means they got it done quicker.
25 If it's more than 1, it means there was a

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1 delay for some reason. It may have been -- to a
2 number of different things. It may have been, well,
3 they got to a certain stage of the work that they
4 were doing and now a part wasn't available to
5 complete the work, which caused the delay. They had
6 to go figure out how to get that part or make that
7 part or whatever, and that wasn't something that was
8 originally projected.
9 It could be that -- that you make certain
10 assumptions for how productive workers can be. For
11 example, one of the terms that's not just used in the
12 nuclear industry but a lot of industries would be
13 "wrench time." And, basically, that's saying how
14 many -- what percent of time that a person is working
15 are they actually, physically doing the work.
16 So if it's a person installing rebar in a
17 nuclear plant, what percentage of the time during the
18 day are they physically going to have hands on rebar
19 and actually being accomplishing work?
20 It's not 100 percent. So there's start-up
21 time at the beginning of the shift. There's some
22 shut-down time at the end of the shift to put
23 everything in a safe condition. There's time for
24 breaks. There's times -- time for lunch.
25 In the nuclear industry, there's a lot of

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1 paperwork that's involved with literally every
2 activity that goes on in a construction site, or an
3 operating plant for that matter. So there's
4 paperwork that has to be filled out.
5 Well, you're not doing hands-on wrench
6 time during that. So it's impossible for a worker to
7 have a -- you know, if there are 8 hours a day
8 scheduled and have -- that they'll have 8 hours of
9 wrench time.
10 More typical, in the nuclear industry,
11 especially for craft, is 30 to 35 percent of their
12 time will be wrench time because of all these other
13 things I just mentioned that are going to occur on a
14 daily basis. The paperwork, for example, is going to
15 make it such that you can't just start your day,
16 wrench time 100 percent throughout.
17 Q. Is it correct to say that SCE&G, in
18 entering into the EPC contract, there was a certain
19 level of productivity that was assumed in calculating
20 the cost of the project?
21 MR. CHALLY: Objection.
22 THE WITNESS: I can't say. I was not
23 there when the EPC contract was negotiated.
24 BY MR. COX:
25 Q. In your experience on the project, what

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1 does a PF of 1.0 mean?
2 A. It means if you projected -- an example
3 would be if I project that it's going to take
4 10 people 40 hours apiece to install X hundred feet
5 of piping, if that comes true, that's a PF of 1. If
6 it takes them less time, PF's below 1. If it takes
7 them more time, PF's above 1. I'm not assuming it's
8 100 percent wrench time for those folks.
9 Q. And in your experience on the project, the
10 PF of 1, where is the -- where is the basis for
11 determining that that was the level that was
12 expected?
13 MR. CHALLY: Object to form.
14 THE WITNESS: I'm not sure what you mean,
15 "the basis for determining that that's what was
16 expected."
17 BY MR. COX:
18 Q. So is it fair to say that during your time
19 on the project, the PF was constantly above 1.0?
20 MR. CHALLY: Object to form.
21 THE WITNESS: Yes.
22 BY MR. COX:
23 Q. And what I'm trying to get at is that 1.0,
24 is that based on -- that calculation of what the
25 expectations are for the productivity on the project,

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1 was that established in the EPC contract, or some
2 other basis?
3 A. Again, I was not there when the EPC
4 contract was negotiated, so I don't know what
5 discussions occur -- occurred at that time.
6 Q. And I understand that. But during your
7 experience later on the project, after the EPC
8 contract when you're looking at just -- this is just
9 a hypothetical, but let's see -- let's say you see a
10 PF of 2.0.
11 Would you agree that that indicates that
12 productivity is -- is half what it was supposed to
13 be?
14 MR. MITCHELL: Objection.
15 MR. CHALLY: Same.
16 THE WITNESS: So if you -- if you've
17 assumed a certain PF and you don't achieve that,
18 it could be due to a number of reasons. Could
19 have been that all your assumptions were bad to
20 begin with, not that the workers weren't doing
21 what they were capable of doing.
22 BY MR. COX:
23 Q. And I understand that. I just wanted to
24 establish the basis for what 1.0 was on the project,
25 if you know.

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1 A. I don't know. And I'm not sure what you'd
2 be referring to, saying -- that would say a basis of
3 1.0 was what was established.
4 1.0 to me implies that a perfect job has
5 been done in estimating the work, recognizing the
6 true amount of wrench time, recognizing the number of
7 folks that would be required. That rarely happens in
8 an operating nuclear plant.
9 Q. I understand. And I just want to get an
10 understanding of that estimate that establishes the
11 basis of a 1.0 PF, what document that was established
12 in in the project, if you know.
13 A. I don't know.
14 Q. So when you heard that there was a PF of
15 1.40, what was your understanding as to, say, what
16 that meant?
17 A. It meant that whatever assumptions you had
18 made in projecting the work -- if you projected the
19 work was going to take -- was going to be a 1.4 and
20 you accomplished that 1.4, okay, you accomplished
21 what you projected.
22 If you project it was going to be a 1.15
23 and it took -- it was 1.4 instead, then something had
24 changed. Either something was either wrong in your
25 assumptions or something happened during the

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1 execution that caused that to happen, or a
2 combination of the two.
3 Q. Did productivity issues or lack of
4 productivity affect the critical path of the schedule
5 of the project?
6 A. Well, yeah, I'd have to go back and look.
7 I mean, the reason I'm saying that is it could or it
8 couldn't.
9 So if -- if your critical path was being
10 driven by modules being late, for example, then other
11 work that might have been run at a 1.4 PF may not
12 have intruded on the critical path because the
13 critical path had been pushed by modules delivery,
14 for example.
15 Q. What steps did SCE&G take to attempt to
16 increase the productivity level on the project?
17 MR. CHALLY: Object to form.
18 THE WITNESS: Well, one thing, we
19 certainly gave feedback to Westinghouse and the
20 constructor at that time was whether or not they
21 were meeting expectations. And now, they're
22 smart people. They either knew they were or
23 weren't meeting their projections. But we would
24 give additional feedback, and we would give also
25 our observations, if we had some, as to why we

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1 thought that was happening. We would also
2 provide suggestions on how they might correct
3 that.
4 BY MR. COX:
5 Q. Is productivity level an issue that you
6 felt was in the consortium's control and not SCE&G's
7 control?
8 A. It was in their control, and it was in
9 their responsibility also for the EPC.
10 Q. And how was that reflected in the EPC?
11 A. The EPC was the contract with us that
12 said, "We're going to deliver you two new nuclear
13 units. Here's the pricing that goes with it. Here's
14 the schedule that goes with it."
15 Q. Did you become familiar with the different
16 cost components of the EPC during your time on the
17 project?
18 A. At a senior leadership level, meaning I
19 was not a financial expert.
20 Q. And do you know the difference between the
21 "firm fixed" and "target price" category?
22 A. Yes.
23 Q. Can you describe those differences?
24 A. So a fixed price is basically you're
25 telling me you're going to deliver 12 widgets for

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1 $12. And whether it -- it takes -- over the next
2 week as you're making them, if your costs go up or
3 whatever, doesn't matter. You've already promised me
4 $12. There's no escalation involved.
5 Firm, there's escalation involved. It's
6 $12, but it's going to take a year. So over that
7 year, there's going to be this much escalation that's
8 going to be projected, and you might tie it back to
9 some financial or industry index to determine what
10 that is.
11 "T&M" is the other extreme which basically
12 says, "You're going to do 5 hours of work. I'm going
13 to pay you $5 an hour for that 5 hours of work."
14 Target is T&M, but you've got a target
15 built in there. So there's a lot of ways you can
16 structure that. There may be some incentive that if
17 you bring it in under what your projection was, there
18 may be some financial reward to you. If you bring it
19 in over your financial projection as far as how many
20 hours it takes, there may be some penalty to you.
21 But a lot of different ways that can be structured.
22 Q. And the EPC had all of those categories of
23 cost components, correct?
24 A. Correct.
25 Q. And, to your knowledge, does a higher or a

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1 worse PF factor, does that increase the cost of the
2 project?
3 MR. CHALLY: Object to form.
4 MR. MITCHELL: Same.
5 THE WITNESS: Well, it depends. So, for
6 example, towards the latter stages of the
7 project, we negotiated with Westinghouse and
8 then elected to implement a fixed-price option
9 to complete the project. That means they were
10 going to complete the project for that price,
11 period, no matter how long it took or what the
12 PF was or how many people they needed.
13 BY MR. COX:
14 Q. And that's a good point. I'm referring to
15 before the exercise of that option when there was
16 still target and TM and fixed pricing.
17 Do you know if a lower level of
18 productivity increased the cost of the -- of
19 completing the project?
20 MR. CHALLY: Object to form.
21 THE WITNESS: You know, I'd have to go
22 back and look at notes, and I don't have those
23 notes to look at. I'm sorry.
24 BY MR. COX:
25 Q. Okay. What was your role as far as

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1 oversight of the schedule for completion on the
2 project?
3 A. So, again, in my organization, Al Torres's
4 part as the general manager of construction had a
5 number of folks within his organization that
6 monitored actual work on site, monitored where the
7 consortium was on the schedule.
8 So our responsibility was to keep track of
9 that. And if the schedule was slipping, if a
10 milestone was missed, for example -- "milestone"
11 meaning on this day, we're going to accomplish this
12 one significant piece of work that's going to
13 complete or whatever -- then we were immediately
14 aware of that.
15 Typically, on milestones, it wasn't like
16 it was a surprise if they missed it on that day
17 because we may have seen the problem earlier that was
18 causing a delay for whatever reason.
19 Q. Would you ever become aware of the impact
20 on the schedule of a milestone date being missed?
21 A. Can you repeat the question?
22 Q. Sure. If a milestone date was missed on
23 the schedule, would you become informed, generally,
24 about the effect that that would have on the overall
25 schedule of the project?

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1 A. We would be informed, and we would also
2 know because we're tracking the schedule that the
3 consortium says they're working to independently.
4 And if we see a milestone missed or something slip,
5 then in some cases, it may not impact the overall
6 schedule. In other cases, it might. And then the
7 question then is, what kind of mitigation are we
8 going to do to recover that?
9 Q. And how were those discussions conducted
10 with the consortium regarding mitigation efforts?
11 A. Not sure. What do you mean, "how they
12 were -- how were they conducted"? I'm not sure I
13 understand what you're asking.
14 Q. Yeah. Was there -- was there periodic
15 meetings with the consortium to go over schedule
16 updates, or were these a type of not-scheduled
17 meetings where you would have a, like a focus meeting
18 about something that was happening with the schedule?
19 A. Yeah. So the answer to that would be yes
20 to both of those.
21 There were standing meetings we had with
22 consortium. We had a monthly project review meeting,
23 for example, which we led. Had members from
24 Westinghouse, members from the constructor -- both
25 senior management down to field-level superintendents

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1 in some cases -- to report out on the particular
2 status of activities.
3 We reviewed milestones in that meeting,
4 projected milestones. So there would be discussions
5 in that meeting around milestones: If they were made
6 on time, if they were done early, if they were
7 missed, questions about what are we doing to mitigate
8 if mitigation is needed because they missed that
9 milestone.
10 There is also the day-to-day activities,
11 though. We set in the daily plan-of-the-day meeting
12 that the consortium held, a number of our
13 representatives -- from construction oversight,
14 engineering, quality control -- to monitor what was
15 being discussed at the leadership level.
16 This was a fairly large meeting, too. It
17 wasn't just four or five leaders from the consortium.
18 It was typically probably 30 to 40 folks at that
19 meeting each day. So down to field-level
20 superintendents that could report out on the status
21 of current jobs.
22 So we would be in tune to which activities
23 are proceeding as we expected, which might be being
24 done ahead of time, which might be slipping. We
25 follow up conversations on a daily basis with

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1 leadership in the consortium to talk about, "Well,
2 what are you doing to make up for this?"
3 There might be a special meeting scheduled
4 as a result of a slip to discuss how they're going to
5 recover from it, which we would be a part of. So
6 this was a continual process, a daily basis continual
7 process in monitoring schedule, monitoring
8 milestones, providing feedback, voicing clear
9 concerns where they didn't meet our expectations; in
10 some cases, making suggestions as to what they could
11 do, participating in their recovery meetings, things
12 like that.
13 Q. Are you familiar with the term
14 "rebaselining" of a schedule?
15 A. Yes.
16 Q. And what does that mean?
17 A. I can't give you the exact definition
18 because I'm not a scheduling expert. But if you --
19 my understanding would be if we need to go back and
20 rebaseline a schedule, we kind of take where we are
21 in time now and try to figure out are we still on the
22 same track for completion? Is there something that
23 needs to change with respect to completion date or
24 with completion of certain activities? That sort of
25 thing.

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Q. And was that done at times during the project?
A. Well, yeah. So in 2015, for example, when I testified in front of the Public Service Commission that the schedule had been rebaselined, it resulted in a schedule change for the two units' completion.
Q. And is it fair to say that rebaselining is when the schedule is really reviewed closely, kind of starting over, to be sure that the -- the information is up to date and accurate?
MR. CHALLY: Object to form.
THE WITNESS: Yes, because you wouldn't -- for example, on a daily basis, if a milestone didn't occur, in fact, had occurred five days later, you don't automatically say, "Oh, our schedule slipped five days, our overall schedule slipped five days" because there's mitigation opportunities. It's rare that you don't have mitigation opportunities, especially at the stage that we were in the project.
BY MR. COX:
Q. Do you feel in your position on the project that the consortium was providing SCE&G with all the information that SCE&G needed to analyze the schedule on the project?

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MR. CHALLY: Objection. Objection. Do you have a time frame on that?
BY MR. COX:
Q. Throughout the project?
MR. CHALLY: Object to form.
THE WITNESS: We were limited by the EPC as to what Westinghouse was obligated to provide us. That's not unusual for an engineer to procure a construct contract. You're basing signing that contract with an entity -- or, in this case, two entities that -- the two members of the consortium -- to provide a product. You're not directing their activities. You are not afforded access to all of their inside information as to how they're doing business. So we have some level of insight into the schedules or projected cost, but Westinghouse provided and are obligated to provide those numbers and that information to us per the EPC. That's what we contracted for them to do for us.
BY MR. COX:
Q. Is there any information that you feel that you needed to have a better assessment of the accuracy of the schedule that you didn't have because

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of the EPC?
MR. CHALLY: Object to form.
THE WITNESS: Well, when you're talking about a schedule for building something, more information is always good. When you talk about a contractual arrangement with the consortium, the EPC doesn't require them to give us all that information. There is information that they hold as proprietary, not obligated to give you by the EPC. There is -- there is some information that Westinghouse would give us which would allow us some level of verification of what their schedule is, for example, but it wasn't all the detail. We didn't have all the detail.
BY MR. COX:
Q. And I understand your general point. My question is a little more specific. In your position, you might not be able to come up with a specific answer, and if that's the case, that's fine. I just want to be sure that I establish this question --
A. Okay.
Q. -- and get your position on it.

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But is there any piece of information that you would say that SCE&G needed to come up with a better assessment of the accuracy of the schedule for the project that it couldn't get because of the EPC?
MR. CHALLY: Object to form.
MR. MITCHELL: Same.
THE WITNESS: I'm not sure how to answer that because, again, I'm kind of going back to what I said earlier: More information is always good, and we're not getting all the information.
BY MR. COX:
Q. So what information -- I understand that more information is good. What piece of information would you have liked to have had to feel like you would have had a better assessment of the consortium scheduling the project?
MR. CHALLY: Object to form.
THE WITNESS: Well, if you kind of look at it as a depth, here's the overall Level 1 critical path schedule. Here's the nuts and bolts down here. All the assumptions that were made, all the data, we couldn't get all that data. We got somewhere down in the pool, but not down to the bottom of the pool there. So there was information that if you're

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1 asking had we had that earlier, might that have
2 told us a different story on something, I guess
3 the answer would be yes. But, again, it wasn't
4 information that we could access.
5 Again, we contracted with Westinghouse and
6 their consortium partner through the EPC to
7 provide us schedule, provide us a cost, provide
8 certain things. But it didn't -- EPC did not
9 say, "Open all those books to the customer."
10 BY MR. COX:
11 Q. And I will be asking you these questions
12 about cost in a few minutes. Right now, I'm focused
13 strictly on schedule. And I understand that you're
14 saying there's data that SCE&G couldn't get.
15 Can you describe what that data is that
16 SCE&G could not get that would have helped it have a
17 better assessment of the accuracy of the consortium
18 schedule?
19 MR. CHALLY: Object to form.
20 THE WITNESS: I'm not a scheduling expert,
21 so no, I can't describe specifically. But what
22 I'm trying to say is there's a level of
23 information that we did not have access to that
24 would have been beneficial throughout the
25 project.

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1 If you have access to all of that
2 information that Westinghouse would use in their
3 schedule determination, all the assumptions that
4 were made, productivity factors, but beyond that
5 just basic unit rates, how long does it take to
6 install piping in a nuclear plant kind of thing,
7 how many people -- people hours do you need to
8 do 10 feet of piping, if we had all of those
9 assumptions they had made, that would have been
10 beneficial. We didn't get access to that until
11 after their bankruptcy.
12 BY MR. COX:
13 Q. And can you describe what information you
14 received after Westinghouse's bankruptcy that you
15 didn't have before?
16 A. Just what I was talking about, that lowest
17 level of detail stuff, the bottom-line assumptions
18 that had been made and whether they would -- and then
19 the same assumptions we would have made if we were
20 doing the schedule work or not.
21 The other thing, I guess, I would want to
22 kind of focus on there is I use the term
23 "assumptions" because there's not always one right or
24 wrong answer with respect to information that you put
25 into your schedule determination.

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1 If you make assumptions for productivity,
2 you make assumptions for physically how many people
3 you can fit in a room to put piping in, stuff like
4 that. Between you and I, we might come up with some
5 different assumptions there based on our past
6 experience or just our assessment of whatever the
7 challenge is.
8 So it's not like there's only one wrong or
9 right answer for how someone puts assumptions into a
10 schedule. You try to use as much data as you can to
11 develop that schedule. There's some industry data
12 out there that you can use, but then you've got to
13 look at, for your particular project, what might be
14 the same as -- and accurately represented by the
15 industry data -- what might be unique to this
16 project.
17 Q. Is it fair to say that SCE&G had access to
18 all of the historical data with respect to work on
19 the V.C. Summer project?
20 MR. CHALLY: Object to form.
21 THE WITNESS: I'm not sure what you mean
22 by "all the historical data."
23 BY MR. COX:
24 Q. Let's take productivity for performance
25 factor as an example.

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1 SCE&G was aware of the historical
2 performance factor on the project, correct?
3 A. That's correct. Those numbers were
4 supplied to us by Westinghouse.
5 Q. And SCE&G had information on the unit
6 rates being used by Westinghouse on the project,
7 correct?
8 A. I don't know that that's the case.
9 Q. You don't know one way or the other?
10 A. My belief is we did not have access to
11 that. But, again, it's been a while, and I can't
12 state that with certainty.
13 But, again, unit rates are fairly
14 critical, and I know that when we redid the schedule
15 after their bankruptcy, we basically started over on
16 unit rates in some cases.
17 Q. Can you go ahead and describe what
18 occurred after Westinghouse's bankruptcy with respect
19 to the analysis that your team did?
20 A. So there were two major things that my
21 team did. One was to go back and look at scheduling
22 costs and, using the best data that we had and
23 that -- and the data that Westinghouse was now making
24 available to us to figure out to complete one unit or
25 two units, what that was going to look like.

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1 The other thing that my team was doing at
2 the same time was, again, with Westinghouse going
3 bankrupt, the EPC contract evaporates. We'd either
4 have to get another prime contractor in or we'd have
5 to direct the project ourselves.
6 So we started to put together a plan to
7 turn it into an owner-directed project, which would
8 mean my organization was going to change drastically.
9 Many of the functions would still be there, but the
10 scope of responsibility for those functions would
11 change, increase in many cases because we would be
12 the ones giving the daily work direction. We would
13 be the ones physically in charge of the project. We
14 would be the prime contractor, basically, and
15 Westinghouse and Fluor and all the subcontractors
16 would be subs to us.
17 So those were the two things that we spent
18 a number of months on putting together after the
19 Westinghouse bankruptcy.
20 Q. What did your analysis show on scheduling
21 costs?
22 A. That schedule was going to push out, and
23 cost was going to go up.
24 Q. So is it correct that SCE&G did both a
25 schedule analysis and a cost analysis?

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1 A. Correct.
2 Q. How did you get this access to
3 Westinghouse's information that was not provided
4 earlier?
5 A. Westinghouse allowed us more access than
6 we had had in the past. They were cooperative as we
7 went through this effort.
8 We also had not only our folks engaged,
9 but we employed some outside consultants that are
10 industry experts in scheduling and brought them in to
11 help us.
12 This was -- trying to remember exactly how
13 long it took -- April, May. I think the initial
14 effort, before we had any results at all, was at
15 least two, two and a half months. So we -- I mean,
16 we took it, stripped it down, and basically rebuilt
17 the schedule, which was a hugely intensive effort.
18 Q. Who was involved in that from SCE&G?
19 A. We had a lot of our folks involved. I
20 mean, literally, my whole staff because there was the
21 construction part of it, so under Alan Torres's
22 organization. Engineering, under Brad Stokes, needed
23 to look an engineering assumptions that Westinghouse
24 had put in. April Rice needed to look at the license
25 assumptions they had put in.

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1 We used an outside -- two outside firms to
2 help provide industry expertise in scheduling,
3 putting together schedules, unit rates, assumptions,
4 things like that.
5 It was -- it was an exhaustive effort over
6 about a two, two-and-a-half-month, maybe even longer,
7 period. I can't remember for sure.
8 Q. And what piece of information was it that
9 you had, SCE&G had, that it did not have earlier that
10 showed that the schedule would be much longer than it
11 was -- than you had believed before?
12 MR. CHALLY: Object to form.
13 MR. MITCHELL: Same.
14 THE WITNESS: In general, I categorize it
15 as that nuts-and-bolts lower level information
16 that were the basic assumptions that were made.
17 BY MR. COX:
18 Q. And what was the assumptions that really
19 drove that change in schedule that you realized in
20 2017?
21 A. I think it was a combination of
22 assumptions. And, honestly, I don't -- from a memory
23 perspective, I can't give you a list of those.
24 Q. And how about from a cost perspective?
25 Would your answer be the same on that?

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1 A. Yes.
2 Q. I've seen the term "EAC" used. I think
3 it's referred to as estimate at complete; is that
4 correct?
5 A. Correct.
6 Q. Is that an analysis of the cost to
7 complete a project?
8 A. What the total cost is going to be once
9 you're complete, correct.
10 Q. Did you supervise any efforts to determine
11 the EAC of the project while you were on the project?
12 A. That same team, postbankruptcy at
13 Westinghouse, that was the other part of what they
14 did.
15 Q. Were those efforts being done before
16 bankruptcy as well?
17 A. By SCE&G?
18 Q. Correct.
19 A. No.
20 Q. As part of the 2015 PSC filing, did SCE&G
21 review the cost estimate of Westinghouse?
22 A. The Westinghouse estimate that was
23 provided to us and the Westinghouse schedule that was
24 provided to us.
25 Q. Do you know of any independent analysis

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1 that SCE&G did prior to Westinghouse's bankruptcy to
2 analyze the accuracy of the EAC provided by
3 Westinghouse?
4 A. So help me on the time period you're
5 talking about again. I'm sorry.
6 Q. I'm referring specifically to 2014, 2015.
7 From my review of the records, it appears like Skip
8 Smith and his team reviewed the Westinghouse EAC, and
9 I'm wondering if you have any recollection of that.
10 MR. CHALLY: Object to form.
11 THE WITNESS: My recollection is not clear
12 on that.
13 In discussions with my attorneys --
14 BY MR. COX:
15 Q. I don't -- you don't have to refer to
16 those discussions.
17 A. We have talked about a number of issues.
18 But, again, a lot of that stuff happened so long ago
19 and I don't have notes to refer to, so my
20 recollections are not clear.
21 Q. Did you say earlier that both SCE&G and
22 Westinghouse were maintaining the schedule for the
23 project?
24 MR. COX: Object to form.
25 THE WITNESS: No. Westinghouse owned the

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1 schedule for the project and were responsible
2 for the schedule.
3 We monitored what they had put together.
4 If we saw something in the schedule that we had
5 questions about, disagreed with, whatever, we
6 would bring that up.
7 BY MR. COX:
8 Q. How often did that occur?
9 A. Well, again, our interaction with
10 Westinghouse was on a daily basis, so I can't really
11 give you a frequency.
12 We -- certainly missed milestones were one
13 level of concern. At a lower level, something that
14 doesn't lead to a milestone where we're saying, "It
15 doesn't appear like you have enough people here, and
16 you're not going to meet what you've got in the
17 schedule" is a different level of concern.
18 So, I mean, that kind of interaction and
19 dialogue occurred on a daily basis for different
20 issues.
21 Q. And here I'm not referring to the efforts
22 to try to meet the schedule. I'm referring to
23 whether there were any instances where SCE&G felt
24 that the schedule being maintained was inaccurate; it
25 didn't correctly reflect what was happening on the

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1 project.
2 A. You mean as far as work accomplished?
3 Q. Either work accomplished or projections in
4 the future.
5 A. I don't know of any example of work
6 accomplished that was represented inaccurately in the
7 schedule. You know, we had concerns -- again, and
8 I'll go back to PF -- that if they didn't --
9 Westinghouse made commitments on improving PF. If
10 they didn't meet those commitments, then that was
11 going to have some impact on the schedule.
12 Now, exactly what impact, you don't know
13 because there's still a possibility, if they don't
14 meet it, that mitigation or recovery actions could
15 bring you back to where the schedule said you ought
16 to be. So it's not like a switch flips all of a
17 sudden and all of a sudden now it's impacted
18 schedule.
19 Q. And I appreciate that. I guess my
20 question is: To your recollection -- and you may not
21 have any recollection of this -- but was there any
22 instance where SCE&G looked at the schedule and said,
23 "Hey, this is unrealistic. This event will not occur
24 at the time that you're saying on this schedule it is
25 going to occur, so we need to adjust the schedule"?

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1 MR. CHALLY: Objection.
2 MR. MITCHELL: Same.
3 THE WITNESS: I don't recall. I'm not
4 saying that that didn't happen, but I just can't
5 give you an example.
6 BY MR. COX:
7 Q. Was there any time on the project where
8 SCE&G felt that the schedule being maintained by
9 Westinghouse was no longer attainable?
10 MR. CHALLY: Object to form.
11 THE WITNESS: No, because -- and, again,
12 it kind of goes back to what we were just
13 talking about. It's not -- you typically
14 don't -- in a project as complicated as this,
15 there's not typically a point in there where all
16 of a sudden, again, a switch flips and you go,
17 "Oh, we can't attain this schedule anymore."
18 There are always options for recovery.
19 Now, if it's day before you're supposed to
20 be complete and you're only 95 percent complete,
21 obviously, your options for recovery are -- are
22 nonexistent. But the point we were in in the
23 schedule and based on the schedule that
24 Westinghouse had committed to, opportunities
25 were there to complete that schedule.

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1 BY MR. COX:
2 Q. And you hit on the point that I wanted to
3 get at, which is basically the point in time where it
4 becomes apparent that no further mitigation efforts
5 will allow the event to be met in the time of the
6 schedule when it becomes no longer attainable.
7 And my question is: Were there any
8 instances where SCE&G said, "This schedule is no
9 longer valid because it suggests that this event
10 could still be met, this milestone can still be met,
11 when that's no longer practical"?
12 A. I'm not aware of any time where we got to
13 that point. I didn't get to that point personally.
14 Q. Would Mr. Torres be a person who was more
15 connected to that process than you?
16 A. Again, he worked directly for me, and he
17 was responsible for construction oversight, so Alan
18 certainly had insight into -- into the schedule and
19 all things related to construction.
20 Q. What about Kyle Young? Did he also have a
21 role in that?
22 A. Kyle was a manager that worked for Alan,
23 who was the general manager.
24 Q. Would you agree that the schedule that was
25 being maintained by Westinghouse for the project was

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1 a best case scenario as far as completion of the
2 project?
3 MR. CHALLY: Object to form.
4 MR. MITCHELL: Same.
5 THE WITNESS: What do you mean by "best
6 case"?
7 BY MR. COX:
8 Q. That's a fair point. Let me kind of maybe
9 broaden it with some -- some other questions.
10 You would agree that the schedule being
11 maintained by Westinghouse was not guaranteed -- that
12 there was not 100 percent chance that that schedule
13 could be met?
14 MR. CHALLY: Object to form.
15 MR. COX: What's the basis for it?
16 MR. CHALLY: He said "guaranteed," and I
17 don't know what you mean by "guaranteed," and
18 then you clarified it with "100 percent."
19 I'm not sure which one you're referring
20 to.
21 BY MR. COX:
22 Q. Do you understand that question, or was it
23 vague?
24 A. No. I'm totally confused now.
25 Q. Okay.

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1 A. I was halfway confused before, but now I'm
2 even more confused.
3 Q. Okay. Was it a certainty that
4 Westinghouse's schedule for the project could be met?
5 A. I'm not -- the reason I'm pausing is I
6 don't -- "certainty" is a very strong word.
7 Q. It's extremely strong.
8 A. And I don't think you can apply that to
9 any schedule for anything that has some level of --
10 in this case, a very, very complicated series of
11 events.
12 But even if I'm building a house for you,
13 you better not have certainty when I tell you you can
14 move in because otherwise, the moving van may be out
15 on the street for two weeks while you're waiting for
16 me to finish.
17 Q. So it was an estimate; is that right?
18 A. Any schedule is a best estimate on those
19 things that are known as to what's happened up till
20 now, what still needs to happen going forward,
21 assumptions that I'm going to make about how I'm
22 going to accomplish those. There's never a
23 100 percent certain schedule.
24 Q. And so my question is: Given that, that
25 it's not certain that it -- that those dates will be

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1 realized, would you classify Westinghouse's schedule
2 as a projection of what's most likely to happen, or
3 would you characterize it as if things go as planned,
4 this is the earliest that the project will be
5 completed?
6 A. Well, I viewed Westinghouse's schedule
7 being the product of their best effort, their best
8 work, their most knowledgeable people, to tell us
9 when certain things are going to happen leading up to
10 the completion of the project.
11 Q. Westinghouse never said that it could
12 complete the project before the dates that it
13 provided you in this schedule; is that correct?
14 MR. CHALLY: Object to form.
15 THE WITNESS: I don't recall them ever
16 saying that.
17 BY MR. COX:
18 Q. So would it be fair to classify
19 Westinghouse's schedule as an earliest that the
20 project could be completed date estimate?
21 A. I wouldn't -- I wouldn't use that term.
22 Again, I go back to what I just said is, I would
23 expect that their schedule would be their best
24 effort, based on what they know at that point in
25 time, to tell us when the project is going to

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complete.
Q. Do you know if Westinghouse's schedule took into account the risks that mitigation strategies would not be effective?
A. I can't -- I don't know what their risk assumptions were.
Q. Are you aware of any QA -- quality assurance efforts that SCE&G did with respect to the Westinghouse schedule prior to Westinghouse's bankruptcy?
MR. CHALLY: Object to form.
THE WITNESS: I guess I'm not clear exactly what you're asking there because you used the term "quality control" in there, which quality control is a particular function that doesn't look at schedule.
BY MR. COX:
Q. Okay.
A. It's looking at quality of work in the field.
Q. That was probably an incorrect use of the term. Let me rephrase it.
A. Well, I'm used to using that term in one sense, and I think you're maybe saying -- asking something else.

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Q. Did SCE&G take any efforts to verify the accuracy of Westinghouse's schedule prior to Westinghouse's bankruptcy?
MR. CHALLY: Same objection.
THE WITNESS: We would look at the information that was available to us and see if that aligned with what they were telling us the schedule should look like.
But, again, the information that was available to us was not all the information that they used or assumed in developing that schedule.
BY MR. COX:
Q. Did you ever -- did SCE&G ever ask for more information related to the schedule, and Westinghouse denied that request saying it didn't have to provide that information?
A. Whether it was schedule or anything else proprietary, we always asked. Sometimes we got some things that maybe Westinghouse could have taken the tack of saying, "Well, you're not entitled to that for the EPC," but they may have given it to us anyhow.
Our relationship on site with Westinghouse and the folks we worked with was fairly productive.

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They were open to our comments, our feedback.
We had very open dialogue about issues. The culture on our site was not -- and the function of me and my team was not just to yell and scream at Westinghouse for not meeting a milestone or getting something done when they said they would.
We certainly gave them the feedback about our displeasure, but at the same time, we wanted to understand, well, why didn't you make it? Can you give us some insight? Can we give you some insight into what you might want to do different?
So when it comes to information, Westinghouse at times would give us information that maybe they weren't legally obligated to for the EPC, but they never gave us that level of information that we had -- had access to postbankruptcy.
Q. And that's the information that you're not able to specifically here describe what it is?
A. I'm just not an expert -- I'm not a scheduling expert.
Q. Were you upset when you discovered in 2017 that the schedule provided by Westinghouse was incorrect?
MR. CHALLY: Object to form.
MR. MITCHELL: Same.

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THE WITNESS: You mean -- so are you talking postbankruptcy?
BY MR. COX:
Q. Correct.
A. Yeah, it was upsetting.
Q. Why?
A. Well, I felt that at the end of the work that our folks did that came up with pretty significant differences in schedule to completion, it -- it was obvious that, okay, this is -- this is going to be tough to go forward on this project. There's going to be some hard decisions that are going to have to be made because we've had -- we're having a significant change in schedule. We're going to have a significant change in cost because we have no fixed-price option anymore. We have no EPC.
Q. Did you feel like you had been misled by Westinghouse for five years?
A. No, not that I had been misled for five years. I think Westinghouse -- I think Westinghouse was ill-informed at times in maybe assumptions they made that, in retrospect looking back, assumptions may have been overly optimistic. Assumptions that they made may not have had a level of confidence applied to them that maybe they should have.

But, you know, "intentionally misled" is a little bit stronger term than I would use. Some -- some of which could be pure ignorance on their part, you know, incompetence on their part, whatever you want to call it.

Q. Did it disturb you that this multibillion-dollar project had been guided by scheduling and cost assumptions for a number of years that turned out to be way off the mark?

MR. CHALLY: Object to form.

MR. MITCHELL: Same.

THE WITNESS: I'm not quite sure what you're asking me on that one.

BY MR. COX:

Q. So in 2017 when you discovered that the schedule and the cost that you had believed existed on the project was not the case, did it bother you that for the past five years on this multibillion-dollar project, SCE&G had been moving forward on the project on this incorrect belief about the cost and schedule?

MR. CHALLY: Object to form.

MR. MITCHELL: Objection.

THE WITNESS: I don't know that over that five years, we had been -- that it was exactly

like you stated.

I guess -- and the reason I say that, so any large, complicated first-of-a-kind -- and put the word "nuclear" in there too -- project is going to have many uncertainties associated with it from the get-go. No matter whether you have the smartest people in the world, when it comes to nuclear construction working that initial assumption up, there are going to be changes as you move along.

So the real question is, in my mind as you move through that project, are those folks that are responsible for scheduling costs, projections, putting their best effort into those as to whether they're on track, better than expected, worse than expected?

It's easy at the end of a project -- and I'm not trying to defend Westinghouse at all in this -- but it's easy at the end of the project to point back and say, "Well, they weren't putting a best effort forward" or, even more extreme, being very devious in what they were doing.

My interfaces with those folks over the five years I was there was -- there were a lot

of folks there that really focused on wanting to get this project done. So when it comes to exactly why their schedule and assumptions in it, there's no other way for me to describe it but to say they were overly optimistic, as we found out after we redid it after bankruptcy. I'll still puzzled about that.

BY MR. COX:

Q. Wouldn't you have preferred to have discovered that fact a couple years earlier?

A. If it was occurring a couple years earlier, yes.

(Exhibit 1 was marked for identification.)

BY MR. COX:

Q. Mr. Jones, we've got an exhibit marked as Exhibit 1 to your deposition. It appears to be a letter dated June 9th -- I'm sorry, June 19th, 2014, from you to Chris Levesque; is that correct?

A. Levesque.

Q. Levesque. And it's Bates number SCANA_RP0325888 through -890.

Is this in fact a letter that you sent to Mr. Levesque?

A. It is.

Q. And I wanted to ask you a few questions

about this letter, and feel free to take a moment first to review it if you would like.

A. Yeah, I would, please.

Okay.

Q. Who is Mr. Levesque?

A. At that time, Mr. Levesque was the site -- site vice president for Westinghouse, my counterpart in Westinghouse.

Q. So was he your primary interface with the consortium?

A. Yes.

Q. For what time period?

A. Let's see. Chris was there for about a year, and I'm trying to remember. This was June of '14. I think he started, like, May or April of '14. I can't remember exactly.

Q. And was he at the project full time when he was in that position?

A. Yes. Yeah. He was located at the site.

Q. And who came after him in that position?

A. Carl Churchman did.

Q. Did you have any frustration with the fact that the lead consortium representative at the project was turning over?

A. Yeah. So I was there for five years, and

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1 during that time period, there were three folks that
2 were the VPs for Westinghouse. And in between those
3 folks, none of those were a planned departure,
4 meaning Westinghouse was grooming someone else at the
5 same time to take over for them.
6 The first person that was there,
7 unfortunately, passed away. Obviously, you can't
8 plan for that. And there was a number of months' gap
9 between Westinghouse -- that person passing away and
10 then Westinghouse naming a new vice president. That
11 position was filled by an interim for that period of
12 time.
13 Chris came in then. He had been recruited
14 from outside Westinghouse. Chris left unexpectedly
15 for a different opportunity, and Westinghouse again
16 had an interim person step in until they brought Carl
17 Churchman in. Carl was still the site VP when the
18 project was canceled.
19 Q. Did you feel that that turnover in that
20 position negatively affected progress of the
21 construction?
22 A. I don't think the turnover was good. When
23 you have a senior leader turnover in any
24 organization, the natural concern would be whatever
25 path that leader was driving the organization is

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1 likely now going to be interrupted to some degree.
2 And when there's not someone ready to step
3 in right behind that person, having an interim in
4 place is not as good as having a permanent person
5 there. And then, of course, you have no idea who the
6 new person is going to be and, you know, what the
7 relationship is going to be there. So --
8 Q. But you're not able to say whether you --
9 whether that turnover negatively affected the --
10 A. I can't say other than just from a
11 leadership perspective, a planned succession that is
12 successfully designed and then executed is much
13 better than something like this.
14 Q. The first sentence of your letter, you
15 refer to "another rebaseline of the project work
16 schedule."
17 What do you mean by a "rebaseline of the
18 project work schedule"?
19 A. This is a while back. I'm going to assume
20 that that was tied back to, you know, the hearing
21 that occurred in 2012 that modified the completion
22 dates.
23 Q. And this rebaseline would be taking
24 another look to see whether those dates were still
25 accurate; is that fair to say?

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1 A. Yes.
2 Q. Do you know how many baselines --
3 rebaselines had occurred before this one referred to
4 in this letter?
5 A. Well, the only one I'm aware of would be
6 that which was submitted at the PSC in 2012.
7 Q. And that was done before you arrived on
8 the project; is that right?
9 A. That's correct.
10 Q. Okay. In the first paragraph, your
11 reference is -- or you reference the need to "advise
12 third parties" of your latest projections.
13 What "third parties" are you referring to
14 there?
15 A. I'm assuming we're talking about the ORS
16 Public Service Commission, you know, going through
17 another -- another hearing.
18 Q. Did you feel there was urgency attached to
19 obtaining this schedule in order to notify the ORS or
20 the PSC?
21 A. Yes. I mean, if the consortium is going
22 through this rebaselining effort, the sooner that's
23 delivered to us the better.
24 Q. Why is that?
25 A. Well, because of the obligations we have

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1 with our relationship with the PSC to make them aware
2 when something changes.
3 Q. At the bottom of the first page, there's a
4 sentence that carries over to the second page. It
5 says, "We anticipate that the upcoming rebaselined
6 work schedule will continue to show substantial
7 completion of Unit 2 and Unit 3 well past the dates
8 established in the parties' agreement of July 11th,
9 2012."
10 Was that a true statement when you made
11 it?
12 A. We believe that to be true. You typically
13 don't rebaseline a project if you're ahead of
14 schedule. You could. But ahead is good, or you're
15 right on schedule.
16 Q. So it's correct that at that point in
17 time, SCE&G anticipated that the rebaseline work
18 schedule would show substantial completion dates well
19 past the dates established in the parties' agreement
20 of July 11th, 2012?
21 A. We believe there was some probability of
22 that just by virtue of the fact that they were
23 rebaselining the schedule.
24 Q. You anticipated that, correct?
25 A. Uh-huh.

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Q. Is that yes?
A. I think the exact words were "we anticipate."
(Exhibit 2 was marked for identification.)
BY MR. COX:
Q. Mr. Jones, Exhibit 2 appears to be a response to your letter of Exhibit 1. If you could go ahead and take a moment and review that.
MR. COX: And for the record, Exhibit 2 is Bates numbers SCANA_RP0541204 through -1207.
MR. CHALLY: Let's go ahead and take a break we so we can discuss this particular document.
MR. COX: Sure. Off the record.
VIDEOGRAPHER: Off the record at 11:33 a.m.
(A recess transpired from 11:33 a.m. until 11:45 a.m.)
VIDEOGRAPHER: On record at 11:45 a.m.
BY MR. COX:
Q. Mr. Jones, have you had a chance to review Exhibit 2?
A. I have.
Q. And is this a letter that was sent to you around July 16th, 2014, by Mr. Levesque?

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A. Yes.
Q. There's a couple sentence in here -- sentences in here that I'd like to ask you about.
On the bottom of the first page, Mr. Levesque says: "However, in mid-April of this year, we were informed by SCE&G that the owners did not require any reports on the schedule until all potential mitigation efforts had been explored."
Is this a true statement?
A. To the best of my knowledge, yes.
Q. During -- or in the next paragraph of the letter, the first full paragraph from the top of the second page, it references a meeting that Mr. Levesque had with SCE&G on May 5th, 2014.
Do you recall whether you were a part of that meeting?
A. I don't recall.
Q. Is the last sentence in that paragraph, to your recollection, correct which says: "SCE&G also requested that the consortium present the updated schedule to the owners on May 30th, 2014, assuming the consortium was ready"?
A. It does. And that's the date referenced in that previous letter that we discussed, Exhibit 1, in the first paragraph.

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Q. The next paragraph of Mr. Levesque's letter to you, the first two sentences say: "The consortium was prepared to provide the owners with updated schedule information during a meeting scheduled for May 30th, 2014. However, on May 29th, 2014, SCE&G advised the consumer consortium that the owners had elected to cancel the meeting."
Is that a true statement?
A. I'm assuming so since it's written here. I don't recall that specifically, but . . .
Q. Do you know why SCE&G decided to cancel that meeting?
A. I don't recall.
Q. That same paragraph, in fact, the next sentence says: "Although mitigation analysis continues, and as stated by the consortium in a meeting with SCE&G on June 10th, 2014, the current schedule shows that the significant dates identified by Steve Byrne in his e-mail to me April 1, 2014, are not reasonably achievable."
Do you know what the "significant dates" were that Steve Byrne identified to the Commission?
A. I don't recall.
Q. You don't recall if those dates were dates that were 18 months after the substantial completion

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dates that were on file with the PSC at that time?
A. I honestly don't recall. This was such a long period of time ago.
Q. Is it correct to say that the BLRA and the Commission required SCE&G to notify the Commission if the substantial completion dates for the units were to slip more than 18 months past the dates that had been established at the Commission?
MR. MITCHELL: Objection.
THE WITNESS: That was my understanding. It was a plus -- 24 months ahead of schedule or up to 18 months behind schedule, and any deviation from that required notification.
BY MR. COX:
Q. Did you have any understanding of how swiftly SCE&G needed to notify the Commission if that information were to occur where the substantial completion date was outside that window?
MR. CHALLY: Object to form.
THE WITNESS: I don't recall any guidance that was specific as to timeline or time frame, no. I don't know.
BY MR. COX:
Q. Did you receive any guidance from Mr. Archie on that?

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A. As far as guidance on if you're outside 18 time on this in reporting or --
Q. Correct. How swiftly that information needed to be reported.
A. I don't recall receiving any guidance.
(Exhibit 3 was marked for identification.)
BY MR. COX:
Q. Mr. Jones, we've labeled as Exhibit 3 an e-mail with a PowerPoint and spreadsheet attachment that is Bates-numbered SCANA_RP0528586 through -8622.
If you could, you can take a moment and review this exhibit. I wanted to ask you a few questions about the PowerPoint attached to this e-mail.
A. Okay. I wasn't going to read it in detail unless you'd like me to.
Q. If you feel like you need to look at it more or talk to your attorneys about it, that will be fine.
A. Sure.
Q. The first e-mail -- or the first page is an e-mail where a Carlette Walker forwards you an e-mail from JoAnne Hyde.
Do you know who Carlette Walker is?
A. I do.

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Q. Who is she?
A. So Carlette was the vice president of finance assigned to the V.C. Summer project. She had been assigned to that project as essentially a full-time role at some point prior to me arriving in the middle of July 2012.
Q. And were you her indirect supervisor?
A. No. She reported to Corporate, reported to Jimmy Addison's organization.
Q. What was your understanding of her role in connection with the project?
A. My understanding of her role was that her position as VP for finance's focus specifically on this project, at some point prior to me arriving to the project, SCANA Corporate had decided, due to the nature of the project, the size of the project, they needed to dedicate a finance person to it.
Q. And what was your understanding of her mission from SCANA with respect to the project?
A. Well, to fulfill the role of being, you know, Corporate's literally daily eyes on the project from the finance perspective. I mean, that's how I would sum it up.
Q. Is it fair to say that one of her roles was to monitor the financial cost of the project?

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A. Yes.
Q. She's forwarding an e-mail to you from JoAnne Hyde. Do you know who Ms. Hyde is?
A. I do.
Q. Who is she?
A. She works for Westinghouse. She was the -- I don't know what JoAnne's title was, but she was more or less the counterpart for Carlette, Carlette's counterpart within the Westinghouse organization.
I don't know that JoAnne was at a VP level, but she was the lead person from a financial perspective, spent a good amount of time on site and also up in Pittsburgh.
Q. Do you know why Carlette Walker was forwarding you this e-mail?
MR. CHALLY: Object to form.
THE WITNESS: I'm assuming it was to keep me informed that they had received a draft package for this meeting.
BY MR. COX:
Q. And Ms. Hyde does reference a meeting occurring on August 29th. Do you know if you attended that meeting?
A. I feel certain that I did. I don't --

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again, I'd have to go back and check my calendar, but I -- high likelihood I did.
Q. And is it fair to say that the subject matter of this meeting was a presentation of the consortium's EAC in connection with the revised schedule it had developed for the project?
A. I think that's a good characterization.
Q. The page marked number 3 on the PowerPoint slide, it's entitled "Key assumptions for revised estimate."
I wanted to ask you about a couple of these assumptions, if you're aware of them.
Number 5 says: "Unit rates were unchanged. Productivity factors and quantity adjustments are the basis for adjustment change of labor hours."
What does it mean by "unit rates were unchanged"?
MR. MITCHELL: Objection.
MR. CHALLY: Same.
THE WITNESS: I think the way I would interpret that is -- and we mentioned before, unit rates, there's -- there are unit rates that you apply for different construction activities.
For example, there may be a unit rate --

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well, there would be a unit rate for pouring concrete that would say to pour X cubic yards of concrete. It would take X number of people X number of hours. That would be an assumption that you would build your schedule around.

I can't remember. There's an industry standard for different construction activities that you would have unit rates for. Concrete would be one. Hanging pipe would be another one. Steel work might be another one. Rebar might be another one. Things like that.

BY MR. COX:

Q. Number 9 on this page says: "No cost is included for schedule acceleration other than limited second-shift work."

Can you explain what that means, if you know?

A. I'm sure there may have been some discussion around it. But, you know, cold-body read on this four years later, I don't remember exactly.

Q. Number 10 says: "Estimate does not consider NNI expediting impact."

"NNI" refers -- refers to the subcontractor that was fabricating the shield building panels, correct?

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A. That's correct.

Q. And do you know why the estimate that the consortium provided did not consider the impact of the expediting of those shield panels?

A. I don't -- I don't recall.

Q. If you could turn to page 28 of the PowerPoint. This is a page labeled "Craft Productivity."

The second bullet point says: "Current PF equals 1.41. U2 equals 2.15. U3 equals 1.74. SS equals 1.07."

Do you understand U2 and U3 there to be referring to Unit 2 and Unit 3 of the project?

A. Yes.

Q. And do you understand those numbers to be referring to the performance factor that had been achieved on those units?

A. Yes.

Q. Do you know what "SS" refers to there?

A. Site-specific.

Q. Can you explain what that means?

A. So there's certain -- Unit 2 and Unit 3 would be for construction on those things that are specific to those two units. There are portions of the site -- components, piping, et cetera, along with

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just general site grading and stuff like that -- that support both units.

The reason it's called "site-specific" is the AP1000 is a standard design plant with respect to the turbine island, the nuclear island. So even though Vogtle is a different site than V.C. Summer, if you go in their turbine island or their nuclear island, it would look exactly the same as those that were being built at V.C. Summer.

On the other hand, if you go from V.C. Summer to Vogtle, at V.C. Summer, the cooling towers that we were building were what are called "low-profile force draft." Southern has the big hyperbolic cooling towers. So cooling towers are site-specific. They're not part of the standard AP1000 design. The customer has the ability to choose whatever they want.

Service water, cooling water for the plant, for example, the source of that is different from one site to the next. So the length of piping that's required to get it to the plant, the type of pumps you might use to pump it are going to be different. So that's site-specific stuff.

Q. Is that construction that's less critical to the progress of the plant than the unit-specific

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construction?

A. It's not that it's less critical. By that, I mean you can't operate the plant without it; but typically, it's easier to construct.

Q. It's not first of a kind?

A. It's not first of a kind. The cooling towers we were building, for example, are proven, built-before cooling towers that have been used at fossil plants, for example.

A water intake off a lake and the pumps that are being used to pump that water are not unique designs. The pumps most likely had been manufactured many times before. The piping is standard piping. Things like that.

So it -- you know, provided things are going well, site-specific stuff should never pose a threat to critical path.

Q. So it doesn't surprise you that the performance factor on the site-specific work was better than the performance factor --

A. No. It's easy work to do because in most cases, it's in wide-open spaces. In most cases, it's more like standard industrial construction as opposed to -- it's not nuclear construction.

Q. Do you have any reason to doubt the

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1 accuracy of these performance factor numbers that the
2 consortium provided?
3 MR. CHALLY: Object to form.
4 THE WITNESS: No.
5 BY MR. COX:
6 Q. This information shows that the
7 performance factor on Unit 2 was worse than Unit 3;
8 is that correct?
9 A. Correct.
10 Q. And the overall performance factor,
11 including the site-specific work, was 1.41, correct?
12 A. Uh-huh.
13 Q. Is that yes?
14 A. Yes.
15 Q. And the last bullet point on this page
16 says: "ETC PF of 1.15 to be realized through gradual
17 improvements over six-month period."
18 Can you tell me what this means?
19 A. Basically what the consortium was telling
20 us was they were going to improve the performance
21 factor by making specific improvements over the next
22 six months.
23 Q. And it's fair to say they were predicting
24 that they could get the performance factor to 1.15 in
25 six months; is that correct?

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1 A. Correct.
2 Q. Midway down --
3 A. I'm sorry. Let me back up on that. I
4 want to go back and reread it again.
5 I think what they're saying is six months
6 from now, you'll see the monthly performance factor
7 be 1.15. It's not saying we're going to pull back
8 the cumulative performance factor for all the work
9 that's been done plus the work going forward to
10 average out to 1.15.
11 Q. So the expectation or the statement that
12 the consortium making -- is making here is that six
13 months from now, the monthly PF, we think we can get
14 it to 1.15?
15 A. That's correct. It could have been worded
16 better, but that's the way I would read that.
17 Q. And halfway down that page, it says:
18 "Estimate based on several factors."
19 And the first bullet point under that
20 says: "Currently, only 12.9 percent complete with
21 direct construction. Typically would not reforecast
22 PF until 20 percent complete with a particular
23 scope."
24 Do you know what that means?
25 A. What they're saying is that, I guess, from

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1 whatever standards they are using, they would
2 typically -- Westinghouse would not typically
3 reforecast a performance factor until they're
4 20 percent complete within a particular scope of
5 work.
6 So if the scope of work was piping, they
7 would say, "Well, until we're 20 percent complete, we
8 would typically not reforecast a performance factor.
9 Once we hit 20 percent, we would have enough run time
10 to be more accurate in what we would estimate is our
11 performance factor going forward."
12 Q. So would you agree that the consortium is
13 warning -- this is a warning that generally the
14 construction is not complete enough to reforecast PF?
15 MR. MITCHELL: Objection. Form.
16 THE WITNESS: I think that's what they're
17 implying here.
18 The thing is, I would view something like
19 this as that's their opinion. I think it's
20 likely I could find another expert somewhere
21 that might say, "12.9 percent? You can probably
22 get as good an estimate from that as you can get
23 20 percent."
24 There's just -- the only reason I bring
25 that up is there's -- this is not -- building

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1 any project, especially one this complicated,
2 it's not black and white on the right or wrong
3 to do or right or wrong assumptions to make.
4 It's enormously complex, and there's lots of
5 opinions out there.
6 BY MR. COX:
7 Q. But wouldn't you agree that, generally,
8 that the consortium is cautioning that the work has
9 not progressed enough to the level to where they
10 would typically reforecast PF?
11 A. They're throwing that out as a caution, I
12 think.
13 Q. Mr. Jones, did the consortium provide an
14 EAC estimate to SCE&G from this presentation?
15 A. If you go back on page 8, they give a
16 schedule overview for Unit 2 with a schedule
17 completion of June 2019 as the first bullet there.
18 Q. And when I was referring to EAC --
19 A. Oh, you're talking about the cost. I'm
20 sorry.
21 Q. -- I was referring specifically to cost.
22 Is there an acronym that you use for a
23 schedule estimate?
24 A. No, not that I'm aware of.
25 Q. Okay.

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A. A lot of times, we would talk about EAC as being the cumulative between the two because schedule drives cost, typically. So we would talk about both components under EAC, but EAC is basically more properly referring to just the cost.

Q. And is it correct that the consortium used a certain schedule as an assumption to provide an EAC cost estimate?

MR. CHALLY: Object to form.

THE WITNESS: Yes. And then they've given a summary in here of cost.

You know, the thing, of course, that's not in here is any impact that a schedule change has on owners' cost. That's not something that they would provide. That's something that SCANA would have to develop.

BY MR. COX:

Q. So this estimate is strictly EPC cost, correct?

A. Yes.

Q. And is the EAC cost estimate that the consortium provided, is that the estimate that SCE&G provided to the PSC in 2015?

MR. CHALLY: Object to form.

THE WITNESS: You know, without -- with

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not going back and laying eyes on the numbers and how they totaled up, I can't say that. My assumption would be this was the basis for that, but I can't for certainty say that unless I went through and sat down with financial folks and went through all the numbers.

BY MR. COX:

Q. Let me ask the question perhaps a different way: Did SCE&G submit to the PSC in 2015 its own assessment of cost, or did it submit an assessment of cost provided by the consortium?

A. We took the cost that the consortium -- my -- my remembrance would be we would take the cost that the consortium projected, we would also note any changes in owners' cost, and that would be what was submitted to the PSC.

Q. Did you become aware of any disagreement among the SCE&G personnel at the project about whether the consortium's EAC cost analysis was the best estimate of cost?

MR. CHALLY: Object to form.

MR. MITCHELL: Same.

THE WITNESS: I don't recall any. I feel certain what our folks did was do a scrub of this after this was presented to us to see if we

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agreed with it or not. I don't recall any significant objections to it.

There, of course, was more than likely comments about, "Well, they've got to improve PF to meet this. Otherwise, that will affect this estimate."

But, again, the consortium was making a commitment to us that they were going to improve PF over a six-month period.

BY MR. COX:

Q. Did you become aware of any SCE&G employees who believed that it was unlikely that the consortium would be able to meet that predicted PF factor?

MR. CHALLY: Object to form.

MR. MITCHELL: Objection.

THE WITNESS: I mean, everyone had opinions, and I'm certain some of those opinions were, "Well, they haven't done it yet."

But, I guess, from my perspective, just because you haven't accomplished it yet, I had no reason to doubt that a sound plan that detailed how to improve that -- had no reason to doubt that that couldn't be accomplished.

Was it going to require hard work and a

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good plan to make that happen? Yes. But, again, I didn't have any reason to say, "Well, I'm sorry, you're just never going to meet that."

BY MR. COX:

Q. Did you feel like you needed to assess how likely it was that that predicted PF factor could be met?

A. I mean, from my perspective and my role, no, I didn't feel like I needed to step back and assess that. We would, of course, be monitoring; but no, I didn't.

Q. Did you ever become aware during your time on the project that Carlette Walker was -- disagreed with the company's -- SCE&G's submission of cost information to the PSC?

MR. CHALLY: Object to form.

THE WITNESS: I did not. As part of our process for preparing for that hearing with the PSC, when testimony was developed, written testimony was developed, we each had the opportunity to review our own testimony and make sure it was accurate, which I did with mine.

We had the opportunity to review each other's testimonies also to see if there was

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1 anything that -- while I'm not a financial
2 expert, I reviewed Carlette's testimony in a
3 draft form, and there wasn't anything that stuck
4 out to me as being inaccurate or whatever.
5 We also, in preparations for the hearings,
6 did, again, what I was typically used to at Duke
7 when I testified at hearings for them. Sat
8 down, went through testimony in a group setting
9 with all the participants and other corporate
10 folks at the same time, went through mock
11 questioning that might come -- bring in some
12 outsiders in to do some mock questioning to, you
13 know, try to pick away at our testimony and make
14 sure we were knowledgeable to be able to speak
15 to the commissioners as they had questions.
16 There was nothing that surfaced during
17 that that gave me any indication that Carlette's
18 testimony was anything other than what she
19 agreed to -- was accurate.
20 BY MR. COX:
21 Q. Were you involved in receiving any
22 information from the finance people on the project
23 regarding their scrub of the consortium's cost
24 estimate?
25 A. I don't recall anything of that nature,

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1 no.
2 Q. And I'm going to have another document
3 labeled and have you identify whether you recall
4 seeing it before.
5 (Exhibit 4 was marked for identification.)
6 BY MR. COX:
7 Q. So, Mr. Jones, I've had labeled as
8 Exhibit 4 to your deposition a document which the
9 Bates number is cut off from the copy, but I can tell
10 you the Bates number is SCANA_RP0024674 through -686.
11 It's entitled -- it's a PowerPoint
12 entitled "EAC Review Team Preliminary Update
13 Preparation for 10-13-14 Executive Meeting."
14 If you could review this and if you could
15 let me know if -- if you believe you had ever
16 received this PowerPoint or seen it before.
17 A. Okay.
18 Q. To your recollection, have you seen this
19 document before?
20 A. I do not know. Without access to my
21 calendar, you know, notes I may have taken, files
22 that I may have, I don't know. I would say it's not
23 surprising that we did a review of what they gave us.
24 Q. By "we" you mean SCE&G and "they" you mean
25 the consortium?

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1 A. Correct.
2 Q. Do you recall whether you were present at
3 the executive meeting referred to on the first page
4 of this PowerPoint?
5 A. I don't recall, again, without going back
6 to my calendar and reviewing.
7 Q. The third page of this document, the
8 bottom left corner is marked 15. The third bullet
9 point says: "EAC team anticipates a to-go PF closer
10 to 1.40 and recalculated the cost resulting in an
11 additional increase of approximately 101 million."
12 Were you aware prior to your 2015 PSC
13 testimony that SCE&G had -- had calculated a to-go PF
14 of 1.40?
15 MR. CHALLY: Object to form.
16 THE WITNESS: I don't remember. The --
17 this is the EAC team, folks that are listed on
18 the cover here, their opinion.
19 But for the base -- I don't know that the
20 basis for them assuming 1.4 invalidates the
21 basis that Westinghouse -- well, that the
22 consortium was assuming of a 1.15 with an
23 improvement over six months.
24 BY MR. COX:
25 Q. Would you agree that the EAC team -- the

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1 SCE&G EAC team believed that the to-go PF would be
2 closer to 1.40 than 1.15?
3 MR. CHALLY: Objection. Form.
4 THE WITNESS: I believe when I look at
5 this presentation, it's telling me the folks
6 that are listed on the cover here that were the
7 EAC review team, that that was their opinion.
8 BY MR. COX:
9 Q. And the members of that team were
10 commissioned by your company, SCE&G, to conduct that
11 analysis, correct?
12 MR. CHALLY: Object to form.
13 THE WITNESS: That would be my belief,
14 yeah.
15 BY MR. COX:
16 Q. Were you aware that the EAC team for SCE&G
17 had calculated that the EAC cost of the project would
18 go up by $101 million based on their predicted to-go
19 PF?
20 MR. CHALLY: Object to form.
21 MR. MITCHELL: Same.
22 THE WITNESS: I'm seeing that in the
23 presentation here that that's what they're
24 saying.
25

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1 BY MR. COX:
2 Q. And you don't recall if you were aware of
3 that at the time that you prepared your 2015 PSC
4 testimony?
5 A. Again, without specifically knowing
6 whether I was at this meeting or not or seeing the
7 presentation, I just can't comment on that.
8 Q. Would it disturb you to realize that you
9 were not privy to that information prior to your 2015
10 PSC testimony?
11 MR. CHALLY: Object to form.
12 THE WITNESS: Would it disturb me? I
13 don't know that it would have disturbed me.
14 Again, this is the opinion of these five
15 or six folks here, and what I'm seeing here is a
16 very high level summary of it.
17 A number of these are contractual issues
18 where we think they are or aren't entitled to
19 things, which there's some basis you can go back
20 to for that and say, "Well, here's what the
21 contract says, and here's how we're reading it,"
22 and that directly contributes to why we're
23 saying, "Give them a zero-dollar entitlement"
24 for something.
25 That's not the same thing when it comes to

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1 PF. I'm certain they did some work to come up
2 with that opinion, but that's just an opinion.
3 We also had, though, the -- the consortium
4 telling us we're going to accomplish something
5 different than that, and it's going to be graded
6 over a period of six months, and we're going to
7 achieve 1.15. This doesn't give me any
8 knowledge that would say, well, the consortium
9 must be wrong. This is just another opinion.
10 BY MR. COX:
11 Q. Well -- and just so I can kind of explain
12 the basis for my question about whether you would be
13 disturbed by that, is it true that your 2015 PSC
14 testimony discussed the consortium's EAC estimate?
15 A. Yes.
16 Q. And isn't it true that your testimony
17 discussed the fact that the SCE&G had reviewed that
18 estimate?
19 A. I believe that's correct. I'd have to go
20 back and look at the testimony to verify that.
21 Q. We'll look at that. And the reason I ask
22 the question is given that your testimony discussed
23 the company reviewing the consortium's EAC estimate,
24 the basis for my question was whether you would be
25 disturbed to realize that there was information about

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1 the company's review from the company's EAC team that
2 you were not aware of at the time of your testimony.
3 MR. CHALLY: Object to form.
4 MR. MITCHELL: Same.
5 THE WITNESS: Again, I don't know, going
6 back to what we talked about before. When I
7 look at this, and you asked did I have a direct
8 memory of seeing this or being at a meeting to
9 discuss this, I just -- I don't know. It's
10 likely that I was, but I can't say with
11 certainty.
12 I am expecting, though, that in the
13 meeting that happened here, there was probably
14 discussion around this anticipation that the
15 team had on PF. But, again, to the nature of
16 that, I don't have any knowledge of what that
17 led to.
18 But I'm certain that there would have been
19 some discussion about that since it does
20 differ -- it's not a contractual cost issue like
21 much of the rest of the discussion was here.
22 This is more an opinion on whether they can meet
23 the 1.15 that they're committing to us or not.
24 BY MR. COX:
25 Q. And it's an opinion about what the

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1 estimated cost to complete the project would be,
2 correct?
3 A. It would impact that.
4 Q. I'd like for you to turn to page 19 of the
5 PowerPoint. The bottom left corner is labeled 19.
6 The second bullet point on that page says:
7 "EAC team verified the EAC using the current CB&I FNM
8 plan, which is lean. The EAC team does not
9 anticipate that CB&I will be able to comply with this
10 plan."
11 What is the "FNM plan"?
12 A. It's field nonmanual.
13 Q. And what is the plan for that?
14 A. Well, what field nonmanual are, are
15 workers on site, but they don't contribute to wrench
16 time. So field nonmanuals would -- and I'm trying to
17 dig back and remember exactly all the categories it
18 would include -- but it would include quality
19 control, for example. Quality control does not
20 perform work, they inspect work. Quality control,
21 there is a cost to the project.
22 The field nonmanual plan, there's -- the
23 EAC team felt it's "lean," meaning -- which I'm
24 assuming that that meant it -- it didn't have enough
25 in it to account for the number, either the current

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1 number of field nonmanuals on site, or it's a comment
2 on their plan to reduce the number of field
3 nonmanuals.
4 You know, your objective is have the right
5 support for those guys and women turning the wrenches
6 out there but not have extra people because it is an
7 additional cost for a project.
8 So there's an opinion here that the plan,
9 I guess, that was baked into the consortium's
10 schedule in EAC is "lean," meaning our folks are
11 saying they think that there may be actually more
12 folks that they end up using than what they're
13 saying.
14 Q. And that would drive up the cost, correct?
15 A. That's correct.
16 Q. Page 21 of this PowerPoint is entitled
17 "CB&I Woodlands Cuts."
18 The first bullet point says: "CB&I cut
19 the EAC by 296 million at a very high level. How
20 these cuts will be realized has yet to be
21 determined."
22 Do you know what the "CB&I Woodlands cuts"
23 is referring to?
24 A. So Woodlands is where their headquarters
25 is, Woodlands, Texas. And what this appears to be

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1 saying is they put a cut in that would contribute to
2 the EAC at a very high level, meaning it didn't have
3 a breakdown with it as to where that savings was
4 going to come from.
5 So this appears to be -- again, with the
6 comment there, "how these cuts will be realized has
7 yet to be determined," meaning they hadn't provided
8 us additional information to break down that
9 296 million-dollar savings.
10 Q. And the next bullet point on that page, is
11 it fair to say that the EAC team is pointing out that
12 all of the actual costs on that point will have to be
13 reimbursed to the contractor because it's target
14 price?
15 A. That's what they're --
16 MR. MITCHELL: Objection.
17 THE WITNESS: That's what they're saying
18 there by their statement.
19 MR. COX: I have about an hour left, I
20 think. I don't know if we want to break for
21 lunch now or push through it.
22 THE WITNESS: Whatever you all want to do,
23 I'm good.
24 MR. CHALLY: You guys make the call.
25 MR. COX: All right if we keep going for a

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1 little bit?
2 MR. MITCHELL: If you think you would be
3 done in an hour, why don't we just push through
4 it. That would be a better stopping point.
5 MR. COX: Sounds good.
6 (Exhibit 5 was marked for identification.)
7 BY MR. COX:
8 Q. Mr. Jones, I've handed you a document
9 labeled Exhibit 5. It's a document that was produced
10 by Carlette Walker in response to a subpoena. It
11 does not have a Bates number. It's labeled "Target
12 Construction Productivity (Direct Hire Labor)," and
13 it says "Reporting period: January 2015."
14 This type of information -- or this
15 information on this chart, is this information that
16 you received during your time on the project?
17 MR. CHALLY: Object to form.
18 THE WITNESS: I don't -- I don't know. I
19 mean, you're saying Carlette provided this?
20 BY MR. COX:
21 Q. Correct.
22 A. I mean, it's not under a letterhead or
23 anything like that or an e-mail, so I don't know.
24 Q. At the bottom left-hand corner of this
25 page, it says: "Months to complete at January -- at

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1 Jan rate, 318 months, 26.5 years."
2 Do you know if you ever became aware that
3 at the rate of construction productivity, that the
4 project would not be completed for 26 and a half
5 years?
6 A. I've never heard that number before.
7 Q. Do you believe it to be accurate?
8 A. No.
9 MR. CHALLY: Object to form.
10 BY MR. COX:
11 Q. Why not?
12 A. I don't think there's any basis for that.
13 I mean, I think on any project, if you want to go
14 backwards in time and look at maybe a worst month
15 ever on productivity, for example, and then use that
16 as my going-on productivity for the rest of the
17 project, you can come up with whatever number you
18 want.
19 But that's not -- that really doesn't have
20 any basis in my mind for being considered as being an
21 accurate -- even a semiaccurate projection.
22 Q. You would need more data to have a better
23 estimate; is that right?
24 A. Yeah. It kind of goes back to, you know,
25 there's a lot of focus on PF, which I understand, but

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kind of goes back to that, you know, the warning past performance is not necessarily an indicator of future performance, which is really true in construction. You could perform at the same level you've been performing. You could be better. You could be worse. So you can't just simply take a number and make an accurate projection going forward off of a single number.

Q. In the right-hand column of this chart, there's a column labeled "Period PF."

And if you follow that column down to the bottom row where it says "Total," there's a number that's reflected as 2.74.

Do you agree that this chart appears to reflect that the -- the PF for January 2015 was 2.74?

MR. CHALLY: Object to form.

THE WITNESS: I don't have any knowledge as to whether that's accurate or not. Again, you stated Carlette provided this. I don't know where she obtained it from. I don't know if what she obtained it from was accurate, whether it had been modified, or -- I just don't know where it came from.

BY MR. COX:

Q. Do you recall in that August 2014

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presentation where the consortium represented that it intended to get the monthly PF to 1.15 in six months?

A. Yes.

Q. Do you know if the consortium achieved that goal?

A. To the best of my knowledge, they did not.

Q. And do you know how close they came to achieving it?

A. I don't. Offhand, I do not know.

Q. Do you know whether the productivity in the six-month period between the time when they proffered that goal and six months later, which direction the productivity -- the PF factor was heading?

A. I don't have that information available, so I don't know.

Q. Would it have concerned you if the PF factor during that time period was trending to less productivity rather than improving?

MR. CHALLY: Object to form.

THE WITNESS: That would be a concern. And then, you know, the likely question would be: What are you going to do to turn this around?

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BY MR. COX:

Q. Would that provide you any added concern about presenting the consortium's cost estimate to the PSC?

MR. CHALLY: Object to form.

THE WITNESS: The consortium's cost estimate was the latest and most accurate number we had, so I think we were obligated to present that to the PSC.

Westinghouse was standing behind that -- Westinghouse and the constructor were standing behind that and, to my knowledge, never told me that "You shouldn't go forward with that number, that we've decided it's now not achievable."

BY MR. COX:

Q. Did SCE&G have the option to inform the PSC that it did not agree with the cost estimate?

MR. CHALLY: Objection.

MR. MITCHELL: Objection.

THE WITNESS: I don't know the answer to that.

BY MR. COX:

Q. You don't know if SCE&G was barred from revealing to the PSC that it did not think that the cost estimate could be reached?

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MR. CHALLY: Object to form.

Do you mean legally barred?

THE WITNESS: Yeah. I would have the same question. Are you talking about legally?

BY MR. COX:

Q. Do you know of any bar, legal or otherwise, to the SCE&G revealing to the Commission that it did not think that the cost estimate provided by the consortium was attainable?

A. I don't know of anything that would prohibit that; but, again, I'm not an attorney, so I don't know.

Q. Was there anything that prevented SCE&G from revealing to the Commission that the consortium had indicated that it would improve productivity factor in the six months prior to the Commission filing, and yet it had failed to do so?

MR. CHALLY: Object to form.

THE WITNESS: You're getting into an area where I just don't know from a legal perspective what SCANA would be required or not required to do.

The only other thing I would add to that is with any EAC, there are assumptions that are in there, a number of assumptions, as to what

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1 future performance is going to look like.
2 Merely not meeting one of those
3 assumptions in whatever time frame or -- or
4 monetary amount or whatever was originally
5 assumed, merely not meeting that doesn't
6 necessarily mean there's a corresponding change
7 in the completion date or the overall completion
8 cost because there's so many factors that are
9 floating around on a month-by-month basis.
10 You have an opportunity to mitigate, make
11 up lost time, reduce costs in certain areas,
12 that sort of thing, I guess is what I'm trying
13 to get to.
14 (Exhibit 6 was marked for identification.)
15 BY MR. COX:
16 Q. Exhibit 6, Mr. Jones, is another document
17 that was produced by Carlette Walker in response to a
18 subpoena. It's not Bates-numbered, but it's entitled
19 "Reconciliation of Consortium Provided EAC,
20 55 Percent in '07 Dollars."
21 There's three columns in this document,
22 and the middle column of numbers is labeled
23 "814 Consortium EAC as Delivered. Schedule Basis
24 June 2019 and June 2020."
25 Do you see that column?

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1 A. Uh-huh. I do.
2 Q. And the bottom number on that column is
3 $529,710,000, and it's labeled "Total EPC Filing
4 Request Target T&M firm."
5 And the column to the right of that is
6 labeled "NND EAC Buildup Based on 1.55 PF .97
7 Indirect/Direct, .60 FNM Direct."
8 And the bottom row of that column is
9 $970,055,000.
10 Do you see that?
11 A. I do.
12 Q. Were you aware at the time of the 2015 PSC
13 filing that SCE&G's EAC team had calculated a
14 different EPC increase in cost versus what the
15 consortium had calculated?
16 MR. CHALLY: Object to form.
17 THE WITNESS: I don't recall seeing this
18 document. And, again, I don't know where this
19 came from.
20 BY MR. COX:
21 Q. Would you agree that the difference
22 between those two numbers is substantial, the
23 529 million and the 970 million?
24 MR. CHALLY: Object to form.
25 MR. MITCHELL: Objection.

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1 THE WITNESS: I agree there's a difference
2 there, yes.
3 BY MR. COX:
4 Q. Do you believe that you knew about that
5 difference at the time of the -- your testimony was
6 submitted to the PSC in March 2015?
7 A. I do not recall that. And, again, when
8 I -- I'm only looking at one page. I don't know the
9 basis or the accuracy of these numbers.
10 But the third column seems to be, well, if
11 we increase the PF, change the ratio on the next two
12 items, then it's going to affect all these costs,
13 which -- well, that's true. If you do change those
14 assumptions, it will affect those costs.
15 Whether there's any validity to changing
16 those assumptions and affecting the cost by that
17 magnitude, I mean, this doesn't give me any -- any
18 reason why that would be more accurate than what the
19 consortium had delivered to us and committed to us
20 under the contract to meet.
21 Q. Do you believe that SCE&G needed to notify
22 the Commission of the most likely EAC of the project
23 that it believed would occur in March 2015?
24 MR. CHALLY: Objection.
25 MR. MITCHELL: Objection.

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1 THE WITNESS: Can you re -- cover the
2 question one more time?
3 BY MR. COX:
4 Q. Sure, and I'll back up.
5 I think you testified earlier that you
6 felt that SCE&G was obligated to inform the PSC of
7 the consortium's EAC estimate; is that correct?
8 A. Correct.
9 Q. Do you believe that SCE&G was also
10 obligated to notify the PSC of its own projection of
11 the most likely EAC for the project?
12 MR. CHALLY: Object to form.
13 THE WITNESS: Well, contractually, the
14 consortium has provided us the EAC, which is
15 what we share with the Commission.
16 From a -- outside of that, I mean, this is
17 getting into an area that I'm not really an
18 expert in. But if SCANA had a solid basis,
19 facts that would override what the consortium
20 has provided -- facts, hard facts -- then I
21 would think there's some obligation, but I don't
22 know where the line is there.
23 BY MR. COX:
24 Q. Would you agree that estimating a PF is an
25 inexact science?

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A. I would say -- you mean estimating going forward?
Q. Correct.
A. I don't know that it's an inexact science. You have to have some basis for what your estimate is. Or, in this case, if there's a commitment to improve, you have to have some basis for how you're going to improve.
Q. Would you agree with me that a commitment by the consortium to improve its PF in six months, if that commitment is not realized and, in fact, no progress at all has been made toward that commitment, that that would be some piece of evidence that would be relevant to estimating what the consortium could achieve on a PF going forward?
MR. CHALLY: Object to form.
THE WITNESS: It's more data. But, again, past performance doesn't have to be -- you can't always draw a straight line between that and future performance.
It's certainly six months' worth of data that would say, "Well, you haven't improved it if that's what the data shows," which now puts you in a tighter situation going forward, meaning your improvement now is going to have to

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be better than what you -- potentially better than what you projected before to make up for the loss, or some other mitigation can occur to help with that make-up of the loss also.
BY MR. COX:
Q. But doesn't that failure to meet past promises provide some evidence of the ability or commitment of the party providing that commitment to do so in the future?
A. It provides some perspective that you would have on any future promises they would give you.
But, again, it's not -- "Well, you didn't meet it, so I'm sorry, now you can never meet any commitment that you're going to give us."
Q. You would agree that your 2015 PSC testimony did not reveal to the Commission that the consortium had promised to or made a commitment to improve its PF in six months and had not met that commitment?
MR. CHALLY: Object to form.
THE WITNESS: I'm assuming that's not in my testimony.
(Exhibit 7 was marked for identification.)

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BY MR. COX:
Q. Mr. Jones, we have handed you a document labeled Exhibit 7 to your deposition. It's an e-mail to you and Carlette Walker and Abney Smith from Marion Cherry. It's Bates-numbered SCANA_RP202 -- I'm sorry -- 0020794 and -20795. Attached to it is another version of the same e-mail that's Bates-numbered SCANA_RP0954157 to -4161.
The initial e-mail, the first two pages of this document that was sent to you, the charts that were attached to it were produced in a black-and-white format. And so I've attached a version of the e-mail, the original e-mail, that includes a color copy of those same PowerPoint charts to refer to.
MR. CHALLY: I'll just state for the record that that may be true. You can ask whatever questions you want on the document. We'll just reserve an objection to the authenticity of the documents involved.
BY MR. COX:
Q. Who is Marion Cherry?
A. So Marion worked for Santee Cooper. He was their on-site representative for the Unit 2 and 3 project. He was not involved with Unit 1 but on-site

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representative for the entire time that I was there, that five years.
Q. What kind of interactions did you have with Mr. Cherry?
A. Marion worked mainly with Skip Smith, Carlette Walker, that business finance team. Marion would attend -- Marion basically had, as a co-owner representative, the ability to attend pretty much any meeting he wanted to except for a meeting involving personnel matters, for example.
He attended our monthly project review meeting. He attended certain meetings that the consortium had. Plan-of-the-day meeting, he was welcome to attend. He was basically able to attend any meeting or opportunity that our folks had, he could do that also.
Q. Did you ever become aware during your time on the project that Santee Cooper was concerned about the level of progress on construction of the project?
A. Yes.
Q. How did you become aware of that?
A. I think conversations that I would have with Marion or Michael Crosby, primarily. They would express concerns when they had concerns.
Q. And what were the issues that they were

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1 concerned about? Were they the same issues that
2 SCE&G was concerned about?
3 A. I can't remember any issue that they
4 brought up that was different than issues or concerns
5 that we already had.
6 Q. Did they -- did Mr. Cherry ever express to
7 you that -- any concern about SCE&G's responsiveness
8 to addressing the concerns on the project?
9 A. No.
10 Q. Did any other representative of Santee
11 Cooper express those concerns?
12 A. I don't recall ever having -- and, again,
13 it's primarily Marion and Michael that I would have
14 had any direct discussion with, any concerns of that
15 nature being expressed to me.
16 Q. Do you know why Mr. Cherry was forwarding
17 you this e-mail?
18 A. I'm assuming for awareness. It didn't ask
19 for any action or any feedback.
20 Q. And did you review the PowerPoint
21 attachments to this e-mail at the time you received
22 it?
23 A. I -- again, I don't recall, it's so long
24 ago.
25 Q. The page that's labeled -- Bates-labeled

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1 954159, if you could turn to that?
2 A. I'm not sure which one you're referring
3 to.
4 Q. It's the page with three small charts, one
5 on top of the other.
6 A. This page?
7 Q. That's correct.
8 A. Okay.
9 Q. The top of the chart says: "Target cost,
10 62.4 million over EAC basis in five months following
11 receipt of EAC."
12 Do you agree that this reflects that the
13 target cost had gone over the estimate by
14 62.4 million in the five months since SCE&G had
15 received the EAC?
16 MR. CHALLY: Object to form.
17 THE WITNESS: Well, I understand that
18 that's what's trying -- what was trying to be
19 portrayed to this. But as far as the basis of
20 the numbers there and actual PFs, I will assume
21 the actual PFs were the actual PFs.
22 But for the actual cost numbers, I don't
23 know -- I don't have any backup calculations for
24 that site. I don't know. I can't comment on
25 those.

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1 BY MR. COX:
2 Q. Okay. What does this chart show about the
3 direct craft productivity level between August 2014
4 and January 2015?
5 A. It's not improved to what the level --
6 what level the consortium was committed to.
7 Q. It's gotten worse, correct?
8 A. Well, you're looking at -- the dots there
9 are monthly PFs. The blue line is a cumulative. So
10 it's averaged over time. So that's not a direct --
11 you can't compare one month to cumulative actual and
12 make a conclusion based on that.
13 For example, you could have -- let's say
14 there was just the first month there that was higher
15 than the cumulative actual. That doesn't mean that
16 the cumulative actual now goes up to that number.
17 It's averaged in with all the preceding months of the
18 preceding years.
19 Q. You would agree that none of these actual
20 PFs in the time period since the EAC was received was
21 improving the cumulative actual PF?
22 A. I agree with that, based on the data
23 that's shown here.
24 Q. And you would agree that the January 2015
25 actual PF was the worst of the PFs since August 2014?

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1 MR. CHALLY: Object to form.
2 THE WITNESS: That's what this appears to
3 show, yes.
4 BY MR. COX:
5 Q. There's two other charts below that.
6 Would you agree that the ratios in both of those
7 charts show that the consortium is not meeting the
8 basis on which it made its EAC calculations?
9 MR. CHALLY: Object to form.
10 THE WITNESS: If I assume that these
11 numbers are correct, then that was what that
12 would show, that the basis was lower than those
13 numbers actually achieved.
14 BY MR. COX:
15 Q. Do you have any reason to believe those
16 numbers are not correct?
17 A. I don't. I just don't have anything to
18 verify it against. So -- and this is coming from an
19 e-mail, not that I don't trust Marion or anything
20 like that, but I just can't validate it.
21 Q. The last page of this exhibit is a chart
22 labeled "Total Target Cost."
23 Do you know what this chart depicts?
24 A. Well, it appears to be comparing the EAC
25 filing number, 1156, against two scenarios. The two

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1 scenarios are developed by assuming different PFs and
2 different numbers for the craft ratio -- craft
3 ratios.
4 Q. And the PF on the chart in the top left
5 corner of that page shows a PF during the time period
6 of the last five months is 2.27, correct?
7 A. That's what the chart says, yes.
8 Q. And you see a target cost curve for that,
9 for that information?
10 A. For -- I see a Scenario 1, Scenario 2, and
11 EAC cost curve. And I see an entitlement cost curve,
12 which I'm not sure what that one is.
13 Q. Mr. Cherry on -- or I'm sorry --
14 Mr. Crosby on the first page of this e-mail states in
15 the second-to-last sentence of the first page: "A
16 total target cost curve for this data is not shown on
17 the graph because it would be off the chart."
18 Does that indicate to you that Mr. Crosby
19 was not even able to depict the target cost curve for
20 the actual productivity over the last five months
21 because it was off this chart?
22 MR. CHALLY: Object to form.
23 MR. MITCHELL: Objection.
24 THE WITNESS: I'm not sure what that
25 comment meant. I don't understand his comment.

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1 BY MR. COX:
2 Q. If you look at the last page, that same
3 total target cost curve, would you agree that a curve
4 for the actual productivity over that five-month
5 period would be higher, would represent a higher
6 target cost curve than the Scenario 1?
7 MR. CHALLY: Object to form.
8 THE WITNESS: Can you reask the question?
9 I'm not sure I followed you on that.
10 BY MR. COX:
11 Q. Sure. Would you agree that if a cost
12 curve was provided for the information regarding
13 labor productivity and ratio inputs for the time
14 period September '14 to January '15 average, that
15 that curve would be even higher on this chart than
16 Scenario 1?
17 A. So you're asking if an assumption was made
18 that PF going forward was going to be 2.27 every
19 month?
20 Q. Correct.
21 A. Okay. Yes, it would be higher.
22 Q. Okay.
23 A. Sorry. I just didn't quite follow that
24 one.
25 (Exhibit 8 was marked for identification.)

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1 BY MR. COX:
2 Q. We have labeled as Exhibit 8, Mr. Jones, a
3 copy of your testimony, prefiled testimony, submitted
4 to the PSC in 2015. Did you review this document in
5 preparation for your deposition?
6 A. I did.
7 Q. I should have asked this earlier. Are
8 there any other documents that you reviewed besides
9 your prefiled testimony in preparation for your
10 deposition?
11 A. I reviewed Gary Jones's recent testimony.
12 MR. CHALLY: Jim, why don't we take a
13 break before we get into this. If you want some
14 other questions, go ahead.
15 MR. COX: No. Off the record.
16 VIDEOGRAPHER: Off record at 12:57 p.m.
17 (A recess transpired from 12:57 p.m. until
18 1:10 p.m.)
19 VIDEOGRAPHER: On record at 1:10 p.m.
20 BY MR. COX:
21 Q. Mr. Jones, we're back from our --
22 A. Before you start, I did want to go back
23 and correct. You asked me earlier what I reviewed,
24 documents I reviewed prior to today. I did review
25 Carlette Walker's testimony in 2015 also. So I

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1 wanted to bring that up just to make that complete.
2 Q. And other than your testimony from 2015
3 and Carlette Walker's, are there any other documents
4 you reviewed in preparation for your deposition?
5 A. Gary Jones's testimony, which I had
6 mentioned before.
7 Q. And what was the purpose of your review of
8 his testimony?
9 A. Just to see what his comments were,
10 perspective, that sort of thing. General interest, I
11 guess I would say.
12 Q. Did you have any interactions with
13 Mr. Jones during your time on the project?
14 A. Yes.
15 Q. Can you describe what interactions you had
16 with him?
17 A. So Gary was working for ORS when I came on
18 the project in mid-2012. Gary would make at least
19 monthly site visits.
20 ORS typically had a small team that would
21 be on site for two days, typically -- plant tour,
22 meet. We would set up meetings based on their
23 request for areas that they wanted to review or ask
24 questions on or cover, that sort of thing, and then a
25 debrief on the final day.

Q. And was that an interaction that you personally had with him, or was that a group interaction?
A. The -- I would sit in some of the presentations that were being made to Gary and the other folks from the ORS. I would also sit in on the debrief, the final debrief.
Q. From reviewing Mr. Jones's testimony, is there anything in his testimony that you disagree with him about?
MR. CHALLY: Object to form.
THE WITNESS: I'd have to have it in front of me, but in general, I would say he expressed some opinions in there that I may not necessarily agree with, but I didn't maintain a list of here's what I agree with, here's what I didn't. I reviewed it just for general information.
BY MR. COX:
Q. He's expressed the opinion that SCE&G's actions postdating the March 2015 PSC filing were imprudent and that SCE&G should not recover its costs for that time period.
Do you disagree with his opinion on that issue?

MR. MITCHELL: Objection.
THE WITNESS: My personal opinion is yes, I disagree with that, not speaking for what the company's opinion might be or anything, but I mean personally, when I read it, I didn't agree with the logic.
BY MR. COX:
Q. Do you believe that SCE&G behaved prudently on the project?
A. I do.
Q. So Exhibit 8, your testimony from 2015, this is the document that you reviewed before it was filed with the commission; is that correct?
A. Correct.
Q. Did you make the initial draft of it?
A. No.
Q. And do you know who did that?
A. The corporate folks did it, attorneys were involved, and I reviewed the initial draft once they had completed it.
Q. Did you make any changes from the initial draft?
A. I can't remember specifically. I reviewed the initial draft thoroughly. If there was something that I thought needed to be clarified or was

incorrect, I certainly would have pointed that out, but I can't remember specifically.
Q. Did you feel pressured to commit to prefiled testimony that you did not believe in?
A. No.
Q. If you could turn to page 10 of your testimony, there's a question on line 4 which states: "Does SCE&G agree with WEC/CB&I's forecast of additional cost resulting from delay in the substantial completion dates?"
I'd like to go through your answer. The first sentence of your answer, can you go ahead and read that first sentence?
A. "Based on discussions with WEC/CB&I's EAC team, our careful review and analysis of information provided and the representations of WEC/CB&I, the company believes that the revised EAC cost reflects a reasonable and prudent estimate of the actual EAC cost to be expected for completion of the project based on the revised substantial completion dates."
Q. You reference a "careful review and analysis of information provided."
Whose review are you referring to?
A. I think the cumulative review that the company did on what they presented.

Q. And who was involved in that review, specifically of the EAC cost information?
A. A number of folks were involved. I mean, all the way from the Kevin Marsh level down into my organization and encompassing, of course, the finance organization.
Q. You would be referring to Carlette Walker there?
A. Not just Carlette, but Jimmy Addison and Carlette, a team of other folks that reported through her to Jimmy on site.
Q. Did you do any careful review of the EAC cost information that was provided by the consortium?
A. I reviewed it to the best of my ability. Again, I'm not a finance expert, but yes, I reviewed it to the best of my ability.
Q. And did you agree with it?
A. I agreed with it. Like any cost projection or schedule projection, it comes with certain assumptions, but, yeah.
Q. Are you aware of an SCE&G employee named Kenneth Browne?
A. I am.
Q. And who is he?
A. So Ken Browne worked for -- technically

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1 worked for Skip Smith, who reported to me. Ken was a
2 former Santee Cooper employee, I think retired from
3 Santee Cooper. He was employed by us, by SCANA, when
4 I arrived in the middle of 2012.
5 Q. Was he involved in the company's review of
6 the consortium's EAC cost information?
7 A. Specific to this filing?
8 Q. Correct.
9 A. I believe so.
10 Q. What was his role?
11 A. I don't know that I know his exact role.
12 I mean, between the small business finance group I
13 had and then Carlette Walker's finance group, they
14 went through and reviewed it and may have apportioned
15 tasks within that combined organization. So I don't
16 know specifically what Ken was charged to review.
17 Q. Are you aware of anyone who reviewed the
18 consortium's EAC cost information for accuracy other
19 than Kenneth Browne and Carlette Walker?
20 MR. CHALLY: Object to form.
21 MR. MITCHELL: Objection.
22 THE WITNESS: I don't know -- I can't list
23 the folks that reviewed it. So I don't know.
24 It went to those teams to review. And, again,
25 how they decided who was going to review what, I

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1 don't recall.
2 BY MR. COX:
3 Q. And you don't recall whether you were
4 privy to the briefing that the SCE&G team did of the
5 consortium's estimate that was Exhibit 4, correct?
6 A. Correct. I just can't recall.
7 Q. There's other names on Exhibit 4 including
8 Margaret Felkel, Kevin Kochems, Sheri Wicker, and
9 Kyle Young. Do you know who those individuals are?
10 A. I do.
11 Q. And who are they?
12 A. Most of those belong to the finance team.
13 Kyle Young reported to my organization through Alan
14 Torres.
15 Q. At the time that you submitted this filing
16 to the PSC, did you believe that SCE&G agreed with
17 the revised EAC estimate provided by the consortium?
18 MR. CHALLY: Objection. Form.
19 THE WITNESS: I did. You know, Mr. Byrne
20 and Ms. Carlette's testimony expanded more on
21 that and detailed other thoughts along those
22 lines.
23 But in general, yeah, we had reasonable
24 confidence in what they gave us, had some basis
25 behind it that would cause us to believe it

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1 was -- had a level of accuracy that was suitable
2 for submittal.
3 BY MR. COX:
4 Q. And you weren't made aware of any
5 disagreement within SCE&G as to whether that
6 consortium EAC cost estimate was the most accurate
7 estimate of future cost, were you?
8 A. There were opinions -- you know, we talked
9 through some documents here that would say some folks
10 had other opinions, e-mail from Santee Cooper, that
11 sort of thing.
12 But, again, I think the basis that SCE&G
13 had was, okay, they -- while we may have other
14 opinions, they've made a commitment here. They have
15 all the relevant documentation that should have
16 enabled them to give us an accurate schedule and EAC.
17 Q. And is it correct that your testimony did
18 not reveal to the Commission that there were
19 different opinions within the company as to whether
20 the consortium's estimate was the most accurate
21 estimate of the cost?
22 MR. CHALLY: Object to form.
23 THE WITNESS: So your question is: My
24 testimony doesn't comment on that?
25

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1 BY MR. COX:
2 Q. Correct.
3 A. That's correct.
4 Q. Do you know why?
5 A. I don't know that I know why. I'm not
6 sure that I know why there would be a need to,
7 either.
8 Q. You feel that the Commission didn't need
9 to know about any disagreement internally in SCE&G
10 about the accuracy of the consortium's estimate?
11 MR. MITCHELL: Objection.
12 MR. CHALLY: Same.
13 THE WITNESS: I'm not sure I can comment
14 on whether they had a need to know or not. I do
15 know that whether it was on this project,
16 whether it was in my previous career with Duke
17 Energy, one of the things that was common in the
18 Duke culture and the SCANA culture is folks
19 could openly disagree with stuff and not feel
20 any sense of persecution or discrimination
21 against them for not agreeing with a superior or
22 a report or another team or whatever.
23 So I would expect that folks, whether it's
24 this issue we're talking about or whether it's a
25 technical issue relating to the project, if

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1 folks had disagreements or different thoughts,
2 they would be expressed.
3 BY MR. COX:
4 Q. Is it fair to say that SCE&G in this
5 March 2015 filing is telling the Commission that the
6 consortium believes that this is the estimated cost
7 to complete the project?
8 A. I think that's the most accurate way to
9 state it and that we didn't -- and likewise, I think
10 underlying that would be we reviewed that, and there
11 wasn't something that we saw that would say "There's
12 no way they can achieve this."
13 We certainly -- I think Steve recognized
14 in his testimony and maybe Carlette in hers that
15 there were going to be challenges ahead. But I don't
16 think that there was anything that -- that we saw
17 that was a fatal flaw that said, "Well, this is not
18 going to happen."
19 Q. Well, do you think --
20 A. My opinion.
21 Q. Sure. And would you agree that the
22 testimony that you provided to the PSC didn't reveal,
23 for example, the $296 million in Woodlands cuts that
24 the SCE&G EAC team had -- had found questionable?
25 MR. CHALLY: Object to the question.

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1 THE WITNESS: That was not in my testimony
2 nor does my testimony go into that level of
3 detail. A lot of my testimony is centered
4 around change orders and that sort of thing, and
5 there's some general testimony about agreeing
6 with the forecast, that sort of thing, but my
7 testimony doesn't go into that level of detail.
8 BY MR. COX:
9 Q. Does your testimony support the
10 consortium's estimate as an accurate assessment of
11 the estimated cost to complete the project?
12 MR. CHALLY: Object to form.
13 THE WITNESS: Well, I think I stated it
14 pretty clearly here that the company believes
15 that the revised EAC cost reflects a reasonable
16 and prudent estimate of the actual EAC cost.
17 BY MR. COX:
18 Q. So would your answer to that question be
19 yes?
20 A. Yes.
21 Q. When you said "reasonable and prudent,"
22 what did you mean by that?
23 A. That what the consortium presented to us
24 seemed to have a reasonable and prudent basis for
25 what they -- what they -- what they presented to us.

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1 That doesn't mean that we didn't have
2 questions about it or that our folks might have had
3 different opinions, but it seemed reasonable and
4 prudent.
5 Q. And you say that, even in light of the
6 fact that the consortium had failed in its commitment
7 to improve the productivity factor in the six months
8 after it prepared the EAC estimate?
9 A. I think the fact that they did not meet
10 that was not a factor that all of a sudden you -- you
11 would, could, or should interpret as, well, then
12 therefore, they're not going to meet the schedule;
13 therefore, they're not going to meet the EAC.
14 There's still an opportunity for recovery.
15 Q. At what point, in your view, should SCE&G
16 say that the consortium's estimate of PF is
17 unrealistic and unattainable?
18 MR. CHALLY: Object to form.
19 THE WITNESS: I'm not sure I can answer
20 that.
21 BY MR. COX:
22 Q. Let me rephrase the question. Sounds like
23 you're saying that the consortium's failure to meet
24 that commitment of improving PF in six months isn't
25 enough to say that they won't do it in the future.

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1 My question to you is: Is there any point
2 where you say, "We don't trust your commitments on
3 this issue"?
4 A. I think there would be a point, but as to
5 exactly where that would be, I don't know. I mean,
6 as to future performance beyond that continued to go
7 in the wrong direction, for example, at some point
8 you have to reach that conclusion.
9 But I don't think we were there yet. We
10 recognized, though, they had a significant challenge.
11 Q. Were you involved in any of the testimony
12 preparation sessions for Carlette Walker's testimony?
13 A. Again, I -- we all reviewed each other's
14 written testimony. We all -- I think we actually did
15 some group reviews, not necessarily going line by
16 line, but different parts of different testimony
17 between all the folks that were going to be
18 testifying along with the supporting cast of
19 characters that would be there to help -- help
20 develop that and that sort of thing.
21 And then we went through some mock PSC
22 sessions where it was either one or two outsiders
23 came in and asked questions that might be typical of
24 the questions that the commissioners might ask.
25 Q. Do you recall whether you were present in

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1 a session with Carlette Walker when her testimony was
2 being discussed?
3 A. I'm certain I was because they were group
4 sessions. It wasn't, "Well, let's have one session,
5 discuss Ron's testimony, and we won't have Carlette
6 there, we won't have Steve there," that sort of
7 thing. It was a group -- group setting.
8 Q. And you say, "I'm certain I was"
9 meaning -- it seems to me like you're saying, "I just
10 would have had to have been."
11 And I'm curious whether you have any
12 recollection in your mind of having been at a
13 testimony prep session with Carlette Walker.
14 A. So a better way to couch it is I can't
15 tell you the dates that those occurred. They would
16 be on my calendar. They were all group settings
17 except for the initial review that each of us did on
18 our draft testimony where we sent comments back to
19 the Corporate folks.
20 But they were all done in group sessions,
21 and I attended all those. So I just can't you tell
22 you exactly when those sessions were.
23 Q. And you're certain that a group session
24 happened for every single one of the witnesses who
25 testified?

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1 A. To the best of my remembrance, yes, that's
2 what happened.
3 Q. Do you recall Carlette Walker saying
4 anything in her group testimony prep session?
5 A. Saying anything? Or you mean anything
6 that might concern me or be different than what --
7 Q. Yeah. This is a good point. This is a
8 broader question. I'm trying to gauge whether you
9 recall her speaking up or saying anything during her
10 session.
11 A. I didn't -- well, I guess the way to
12 answer it is I didn't notice anything different in
13 her -- Carlette was, you know, an outspoken person.
14 I mean, she wasn't afraid to speak her mind. I
15 didn't notice anything in her demeanor during those
16 sessions that would have made me question behaving
17 differently or something like that, if that's what
18 you're asking.
19 Q. Do you recall her demeanor at that
20 session? Or are you saying that you don't recall
21 anything -- anything unusual in that session?
22 A. I don't recall anything unusual in that --
23 in that -- in the sessions that we had with respect
24 to her behavior, anything she might have said,
25 demeanor in general, that sort of thing.

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1 Q. Did you have an opportunity to form an
2 opinion of her as an employee?
3 A. So Carlette, again, had been assigned to
4 the project before I got there. So when I first met
5 her, she had been in the job for some period of time.
6 My impression of Carlette was she was a
7 knowledgeable person, but very black-and-white in her
8 thinking, meaning there could never be two answers to
9 something nor variations on answers. It was either
10 things were right or wrong, yes or no. There's no in
11 between.
12 That's not my -- my typical behavior
13 because as an engineer, one of the first things you
14 learn when you get out of school is the only time
15 you're going to find a right or wrong engineering
16 answer was the test you took in school. The real
17 world is much different than that.
18 So one of the first interfaces I had with
19 Carlette that maybe gives you a little bit of insight
20 into her demeanor was in relation to a commercial
21 issue we had with Westinghouse. And we had a process
22 then that would, if that couldn't be resolved between
23 Carlette's team and then the Westinghouse team, it
24 got escalated up to the VPs, myself and the
25 Westinghouse VP.

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1 I was brand-new, so I was having to come
2 on board, kind of learn what the issue was, and then
3 see if it got to the point where I had an opinion on
4 it.
5 And, I guess, to make a long story short,
6 the view being expressed by Carlette and her team was
7 very black-and-white. This is exactly what this
8 means in our EPC contract. Westinghouse had a
9 different view. When I read the words in the EPC
10 contract, it didn't support either view exclusively.
11 I mean, like any other contract, there are
12 some things that are going to be very, very clear and
13 everybody is going to read them the same way.
14 There's going to be other stuff is that was put in,
15 and everyone agreed to it to begin with because they
16 thought it was clear, but you run into a real-life
17 example where you have to apply that -- and if you go
18 back, my approach has always been on contracts, you
19 go back and read what's in black-and-white. There's
20 some level of relevance to what might have been
21 discussed as that was being generated or written or
22 what was talked about in the past.
23 But when push comes to shove on a
24 commercial issue, it's going to go back to what's
25 written in the contract. And in this case, the

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1 contract was not clear.
2 Q. Did you in your work have an opportunity
3 to form an opinion about the quality of her job
4 performance?
5 A. I couldn't really comment on her job
6 performance because she didn't report to me. So
7 therefore, I wasn't one that did a performance
8 review, certainly, nor did I have goals or objectives
9 for her or things like that. That came from, you
10 know, Jimmy Addison's organization.
11 Q. Did you have an opportunity to form an
12 opinion about her character for honesty?
13 A. I really didn't. I didn't have daily
14 interface with Carlette. She spent a good amount of
15 time out at the site, but she also had corporate
16 responsibilities too. She attended project review
17 meetings. She attended some of our internal to my
18 organization meetings.
19 But if you asked me at the end of working
20 with her for four-plus years, I didn't have anything
21 to guide me one way or another about a level of
22 honesty. That's kind of a big evaluation. I'm not
23 really comfortable in saying I had a -- a position
24 one way or the other.
25 Q. You had never saw her do anything that you

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1 viewed as dishonest; is that correct?
2 A. Nothing dishonest, no.
3 Q. And the same questions with respect to Ken
4 Browne. Did you have a chance to observe the quality
5 of Ken Browne's work performance?
6 A. I did. Well, not from a performance
7 review perspective, but he worked for Skip Smith.
8 Skip Smith reviewed -- worked for me. So Skip did
9 his performance evaluations.
10 Ken was a very knowledgeable individual.
11 You know, the only thing I would say about Ken is I
12 think he was pretty much a black-and-white person
13 also. Once his mind was made up on something, it was
14 very difficult to have him change his perspective,
15 even in the face of other opinions being out there.
16 Q. The same issue that you identified with
17 Carlette Walker?
18 A. Basically.
19 Q. Was the quality of Ken Browne's work good?
20 A. As far as I know. I mean, he got good
21 performance reviews from Skip Smith, who was his
22 direct manager. The meetings that I sat in with Ken,
23 although he was very opinionated, he was obviously a
24 knowledgeable individual.
25 Q. Is it good for employees to express their

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1 opinions?
2 A. Yes. Very much so. I mean, that's the
3 culture that, again, I lived under at Duke and
4 encouraged there and the same culture we instilled in
5 the Unit 2 and 3 V.C. Summer team.
6 Q. During your time at the project, did you
7 ever become aware of a time when Ken Browne or
8 Carlette Walker were expressing alarm about the cost
9 in schedule that the project was in?
10 A. Well, we all, I think, in our meetings,
11 whether it's a project review meeting, whether it was
12 a financial meeting or whatever, schedule and cost
13 were always the forefront of our concerns. So if
14 folks had concerns or something had happened that
15 would adversely impact one or the other of those,
16 then we expected folks to speak up. So, yeah, I
17 mean, I saw them express those opinions at times,
18 yeah.
19 Q. But you never saw either of them express
20 an opinion that the -- the cost or schedule estimates
21 were inaccurate?
22 A. They expressed differences in opinion, in
23 my mind, on assumptions, maybe, that were made, that
24 they might have made a different assumption. Whether
25 they called them "Therefore, these are inaccurate," I

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1 don't know, but they certainly expressed differences
2 in opinion on certain things.
3 Q. And I probably should have used the word
4 "unattainable."
5 Did they ever express an opinion that the
6 cost in schedule that was being used was
7 unattainable?
8 A. I can't remember that happening, not to
9 say that it didn't in one meeting. A comment might
10 have been made.
11 But offhand, that's not -- I didn't view
12 either of them as, you know, marching through this
13 project and having a mantra, "This is unattainable,
14 unattainable, unattainable." That just doesn't
15 match.
16 Q. If you could turn to page 11 of your
17 prefiled testimony, there's a question on line 3 that
18 states: "Please explain the decreased productivity
19 and the increase in the staffing ratios in direct
20 craft and field nonmanual associated with the labor
21 cost."
22 In the second paragraph of your answer,
23 you reference "the historical values experienced on
24 the project."
25 Why did you reference the historical

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1 values experienced on the project?
2 A. Well, I think what we were saying there,
3 that WEC/CB&I increased their forecast to ratios
4 because they went and looked backwards and said,
5 "Well, based on the past, we're going to adjust these
6 based on what's been achieved so far."
7 Q. And is that where the -- this isn't
8 referring to productivity factor; is that correct?
9 A. Correct. These are ratios.
10 Q. Are you stating that the ratios that they
11 increased to were the values that had been realized
12 in the past?
13 A. I don't -- I don't remember whether it
14 went to those values or -- or to some number slightly
15 below that or -- I just don't know without that
16 detail here.
17 Q. That's all I have on that exhibit,
18 Mr. Jones.
19 Mr. Jones, at some point, did you become
20 aware that SCE&G had commissioned an assessment of
21 the project by the Bechtel Corporation?
22 A. Yes. At some point, I did become aware of
23 that.
24 Q. How did you become aware of that?
25 A. And I can't remember exactly. My guess

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1 would be Jeff Archie would have told me that they had
2 been contracted to do that.
3 Prior to them actually being contracted to
4 do that and me being made aware that they had been
5 contracted to do that, there had been previous
6 discussions within the project leadership level and
7 Santee Cooper leadership about do -- well, let me
8 back up just a little bit.
9 Our contract with the consortium gave us
10 the right to bring in an owners' engineer. It was a
11 little -- it was in the contract, and that's about
12 all it said. "You can bring in an owners' engineer."
13 It really didn't talk about scope of what that
14 function would do, whether there would be concerns
15 about who you brought in, reporting relationship.
16 None of that was covered in there.
17 So that had been there for a while.
18 Santee Cooper, I know, had on some previous occasions
19 said, "Well, maybe we need to have an owners'
20 engineer." There would be some conversation, most of
21 which didn't occur directly with me, but I was aware
22 that they had brought that up about, "Well, what
23 would that owners' engineer do? What would we hope
24 to realize from that?"
25 So that's one data point. We had the

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1 provision to bring in an owners' engineer.
2 The other data point prior to me knowing
3 that Bechtel was coming on site to do this was Santee
4 Cooper talking about "Well, maybe we need to get a
5 Bechtel in here." They had had a previous
6 relationship with Bechtel that had performed work for
7 them in the past. I think they had felt Bechtel had
8 a -- some level of credibility that they felt would
9 add some value by coming into the project.
10 And then kind of from that, those two
11 data -- or those two pieces of information,
12 fast-forward to at some point, an agreement was
13 reached. I was not part of making that agreement
14 between SCANA and Santee Cooper to bring in an
15 outsider to do an assessment and that that would be
16 Bechtel.
17 Q. But that assessment was not to serve as
18 the role of owners' engineer; is that correct?
19 A. That's correct. You know, owners'
20 engineer was not defined in the EPC. But likewise,
21 so by not being defined, it really didn't mean, well,
22 is this a one-shot deal where you bring somebody in
23 to do something, or is it a continuing function that
24 you put in place over the life of the project or the
25 remainder of the life of the project? It wasn't

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1 defined.
2 You know, I know after the decision was
3 made to bring them in, there had been some
4 discussions with Westinghouse to try to make them
5 aware that Bechtel was coming in and try to engage
6 some level of cooperation. That -- I was not privy
7 to those discussions. My understanding was that was
8 a very challenging discussion because they're
9 competitors. Westinghouse and Bechtel are
10 competitors.
11 Q. Was an owners' engineer ever used on the
12 project?
13 A. Not per that provision in the EPC. We did
14 bring contractors in to do certain functions under
15 our organizational structure -- supplemental
16 resources, basically -- but we never brought someone
17 in to function as a separate owners' engineer
18 function or something like that.
19 Q. Did it hurt your feelings that Santee
20 Cooper had expressed some interest in obtaining an
21 owners' engineer for the project?
22 MR. CHALLY: Objection.
23 THE WITNESS: Didn't hurt my feelings, no.
24 BY MR. COX:
25 Q. I was just wondering if -- it seems to me

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like you were essentially the person who was on site, in charge of the project full time; is that correct?
A. Right.
Q. And I was wondering whether you viewed Santee Cooper's interest in bringing in an owners' engineer as somehow suggesting some displeasure with --
A. No. They felt there would be some benefit from that.
You know, the few discussions that I had been involved in -- I think it was Michael Crosby maybe mentioned it to me once or twice -- I think I asked, "Well, what exactly do you want them to do? Because we're kind of doing the function that another outside group coming in would do, and it wouldn't seem to make economic sense to set up two parallel organizations to do the same thing."
So if we wanted to bring certain resources in to bolster our ability, if you-all feel that that's the need, then we would certainly welcome anyone from Santee Cooper or if there's some outsiders that you would like to have come in to work under our organizational structure so that we're not duplicating effort.
Q. Did you ever hear from Santee Cooper that

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they felt that they needed someone who had more construction experience to serve as an owners' engineer?
A. They had made mention of more nuclear construction experience, the bottom line. Or my opinion was, you're not going to find it out there as far as relevant, current nuclear construction experience. Most of that's contained within Westinghouse, the constructor, and then the two utilities that are building these plants.
Some of this goes back to what I talked about earlier in that building a plant nowadays versus 30 or 40 years ago, it's a night-and-day difference, night-and-day difference from a technical perspective, from a regulatory perspective, even -- even from a perspective of, well, how do you manage and motivate and guide an organization?
Q. Did Mr. Archie tell you what the purpose of Bechtel's assessment was?
A. I'm sure he did in general terms. I can't recite those to you, but I knew they were coming on site. They were having a team of X number of folks. They were going to do an assessment of the project.
I can't remember whether a charter was laid out from them or not. There was a contract that

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was signed with them, which I don't believe I ever saw the contract, but I am assuming that that would have had laid out in there, "We want you to look at this, this, this, and maybe there's some things that we don't want you to, you know, spend time on, and we don't need you to look at this."
Q. Were you told that part of Bechtel's assessment was to assess the schedule for the project?
A. I don't know that I was ever told that.
Q. Were you told that the purpose --
A. I knew they were going to be looking at a broad perspective on the project, so it would be hard to believe that they wouldn't look at schedule at some point. But whether that was a specific thing that was asked of them, I don't know.
Q. So you kind of assumed that schedule would be assessed as part of the review?
A. It's kind of hard --
MR. CHALLY: Objection.
THE WITNESS: -- kind of hard to separate them all.
BY MR. COX:
Q. Were you ever told that SCE&G had retained Bechtel in preparation for litigation against the

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consortium?
A. No. In fact, I never heard that until sometime after the project was abandoned, and I think it appeared in one of the media articles.
Q. Did that surprise you when you read that?
A. No, it didn't surprise me. But it was just something that I'd -- and maybe if I had thought about it more, I might have made that assumption earlier, but I didn't.
Q. What interaction did you have with Bechtel during their assessment?
A. Mine was pretty limited. We had some of our folks dedicated to helping them with logistics, lining up people for them to talk to, kind of working with Westinghouse and the constructor to try to make sure that they had some access to talk to those folks.
I sat in maybe one of the initial sessions when Bechtel came in with their team. But no, I mean, we had a lot of other stuff going on at the same time. They were doing an independent assessment, and I did not try to stick my nose into everything they were doing.
Q. What instructions did you give your team as far as cooperating with Bechtel's assessment?

1 A. To cooperate. I mean, we -- we weren't --
2 didn't have any reason to hold anything back from
3 them. So I felt pretty certain our folks would be
4 very open with them if they -- if the Bechtel folks
5 wanted to interview them or whatever.
6 Q. At the end of the assessment, did you feel
7 like your team had been cooperative with them?
8 A. I didn't have anything, data points to the
9 contrary.
10 Q. Were you interviewed by Bechtel?
11 A. I don't remember if I was or not. It
12 wasn't impacting enough for me to remember. That's
13 the only thing I can say. I may have, but I just
14 don't remember.
15 Q. Were you ever provided a written report
16 from Bechtel of their assessment?
17 A. I was provided a final copy once that was
18 issued. I was not provided anything in the interim
19 as far as anything, draft that they had written, any
20 presentations they might have put together.
21 The only time I saw something in writing
22 was when it was all said and done and we had -- SCANA
23 had internally received the final document.
24 Q. So just to confirm, you don't recall being
25 at a meeting where Bechtel presented its -- the

1 results of its assessment?
2 A. I was not there, and I heard about that
3 after the fact.
4 Q. How did you hear about it?
5 A. I honestly don't remember, and I don't
6 remember how much after the fact it was either, for
7 that matter. But at some point, I knew that they had
8 presented -- made a presentation. I guess it was to
9 SCANA and Santee combined.
10 Q. Did you get any information about the
11 substance of that presentation?
12 A. Not the technical substance of it. I
13 guess the only anecdotal comment that was made at
14 some point to me was it was like a sales pitch, which
15 that was not surprising to me.
16 As I mentioned, Bechtel and, you know,
17 Westinghouse, and was it Fluor at that time or still
18 CB&I, I guess, were competitors. They're
19 competitors.
20 So my personal opinion, if I was Bechtel
21 and, gee, I'm going to go into this project which I
22 don't have anything to do with right now and provide
23 some assessment, then I would have the desire to get
24 some level of job and responsibility out of that.
25 Q. And how would you do that?

1 A. I think in my -- whatever I presented
2 would -- I would try to make a case that you need me.
3 And I'm not faulting Bechtel for that. I think, you
4 know, if I owned a company and somebody invited me to
5 come in and tell them what they were doing wrong,
6 part of what I would say is, "And here's how I can
7 help you fix it."
8 Q. But sitting here today, you don't recall
9 who told you that the meeting was kind of like a
10 sales pitch?
11 A. I don't.
12 (Exhibit 9 was marked for identification.)
13 BY MR. COX:
14 Q. Mr. Jones, I've handed you a document
15 labeled Exhibit 9. This is entitled the "Schedule
16 Assessment Report" dated February 5th, 2016, Bechtel,
17 Bates-numbered ORS_00450277 through -0303.
18 Have you ever seen this document before?
19 A. I did see a final report from Bechtel. So
20 I'm assuming part of this, at least, is that final
21 report.
22 Q. There were actually two reports that were
23 produced in final form by Bechtel. One was called a
24 "Project Assessment Report" which detailed various
25 findings regarding the project but did not make an

1 assessment of the schedule.
2 A. That's the one I saw.
3 Q. Okay. And this is a separate document
4 that was produced which includes an analysis of the
5 schedule.
6 A. Okay.
7 Q. And I was wondering whether you also saw
8 this document at the time it was --
9 A. I never saw this document. I was given a
10 final report at a point where Westinghouse had
11 drafted their final report of observations, that sort
12 of thing. It had -- I think it was observations. It
13 divided it into observations and needed improvements
14 or something like that. I can't remember the exact
15 terminology they had used.
16 It had gone to SCANA. And I think the
17 legal folks in Corporate took the lead to start
18 putting together a matrix to address all the
19 observations in there.
20 So what I got was a three-ring binder. It
21 had the report in it, and then it had the matrix that
22 SCANA had started putting together to address all the
23 things that they pointed out in there as to either
24 here's what's already being done on that issue.
25 In some cases, it was this issue is no

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1 longer valid because we've negotiated a fixed-price
2 option with the consortium, so that reduces the risk
3 here. In some cases, this is no longer valid because
4 there's not infighting between two consortium members
5 because it's down to one person or one entity, which
6 is Westinghouse that holds the contract.
7 That's -- so we were trying to disposition
8 all their findings, and that had already been
9 partially completed out when I saw it.
10 Q. And sitting here today, do you recall what
11 steps SCE&G took to implement the conclusions from
12 the Bechtel project assessment?
13 MR. CHALLY: Object to form.
14 THE WITNESS: Well, again, for a number of
15 the observations, conclusions, whatever they
16 had, there was really no action required because
17 it was either already something ongoing, or it
18 had been negated by Westinghouse purchasing
19 Stone & Webster from CB&I and that sort of
20 thing.
21 The other comment I would make on their
22 recommendations and observations is they came in
23 over a six- or seven-week period, and the
24 majority of what was in the report was known to
25 us already. The term I use is they came in and

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1 circled the bullet holes.
2 They really didn't provide any "Here's
3 what you need to do different. Here's our
4 advice to you." It was "Here's a problem."
5 So in my opinion, the report provided
6 little value to us.
7 BY MR. COX:
8 Q. And I appreciate that answer. And I
9 appreciate that there were some recommendations from
10 Bechtel that you felt were kind of moot, no longer
11 needed to be addressed. And we can certainly set
12 those aside.
13 I want to focus only on the
14 recommendations that you and your organization felt
15 could still be addressed.
16 And specifically, I'm asking what steps
17 you recall were taken by SCE&G to address
18 recommendations from the Bechtel project assessment.
19 A. Right. So we had the matrix that, again,
20 when I first saw the report, the matrix had already
21 been partially completed by legal. And I think Kyle
22 Young had contributed to some of the initial
23 responses on that.
24 To the best of my recollection, we
25 finished that event or evaluation of the report.

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1 Those things that we thought demanded some further
2 action, I think it was notated in that matrix.
3 And as far as I know, we took steps to do
4 whatever it was that was -- would help improve that.
5 But if you're asking for the specifics, I don't know
6 those right offhand.
7 Q. Okay. But to your recollection, that was
8 documented on a matrix-type document?
9 A. That's my memory of it is, yeah, it was a
10 document. We used that standard matrix to document
11 what our evaluation was of what they saw and then
12 whether there was an action required.
13 Q. Are you familiar with the term "CORB"?
14 A. Yes.
15 Q. What does that stand for?
16 A. Construction Oversight Review Board.
17 Q. Was that a step that was taken in response
18 to the Bechtel assessment?
19 A. So the first CORB meeting happened
20 sometime in the summer of 2016. The Bechtel report,
21 again, was finished earlier on in 2016.
22 I think that the CORB, we had been
23 discussing a CORB even prior to Bechtel coming in.
24 We may have put that in as one of the corrective
25 actions also, based on some observation that Bechtel

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1 made. I can't remember.
2 Q. Was the CORB effective at improving
3 progress?
4 A. We didn't have a lot of run time on the
5 CORB before the project -- well, before Westinghouse
6 declared bankruptcy, basically. The CORB, we had
7 gotten some good folks on there that I think were
8 starting to ramp up in their observations and maybe
9 insights.
10 I think we had -- if my memory serves me
11 right, we had two CORB meetings before Westinghouse
12 declared bankruptcy. And out of those meetings, the
13 CORB would summarize what their recommendations were,
14 and then we would take those and disposition them.
15 There were some actions that came out of
16 that. I can't recall what they are, but we did
17 document those. They probably went into our
18 corrective action program. But it was a very short
19 time frame that the CORB was able to provide us some
20 feedback because, again, Westinghouse going bankrupt
21 kind of changed the whole game.
22 Q. If you could look at page 8 of Exhibit 9,
23 this is a page labeled "Conclusions and Results."
24 And the first bullet point under that
25 section states that: "Bechtel's assessment, based on

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1 certain assumptions, is that the Unit 2 and Unit 3
2 commercial operation dates will extend as follows:
3 For Unit 2, the current COD is June 2019. New COD is
4 December 2020 to August 2021. Unit 3 current COD is
5 June 2020. New COD is June 2022 to June 2023."
6 Did I read that correctly?
7 A. Uh-huh.
8 Q. Is that information that you knew when you
9 were working on the project?
10 A. No. I never saw this, this report. And I
11 never saw the schedule that Bechtel -- summary
12 schedule, whatever that other stuff is here, that
13 they had put together.
14 Q. Does it surprise you that you weren't
15 informed that Bechtel had assessed the schedule to
16 have an 18- to 24-month adjustment on the commercial
17 operation dates that the current schedule had
18 predicted?
19 A. Well, I wasn't -- again, I never received
20 this. So, in retrospect, was I surprised? I'm not
21 sure "surprised" is the right characteristic. Maybe
22 just a little confused as to maybe why I didn't see
23 it.
24 Q. Do you feel like it's something that, in
25 your role, you should have been able to have been

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1 informed about?
2 A. Not necessarily because, again, I don't
3 know -- it -- I find it hard to believe that Bechtel,
4 in the short amount of time they were on site, was
5 able to come in and redo a schedule. So that would
6 have been my feeling at that time.
7 And then that's further supported by me
8 knowing what we went through once Westinghouse
9 declared bankruptcy. And then we put our own team
10 together, drawing on Westinghouse and Fluor
11 resources, who were very cooperative postbankruptcy,
12 in bringing other outside experts in.
13 We had a large team of probably 20
14 full-time people plus lots of other folks pulled in
15 over the period of months to come up with what we
16 felt was an accurate schedule and estimate to
17 completion.
18 Q. And your estimate was very close to
19 Bechtel's, wasn't it?
20 A. It actually went farther out than
21 Bechtel's.
22 Q. Bechtel's estimate was closer to SCE&G's
23 estimate than the consortium's estimate was, correct?
24 A. Right. But, again, if -- I don't know,
25 and so I'm not trying to cast a stone at Bechtel -- I

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1 don't know what level of due diligence they went
2 through in developing their estimate.
3 Q. My point is, based on the work that you
4 and your team performed in 2017, Bechtel's assessment
5 was closer to being accurate than the consortium's
6 estimate, wasn't it?
7 A. Meaning Bechtel didn't project it being
8 completed quicker than the consortium, yes. Is that
9 what you're asking?
10 Q. Let me put it this way: You believe that
11 the work that your team did in 2017 was a better
12 estimate of the schedule to complete the project than
13 the schedule that was in place from the consortium at
14 that time, correct?
15 A. Postbankruptcy, the work that we did was
16 based on an intensive effort on our part to look at
17 all the assumptions Westinghouse had made that we
18 weren't able to see before; bring in some industry
19 experts to help us with unit rates that were more --
20 in some cases more reasonable for a project of this
21 complexity and that sort of thing. Yes, ours was
22 better.
23 Q. And with that knowledge you had in 2017,
24 looking now at the Bechtel schedule assessment, the
25 Bechtel assessment was closer to being accurate than

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1 Westinghouse's, correct?
2 MR. CHALLY: Object.
3 MR. MITCHELL: Objection.
4 THE WITNESS: Closer to being accurate?
5 If you mean it came -- it coincidentally
6 ended up being between Westinghouse's estimate
7 and then the estimate we developed
8 postbankruptcy, yes, it was in between those
9 two.
10 BY MR. COX:
11 Q. Would you think that Bechtel's assessment
12 was a more accurate assessment of the schedule to
13 complete the project than the schedule that the
14 consortium had?
15 MR. CHALLY: Objection.
16 MR. MITCHELL: Objection.
17 THE WITNESS: I don't know that because,
18 again, if I was Bechtel and coming in and trying
19 to do a job -- and the fact that I know Bechtel
20 was only there for five, six weeks, whatever it
21 was -- there's no way they could have put
22 together a schedule with any more level of
23 accuracy or basis than what was already in
24 place.
25

1 BY MR. COX:
2 Q. I'm not referring to their motive. I'm
3 referring to their results.
4 A. Again, I don't -- I don't have any -- you
5 know, you can guess something and then back-fit to
6 help support that. I don't know what level of rigor
7 they went through. I'm just saying knowing what we
8 had to go through to get to the confidence level on
9 the schedule that we got by the end of our
10 evaluation, Bechtel couldn't have done it in the
11 short amount of time they were on site.
12 Q. The schedule that you and your team worked
13 on in 2017, was that schedule an estimate of the
14 earliest that the project could be completed, or the
15 most likely date that the project would be completed?
16 A. The most likely date. I think we -- we
17 worked towards a 90 percent confidence schedule,
18 which is highly accurate.
19 Q. Do you know if the consortium was using
20 that type of accuracy level?
21 A. I don't know. Yeah. And that's not to
22 say 90 percent is right. We pushed it to the extreme
23 to get to 90 percent.
24 You can make just as good a case, I think,
25 on a large project that will -- 90 percent, maybe, is

1 too high to shoot for, that maybe you would want to
2 shoot for 75 percent or whatever. There's --
3 there's, again, another one of those things where
4 there's lots of opinions out there and not
5 necessarily that someone's right and someone's wrong.
6 It's just different ways of thinking.
7 Q. Give me one moment, Mr. Jones. I think
8 I'm almost complete.
9 A. Promise?
10 Q. I do.
11 A. Okay.
12 Q. Did you ever receive any directions during
13 your time on the project not to share certain
14 information with the ORS?
15 A. I can't ever recall directly getting that
16 type of request or order or whatever you want to call
17 it, no.
18 Q. Were there any discussions about the
19 correct level of information to provide to the ORS?
20 A. I think we were pretty open with the ORS
21 in a couple different ways, one with site access.
22 They were free to come -- they had a monthly visit,
23 but they were free to come on site any time they
24 wanted.
25 And, in fact, during the latter stages of

1 the project, one of the contractors of the ORS
2 typically spent -- this is Gene, I can't remember
3 Gene's last name -- spent typically at least three
4 days on site every week.
5 So I don't think we ever pushed back on
6 ORS about, "You're spending too much time on site,"
7 or anything like that. We were willing to
8 accommodate any request they had.
9 As far as information, I think we wanted
10 to control information, so we had a reading room for
11 them, put pretty much in there everything that they
12 requested. So it was -- it was -- I think we had a
13 pretty open relationship with the ORS.
14 Q. Did you ever inform the ORS that Bechtel
15 was conducting an assessment of the project?
16 A. I don't think I personally ever informed
17 them of that.
18 Q. Are you aware of whether the ORS was aware
19 of the Bechtel assessment occurring?
20 MR. CHALLY: Object to form.
21 THE WITNESS: So from reading Gary Jones's
22 testimony, I do know that at least from Gary's
23 perspective, he states that his first awareness
24 was when someone with a Bechtel hat stood up in
25 the construction consortium's plan-of-the-day

1 meeting and said, "Thank you for your
2 cooperation."
3 Whether they had been informed prior to
4 that or not about Bechtel, I don't -- I don't
5 know.
6 BY MR. COX:
7 Q. So you had no information on ORS's
8 knowledge of the Bechtel assessment other than
9 reviewing Gary Jones's deposition?
10 A. That's correct.
11 Q. Did Fluor provide an assessment of the
12 project after it took over becoming a member of the
13 consortium?
14 A. So, again, I don't know --
15 MR. MITCHELL: Objection.
16 THE WITNESS: -- all the details.
17 Sorry.
18 I don't know all the details, but when
19 Fluor came on board, they had some agreement
20 with Westinghouse that they would be able to
21 perform some assessment of the project. They
22 really couldn't do that to any great extent
23 until they walked in the door, you know. Until
24 Westinghouse acquired Stone & Webster, which
25 happened at the end of the year, they couldn't

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1 come on site.
2 I don't know the nature -- or I don't
3 remember, even if I did know, the nature of what
4 exactly Westinghouse agreed that they could do
5 or what information Westinghouse would or
6 wouldn't provide them or anything like that.
7 But I did have some knowledge that Fluor
8 was doing an assessment. That didn't really
9 involve us or our team, and I don't know when
10 they -- which day they started on it and whether
11 they ever got to the point where they finished
12 on it.
13 BY MR. COX:
14 Q. Your compensation when you were on the
15 project, can you describe how your compensation was
16 structured?
17 A. I received a base salary, and then there
18 was a short-term incentive and then a long-term
19 incentive.
20 Q. Did you always receive the incentive
21 bonuses for which you were eligible?
22 A. Some portion of them, at least, yes.
23 Q. Was there ever a portion of them that you
24 did not receive?
25 A. There was, but I'd have to go back and

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1 look at -- I don't even think I've got records that
2 would show which years I did or didn't receive
3 100 percent of each.
4 Q. It's your recollection that there were
5 some years where you only received a certain
6 percentage of the short-term or long-term bonus?
7 A. At least one or more years. I can't
8 remember. The goals would change each year. So
9 there was at least one year in there, maybe more,
10 where I didn't receive all or one or both. I don't
11 remember.
12 Q. The agreement, the consulting agreement
13 that you have with SCANA now, does it have any
14 provisions in it other than your compensation and the
15 work that you could be asked to perform under the
16 agreement?
17 MR. MITCHELL: Objection.
18 THE WITNESS: Other provisions such as?
19 BY MR. COX:
20 Q. Are you required -- are there any other
21 requirements on you beyond being available to do
22 work?
23 A. Well, there's a confidentiality clause in
24 there, for example, some other standard legalese that
25 you'd have in a consulting contract, but nothing

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1 exceptional beyond -- beyond that, no.
2 Q. Does it prohibit you from talking to or
3 talking about the project other than in a legal
4 proceeding?
5 A. No.
6 MR. COX: I have no further questions.
7 Thank you, Mr. Jones.
8 THE WITNESS: Okay.
9 MR. ALPHIN: Let's take a break.
10 VIDEOGRAPHER: Off record at 2:11 p.m.
11 (A luncheon recess transpired from
12 2:11 p.m. until 3:20 p.m.)
13 VIDEOGRAPHER: On record at 3:20 p.m.
14 EXAMINATION
15 BY MR. ALPHIN:
16 Q. Good morning -- or good afternoon,
17 Mr. Jones. My name is John Alphin. I'm a lawyer at
18 the Strom Law Firm. I'm here on behalf of the
19 customer plaintiffs.
20 Our South Carolina rules require that I go
21 of over kind of the background and basis of our
22 deposition today and our ground rules.
23 And so I'll be asking the questions. If
24 there's a question that you don't understand, I ask
25 you to direct that to me and not to your attorneys.

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1 Do you understand that?
2 A. Yes.
3 Q. If, for some reason, you don't understand
4 the question that I'm asking, can we agree that
5 you'll let me know that you don't understand the
6 question, and I'll try my best to rephrase it or
7 repeat it. Is that fair?
8 A. That's fair. I'll do that.
9 Q. If you can, try to use verbal responses
10 because that's the only way our court reporter can
11 take them down. Is that fair?
12 A. Yes.
13 Q. We've already noted, if you need a break,
14 just tell us. We'll be happy to do that.
15 A. Right.
16 Q. Do you understand these instructions?
17 A. I do.
18 Q. You're testifying under oath just as if in
19 front -- just as if you were testifying in front of a
20 judge. Do you understand that?
21 A. I do.
22 Q. Okay. Other than today, have you ever
23 given a deposition?
24 A. No.
25 Q. Okay. Have you ever given testimony under

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1 oath?
2 A. I have.
3 Q. How many occasions?
4 A. Probably three prior occasions, prior to
5 working for SCANA.
6 Q. Okay. Were those while you were at Duke?
7 A. Correct.
8 Q. And were those all to the PSC?
9 A. They were.
10 Q. Okay. While at SCANA, how many times have
11 you given sworn testimony?
12 A. Once.
13 Q. And that was in 2015?
14 A. That's correct.
15 Q. Okay. Who were you employed by?
16 A. Who --
17 Q. Were you employed by while you were on the
18 V.C. Summer project?
19 A. I was employed by SCANA.
20 Q. SCANA Services?
21 A. South Carolina Electric & Gas.
22 Q. On your paycheck, who did it actually say
23 it was coming from? Was it South Carolina Electric &
24 Gas, SCANA Services, or SCANA?
25 A. I believe it was South Carolina Electric &

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1 Gas, but with electronic paychecks, honestly, I never
2 really looked.
3 Q. Okay. So sitting here today, you cannot
4 tell me if you were employed by SCANA Services?
5 MR. CHALLY: Object to form.
6 THE WITNESS: I don't believe I was
7 employed by SCANA Services. I believe it was
8 SCE&G.
9 BY MR. ALPHIN:
10 Q. Okay. Without revealing what you talked
11 about with your lawyer, what did you do to prepare
12 for your deposition today?
13 A. Had meetings with my lawyers and reviewed,
14 as I identified earlier, Gary Jones's testimony, most
15 recently from a week or two ago, my testimony in the
16 2015 proceedings, and Carlette Walker's testimony in
17 the 2015 proceedings.
18 Q. Approximately how many hours did you spend
19 preparing for your deposition today?
20 A. In reviewing material or total time?
21 Q. Total time, please, sir.
22 A. Somewhere between 15 to 20 hours.
23 Q. Okay. Do you feel that you're
24 sufficiently prepared for your deposition today?
25 A. Yes.

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1 Q. Okay. Other than your attorneys, did you
2 speak to anyone about your deposition today?
3 A. No.
4 Q. Okay.
5 A. Well, my wife, that I was going to be
6 deposed today.
7 Q. No worries.
8 Were you provided deposition transcripts
9 from any of the prior depositions in this matter?
10 A. Just from Gary Jones.
11 Q. Okay. Did you review, other than the
12 documents you talked about before, any documents
13 prior to your deposition today?
14 A. No.
15 Q. Okay. So just those three documents?
16 A. Correct.
17 Q. Okay. Have you reviewed the complaints in
18 this litigation?
19 A. Other than what's been in the media, no.
20 Q. Okay. What have you seen in the media?
21 A. That there are a number of issues, both
22 from ORS, PSC, State perspective, civil claimants,
23 that sort of thing, but I honestly haven't kept track
24 of the numbers of them or the details of them.
25 Q. Have you seen any articles in the State

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1 newspaper or in the Post and Courier related to the
2 V.C. Summer project?
3 A. I have.
4 Q. Which ones have you seen specifically?
5 A. Well, since I left SCANA, that's been my
6 prime source of information as to what was going on
7 with postcancellation of the project issues. So I
8 don't monitor those on a daily basis, but about once
9 a week, I might go back and search just to see if --
10 what may have popped up under SCANA's name.
11 Q. Did you see an article that had with it
12 Carlette Walker's voice mail?
13 A. I did.
14 Q. Did you listen to the voice mail?
15 A. I did.
16 Q. Were those concerns that you had heard
17 prior to hearing that voice mail?
18 A. No.
19 Q. Okay. At any point, were you asked to
20 retain documents or turn over documents as part of
21 this litigation?
22 MR. CHALLY: Object to form.
23 THE WITNESS: I was not asked to retain
24 documents. In fact, the instructions I was
25 given, along with the other folks that were laid

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1 off from the project, was to leave -- other than
2 taking personal effects out of your office,
3 leave everything else in your office.
4 BY MR. ALPHIN:
5 Q. So they were left in your office, but they
6 could have been retained by SCANA?
7 A. I don't know what disposition came from
8 those afterwards.
9 Q. When was the last day you were actually at
10 the plant?
11 A. It would have been the last day of August,
12 last working day of August.
13 Q. So from July 31st to August 31st, you
14 stayed at the plant?
15 A. That's correct.
16 Q. And your documents were still at the
17 plant?
18 A. Correct.
19 Q. Do you know what day this litigation was
20 filed?
21 A. No, I don't.
22 Q. You testified earlier that you have a
23 degree in engineering from Virginia Tech; is that
24 correct?
25 A. Correct.

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1 Q. Do you have any other degrees or advanced
2 degrees?
3 A. No.
4 Q. Are you a PE?
5 A. No.
6 Q. In your testimony in 2015, you said you
7 were providing expert testimony; is that correct?
8 A. Correct.
9 Q. What area do you feel that you were an
10 expert in?
11 A. I think by virtue of my experience in the
12 industry over the past, including SCANA, 38 years. I
13 have experience in operating plants. I have
14 experience in construction of plants. I have
15 experience in major modifications and maintenance to
16 plants. I have experience in leading a seven-unit
17 nuclear fleet.
18 And I have had experience prior to working
19 with SCANA in the -- a year of new plant development
20 and then, of course, five years of experience while
21 at SCANA.
22 Q. Other than in your 2015 testimony with the
23 PSC, have you ever provided expert testimony in any
24 case?
25 A. No.

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1 Q. As part of your consulting work now, are
2 you retained to provide expert testimony?
3 A. No.
4 Q. Okay. Have you ever done any work, other
5 than for SCANA, as it relates to consulting?
6 A. Yes.
7 Q. Who else have you done consulting work
8 for?
9 A. I prefer not to divulge that.
10 Q. All right. Have you done consulting work
11 for Dominion?
12 A. No.
13 Q. Okay. As it relates to the V.C. Summer
14 project, what were your specific duties and
15 responsibilities related to the build?
16 A. So, again, two phases to my
17 responsibilities. One would be oversight of the
18 actual construction of the units, oversight of
19 construction including licensing actions,
20 engineering, physical plant construction, component
21 procurement and all procurement activities,
22 et cetera.
23 And then the other major part of my job
24 was building the organization, operate and maintain
25 the plant, which meant staffing up from a very small

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1 number of folks when I first got to SCANA in
2 mid-2012, increasing from about 100 to over 500 by
3 the time the project was canceled.
4 Q. Okay. Did your position include providing
5 truthful information to the public while at SCANA?
6 MR. CHALLY: Object to form.
7 BY MR. ALPHIN:
8 Q. Let me rephrase, please.
9 Did your position at SCANA include
10 providing truthful information to the public,
11 including its customers?
12 MR. CHALLY: Same objection.
13 THE WITNESS: So I did not provide
14 information from a quarterly earnings
15 perspective, things like that.
16 We did have opportunities to interface
17 with the viewing public as being wide open. To
18 interface with members of the public, people
19 that we gave plant tours to, folks that maybe
20 came on site for, you know, I think, like, a
21 career day or something like that.
22 So, yeah, I had opportunity to interface
23 with the public in my role as a -- as the VP.
24 BY MR. ALPHIN:
25 Q. And you felt it was important to provide

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1 truthful information to those people, did you not?
2 MR. CHALLY: Objection.
3 THE WITNESS: That's correct.
4 BY MR. ALPHIN:
5 Q. And that included the media, correct?
6 MR. CHALLY: Same objection.
7 THE WITNESS: That's correct.
8 BY MR. ALPHIN:
9 Q. Okay. Would you agree with me that
10 providing information that is misleading is not
11 truthful?
12 A. I would agree with that.
13 Q. Would you agree with me that not providing
14 relevant information can be misleading and not
15 truthful?
16 MR. CHALLY: Object to form.
17 MR. MITCHELL: Objection.
18 THE WITNESS: Can you -- can you rephrase
19 the question?
20 BY MR. ALPHIN:
21 Q. I'll be happy to.
22 A. Okay.
23 Q. You had just testified that providing
24 misleading information is not truthful, correct?
25 A. That's correct.

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1 Q. Okay. So my next question is: If you
2 don't provide -- if you don't disclose relevant
3 information, can that be misleading?
4 MR. CHALLY: Object to form.
5 THE WITNESS: I guess I'd have to ask for
6 your definition of "relevant."
7 BY MR. ALPHIN:
8 Q. In your words, not mine. Just whatever
9 you view as relevant.
10 If you don't provide relevant information,
11 can that lead to it being misleading?
12 MR. CHALLY: Object to form.
13 MR. MITCHELL: Same.
14 THE WITNESS: I'm not sure I know how to
15 answer it unless you further define "relevant."
16 BY MR. ALPHIN:
17 Q. Okay. I'll come back to that.
18 I'm going to go through some people that
19 were out at the V.C. Summer plant and at SCANA, and
20 I'm just going to ask you who they are and did you
21 report to them or did you have interaction with them
22 and then ask you about their duties and
23 responsibilities. Is that fair?
24 A. Sure.
25 Q. Who is Kevin Marsh?

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1 A. Kevin Marsh was the chairman and CEO of
2 SCANA during the time frame I was there.
3 Q. Did you report to him?
4 A. Not directly.
5 Q. Indirectly?
6 A. Indirectly.
7 Q. And you were in meetings with him; is that
8 correct?
9 A. Correct.
10 Q. On how many occasions do you think you met
11 with Mr. Marsh while you were at the V.C. Summer
12 project?
13 A. Trying to think of all the opportunities
14 throughout a typical year.
15 I would say at least 20 or more.
16 Q. And on those occasions, did you provide
17 him updates on what was going on at the plant?
18 A. During some of those occasions, including
19 those officer team meetings, for example, things like
20 that.
21 Q. And there were executive team meetings; is
22 that correct?
23 A. Executive team meetings also, yes, status
24 meetings.
25 Q. You participated in executive team

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1 meetings, correct?
2 A. It was a executive steering team quarterly
3 meeting that we held and -- with Kevin as the
4 audience along with Lonnie Carter from Santee Cooper.
5 Q. What other high-level meetings were there
6 on a regular basis while you were running the
7 V.C. Summer plant?
8 A. Again, there was an executive steering
9 committee meeting that happened quarterly. There
10 were presidents' meetings, which I participated in
11 some of those. These were meetings between --
12 designed for Kevin Marsh, Lonnie Carter, and then the
13 presidents from the -- from Westinghouse and the
14 constructor at that time to meet periodically to
15 discuss the project. On occasion, I would be called
16 on to make a presentation at those meetings.
17 The scope of what you were looking for was
18 executive-level meetings?
19 Q. Yes, sir.
20 A. Trying to think what else. Again, in
21 officer team meetings, I provided periodic updates on
22 the project in officer team meetings that Kevin
23 was -- led.
24 Q. Did you ever have an opportunity to brief
25 the board of directors on any of the goings-on at the

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1 project?
2 A. No.
3 Q. Did you provide that information to
4 Mr. Marsh so that he could provide it to the board?
5 MR. CHALLY: Object to form.
6 THE WITNESS: I'm just -- most of the
7 time, any information that was requested to go
8 to the board came either directly from Steve
9 Byrne to me or via Jeff Archie to me. I can't
10 think of an example where Kevin directly asked
11 me for information to present.
12 BY MR. ALPHIN:
13 Q. Okay. You mentioned Mr. Byrne. Who is
14 Mr. Byrne?
15 A. So Steve was the chief operating officer
16 for the company, executive VP.
17 Q. Did you report to Mr. Byrne?
18 A. Not directly.
19 Q. Did you have opportunities during your
20 time at SCANA to report to him -- or to meet with
21 him?
22 A. Yes.
23 Q. You met with him on a regular basis?
24 A. Yes.
25 Q. You provided him with updates regarding

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1 the project during your time at SCANA?
2 A. As requested, yes.
3 Q. Okay. Did you provide him information
4 that was later turned over to the board regarding the
5 status of the project?
6 MR. CHALLY: Object to form.
7 THE WITNESS: This one's not a clear yes
8 or no. Steve would ask for information, and
9 sometimes we would know it would be, well,
10 making a presentation to the board of directors
11 or this is something I need for quarterly
12 earnings or whatever.
13 But there were other times that Steve
14 asked for information which may or may not have
15 gone to other folks.
16 BY MR. ALPHIN:
17 Q. Was there a certain type of information
18 that he was usually seeking when was asking for that?
19 A. No. It was a pretty broad range over the
20 year.
21 Q. Can you give me some examples?
22 A. Some information would be as simple as
23 "Okay, I need a picture, physical photograph, of
24 something that I'd like to share in whatever
25 meeting."

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1 Sometimes it would be, "Can you give me
2 the latest updated list of milestones for the
3 project?"
4 So it varied depending on what his needs
5 were.
6 Q. Were you ever asked to provide the status
7 of the project to the executive team?
8 A. By "executive team," who do you mean?
9 Q. I would assume that the executive team
10 would be Mr. Marsh, Mr. Byrne, and Mr. Addison.
11 A. So a session, me presenting to the three
12 of them?
13 Q. Or anyone else that you would consider to
14 be an executive and Mr. Archie, probably, as well.
15 A. Well, again during the executive steering
16 committee -- or steering team meetings that involved
17 Santee Cooper also, we made -- I made presentations
18 along with members of my team.
19 Q. Who was on the executive steering
20 committee?
21 A. Well, Kevin Marsh, Steve Byrne, Lonnie
22 Carter, Michael Crosby. I -- as far as the official
23 members, I think that encompasses the official
24 members. There were a number of other folks that
25 attended.

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1 But I don't know that Jeff Archie was an
2 official member of that team or not, but Jeff, of
3 course, was there.
4 Santee Cooper would typically have Marion
5 Cherry, who we spoke of earlier, or maybe someone
6 else from Santee there.
7 And from my side was typically all my
8 direct reports. Carlette Walker would be there.
9 Legal would be there most of those meetings. I think
10 that about covers it.
11 Q. Did Mr. Addison attend those meetings?
12 A. No.
13 Q. Okay. Who is Jeff Archie?
14 A. He's the chief nuclear officer.
15 Q. And what were his specific
16 responsibilities and duties as it related to the
17 V.C. Summer project?
18 A. I reported directly to Jeff. Jeff
19 reported directly to Steve Byrne. Jeff was also
20 responsible for Unit 1, the operating unit.
21 Q. Have you spoken to him since you left the
22 project?
23 A. I have.
24 Q. What was your -- subjects of your con- --
25 was there anything related to the project during your

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1 conversations with him?
2 A. No. I probably -- since I left at the end
3 of August last year, I've probably spoken to Jeff
4 three times, and all of those prior to February of
5 this year, best I can remember.
6 Q. And did any of those have to do with what
7 was going on at the plant at the time?
8 A. No. Most of those conversations were more
9 centered on personal. How are things going? How's
10 family? Stuff like that.
11 Q. Who is Abney Smith?
12 A. That's Skip Smith. He's the business and
13 finance manager that reported to me.
14 Q. And what was his role?
15 A. So Skip's role and the role of Carlette
16 Walker's organization, the finance organization that
17 reported to Corporate, were frequently intermingled
18 in that they shared a lot of responsibilities back
19 and forth, but they were focused on the business
20 aspects of the project: The payments, billings,
21 progress payments, things like that.
22 Q. But he reported directly to you; is that
23 correct?
24 A. He did.
25 Q. Okay. Who is Alan Torres?

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1 A. Alan Torres is the general manager of
2 construction that reported directly to me.
3 Q. What was his role?
4 A. So Alan and his organization were
5 responsible for the day-to-day oversight of
6 activities on site, both from participating in
7 plan-of-the-day meetings with consortium leadership
8 to his folks being out in the field actually laying
9 eyes on work in progress to being involved in issues
10 as they popped up in trying to understand those
11 issues.
12 And Alan also had responsibility for
13 residents that we placed at some of the fabricators
14 to monitor progress for, in most cases, module
15 fabrication that were located in different areas.
16 Q. You mentioned the various sites and that
17 you-all had monitors -- or that SCANA had monitors in
18 place. Do you know approximately what time period
19 those monitors went into place?
20 A. I believe Lake Charles, Louisiana was the
21 first one that we placed a full-time monitor at. And
22 my guess, it would be 2013 or 2014 that we first
23 placed a full-time monitor there.
24 Now, prior to having full-time monitors,
25 not only for those facilities that we placed them at,

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1 we would send folks out to periodically inspect
2 whether it was a quality audit or management
3 inspection or just Alan sending a team out to take a
4 look at what was going on at different fabricators,
5 component manufacturers.
6 Q. What part of the plant was coming from
7 Lake Charles, Louisiana?
8 A. Structural modules.
9 Q. And was that one of the main critical
10 paths in the plan to getting the plant complete?
11 A. Yes.
12 Q. And when did you first become aware of
13 issues with the structural modules coming out of
14 Lake Charles?
15 A. I had awareness of issues with
16 Lake Charles prior to even working with SCANA. Since
17 I did nuclear development for Duke, during my last
18 year there through 2011, I became aware of some of
19 the start-up problems they were having at that
20 facility.
21 Q. So they began doing work in 2010 or 2011.
22 Is that your best understanding?
23 A. They actually -- well, they began doing
24 work as far as setting up the facility. I don't know
25 exactly when that started. It may have been as early

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1 as 2009 or even 2008 that they started doing that.
2 They didn't go into fabrication mode, though, until
3 sometime in 2011 if I'm remembering correctly.
4 Q. Okay. And you became aware of issues that
5 they were having in 2011; is that correct?
6 A. During my previous role at Duke.
7 Q. Okay. Do you know if -- based on your
8 experience at SCANA, do you know if SCANA had that
9 same knowledge?
10 A. I feel -- I know they did. Again, during
11 my final year at Duke, I chaired the APOG working
12 group between the five different utilities that were
13 either committed to build or interested in building
14 the AP1000 design. So there was a lot of information
15 shared back and forth, and SCANA was well aware of
16 the challenges that Lake Charles was having in
17 starting up.
18 Q. But even with those issues ongoing, it was
19 another two or three years before SCANA put a
20 full-time employee on the ground to monitor what was
21 going on at Lake Charles?
22 A. It may have been that long. Again, I
23 don't remember the exact date.
24 Q. Okay. You mentioned "APOG."
25 What is that?

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A. It's the AP1000 owners group.
Q. Okay. Did you all have meetings as it related to those?
A. We did.
Q. Do you know if minutes of those meetings were kept?
A. Not so much minutes of the meetings, but for each of the different functional committees under APOG, we basically used, like, a four-box chart that would chart issues, resolutions, open items, things like that.
Q. How often did the APOG group meet?
A. We met every four to six weeks, and then the subcommittees would have meetings in between.
Q. And for how long did these meetings every four to six weeks take place?
A. Are you asking me the duration of each meeting?
Q. No, sir. I was asking how long did APOG exist?
A. Oh, how long did it exist? So APOG was created prior to me moving into nuclear development at Duke. So I think it was around the 2009 time frame, and APOG continued to exist up until the project cancellation.

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Q. And where would the records of that APOG group be held?
MR. MITCHELL: Objection.
THE WITNESS: I don't know.
BY MR. ALPHIN:
Q. Do you know who houses those documents?
A. I don't.
Q. Okay. Where did those meetings take place?
A. They took place -- each of the utilities would sponsor a meeting, so it would take place -- usually, if it was Vogtle or V.C. Summer, it would take place at the actual sites. The other three utilities, of course, weren't building at the time, so it would be typically in or near their corporate offices.
Q. Was most of the coordination for these meetings done through e-mail?
A. Yes.
Q. And did you use your e-mail through SCANA to coordinate those meetings?
A. Well, I need to clarify. I was the chair of APOG when I was with Duke. I did not chair APOG once I came to SCANA.
Q. Did you use your Duke e-mail when you were

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the chair of APOG?
A. Yes.
Q. Okay. While you were at SCANA, did you also send e-mails related to APOG through your SCANA e-mail account?
A. Yes.
Q. We mentioned earlier Ken Browne, but did he report to you?
A. No, not directly. He reported to Skip Smith.
Q. Okay. And Skip Smith reported to you?
A. Correct.
Q. So he was an indirect report?
A. Correct.
Q. But you still supervised his work; is that correct?
A. Skip Smith directly supervised his work. I was aware of products that he would develop that Skip would share with me. I was aware of Skip's performance evaluation of Ken.
Q. Okay. And what were Ken's duties and responsibilities at the V.C. Summer project?
A. So, again, Skip was part of the business and finance area, and those functions were shared between Skip's group and then Carlette Walker and her

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group. I can't exactly list what Ken's responsibilities were.
Q. Was Ken someone whose opinion you valued?
MR. CHALLY: Object to form.
THE WITNESS: I think Ken was an intelligent person and was free to express his opinion and did so. I value all folks' opinions.
The whole culture that we built in that organization at SCANA and then I had built in previous organizations at Duke was to be very open, honest, share your thoughts, share your opinions, there's no wrong answer kind of thing.
BY MR. ALPHIN:
Q. So you can make sure you had the best available information in making decisions?
A. Correct.
Q. Who is Kevin Kochems?
A. Kevin Kochems worked for Carlette.
Q. Did he report to you in any way?
A. No.
Q. Did you have any knowledge of his work product?
A. I did. Similar to Ken Browne, I would have meetings with the business finance folks

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1 periodically and had an opportunity to see, really,
2 all those folks perform their jobs.
3 Q. And they were good at what they did?
4 A. I felt they were good at what they did.
5 Q. Who is Kyle Young?
6 A. Kyle Young was our manager of
7 construction. He reported to Alan Torres, general
8 manager of construction, who reported to me.
9 Q. Do you know if Kyle is still with SCANA?
10 A. I believe he is. I don't know that for
11 sure. Kyle was staying and helping lead the
12 continued demobilization efforts.
13 Q. You mentioned Roosevelt Ward earlier; is
14 that correct?
15 A. Roosevelt Word, W-O-R-D.
16 Q. Word. Sorry. Who is Mr. Word?
17 A. He was the manager of the performance
18 improvement group.
19 Q. And what is the "performance improvement
20 group"?
21 A. So under his group would be what is called
22 the Corrective Action Program. All nuclear --
23 commercial nuclear facilities have a corrective
24 action program that is used to document -- anyone can
25 initiate a corrective action issue or report.

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1 It's a process for addressing those
2 issues, you know, deciding resolutions to them,
3 closing those issues out.
4 It's a very important part of a good
5 nuclear safety culture for both an operating plant
6 and a plant under construction.
7 Q. Do you have any awareness of any of the
8 other engineers on Alan Torres's or Kyle Young's
9 teams?
10 A. Any --
11 Q. Of the engineers that work for them?
12 A. I'm not sure what you mean by "awareness."
13 Q. Do you know their names, what they do?
14 A. Oh, yes.
15 Q. Can you give me some of those people's
16 names?
17 A. For Alan or Kyle's team?
18 Q. Both. Yes, sir.
19 A. Geez. I have to dig through my memory
20 banks now.
21 So Ryder Thompson was one. Jason -- I
22 can't remember his last name offhand. I'd have to
23 search my memory banks. I'm sorry.
24 Q. That's fine. We will come back to that
25 before the end of the depo.

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1 A. Okay.
2 Q. From August of 2012 to July of 2017, who
3 was the most knowledgeable person that SCANA related
4 to the new nuclear development?
5 MR. MITCHELL: Objection.
6 MR. CHALLY: Same.
7 THE WITNESS: I'm not -- I guess I'd have
8 to ask you to help me understand what you mean
9 by "most knowledgeable." That's a pretty broad
10 area you're talking about.
11 BY MR. ALPHIN:
12 Q. Who is the person that was -- if you had
13 one person to choose as to what is going on at the
14 plant, who would that person be to get the most
15 information out of?
16 MR. MITCHELL: Objection.
17 MR. CHALLY: Object to form.
18 THE WITNESS: I think there was a -- a
19 number of folks you could draw on for that. We
20 shared information back and forth freely within
21 my organization.
22 So for general construction status, there
23 was a couple folks we already talked about,
24 Alan, Kyle. There's myself. And there's many
25 other folks that could give valid information on

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1 any of the issues.
2 BY MR. ALPHIN:
3 Q. Did you have one person that you
4 considered as the go-to person?
5 A. For?
6 Q. Construction.
7 A. Well, Alan was the general manager of
8 construction. So, yes, he was the person I primarily
9 held accountable for knowing the status of what was
10 going on on the site.
11 Q. Okay. Prior to 2017, were you involved in
12 any conversations including e-mails regarding
13 abandonment?
14 A. No.
15 Q. Okay. When did you first become aware of
16 abandonment?
17 MR. CHALLY: Object to form.
18 You mean the intention to abandon?
19 MR. ALPHIN: Yes.
20 THE WITNESS: Post Westinghouse
21 bankruptcy, the potential for abandonment
22 existed without even me being told that.
23 But at some point in there, we started
24 discussing what the cost would be to abandon the
25 project.

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BY MR. ALPHIN:
Q. Do you know if any discussions regarding abandonment took place in 2014 as part of the EAC?
A. I was not party to any discussions, no.
Q. Okay. Do you know who was involved in the selection of the members of the EAC team?
A. Which EAC team are we talking about?
Q. That's a good point. How many different EAC teams have there been?
A. I don't know.
Q. Do you know of any EAC team in 2014?
A. If it's referring to the PowerPoint that was presented as an earlier exhibit, that was -- I think on the title page of that characterizes the EAC team report-out.
Q. Okay. Do you know of any other EAC teams that were assembled while you were at SCANA?
MR. CHALLY: Object to form.
THE WITNESS: None come to mind currently, no.
BY MR. ALPHIN:
Q. Okay. Was an EAC team assembled in 2017 following the Westinghouse bankruptcy?
A. Yes.
Q. Okay. Other than the two we've just

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mentioned, are you aware of any other EACs that were completed either by Westinghouse or by SCANA?
A. Well, the only one that I was not directly aware of, but, again, there was a change in completion dates and costs that -- in the 2012 proceedings, which I was not a part of. That all occurred before I came to SCANA.
Q. When you came on board with SCANA, were monthly EACs being provided from Westinghouse to SCANA?
A. Monthly EACs?
Q. Yes, sir.
A. I don't know.
Q. Okay. Do you know if it was standard operating procedure for the consortium to provide EACs on a regular schedule?
A. I'm trying to think back with all the correspondence we got about the project relating to cost and schedules. There may have been. I just can't say for sure.
Q. Okay. In your role at SCANA, did you review the 2008 EPC?
A. I did a review of it and had it explained to me when I first started with SCANA in 2012.
Q. Okay. And my understanding is there was

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an amendment to the EPC in 2012. Is that your understanding?
A. I can't remember. I'd have to go back and look at the amendments.
Q. Okay. How many different amendments were there, if you know?
A. I cannot remember.
Q. Okay. Was there an amendment done in 2015?
A. So, again -- again, for accuracy, I would have to go back and look at the amendments as to exact dates.
Q. What, if any, role did you play in the amendments of the EPC?
A. I did not write the amendments of the EPC. I would give input into, for example, the amendment that covered the fixed-price option, provided input to our team as we developed what we wanted out of that.
Q. So other than the fixed-price option, were you involved in the negotiations or input as it relates to any of the other amendments?
A. I was involved in some of the other amendments -- amendments to one degree or another, but it wasn't like every time an amendment came up,

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there was a direct role that had to be fulfilled by me.
Q. Was your largest part of involvement in the fixed-price option contract -- amendment?
A. Was -- I'm sorry?
Q. Was your largest involvement in the negotiations of the amendments related to the fixed-price option?
A. I think so because it was a pretty broad, encompassing option.
Q. Have you reviewed the 2009 PSC order?
A. 2009?
MR. CHALLY: Object to form.
BY MR. ALPHIN:
Q. That authorized SCANA to proceed forward with the V.C. Summer project?
A. I don't remember reviewing it in detail. I do remember that I -- I reviewed it to some degree when I worked for Duke.
Again, since I was being assigned a new plant development there and we were looking ahead towards, if we chose to go forward, needing to file with both the North and South Carolina Public Service Commission, but I think that's the only time I ever looked at that.

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Q. Okay. While you were at SCANA, was that a governing document for your moving forward at SCANA?
MR. CHALLY: Objection.
MR. MITCHELL: Objection.
BY MR. ALPHIN:
Q. Let me rephrase that. It was a bad question, and I apologize for that.
While you were at SCANA, was that a governing document in making -- in your decision-making process?
MR. CHALLY: Same objection.
THE WITNESS: I'm not -- I'm not sure what you mean by that. It was certainly a -- something we had to comply with, if that's what you mean.
BY MR. ALPHIN:
Q. To your recollection, based on your review of the 2009 PSC order, did it set forth specific duties and responsibilities for SCANA and/or SCE&G as it related to the V.C. Summer project?
MR. CHALLY: Objection to form.
MR. MITCHELL: Objection.
THE WITNESS: The 2009 order?
BY MR. ALPHIN:
Q. Yes, sir.

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A. Again, I reviewed it briefly when I was at Duke, and I really can't comment on the content of it or my memory of that.
Q. When you came on board at SCANA, that wasn't something that they focused on or briefed you on?
A. Not the specific order, no.
Q. Okay.
A. I was aware of the order and the general commitments in it, but it was not an intense briefing on it, no.
Q. Okay. While you were at SCANA, who was responsible for the construction at V.C. Summer?
MR. CHALLY: Object to form.
THE WITNESS: The consortium was responsible for it. They had made the commitment to us through the EPC to design, procure, construct, and bring to the point of operation two new units.
BY MR. ALPHIN:
Q. Were there any other entities that were responsible for the construction at V.C. Summer?
A. I think SCANA had a responsibility, of course, being the folks that -- that we were the ones that were contracting the consortium through the EPC.

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Q. Okay. Which entity was responsible for quality assurance at V.C. Summer?
A. The --
MR. CHALLY: Object to form.
THE WITNESS: -- the entities for quality assurance were contained within Westinghouse and the constructor. We had responsibility for oversight of their quality assurance program.
BY MR. ALPHIN:
Q. How about who was -- which entity was responsible for quality control at V.C. Summer during the project?
MR. CHALLY: Object to form.
MR. MITCHELL: Same.
THE WITNESS: The consortium was responsible for quality control, ensuring that the program was set up to meet applicable regulatory standards, to cover both construction on site, and fabrication and construction off site of components for the plant.
BY MR. ALPHIN:
Q. Okay. Are you aware if that's what it says in the 2009 order?
A. I don't know what it says in the 2009 order.

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Q. Okay. Who was responsible for overseeing the planning, licensing, design, and engineering services for V.C. Summer project?
MR. MITCHELL: Objection.
MR. CHALLY: Same objection.
THE WITNESS: So your question was for overseeing?
BY MR. ALPHIN:
Q. Yes, sir. Which entity was responsible for overseeing the planning, licensing, design, and engineering services for the V.C. Summer nuclear plant?
MR. MITCHELL: Objection.
THE WITNESS: So my organization was responsible for oversight.
BY MR. ALPHIN:
Q. Okay. Who was responsible for the acquisition, procurement, construction, testing, start-up, and preoperational turnover for the units at the V.C. Summer project?
MR. MITCHELL: Objection.
MR. CHALLY: Object to form.
THE WITNESS: Who was responsible for --
BY MR. ALPHIN:
Q. Yes.

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A. -- performing that? That would be the consortium.
Q. Okay. And who was responsible for the oversight of what in the consortium?
MR. CHALLY: Object to form.
THE WITNESS: Our organization was, SCANA.
BY MR. ALPHIN:
Q. And that was your team, correct?
A. Correct.
Q. Who was responsible for conducting quality assurance and quality control audits?
MR. MITCHELL: Objection.
MR. CHALLY: Object to form.
THE WITNESS: So both Westinghouse and the constructor were responsible for their own QA/QC programs. They had responsibilities from a regulatory perspective to do periodic audits of those. We also did oversight of those programs.
BY MR. ALPHIN:
Q. Okay. And that goes to -- my next question is: Who was -- which entity was responsible for the supervision of the construction?
MR. MITCHELL: Objection.
MR. CHALLY: Object to form.
THE WITNESS: I need you to define

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"supervision of the construction."
BY MR. ALPHIN:
Q. I'm quoting directly from your 2015 testimony. So whatever you meant by it in your 2015 testimony, I'm happy to rely on that.
A. I'd have to go back and see how that's used in my testimony.
Q. Okay. Let's do that.
If you look at Exhibit Number 8 for me, sir? Do you have that?
A. I'm sorry?
Q. Exhibit Number 8. If you'll look at page 30 for me, please, sir.
A. I don't think I've got the exhibits. I have my direct testimony here.
MS. SILVERMAN: Yeah, that is the document he's referring to. That is the Exhibit 8 to your deposition.
THE WITNESS: Okay. So page 30.
BY MR. ALPHIN:
Q. Yes, sir. If you look down at the bottom of page 30, the question that was asked of you in your prefiled testimony was: "Please explain the role of the company's new nuclear development team."
Do you see that, sir?

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A. Uh-huh.
Q. And then you go through all the obligations of SCE&G as it relates to the new nuclear; is that correct?
A. Correct.
Q. And those would be all the items that I just went over with you; is that correct?
A. You didn't cover all of them, but some of those, yes.
Q. But the ones I did ask you about are all covered in this testimony; is that correct?
A. Construction and engineering oversight of the project, QA/QC oversight, both on site and at suppliers' locations worldwide.
Q. And it goes on and on, correct?
A. Uh-huh.
Q. And these are all responsibilities of SCE&G, correct?
A. Correct.
Q. Okay. Did SCANA implement or did SCE&G implement a risk assessment methodology for use at the V.C. Summer project?
A. Yes.
Q. What risk assessment methodology was used at the plant?

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A. I'm not a risk assessment expert. There was a corporate risk assessment function that was used, but I really didn't have firsthand knowledge of that.
Q. And who at SCE&G and/or SCANA would have been the risk assessment person?
A. I don't remember the -- the person that had the lead for that.
Q. Okay.
A. But that came out of Corporate.
Q. When you came on board at SCANA in 2012, was there already a critical path established for Units 2 and 3?
A. Yes.
Q. Do you know when that was established?
A. No.
Q. Do you know who established the critical path?
A. Again, not being there, no.
Q. Okay. Was it ever updated while you were there?
MR. CHALLY: Object to form.
BY MR. ALPHIN:
Q. Was the critical path ever updated while you were at SCANA?

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A. So I guess I have to ask for clarification on what you mean, "Was the critical path ever updated?"
Q. Was the critical path ever changed or the timing as it relates to the critical path ever updated while you were at SCANA?
A. Yes.
Q. And on how many different occasions did that occur?
A. Well, it occurred for the 2015 hearing. I think that's it --
Q. Okay.
A. -- unless I'm forgetting something.
Q. To the best of your knowledge, approximately how many items were on the critical path?
A. I don't know. I can't recall.
Q. Was it tens, hundreds, thousands, tens of thousands?
A. Well, typically, a critical path is a single line drawn from beginning to end and excludes every other activity that's going on. I rarely looked at just the critical path because there's always stuff that's near critical path, so I can't give you an estimate.

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I would say it's certainly more than ten. It may be around a hundred, but I don't have direct recollection.
Q. Would you agree with me that those were the most critical items from the start to finish to complete the project?
MR. CHALLY: Object to form.
THE WITNESS: I have to qualify my answer in that the accurate critical path can change over a project. So, therefore, something that wasn't on critical path could become on critical path at some other point.
BY MR. ALPHIN:
Q. Can you explain that to me, please?
A. It may -- well, as I mentioned, there are things that are critical path -- this is true for operating plant refueling outages -- critical path, and then there's near critical path.
Typically, you monitor critical path very closely. You monitor near critical path very closely also because any slippage in those can all of a sudden put one of those in the critical pathway.
Q. Would you agree with me that once a deadline is missed on the critical path, it's very difficult to make that time up?

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MR. CHALLY: Object to form.
THE WITNESS: No.
BY MR. ALPHIN:
Q. And then how would you go about making that time up?
A. You employ mitigation strategies. And depending on what it was that was missed and why it was missed, you look at your opportunities to either pull back the overage that that's causing, adjust the activities that follow that activity to make up for the loss in time. There's a lot of different things you can do.
Q. How would you define "critical path"?
A. Well, critical path, you start any project out with a critical path in mind. And these are the things that you expect, due to the sequence that they have to be accomplished, that are going to drive the overall length of whatever that project is.
Q. Is it usually the shortest path from start to finish?
A. It is the shortest path, shortest path from start to finish.
Q. So if there's something on the shortest path from start to finish that has to be complete before you can move on to the next item, that can

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affect the critical path, correct?
A. Correct.
Q. And that can also affect the timing of the project, correct?
A. It can. But, again, it all depends on whether or not it can be mitigated.
Q. Did delay in items at the nuclear plant cause delays in the critical path that related to the V.C. Summer project?
A. There were items that were potentially going to impact critical path. And then certainly as an example in 2015 in our filing, reference modules contributed to delays there that affected critical path.
Q. Was the shield building part of the critical path?
A. Yes.
Q. Were delays in the shield building construction causing problems with the critical path?
A. Yes.
Q. Okay. Were the -- was the consortium missing deadlines as a result of issues with items on the critical path?
A. Can you restate the question?
Q. Items on the critical path usually are

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1 tied to dates and the schedule; is that correct?
2 A. That's correct.
3 Q. Okay. Were there items on the schedule
4 that were built into the critical path that this
5 consortium were missing -- the deadlines that they
6 were missing?
7 A. There were deadlines that were missed,
8 yes.
9 Q. That related to the critical path?
10 A. Yes.
11 Q. Okay. And what was SCANA's response when
12 those deadlines were missed?
13 A. We worked with the -- well, first off, we
14 pointed out -- we rarely got surprised by something
15 that was missed. We started raising concerns as
16 things slipped.
17 Got to the point where it all of a sudden
18 was going to impact critical path, and our focus was
19 to make sure the consortium was looking for
20 opportunities to make up that time and not have it
21 impact the overall critical path.
22 Q. Did the consortium actually make up that
23 time?
24 A. In some cases, yes. There was mitigation
25 activities you could put in place to make it up.

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1 Q. As it relates to the structural modules?
2 A. No. The structural modules -- again, in
3 the 2015 filing, we pointed out that the dates had
4 extended out for commercial operation because of
5 structural module delays.
6 Q. Okay. And did those structural module
7 delays continue?
8 A. It got much more predictable as time went
9 on and as the impact of dispersing that work between
10 different fabricators really came into play. And
11 they picked up the pace and started delivering in a
12 predictable manner.
13 Q. Were they still running behind schedule?
14 A. At what point in time?
15 Q. Even after 2015?
16 A. In some cases, yes.
17 Q. Okay. How about as it relates to the
18 shield building? Were they running behind schedule
19 as well?
20 MR. CHALLY: Objection.
21 THE WITNESS: As best I can recollect,
22 when Westinghouse filed for bankruptcy, the
23 shield building was still on critical path. I
24 don't know that we were losing any more time on
25 that because the production rate at Newport News

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1 Industrial had picked up considerably.
2 BY MR. ALPHIN:
3 Q. But you lost a substantial amount of time
4 prior to that, correct?
5 A. There was time lost prior to that.
6 Q. Would you agree with me that it was a
7 substantial amount of time?
8 MR. MITCHELL: Objection.
9 MR. CHALLY: Same.
10 THE WITNESS: Define "substantial," and
11 maybe I can --
12 BY MR. ALPHIN:
13 Q. More than 180 days?
14 A. I'd have to go back and look at all the
15 details. Again, we changed -- we submitted new
16 completion dates as part of the 2015 proceedings.
17 I'd have to go back and look and see exactly what the
18 breakdown was as to what caused which, how many days
19 were caused by each one.
20 Q. Okay. As part of the update that happened
21 in -- with Westinghouse that started, I think, in
22 2013 and was -- led to your filing in 2015, was the
23 critical path discussed and updated?
24 MR. MITCHELL: Objection.
25 THE WITNESS: I'm sorry. I missed some

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1 aspect of the question there. It wasn't making
2 sense to me.
3 BY MR. ALPHIN:
4 Q. Okay. We've been discussing critical
5 path, correct?
6 A. Right.
7 Q. And you said -- you testified earlier that
8 the critical path was reviewed and updated on a
9 regular basis, correct?
10 A. Right.
11 Q. Okay. As part of the EAC review that came
12 from Westinghouse to SCANA and then SCANA's review of
13 that, and then there was also a schedule; is that
14 correct?
15 A. Is that the review that came in 2014?
16 Q. Yes, sir.
17 A. Okay.
18 Q. Did that review start in 2014, or was it
19 actually requested in late 2013?
20 A. I don't recall when it was requested.
21 Q. Okay.
22 A. It was delivered. We'd have to go back
23 and look at the exact date, but in 2014.
24 Q. Okay. Can you give me specific examples
25 of items that were on the critical path that fell

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1 behind schedule that were ultimately made up and
2 completed on time?
3 A. Not off the top of my head, no.
4 Q. Okay. If you'll go to the exhibit that's
5 the V.C. Summer Target and Estimate Update, I think
6 it's attached to an e-mail.
7 A. I'm sorry, what exhibit number is that?
8 Q. That one right there.
9 A. This one here?
10 Q. No, it's the one that has the big paper
11 attached to it that folds out. That one right there.
12 What exhibit number is that for the
13 record, please, sir? It says --
14 A. Exhibit 3.
15 Q. All right. Looking at Exhibit 3, is that
16 what you have in front of you, sir?
17 A. It is.
18 Q. If you'll turn to page 8, please, sir?
19 A. 8 in the PowerPoint presentation?
20 Q. Yes, sir, 8 in the PowerPoint
21 presentation. And then if you'll look at the first
22 hash -- or the first dash. It deals with critical
23 path; is that correct?
24 A. Yes. It starts with "The critical path
25 proceeds through."

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1 Q. Yes, sir. Will you read that into the
2 record?
3 A. "The critical path proceeds through shield
4 building wall panel deliveries from NNI into erection
5 of the shield building walls and installation of the
6 air intake structure, shield wall tension ring, top
7 hat, shield building roof, and setting of the PCS
8 tank module on the roof. The path continues to
9 operational testing through fuel load, continuing
10 through power ascension, 100 percent power, and ten
11 substantial completion."
12 Q. Is that the critical path that we were
13 discussing earlier?
14 A. I'm not -- we have had a lot of
15 discussions, so which "discussing earlier" are we
16 talking about?
17 Q. The critical path that was amended in 2014
18 and then ultimately in a schedule update that was
19 completed in 2015.
20 A. This is -- as part of our proceedings in
21 2015, this is the critical path at that time.
22 Q. Were there any other additional items that
23 you're aware of that is not listed in this e-mail
24 that are part of the critical path?
25 MR. MITCHELL: Objection.

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1 MR. CHALLY: Same.
2 THE WITNESS: Any --
3 BY MR. ALPHIN:
4 Q. Are there other items that needed to be
5 completed that were on the critical path that are not
6 mentioned in this PowerPoint slide?
7 A. I'd have to go back and look at what the
8 critical path schedule looked like at that time. We
9 had not -- I'm trying to think back -- in 2015, we
10 had not yet started assembly of the shield building
11 as best I can remember. So there may be other
12 critical path items leading up to this being the
13 critical path. I just -- I don't know offhand.
14 Q. So the -- is it your reading of this
15 document that the next step in the critical path was
16 the shield building walls?
17 A. From -- "the next step" meaning from
18 where --
19 Q. You were currently.
20 A. I don't know. That's not necessarily how
21 I would read it right now. But, again, I can't
22 remember exactly at this point in time because this
23 was dated August of '14. I can't remember exactly
24 where we were on shield-building as to when that
25 either started or was supposed to start actual

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1 erection on site.
2 Q. Okay. Were the shield buildings ever
3 completed?
4 A. No.
5 Q. Okay. While you were at V.C. Summer --
6 I'm going to give some terms and just ask what they
7 meant to you.
8 A. Okay.
9 Q. What is "owners' cost"?
10 A. Owners' costs are those costs not included
11 in the EPC that we had with what -- with the
12 consortium.
13 Q. Were those costs that were incurred by
14 SCANA?
15 A. Costs that were incurred by SCANA.
16 Q. Were those -- to your knowledge, were
17 those in turn passed on to the consumers or
18 customers?
19 A. I believe so.
20 Q. Okay. What is "constructive --
21 construction productivity"?
22 A. Are you talking about PF, or are you --
23 I'm not sure.
24 Q. As it relates, is PF how you would measure
25 a constructive productivity -- construction

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1 productivity?
2 A. It's one measure of it.
3 Q. What are some other measures?
4 A. I don't -- I'm not sure where that term
5 would have been used or defined, to be honest with
6 you.
7 Q. Okay. Are you familiar with the term
8 "inception to date" or "ITD" PF?
9 A. Yes.
10 Q. And what does that mean to you?
11 A. Basically, from the start of the project
12 with the cumulative performance factor, PF, has been.
13 Q. Okay. And how about monthly PF from a
14 monthly performance factor?
15 A. That's a snapshot, month by month.
16 Q. And the monthly PF plays into the
17 inception-to-date performance factor, correct?
18 A. Yeah. We're getting -- as you add another
19 month, you'll take that month's PF and average it in
20 with the preceding months.
21 Q. Okay. What does "substantial completion
22 date" mean to you?
23 A. Basically, the plant is ready to enter
24 service.
25 Q. Would you agree with me that

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1 Westinghouse's and the consortium's PF plays a role
2 in the substantial completion date?
3 MR. CHALLY: Object to form.
4 THE WITNESS: It ties into it. It's not a
5 direct relationship; but, yes, it ties into it.
6 BY MR. ALPHIN:
7 Q. Can you explain to me what you mean by
8 that?
9 A. Well, there's ways to mitigate that. If
10 the PF is not supporting what -- the current
11 resources you have and the current productivity, you
12 can add more resources and accept the fact that
13 they're going to be less productive but still get
14 more work done.
15 Q. Is that what happened at V.C. Summer
16 plant?
17 A. There were occasions along the
18 construction time -- timeline where more resources
19 were added because, in one activity or another, there
20 wasn't the progress being made on the original
21 projections.
22 Q. Are you familiar with the performance
23 factors that were being achieved at the V.C. Summer
24 plant during your time as the vice president?
25 A. They were reported on monthly in a project

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1 review meeting.
2 Q. Okay. Did you review those on a monthly
3 basis?
4 A. They were reviewed in that meeting on a
5 monthly basis.
6 Q. Did you review them?
7 A. I along with everyone else in the meeting
8 were aware of them, yes.
9 Q. Okay. Were you also provided a summary
10 sheet each month that provided the breakdown of the
11 PF?
12 A. Yes.
13 Q. Okay. And did you review those?
14 A. Yes.
15 Q. What is an "integrated project schedule"?
16 A. I'm not a scheduling expert. I would
17 define it, though, as a schedule that looks at all
18 the activities that have to be completed, rolls them
19 together, and from that you can determine your
20 critical path, your near critical path, expected
21 duration of the project, that sort of thing.
22 Q. Does performance factor play a role in the
23 integrated project schedule?
24 A. The integrated project schedule makes
25 assumptions on PF, so yes, it plays a role in there.

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1 Q. Okay. So if you factor in a PF at a
2 certain range and you're not hitting that PF, it
3 affects the integrated project schedule, correct?
4 A. It can, yes.
5 Q. Okay. Of course, if it's not mitigated?
6 A. Right.
7 Q. What does the term "EAC" mean to you?
8 A. It's estimated completion.
9 Q. Okay. And how about "ETC"?
10 A. Estimate to completion.
11 Q. What's the difference between those two?
12 A. One, estimate to completion is what's
13 left, and the EAC is your total.
14 Q. Okay. And you, I think, testified earlier
15 about the difference between variable cost, fixed
16 cost, and firm cost, correct?
17 A. Yes.
18 Q. Okay. As it relates to the EPC, would you
19 agree with me that labor was the largest variable
20 cost in the contract?
21 MR. CHALLY: Object to form.
22 THE WITNESS: I'd have to go back and
23 look. I mean, labor was certainly an
24 appreciable part of it, but is it the largest
25 one?

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BY MR. ALPHIN:
Q. The largest variable cost.
A. The largest variable cost. It should have been. I -- again, I'd have to go back, just to verify.
Q. And would you agree with me that as PF increases, labor costs increase?
A. In general, that would be true.
Q. And those labor costs, if they're variable, are borne by SCANA; is that correct?
MR. CHALLY: Object to form.
MR. MITCHELL: Objection.
THE WITNESS: I'm not sure what you mean.
BY MR. ALPHIN:
Q. If labor costs are available, they're being paid by SCE&G; is that correct?
A. Yes.
Q. And so as those labor costs increase, SCE&G is paying more for labor?
A. Yes.
Q. And they're paying more than they anticipated; is that correct?
A. That could be true.
Q. And then those costs are passed on to the customers; is that correct?

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MR. MITCHELL: Objection.
THE WITNESS: To the best of my knowledge, that's the way the contract and the order was set up, yeah.
BY MR. ALPHIN:
Q. Okay. What does "direct craft labor" mean to you?
A. Direct craft labor is basically those folks that are out performing direct hands-on work.
Q. You called them the "wrench turners" earlier, I believe; is that correct?
A. Right.
Q. Okay. What is "indirect craft labor"?
A. Indirect would be those functions that support the direct craft in doing their job. It would be training resources, for example.
Q. And then there's a ratio that's applied in indirect to direct, correct?
A. Correct.
Q. And then there's also field nonmanual labor; is that correct?
A. Correct.
Q. And I think you said those are the no-wrench-time people, but they're the ones that perform the quality assurance and quality control; is

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that correct?
A. That would be an example.
Q. Is there any other examples?
A. There are, but offhand, I can't remember them.
Q. Okay. And there's a ratio that applies to direct craft labor to field nonmanual labor, correct?
A. Yes.
Q. And then when you factor all three of those in, you get a very good sense of what your PF factor is?
A. When you factor all those in, I'm not sure.
Q. The PF is tied directly to direct craft labor, correct?
A. That's correct.
Q. And then you also have to factor in the ratios for indirect craft labor and field nonmanual labor to figure out your overall productivity; is that correct?
A. I don't believe so.
Q. Okay. Can you explain to me how the ratios work, then?
MR. MITCHELL: Objection.
THE WITNESS: How they work? They measure

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three different things.
BY MR. ALPHIN:
Q. Okay. What are they measuring?
A. It's the same three things we just went through on what direct craft encompasses. That's actual wrench time. That's actual physical progress in completing the plant.
PF measures is typically associated, I believe, with direct craft.
Q. Okay. And I think you've already testified to this, but you monitor closely on the consortium's construction productivity; is that correct?
A. Yes.
Q. Okay. And I think you've already testified to this as well, but the consortium's construction productivity affected what SCANA paid ultimately for the V.C. Summer plants?
A. It factors into that, yes.
Q. And then those costs are in turn passed along to customers?
MR. CHALLY: Object to form.
THE WITNESS: To the best of my knowledge, that's the way it worked.

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BY MR. ALPHIN:
Q. Okay. I think you disagree with this statement, but I'm going to read it anyway.
A. Okay.
Q. "Past performance is a -- is an indicator of future performance on the same project for the same labor."
A. I disagree with that.
Q. Okay. What specific examples can you give me that Westinghouse or the consortium gave you that gave you hope that the PF was going to increase?
A. So, you know, some of it's tangible, some of it's intangible.
Some of the intangibles: What leadership effort is being put into improving PF, what initiatives are under way, what are they trying to do different in the field to allow each worker to become at least 35 percent effective each day. And talked before about the fact that you won't have 100 percent productivity out of a person out there because of other things that are going on. So that's a part of it.
The other part of it is, are they starting to be able to meet milestones? Are they being able to achieve some milestones early even?

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Q. Did you have meetings with anyone at Westinghouse and/or other members of the consortium where they laid out detailed plans as to how they were going to improve their performance factor?
A. We had numerous meetings talking about what their plans were, what their initiatives were, what they were trying to do different to improve that.
Q. And what were some of those initiatives?
A. Well, a big part of it was trying to improve the effectiveness of the in-field oversight for supervisors, for example.
Q. Can you explain that to me, please?
A. So a crew supervisor, one of the things that was discovered along the way was they weren't necessarily meeting all the -- all the commitments that should be part of a supervisor's job; for example, what percentage of the time are they spending with their crew and giving them -- not just providing oversight but helping those folks be successful.
Are those folks aware of the challenges that are impacting the crew in getting work done; for example, availability of tools.
Are those supervisors out there monitoring

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their crew to make sure proper safety precautions are being met and that the crew is protected from injury.
Q. At any time during your role as vice president at SCE&G and/or SCANA, did the performance factor actually improve?
A. It varied from month to month. There are some months it went up, some months it went down.
Q. Did the overall PF ever go down while you were the vice president?
A. Not that I'm aware of.
Q. Okay. So every month, month over month, that number increased?
A. I'd have to go back and review the trend again, but in general, that's true --
MR. MITCHELL: Are we reaching a breaking point?
THE WITNESS: -- the cumulative.
MR. ALPHIN: We can, absolutely.
Off the record.
VIDEOGRAPHER: Off record at 4:23 p.m.
(A recess transpired from 4:23 p.m. until 4:38 p.m.)
VIDEOGRAPHER: On record at 4:38 p.m.
BY MR. ALPHIN:
Q. Before we went off the record, we were

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discussing performance factors. Is that your understanding?
A. Correct.
Q. Okay. What did you view as an acceptable performance factor for the project?
MR. CHALLY: Object to form.
THE WITNESS: I don't think that I have a view on an acceptable. It's all a matter of what you assume in your overall schedule determination and estimate of completion since performance factor impacts that.
So you could choose whatever you want as performance factor. It just needs to support your overall schedule and your overall cost projection.
BY MR. ALPHIN:
Q. As someone who is overseeing the project, doing quality control/quality assurances, making sure everyone stays on schedule, is there a certain performance factor that once it's hit, it causes you greater concern than another?
A. I don't think I ever operated thinking whether there's a certain criteria or cutoff in there that now it's totally unacceptable.
Our desire all along was for the

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1 consortium to hit whatever performance factor they
2 had assumed in providing us with estimated cost or --
3 or schedule. The longer that they were not able to
4 achieve that performance factor, then our concern
5 would tend to rise.
6 Q. When did you first become aware of the
7 issue or a deficiency in the performance factor of
8 the consortium?
9 A. You know, I don't remember what the
10 performance factors were when I first joined the
11 project. The amount of work that was going on then
12 was much less than the latter years when I was with
13 the project.
14 The longer time went on and, as you
15 pointed out earlier, that the trend in PF continued
16 to increase, then our level of concern continued to
17 increase.
18 Q. I hand you what's been marked as Exhibit
19 Number 10.
20 (Exhibit 10 was marked for identification.)
21 BY MR. ALPHIN:
22 Q. Can you identify this document for the
23 record, please?
24 A. So this is a letter from Bill Fox, who was
25 the vice president for CB&I in June of 2013, to my

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1 boss, Jeff Archie, chief nuclear officer. And he's
2 laying out a cost position.
3 I got to read through this because this
4 doesn't just naturally ring a bell.
5 Q. Yes, sir.
6 You're copied on this e-mail, though,
7 correct?
8 A. I am copied on it. That's correct.
9 Q. And since you're copied on it, this would
10 have been something you would have reviewed at the
11 time; is that correct?
12 A. Correct.
13 Q. Please take your time and review it and
14 then let me know when you're ready, and I'll ask
15 questions about it.
16 A. Okay. Okay.
17 Q. You ready?
18 A. Uh-huh.
19 Q. If you look at the second paragraph, the
20 last sentence or the last two sentences where it
21 starts with "As a part of the consortium," do you see
22 that?
23 A. Yes, I do.
24 Q. Will you read those two sentences into the
25 record, please?

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1 A. "As part of the -- as a part of the
2 consortium" -- and there's an apostrophe missing, but
3 I'm assuming it's "consortium's standard operation,
4 the estimated completion, EAC, costs are evaluated
5 regularly and adjustments made accordingly. It is
6 expected that adjustments to the contingency will
7 continue to be made as the project advances."
8 Q. So that in this, they're -- CB&I's telling
9 SCE&G that "We are regularly reviewing the EAC."
10 Is that your understanding?
11 MR. MITCHELL: Objection.
12 THE WITNESS: They're reviewing -- I read
13 this as they're reviewing their current and
14 projected spend, which then does tie in to
15 estimated completion.
16 BY MR. ALPHIN:
17 Q. And that would be something you would
18 expect them to do, correct?
19 A. I would do that if I was them, yes.
20 Q. Okay. And then the first sentence for me,
21 or the first two sentences, would you read those into
22 the record, please?
23 A. Of that same paragraph?
24 Q. The first full paragraph.
25 A. Okay. "Of the total consortium contracted

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1 cost for the project, nearly 70 percent is firm/fixed
2 price. The remaining 30-plus percent of the total
3 project cost is target and T&M."
4 Q. Okay. And it's the 30 percent I want to
5 talk about.
6 A. Okay.
7 Q. Those relate to variable costs. Is that
8 your understanding?
9 A. There -- yes. So they're basically -- I
10 mean, target is just T&M with some additional
11 add-ons.
12 Q. And the largest one that you testified
13 earlier is labor; is that correct?
14 A. That's -- was my belief. I didn't have
15 the documents to go back and refer to that to confirm
16 it.
17 Q. But based on your experience at the plant,
18 that was the largest?
19 MR. MITCHELL: Objection. Asked and
20 answered.
21 THE WITNESS: Again, to be able to answer
22 that exactly, I'd have to go back and look at
23 what the breakdown was because the 70 percent
24 that's firm/fixed includes -- could include
25 labor, some forms of labor in that.

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BY MR. ALPHIN:
Q. Are you aware of parts of that that are -- do include labor?
A. I don't remember.
Q. Okay. If the -- if the 30 percent is, in fact, a variable cost and the PF factor increases, that 30 percent is going to increase as well. Would you agree with that?
A. That would tend to be true.
Q. So a project that might start out at 70-30 might end up 40-60 the other way if labor costs explode?
A. Yes. But you -- again, between firm and fixed, fixed isn't going to increase over time.
Q. Correct.
A. Firm may.
Q. Correct. But that amount -- that is a fixed amount. If the labor cost is not fixed and the labor cost goes up, then as the labor cost goes up, the fixed percentage as a total goes down, correct?
A. Right. My only point was it's not necessarily a -- if it -- if the labor goes up this much, then firm/fixed goes down that much, it could be that some of the firm actually increased too because of --

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Q. Escalation?
A. Yeah.
Q. What particular instances of escalation were built into the contract with the consortium?
A. Again, I'm not a contract expert. I can't recall.
Q. Okay. Did you look at any benchmarks as it relates to PF in evaluating the consortium's construction productivity?
A. I did not personally, and I'm just trying to think back for our team. I can't say with certainty whether we looked at benchmarking information or not.
I do know that when -- I do know that, I think, the predominant belief on our team was that 1.15 for PF should be achievable on the -- on a nuclear construction project. It's an aggressive number. It's not something you can take your eye off of. And it required, for the consortium to achieve that, to change aspects of the way they were doing business, improve in certain areas, but it was not unachievable.
Q. Is part of assuming that the 1.15 is achievable knowing that a design plan is already in place?

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A. A design plan?
Q. A design of the -- each particular item that's already in place?
A. You're talking about the actual plant design documentation, for example?
Q. Or in any individual part or module or anything like that.
A. So if your design is not supporting your construction, then that will impact PF in an adverse direction because you'll basically have people that are waiting for work.
Q. Or if changes are being made after the modules are sent, that will affect PF as well because you're going to have to do more fabrication on site?
A. That one is a little different, and I'm trying to recall exactly how it worked. The modules were fixed or firm price. The continued -- so there was some modules that were sent to the site and repaired. There's some modules that were actually built on site. And my remembrance, I think, is that that was still done under fixed or firm.
Q. So the labor tends to all the modules or the labor to put those into the buildings were fixed or firm? It wasn't variable?
A. No. I'm talking -- I thought you

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referenced completing some of those modules on site.
Q. I'm talking about installing them. So if the module leaves Louisiana, and then the design package change comes in, and so when it gets to the plant, it's not actually designed -- the design does not meet the specs anymore.
A. Okay.
Q. So you have to do the redesign to actually make it go on site. Does that make sense to you?
A. Yes. There may be a change that has to be made to it for a module which was completed in Lake Charles, for example.
Q. Correct. But they would have to be refabricated or significant work would have to be done to meet the new design criteria?
A. It could be a minor change. It could be something more significant.
Q. And that would certainly affect PF as well, correct?
A. Again, though, module fabrication was under fixed and firm. And I believe that even though we brought them on site, if we knew they were coming with problems that would have to be fixed on site, I'm remembering that we set that up so that was still considered fabrication, meaning the repairs to those

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1 modules, best I can remember, did not hit the books
2 as a -- a T&M or target activity. It was still
3 covered under fixed or firm.
4 Q. All right.
5 A. But, again, I don't have documentation
6 to -- I'm trying to go on my recollection of that's
7 how it worked.
8 But there was a lot of discussion around
9 who was going to pay for what when we agreed to bring
10 modules on site to either, some cases, fully
11 fabricate or other cases, make repairs to known
12 deficiencies when they were shipped from
13 Lake Charles.
14 Q. Okay. I'm going to hand you what's been
15 marked as Exhibit Number 11.
16 (Exhibit 11 was marked for identification.)
17 THE WITNESS: Okay.
18 BY MR. ALPHIN:
19 Q. Have you had a chance to review this and
20 the attached spreadsheet?
21 A. Looked at -- I'm familiar with the layout
22 of the spreadsheet. I've not reviewed all the
23 numbers in it, but yeah.
24 Q. Will you identify the e-mail and then the
25 attachment for the record, please, sir?

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1 A. So the e-mail is an e-mail that was
2 forwarded to me by Skip Smith. Subject is "August
3 Target Labor Performance," dated Friday,
4 September 13th, 2013.
5 And then the attachment is a breakdown
6 through August of 2013 of what was budgeted as far as
7 target work hours, what the actuals were. And
8 basically it all rolls up to what a PF looks like
9 both from an inception date and then also that
10 particular period, that monthly period.
11 Q. And this is back in 2013, correct?
12 A. Correct.
13 Q. And this shows that in the month of August
14 what was the PF that was achieved for the monthly PF?
15 A. That would be the last column, 2.52.
16 Q. Okay. Does a PF of 2.52 give you concern?
17 A. It's certainly not what was desired for
18 that month. And in the e-mails that forwarded this
19 letter, there's some words in there as to what likely
20 caused that.
21 Q. Okay. And the -- if you look down in the
22 bottom e-mail, which I guess would be the first
23 e-mail, the second paragraph, will you read the first
24 couple of sentences into the record, please?
25 A. "This shows a steadily increasing trend

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1 from an ITD PF of 1.14 in January 2013 to the present
2 1.25. In March 2012, when the COL was received, the
3 ITD PF was 0.94."
4 Continue, or --
5 Q. Yes, please.
6 A. "From March 2012 through August 2013, the
7 PF is 1.54." And in parentheses, "1,162,851 work
8 hours with 753,907 earned hours."
9 Q. Would a PF of 1.54 over a 13- or 14-month
10 period cause you concern?
11 A. Again, it's not the PF that was desired.
12 So yes, there's some level of concern there.
13 Q. Okay. And did Mr. Browne make a deter- --
14 or did he make his opinion known as to what he thinks
15 about this?
16 A. Did Alan Torres? Is that what you're
17 saying?
18 Q. I think the bottom e-mail is from
19 Mr. Browne; is that correct?
20 A. Yes.
21 Q. And what's the next sentence say?
22 A. I'm sorry. I've lost track of -- in that
23 same paragraph?
24 Q. Yes, sir. It starts "Unfortunately."
25 A. Okay. "Unfortunately, this may be a

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1 better representation of what we should expect as we
2 move forward."
3 Q. So he's saying that he's looked at the
4 trends from the last number of months, looks like 13
5 or 14 months, and he thinks that this is a better
6 representation of what might be seen going forward.
7 Is that your way of reading it?
8 A. That was --
9 MR. CHALLY: Object to form.
10 MR. MITCHELL: Objection.
11 THE WITNESS: That was Ken Browne's
12 opinion.
13 BY MR. ALPHIN:
14 Q. Correct. And is that what actually played
15 out?
16 A. I don't have the numbers in front of me.
17 But, again, one of the previous exhibits we looked at
18 showed a cumulative increasing trend over time.
19 Q. Okay. And then the next sentence talks
20 about what happens to the target price craft labor;
21 is that correct?
22 A. Yes.
23 Q. And what is his opinion as it relates to
24 that?
25 A. He says, "Unless this trend is reversed,

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we should expect a substantial overrun of target price in craft and labor cost."
Q. And that's what we talked about before, correct?
A. That's what we talked about before?
Q. During your deposition, I think you -- we talked about the fact that if the PF is overrun, the costs are going to overrun?
A. Yes.
Q. Okay. And that was a cost that SCE&G was responsible for, correct?
A. Yes. It wasn't fixed or firm, you mean?
Q. Yes, sir.
A. Yes.
Q. Looking at the attachment, what do the numbers down on the bottom mean where it says "367 man months" and "145 man months"?
A. I think that from the blocks above, there's an "actual" block, and there's an "earned" block.
Q. Yes, sir.
A. The actual hours are the hours that were expended that month. The earned hours are how many hours -- the way to look at that is those are the hours you should have spent for that month to

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accomplish the same amount of work.
Q. Okay. And how is the man months calculation accomplished, if you know?
A. It's -- well, it's taking the total actual hours for month and actual total for earned hours for month and then converting it to man months.
And exactly how that's done, it's simple, but I just have never done it before. You're basically taking hours and figuring out whether it's a 40-hour week assumption per person. How much work that equates to, I don't know.
Q. Okay. And then if you look at the budget where it's talking about the number of hours, do you see that on the left column? It talks about "total," and then it has 15 million at the bottom?
A. Target work hours?
Q. Yes, sir.
A. Okay.
Q. Do you know why there was a decrease of 360,000 hours in that month?
MR. CHALLY: Object to form.
THE WITNESS: No.
BY MR. ALPHIN:
Q. Does that mean that they are adjusting downward the amount of hours they think it's going to

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take to complete the project?
A. I don't believe that's the case. You're not going to always have the exact number of target work hours per month. It depends on what's on the schedule for that month. It would also depend on how many resources you had to support that schedule.
Q. This is for the project as a whole, is it not?
A. This -- you mean for both units, or what?
Q. This is -- this isn't a monthly-changing thing. This is how much the total is for the entire project, correct?
A. For the entire project?
Q. So if you look at this, the budget of 15 million hours is the total amount of hours that CB&I and the consortium are budgeting that it's going to take to complete the project; is that correct?
A. No. It's the total of target work hours for that month.
Q. I think that's the actual and earned; is that right?
A. Yeah. Target work hours for July and August shown there, and then a delta from the previous month if we're looking at the same thing. Are you looking at the first column here under

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"Budget"?
Q. It's not your testimony that you-all were -- that the CB&I's working 15 million hours a month at the plant, is it?
A. I'd have to back-calculate, but the way this is labeled is "July target work hours."
You've got about, well, performing hands-on work, thousands of people on site. I haven't done the math, but the way I read this is July target work hours, that's how many hours you're expecting to be expended in the month of July.
Q. But then if you go over to "actual," you only spend 1,759,000. Is that right? Or 1,832,000?
A. I don't know. I'd have to go back and analyze this.
Q. This is something you would have analyzed at the time?
A. I guess my -- our main focus out of this is what's the PF look like?
Q. Correct. We're also looking at the total amount of hours that it takes to complete the project. That's not -- you're saying that's not what the left-hand column is?
MR. MITCHELL: Objection.
THE WITNESS: I'd have to go back and look

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at some other documentation or calculate.
BY MR. ALPHIN:
Q. And I hand you what's been marked as Exhibit Number 12, ask you to review that, and then identify that for the record.
(Exhibit 12 was marked for identification.)
BY MR. ALPHIN:
A. Okay. So this is their -- basically the same note that was on the previous page. Skip attached it to this, the note that he sent to Bill Wood.
Q. And who is Bill Wood?
A. Bill Wood, at this time, was the -- what was his title? He was basically second in command to Bill Fox during this time period, who was the VP for CB&I.
Q. And the same spreadsheet that we just reviewed was attached if you look at the attachments; is that correct?
A. Yes. Yeah, because it's got the same note that -- from Ken Browne that Skip attached to this.
Q. And you would agree with me that this is SCE&G voicing its displeasure to the consortium about the PF factor in August of 2013; is that correct?
A. Correct.

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Q. Other than this e-mail, what specific steps did SCE&G make to try to improve the consortium's PF in 2013?
A. I cannot remember.
Q. Are there any ones that come to mind?
A. Considering that was five years ago, no.
Q. Okay.
A. I can't give you any specifics on that.
Q. All right. It's two different exhibits. The first is 13, and the second is 14.
I hand you two different documents. One has been marked as Exhibit 13, one has been marked as Exhibit 14.
(Exhibit 13 was marked for identification.)
(Exhibit 14 was marked for identification.)
THE WITNESS: Okay.
BY MR. ALPHIN:
Q. We're actually going to look at Exhibit Number 14 first. I marked them out of order, and I apologize for that.
Can you identify Number 14 for the record, please, sir?
A. So it's titled at the top "Summary Schedule of EAC Update, Delivery of Schedule to Filing of Update Docket with PSC."

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Q. And this was part of an executive steering committee handout on 3-16 -- or 3-26-2014; is that correct?
A. That's how it's labeled at the bottom, yes.
Q. Okay. And we're looking at the top first, and I think it's talking about completion of the EAC from 2014 that we talked about before. Is that your understanding?
A. That would be my understanding, yes.
Q. Okay. And they're saying that they are estimating a March 30th, 2014, for the schedules and a June 1st, 2014, for the EAC from the consortium. Is that your understanding?
A. That's the way I would read that, yes.
Q. Okay. Did those occur?
A. I don't think it occurred on those dates. I'd have to go back to the -- I thought we had a previous document that talked about that.
Q. And is August 29th, 2014, was that the date of this PowerPoint that you looked at earlier?
A. I think so.
Q. Okay. If you look down at the bottom where it talks about estimate -- "estimate at completion," do you see that?

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A. Uh-huh. I do.
Q. What's the first asterisk there say?
A. "Consortium discontinued tracking and reporting EPC agreement target contingency reporting November 2013."
Q. What is that?
MR. MITCHELL: Objection.
THE WITNESS: I'm not that -- I can read the words there, but I can't explain that to you.
BY MR. ALPHIN:
Q. Okay. What is the "EPC agreement target contingency reporting"? What is that?
A. It appears to be -- it's worded awkwardly here, so I'm not sure exactly what's being said there. It seems to be saying that this reporting discontinued in November 2013, but I don't have any recall on this as to what exactly stopped and why it stopped.
Q. All right. If you look at the last bullet, the last asterisk down there, will you read that into the record, please?
A. "Based on performance factors reported in the monthly project review meetings, owner is very concerned that the direct labor tracked and measured

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is an indication of significant increases in EPC target and T&M cost."

Q. So this is saying -- again, this is talking about the fact that if labor -- if the PF increases, labor costs increase, and the cost to SCE&G increases; is that correct?

A. Yes.

Q. And the bullet above that, it talks about ShowTrack [sic]. Do you see that?

A. ShawTrack?

Q. Yeah, ShawTrack. What is ShawTrack?

A. It's a reporting tool that the constructor, Shaw, used. And exactly what that contained, I couldn't give you a list of all the information it contains. It's basically how they tracked their work in support of the schedule and the estimate to completion.

Q. Is that something that SCE&G and/or SCANA had access to?

A. We didn't have -- there was nothing that I can remember that Westinghouse or Shaw -- or the other constructors that followed -- controlled that we had open access to.

Typically, what we had as far as access to those databases were -- was whatever the consortium

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members felt like they were obligated to provide us and was typically either provided in a hard copy or placed on a server so that we couldn't access the entire database.

In other words, it would be -- it would be in a format that was not necessarily all the underlying information. It was also in a format that we couldn't manipulate. It was like a PDF that you couldn't change.

Q. Okay. Looking at the Exhibit Number 13, can you identify that document for the record, please, sir?

A. So the initial notice from Carlette Walker going back to the consortium, and it's referencing the work that they owed us on the EAC and that they were basically -- apparently, there was a -- the note down below references a series of workshops, target data.

There seems to be some misunderstanding between them and us as to when the complete EAC was expected.

Q. Yes, sir. If you look at the e-mail from Duane to Carlette, do you see that one?

A. Uh-huh.

Q. And in the second paragraph, it talks

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about the integrated schedule. Do you see that?

A. Yes.

Q. Will you read that into the record, please?

A. "The integrated schedule team is also working to finalize the first draft -- the first draft unmitigated schedule by the end of this month."

And that would be the end of March '14.

Q. And what is a "first draft unmitigated schedule"?

A. It's basically -- the way I would read that is it's -- it's their first draft, and they didn't apply any mitigation to it. They didn't go back and look where there were some pushes as to how they could be pulled back.

Q. Was that the first schedule that had been provided by the consortium to SCE&G?

MR. CHALLY: Object to form.

THE WITNESS: Was it provided to us? Is that what you're asking?

BY MR. ALPHIN:

Q. Is that the first schedule that had been provided from the consortium to SCE&G, or had one been provided prior to that?

MR. CHALLY: Same objection.

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THE WITNESS: Are you asking -- so this was in 2014 -- asking over the life of the project?

BY MR. ALPHIN:

Q. Yes, sir.

A. I don't believe it would have been the first one, no.

Q. Okay. Do you know what changes were actually proposed by the consortium in that schedule?

A. Not offhand, no.

Q. Okay. Is this -- is this what ultimately becomes the EAC and the schedules that were presented in August of 2014?

MR. MITCHELL: Objection.

THE WITNESS: This is not referencing anything final. The final work hasn't been done yet.

BY MR. ALPHIN:

Q. Correct.

A. So this sounds like it's some part of that sequence in developing a final product that would then be part of our petition to the PSC.

Q. This a lead-up to that, correct?

A. The early work that was being done on that is the way I read it.

Q. Yes, sir. And this was in March of 2014; is that correct?
A. Correct.
Q. And you received the EAC in August of 2014; is that correct?
A. I believe that's what we looked at earlier, yes.
Q. Does it cause you concern that it took them almost five months to complete an EAC?
MR. CHALLY: Objection.
MR. MITCHELL: Same.
THE WITNESS: It -- it's not concerning. The reality is, again, they were responsible for providing that to us per the EPC.
As they developed it, we didn't have insight into what they were doing to make that happen. Five months should be a very -- a very adequate time to give us something that was very high quality.
And, you know, my point of reference for that is with a very aggressive effort with a very large team. It took us two to three months once Westinghouse filed bankruptcy to redo an estimate at completion and a schedule.

BY MR. ALPHIN:
Q. If, in fact, CB&I was tracking the EAC as they represented to you in 2013, should it be something that did, in fact, take five or six months to complete if it is something they were keeping track of on a regular basis?
MR. CHALLY: Objection.
MR. MITCHELL: Objection.
THE WITNESS: Well, it depends on what work they're doing there. If they're going back and not just visiting the data that says, "Here's where we are today" but going back and revisiting assumptions that led to where they were on that day and trying to say were those valid assumptions or not, what assumptions should be used going forward, it should have taken months to do.
BY MR. ALPHIN:
Q. Do you know if that is, in fact, what they did?
A. No, I don't.
Q. Okay.
A. No.
Q. Going back to this exhibit, I think it was Number 3.

A. Okay.
Q. And I think you went over this earlier, and I think we've talked about this.
But on page 28 -- and I think you called it a commitment that the consortium made to you to get the PF down to 1.15; is that correct?
A. That's the way I would read that last bullet, yes.
Q. Did you take that as a commitment?
A. I took that as a commitment, yes.
Q. Okay. I'm going to hand you Exhibits 15, 16, 17 and let you look over those.
(Exhibit 15 was marked for identification.)
(Exhibit 16 was marked for identification.)
(Exhibit 17 was marked for identification.)
BY MR. ALPHIN:
Q. I'm also going to ask you to look at Exhibit Number 5 as well.
MR. CHALLY: What's the other one?
MR. ALPHIN: Number 5.
THE WITNESS: Yeah. And just going back to -- before you ask your questions, going back, I apologize over my confusion before on target work hours. These are for the duration of the project. But in my effort to digest everything

at one time, I got confused there.
BY MR. ALPHIN:
Q. It's no problem at all. And it is kind of through a fire. I understand that, sir.
A. Right. It's a lot that I'm trying to remember back to I haven't looked at in quite a while.
Q. Yes, sir.
A. Okay.
Q. So you're looking at 15, 16, and 17, and then Exhibit Number 5 as well; is that correct?
A. Correct.
Q. And I think if you look at Exhibit Number 15 and Number 5, at least the top part of Number 5 is the same as Number 15. Is that your understanding?
A. Yeah. The numbers appear to align, yes.
Q. Okay. And so these are -- I will represent to you these were all documents that you're listed as the record custodian for Number 15, 16, and 17.
A. Okay.
Q. And I think you testified earlier that these were documents you got on a monthly basis and reviewed monthly; is that correct?

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A. We received them monthly and reviewed them in our monthly project review meeting with the consortium.
Q. And you reviewed them monthly, too, correct?
A. Yes.
MR. CHALLY: Hold on. The representation -- you're saying 15, 16, and 17?
MR. ALPHIN: He's listed as the record custodian in the documents that you produced, yes, sir.
MR. CHALLY: Okay. This doesn't -- these don't have Bates labels on them. Are they produced --
MR. ALPHIN: They were in your production. I'm not sure why they were printed without Bates labels. But when we print all the documents you produced, they don't print with Bates labels. I'm not sure why.
MR. CHALLY: Okay. I don't know one way of the other.
MR. ALPHIN: I'll get you the Bates ranges for them.
MR. CHALLY: Okay.

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BY MR. ALPHIN:
Q. Number 15 is reporting period of January 2015; is that correct?
A. That's correct.
Q. Okay. And what is the PF for that monthly?
A. Period PF is 2.74.
Q. And this is about five months after they made a commitment that they were going to get that number down to 1.15, correct?
A. Yes.
Q. And that number is two and a half times more than 1.15; is that correct?
A. Approximately.
Q. Okay. And did that cause you concern?
A. Yes.
Q. Okay. In February, again, this is now six months after the commitment for 1.15; is that correct?
A. Yes.
Q. And that number, the PF in this month, is what, sir?
A. 2.37.
Q. And that's more than double what they've committed to, correct?

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A. True. It's a decrease from the previous month, though.
Q. But it's more than double what they committed to, correct?
A. Yes.
Q. Okay. And so in the six months that they promised to go from a PF of 1 point -- 1.5, where they were when we start, they have now got it so that they're at a monthly PF of 2.37 in February; is that correct?
A. Correct.
Q. And so instead of going down, they're going up; is that correct?
MR. MITCHELL: Objection. Asked and answered.
THE WITNESS: When you look at the cumulative?
BY MR. ALPHIN:
Q. The cumulative's going up, and their monthly PF is going up too, correct?
As it relates to the 1.15 promise, they're staying above that, correct?
A. They are staying above that. That's correct.
Q. Okay. And then the next chart, which is

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Number 17, deals with -- well, can you identify this document for the record, please, sir?
A. It's just a graphical representation starting in July 2014 and data through February '15 of the period PF, the plan PF, and the to-date PF.
Q. And what is the plan PF as it's represented in this chart?
A. The plan PF shown on this chart is 1.0.
Q. And if you look at the monthly PF, they're all above 1.15; is that correct?
A. That's correct.
Q. And as you see, the "cumulative" line is also going up; is that correct?
A. That is correct.
Q. As the vice president of SCE&G, what was your reaction to this, that they did not meet their PF promise to you?
MS. SILVERMAN: Object to the form.
THE WITNESS: The reaction is they were not meeting their commitment to us.
BY MR. ALPHIN:
Q. And what steps did you take as the vice president to assure that they were going to do better?
MS. SILVERMAN: Object to the form.

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1 THE WITNESS: I can't give you exact steps
2 that we took. There was -- there was
3 considerable discussion that occurred monthly in
4 our monthly project review meeting and also in
5 other meetings throughout the month on
6 activities, improvements, et cetera that were
7 needed to pull that down.
8 BY MR. ALPHIN:
9 Q. Did you ever ask the consortium to change
10 leadership in order to improve the PF?
11 A. Change in leadership's not a guarantee
12 that the PF is going to -- going to improve.
13 This was in January '15. So that was --
14 CB&I had taken over, had purchased Shaw, acquired
15 Shaw by that point in time, had been involved with
16 Shaw enough -- and those resources that they acquired
17 or inherited -- that we would have expected them to
18 be driving them differently than Shaw did and
19 improving things.
20 Q. And did that, in fact, happen?
21 A. Not by the data that's shown here, no.
22 Q. Okay. And do you know if that ever
23 improved throughout the project?
24 A. There were improvements in some areas and
25 then in some areas not improvements. But overall, PF

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1 was a continuing challenge throughout the project.
2 (Exhibit 18 was marked for identification.)
3 BY MR. ALPHIN:
4 Q. Okay. The last thing I'm going to hand
5 you is Exhibit Number 18, which is this SCE&G request
6 for production or request -- interrogatory responses.
7 One of the interrogatories that the
8 Plaintiffs asked was, "Please state monthly PF." And
9 so it goes through, and this is SCE&G's response to
10 us, and it goes through monthly and sets forth the
11 ITED PF.
12 I'm going to ask you to look at that, and
13 I'm going to ask you a couple questions about that.
14 Okay?
15 A. Okay. So the date on this is 2017?
16 Q. This was provided to us September 24th,
17 2018.
18 A. '18. Okay. I see.
19 Q. And this provides an overview from
20 November '10 through November '16; is that correct?
21 A. November 10th -- November '10 through
22 November '16 is correct.
23 Q. And you took over in August of 2012; is
24 that correct?
25 A. I actually -- yeah, I actually arrived in

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1 July and then assumed responsibility in August of
2 2012.
3 Q. So starting in September, is there any
4 time along the chart that the PF decreases?
5 A. This is cumulative PF --
6 Q. Yes, sir.
7 A. -- as opposed to the monthly PFs?
8 Q. Correct. In order for the cumulative to
9 go up, the PF for that particular month would have to
10 be higher than the cumulative, correct?
11 A. I'm sorry. Can you restate what you said?
12 Q. If you have the cumulative PF at a certain
13 level, in order for that number to increase month
14 over month, the monthly PF would have to be higher
15 than the cumulative PF?
16 A. The same or higher?
17 Q. The same or higher, yes, sir.
18 A. Yeah.
19 Q. Okay. My question is --
20 A. Well, actually, the monthly PF could go
21 down and still go up because the monthly PF then
22 starts averaging in and taking away some of the
23 goodness from the lower PFs.
24 Q. Okay. At any time in any of the numbers
25 that are represented, did that number go down,

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1 starting in September?
2 A. The "Cumulative PF to date" column at no
3 time -- well, I take it back. You're starting in
4 August?
5 Q. Or September, yes, sir.
6 A. Or September. Yeah. It did not go down.
7 Well, I'm sorry. September was .91, and October '11
8 it was .86, so it went down.
9 Q. Where is that?
10 A. You're looking at starting in '12 or '11?
11 I'm sorry.
12 Q. '12, sir. September '12, isn't that when
13 you said you --
14 A. Yes.
15 Q. -- that would have been your first full
16 month there with operational responsibility?
17 A. From September '12 on, I don't see an area
18 where -- or a month where the --
19 Q. My question --
20 A. -- the -- went down.
21 Q. -- is: At any point during this time, did
22 you ever consider changing contractors?
23 MR. CHALLY: Object to form.
24 THE WITNESS: I -- we did not. I was not
25 involved in any discussion about changing

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1 contractors.
2 BY MR. ALPHIN:
3 Q. And with performance factors that are ever
4 getting worse, why was that?
5 MR. CHALLY: Same objection.
6 THE WITNESS: I -- it was -- well,
7 obviously, me and my team were pointing out our
8 problems and issues up to the senior leadership
9 team of SCANA.
10 BY MR. ALPHIN:
11 Q. Was any -- was one of your recommendations
12 a change in leadership at the consortium?
13 A. We had very open discussions internal to
14 SCANA about what the numbers, the data, was showing,
15 where we were seeing problems that were contributing
16 to that, and where there might be leadership issues
17 involved in those problems.
18 Q. And how was that received by the
19 upper-level management at SCANA and SCE&G?
20 A. It was listened to.
21 Q. Do you know if anything ever happened?
22 A. There were meetings that I was not privy
23 to between our senior leadership team and then the
24 senior leadership of Westinghouse and the constructor
25 at the different time periods through the project,

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1 the different constructors.
2 Q. Okay.
3 A. Exactly what was expressed in some of
4 those meetings, I was never privy to.
5 Q. Okay. And based on your testimony today,
6 you're unaware of any discussions that took place or
7 the change in the consortium was -- the change in the
8 contractor was discussed.
9 Is that your testimony?
10 MR. CHALLY: Object to form.
11 MR. MITCHELL: Objection.
12 BY MR. ALPHIN:
13 Q. Let me rephrase that. I apologize. That
14 was a bad question.
15 Based on your testimony today, you're
16 unaware of any discussions that ever took place at
17 SCE&G related to changing of the consortium in the
18 project?
19 MR. CHALLY: Object to form.
20 MR. MITCHELL: Same.
21 THE WITNESS: Yes. So -- so you changed a
22 little bit there between contractor and
23 consortium because, actually, there were -- you
24 might look at it as two prime contractors.
25

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1 BY MR. ALPHIN:
2 Q. That's a fair point. So either --
3 A. Westinghouse, which was continuously there
4 through this time period, and then three different --
5 well, two different contractors as part of the
6 consortium, and then a fundamental change once
7 Westinghouse acquired Stone & Webster in that they
8 became the only consortium member.
9 Q. Okay. But my question remains, though:
10 Was it ever your team's recommendation or was it ever
11 discussed at SCE&G over replacing those members?
12 MR. CHALLY: Object to form.
13 You mean other than what he just
14 identified?
15 MR. ALPHIN: He said that they've changed
16 over time, but he hasn't answered the question
17 as to whether it was ever discussed that they
18 were talking about eliminating or changing the
19 contractor.
20 MR. CHALLY: Yeah. That's exactly what he
21 was saying, that there were changes over time.
22 I'll object to the form.
23 Go ahead.
24 THE WITNESS: So by changing the
25 contractor, again, you're talking about changing

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1 out one or both members of the consortium --
2 BY MR. ALPHIN:
3 Q. Yes, sir.
4 A. -- or changing out individuals?
5 Q. Both.
6 A. Okay. So I'll answer it generically
7 again.
8 We gave continual feedback to
9 Westinghouse -- to SCANA senior leadership about what
10 the problems were on the project. And if we saw
11 problems that were occurring that we thought was due
12 to inadequate leadership, we gave that feedback also.
13 What senior leadership did with that, as
14 far as discussions with senior leadership of
15 Westinghouse and senior leadership of the
16 constructor, I was not privy to.
17 Q. Okay. We're going to leave that topic.
18 Does engineering and design impact the
19 schedule?
20 A. It can impact the schedule, yes.
21 Q. Does engineering and design impact the
22 integrated project schedule?
23 A. It can impact it.
24 Q. Okay. Can an integrated project schedule
25 occur or be made without a design?

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MR. CHALLY: Object to form.
THE WITNESS: Just taken at a high level, the answer is no, you can't complete a project without a design.
BY MR. ALPHIN:
Q. Okay. Did you ever see an integrated project schedule?
A. I saw project schedules of varying levels of detail. One that was freely available was the overall integrated critical path schedule. As you try to go down below that into Level 2, 3, we saw some level of detail there.
Again, I'm not the schedule expert, but we did not see the lowest level of detail.
Q. Was that provided to you in the Primavera software, the P6 files?
A. The critical path was, and then whatever below that they chose to share with us would have been provided through a scheduling-tool file, yes.
Q. Did you ever ask them to provide you with the full P6 file, or were you denied that request?
A. We were denied that request every time we asked. We would have loved to have had it, and we weren't afraid to continue to ask for it, but that was never provided.

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Q. Okay. When you testified on behalf of Duke, do you remember the years, approximately, that would have been?
A. No. I testified in South Carolina in one -- well, one hearing would have been in 2011 because it was related to the Lee nuclear project.
And then I think I testified in two fuel clause hearings prior to that, but I don't remember the years. It would have been sometime between -- let's see -- sometime between 2006 and the end of 2010.
MR. ALPHIN: Okay. We're at a good stopping point. I have one more big section to talk to him about. Do you all want to take a break?
MR. MITCHELL: That's fine.
THE WITNESS: I'm good.
MR. ALPHIN: Let's take a break for about five minutes. I'm going to try to speed this up for you.
VIDEOGRAPHER: Off record at 5:27 p.m.
(A recess transpired from 5:27 p.m. until 5:36 p.m.)
VIDEOGRAPHER: On record at 5:36 p.m.

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BY MR. ALPHIN:
Q. Before we went on break, we were talking about design.
Would you agree with me that if there is not a design, you would not know what commodities you will need for that particular item or part?
MR. CHALLY: Object to form.
THE WITNESS: Having the design complete at the proper -- at the proper time does not just support direct construction. It supports ordering components. It would support maybe designing new components since this is a new plant, that sort of thing.
So different pieces of the design are needed at different times during the project. Sometimes there may be a very long lead time where you need to have the design complete. Sometimes it -- it's for a conventional wall, not as much of a lead time.
BY MR. ALPHIN:
Q. Do you need to know what commodities are involved to understand the amount of labor that will be required to complete that particular task?
A. Yes.
Q. Okay. So if you don't have a design, you

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don't have a knowledge of the commodities, how are you able to budget appropriately the amount of time it will take to complete that particular item?
MR. CHALLY: Object to form.
THE WITNESS: I'm not an expert on that, but many of the commodities that are used are not high tech or commodities. It's concrete. It's how much rebar needs to go into a wall. It's how much concrete would need to go into walls.
So you can make estimates, for example, without having a conventional wall which has rebar in it and then concrete poured around it. You can make an estimate of what commodities are required for that without having a final design done that shows every piece of rebar, the exact spacing between the pieces of rebar, where you'll have crossties in it, things like that.
BY MR. ALPHIN:
Q. Is that because those are things that have been done in the past?
A. To a great degree, yeah.
Now, the specifications may be different in one plant to the next with respect to each wall. The more it supports, the stronger it's got to be.

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So it may require more concrete, more rebar on the lower elevation for that wall than it would be on the uppermost elevation.

But those are standard construction practices that you can apply from -- from any industrial construction and then apply to it, well, what's the nuclear factor? How does this change it? Nuclear is typically going to require more strength, but you can make reasonable estimates from the get-go without having certain aspects of the design finalized.

Q. As it relates to the more complex or, as you called it, "first-of-the-kind" design, you have to have a design in order to know the amount of labor that's going to be required for those particular parts; is that correct?

MR. CHALLY: Object to form.

THE WITNESS: For the parts that -- for the things that are built on site, you have to have some level of knowledge. You know, other things that are manufactured off site, like a pump, well, that comes to you in one piece. And you can make a -- in my opinion, you can make a reasonable estimate that I can take a pump, and this -- this is, you know, a horizontal pump or

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a vertical pump, and here is the horsepower size, how long it would take to install that.

BY MR. ALPHIN:

Q. Same thing for module -- structural modules and shield walls and those kind of items?

A. As far as -- yes. Yeah.

Q. Okay. I'm looking at the risk factors of the schedule completion as published by APOG. Are you familiar with those?

A. No.

Q. Okay. While you were at APOG, did they come up with risk factors as it relates to schedule completion?

A. I don't recall that.

Q. Okay. In one of the documents we have, it lists nine risk factors as it relates to completing the project, on-schedule completion, and I'm going to read those to you.

One is "Unreliable integrated project schedule."

MR. MITCHELL: Objection.

What are you reading from?

MR. ALPHIN: The APOG, which he said that they were -- that SCE&G was a member of.

They list nine factors, nine risk factors,

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for schedule completion on time. And I'm just reading those nine factors from the APOG Digest.

BY MR. ALPHIN:

Q. And the second is "Delayed design finalization."

The third is "Delivery and quality of supplier equipment."

The fourth is "Availability of skilled craft."

The fifth is "Structural module delays."

The sixth is "Shield building delays."

The seventh is "Regulatory compliance."

The eighth is "First of a kind."

And then the ninth is "Milestone compliance."

Are those things that you heard of while you were at APOG as being things that are risk factors as it relates to schedule completion?

A. I don't remember whether I heard them while I was at APOG or not.

Again, I'm not familiar with when the document you're reading from was created, but those are reasonable things to have on a list that you have to be concerned about in building a nuclear power plant.

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Q. And those are all things you were concerned about at SCE&G; is that correct?

A. I would say yes.

Q. Okay. Did you have -- did SCE&G have problems with one or more of those items as it relates to the plants at the V.C. Summer project?

A. You'd have to go through the list again, but I would say, based on my recollection of what you just read, yeah, I mean we had concerns. If we -- I would expect us to have concerns to one degree or another in every one of those areas throughout the entire project. Those are things you've got to keep your eyes on.

Q. Okay. At some point, SCANA and Westinghouse and the consortium entered into a fixed-price contract; is that correct?

A. That's correct.

Q. I think you testified earlier that you were involved in the input for that particular contract; is that correct?

A. To some degree, that's correct.

Q. Would you please tell the court about your level of input in that particular project?

A. In -- as far as the fixed-price option?

Q. Yes, sir.

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A. So I was not aware that CB&I wanted out of the nuclear business until -- I think, it was late August of -- was that '15?

And I was pulled into a meeting in Cayce with our senior leadership, folks from my organization, folks from Carlette's organization, and Westinghouse folks to talk about Westinghouse's desire to purchase Stone & Webster and not have CB&I as part of the consortium. In fact, the consortium would just become Westinghouse.

Westinghouse's desire was to bring Fluor in as a subcontractor to be the constructor for the project working for Westinghouse, not a consortium member.

And the other big thing is for us -- and the same thing was going on at the Vogtle project -- to release CB&I as being a parental guarantee for the project.

Q. Was one of the reasons for the fixed-price contract the PF factor and the cost labor overruns?

A. Well, Westinghouse came to the table and did not offer up a fixed-price -- a fixed-price option. That's something that SCANA requested.

Q. And when was that?

A. It was in one of the meetings I attended

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in September. I don't -- I can't recall if it was the first meeting I attended or the, you know, one of the subsequent meetings, but that was something that SCANA asked for, was a fixed-price option.

Q. And that's September of which year, sir?

A. That would be '15 because the fixed-price option we presented to the PSC in '16. And then shortly thereafter, it was when Westinghouse ran into trouble.

Q. Do you have knowledge of a fixed-price option being floated with Westinghouse prior to August of 2015?

A. I do not.

Q. Okay. How far in advance were you aware of the fact that it was going to switch to fixed price?

A. Well, again, that was something that was asked for in some of those meetings in September. As I recall, it was -- it was either Kevin Marsh or Steve Byrne that asked Danny Roderick for a fixed-price option. And --

Q. Are you familiar -- excuse me. I'm sorry. Please continue.

A. Well, and I was going to say and Westinghouse responded, "Okay, we can look at that."

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And then I think it was the next meeting they brought back a proposal.

Q. Okay. Are you familiar with the terms of the fixed-price contract?

A. In general, yes.

Q. Did the amount per month that SCE&G and/or SCANA was paying the -- paying Westinghouse at that point increase or decrease as a result of the fixed-price option?

MR. CHALLY: Object to form.

THE WITNESS: I don't know that I have an answer to that.

BY MR. ALPHIN:

Q. Under the fixed-price contract, did SCE&G and/or SCANA begin paying $100 million a month to Westinghouse?

A. We weren't -- when that was negotiated in the fall of '15, we were not under a fixed-price contract. We didn't go under the fixed-price contract until the fall of the next year when it was internal to SCANA and Santee Cooper approved and then presented to the PSC.

Q. Okay. And once that occurred, did the amount of money that SCE&G and/or SCANA was paying Westinghouse, did it increase or decrease per month?

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A. I don't know. That was a short time period. It was literally the period of, what, about six months, and then Westinghouse announced bankruptcy.

Q. Okay. Have you heard that they were -- that SCE&G and/or SCANA was paying $100 million a month to Westinghouse as part of the fixed-price option?

A. I have not heard -- I did not hear that we were paying $100 million a month as part of the fixed-price option.

Q. Does that seem like a large number to you?

A. I didn't hear that that was being paid as part of a fixed-price option because, again, we had not exercised a fixed-price option.

Q. Once SCE&G and/or SCANA exercised the fixed-price option, if they were, in fact, paying $100 million a month, is that a lot of money to you?

MR. CHALLY: Objection to form.

MS. SILVERMAN: Objection to form.

MR. MITCHELL: Objection.

THE WITNESS: $100 million is a lot of money, yes.

BY MR. ALPHIN:

Q. Okay. Was that more or less, if you know,

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that SCE&G and/or SCANA was paying prior to the exercise of the fixed-price option?

MR. MITCHELL: Objection. Asked and answered.

MR. CHALLY: Same objection.

THE WITNESS: I don't know.

BY MR. ALPHIN:

Q. Okay. Who at SCE&G and/or SCANA would know that answer?

A. I would believe the finance folks would be able to give you an answer to that.

Q. Okay. As the vice president, you were not involved in the amount that was being paid to Westinghouse each month?

MS. SILVERMAN: Object to the form.

THE WITNESS: I reviewed how much was being paid each month, yes.

BY MR. ALPHIN:

Q. Okay. But you just can't recall how much that is. Is that your testimony?

A. I can't recall how much that is. And the $100,000, again, was not tied to negotiating a fixed-price option. There was no tie that said once we negotiated it, we started paying that or that -- that I can remember that once it was approved and

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accepted by us and the PSC, that we started paying $100,000 a month.

Q. $100 million a month?

A. $100 million a month.

Q. Okay. Do you have any recollection of how much that amount was, then?

A. No. So I'm going to back up and tell you what my recollection is, that as part of the amendment that was discussed for the -- for the contract, not the fixed-price option part, there was an agreement that going forward, SCANA would pay a monthly amount. But that was before the fixed-price option was actually accepted by SCANA and put in place.

Q. Okay. And how much was that monthly amount, if you know?

A. That may have been the $100 million a month. I don't remember offhand.

Q. Okay. And when do you -- when was that amount begin -- when did they begin paying that amount?

A. I don't know the exact date.

Q. Okay. And do you know if there was supposed to be a monthly reconciliation done of the payments that were made to Westinghouse by SCE&G

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and/or SCANA?

A. There was tracking being done each month. Basically, the fixed-price option, the best I remember was it was offered to us in the fall of '15. We signed it, presented it to the PSC, I think, in the fall of '16, and so that's when it became in effect.

The fixed-price option, though, actually fixed the price of the remaining work on the plant, not from the fall of '15 when it was negotiated, but I think it went back to June of '15, if my recollection is correct.

So there was a set of books that had to be kept to calculate what was paid all the way from June of '15 to the point where the fixed-price option was actually approved and accepted by us, and then some reconciliation would occur.

Q. And did that reconciliation occur, to your knowledge?

A. I don't know the details on that.

Q. So when they -- SCE&G and/or SCANA -- entered into the fixed-price agreement or entered into an agreement that had an option to exercise the fixed price in October of 2015, and then they exercised that option, but it had to still be

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approved by the PSC; is that correct?

A. Correct.

Q. And then that was approved in the fall of 2016?

A. Correct.

Q. But from October of 2015 forward is when they were paying whatever the monthly amount was per month?

A. There was some monthly amount that was negotiated, and I was not part of the negotiation to determine that amount.

Q. And was part of that contract to fix the cost of labor?

MR. CHALLY: Object to form.

MR. MITCHELL: Same.

THE WITNESS: Was part of what contract?

BY MR. ALPHIN:

Q. The amendment that was done in October of 2015 which ultimately became the fixed-price option that was exercised.

Was the main reason --

A. At least in my mind, you're tying two things together that aren't really related. There was an amendment from 2015 that would basically outline going forward under the current split between

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1 fixed and firm and T&M and target what those costs
2 would look like going forward.
3 Q. Correct.
4 A. We asked them also for a fixed-price
5 option that, should we approve it and the PSC approve
6 it, would instead convert all the remaining costs
7 from June of '15 going forward to be fixed price.
8 Q. And that would include the labor costs,
9 correct?
10 A. Yes. It would include -- I mean, it would
11 include everything except owners' costs.
12 Q. Okay. And as we talked about earlier, the
13 labor cost was a large part of the variable cost; is
14 that correct?
15 A. Yes.
16 Q. And so by entering into the fixed-price
17 option, SCE&G and/or SCANA was limiting its exposure
18 for the labor cost or the variable costs we discussed
19 earlier?
20 A. That's correct.
21 Q. Okay.
22 A. And provided the price that they offered
23 us for a fixed-price option, when the risk folks and
24 the folks in the corporate office analyzed it, it had
25 to be something that would be a good deal for the

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1 consumer, the rate payer.
2 Q. And did you look at the deal that was done
3 as it relates to that, and was it a good deal?
4 A. My personal opinion was it was a good
5 deal.
6 Q. Was it a very good deal?
7 MR. MITCHELL: Objection.
8 THE WITNESS: My opinion, it was a good
9 deal for the consumer. It provided a level of
10 protection by fixing not just from the day we
11 signed the option going forward, but literally
12 from about a year and a half prior to that,
13 fixed the price of the remainder of the project.
14 BY MR. ALPHIN:
15 Q. And when it was entered into, did you
16 personally believe that Westinghouse was going to
17 honor its obligations under the contract?
18 A. I did. I had nothing to -- no reason to
19 believe that they wouldn't.
20 Q. And you didn't think it was too good of a
21 deal to be true?
22 A. I thought it was a good deal for -- for
23 the company. I thought it was a good deal for the
24 rate payer in South Carolina, and there was nothing
25 that I saw that would say Westinghouse was not going

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1 to be able to honor that.
2 Q. Was it a good deal for Westinghouse?
3 MR. CHALLY: Objection.
4 MR. COX: Object to form.
5 THE WITNESS: I have no opinion on that.
6 BY MR. ALPHIN:
7 Q. Did SCE&G and/or SCANA review the savings
8 that were going to be achieved at different PF levels
9 over time if the fixed-price option was exercised?
10 A. I was not involved in the analysis. That
11 was done by Corporate. To look at all the potential
12 things that could happen or the outcomes and exactly
13 what they put into that analysis, I was not part of.
14 Q. Have you seen that analysis?
15 A. I have not.
16 (Exhibit 19 was marked for identification.)
17 MR. ALPHIN: Okay. If you want to take a
18 minute with him with this, you're welcome to.
19 MR. CHALLY: Okay. Let me see.
20 MR. ALPHIN: Number 19.
21 MR. CHALLY: So let me just ask a
22 question. No Bates stamps on this. Do you know
23 where you got this?
24 MR. ALPHIN: It was produced from Santee
25 Cooper pursuant to a FOIA, and it's the last

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1 three pages that we're going to be talking
2 about.
3 THE WITNESS: So --
4 MR. MITCHELL: Before you -- Why don't we
5 take a quick break?
6 MR. CHALLY: Yeah, let's do that.
7 VIDEOGRAPHER: Off record at 5:54 p.m.
8 (A recess transpired from 5:54 p.m. until
9 6:03 p.m.)
10 VIDEOGRAPHER: On record at 6:03 p.m.
11 BY MR. ALPHIN:
12 Q. You have before you what I believe to be
13 Exhibit Number 19. Have you had a chance to review
14 that?
15 A. I did look at it.
16 Q. Okay. I'll ask you to turn to page 15 for
17 me, please, and they put in here a slide called
18 "SCE&G's Analysis."
19 Do you see that?
20 A. I see that.
21 Q. And in this, Santee Cooper, at least,
22 identifies SCE&G's primary motive is labor cost as
23 the primary driver for the fixed-price option. Is
24 that your understanding?
25 A. That's a factor. I can't state whether it

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was our primary driver or not.
Q. Is that what this document says?
A. I don't -- I've never seen this analysis before.
Q. But does this document say that SCE&G's analysis, labor cost, primary driver?
A. That's what this piece of paper says.
Q. Okay. And this is from Santee Cooper, so you have no reason to disagree with it, do you?
MR. MITCHELL: Objection.
MR. CHALLY: Same objection.
THE WITNESS: I don't have any knowledge right now to agree with it or disagree with it. That's a Santee Cooper presentation, apparently.
BY MR. ALPHIN:
Q. As the vice president of Santee -- or as SCE&G and/or SCANA, was labor a primary driver in your decision to recommend the fixed-price option?
MS. SILVERMAN: Object to the form.
THE WITNESS: Labor was a consideration in there, yes.
BY MR. ALPHIN:
Q. Okay. If you look at the chart in the middle of the page, what is your understanding of what this chart means?

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A. I have no idea.
MR. CHALLY: Object to form.
THE WITNESS: I've never seen this before. I was not part of any analysis that was done from a sensitivity perspective.
BY MR. ALPHIN:
Q. Okay. Across the top, what does it say?
A. "Confidential."
Q. No, across the top of the chart, sir.
A. "Labor escalation rate."
Q. And then what's it say down the side, sir?
A. "Productivity factor."
Q. Okay. And if it talks about the different percentage changes in the boxes, what does that mean to you, if you have any idea?
A. I don't know.
MR. CHALLY: Object to form.
BY MR. ALPHIN:
Q. Okay. Looking at Exhibit Number 18, which is the request for the interrogatories, if you'll turn to page number 10 for me, please, sir.
A. Yeah, I'm not sure if I have them in order.
Q. She put them in order for you, sir.
A. Thank you. I do have them in order, then.

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And which page? I'm sorry.
Q. Number 10, please, sir.
A. Okay.
Q. And you said that the fixed-price option was -- or that the contractor amendment that had the fixed-price option was entered in October of 2015; is that correct?
A. The fixed-price option was proposed in the fall of '15. It wasn't exercised until the fall of '16.
Q. Correct, but when was the amendment that was entered into between SCE&G and Westinghouse?
A. Fall of '15.
Q. Okay. At the time that the contract was entered into in October of 2015, according to SCE&G's interrogatory responses, what was the PF in October of 2015?
A. 1.69.
Q. Okay. And you said it was exercised in what month, sir?
A. The fixed-price option?
Q. Yes, sir.
A. I guess -- whenever it went before the PSC, about that time next year, October of '16.
Q. And what was the PF then, sir?

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A. 1.99.
Q. Okay. And so it will be between -- would you agree with me that in that time, the PF was either between 1.69 and 1.99 in that one-year period, sir?
A. Yes.
Q. Okay. If this is, in fact, the cost savings that would be experienced by the owners at the V.C. Summer plant and you see the savings and percentages, there is a substantial savings that's being realized by the owners by exercising of the fixed-price option related to those PF factors; is that correct?
MR. CHALLY: Object to form.
MR. MITCHELL: Objection.
THE WITNESS: Again, this is not something I've seen before. I don't know what context surrounds this other than what's put on the page here.
And exactly the 10.2 to 19.8 percent they came up with, I don't know. Again, with -- with PF, you know what it is up until the fall of '16. You don't know what's going to happen after that. It could get better.

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BY MR. ALPHIN:
Q. Is that what had happened throughout the project? Did it get better, or did it get worse?
A. I think we've already talked about that, and I agreed it's increased over the project.
Q. Okay. And you entered into that fixed-price contract in October -- or you entered into the agreement that had the fixed-price option in October of 2015; is that correct?
MR. MITCHELL: Objection. Asked and answered.
THE WITNESS: Yes.
BY MR. ALPHIN:
Q. And the PF was 1.69 at that time?
A. Yes.
Q. And in the year between that and the time it was exercised, it went up from 1.69 to 1.99 --
A. Yes.
Q. -- based on what we talked about earlier?
MR. CHALLY: Object to form.
THE WITNESS: Correct.
BY MR. ALPHIN:
Q. So it's getting worse and not better, correct?
A. That's correct.

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Q. Okay. And this is represented by Santee Cooper to be the SCE&G analysis.
Your representation is that you've never seen this; is that correct?
MR. MITCHELL: Objection.
MR. CHALLY: Same objection.
THE WITNESS: I have never seen it before. I was not involved in any sensitivity analysis that was done on the fixed-price option.
BY MR. ALPHIN:
Q. Do you know who at SCE&G would have been involved in that?
A. My assumption is Joe Lynch out of Corporate who did sensitivity analysis for the project as the project progressed, and I would think the senior leadership team was involved. But as to the exact number of folks, I don't know.
Q. But you had no idea what savings level would be achieved by entering into the fixed-price option?
MR. CHALLY: Object to form.
THE WITNESS: No.
MR. ALPHIN: Okay. No more questions.
MR. CHALLY: You done?
Okay. I have just a handful of questions

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for you, Mr. Jones.
THE WITNESS: Okay.
EXAMINATION
BY MR. CHALLY:
Q. For the record, I'm Jon Chally. I represent SCE&G in this case.
Mr. Jones, you are -- your testimony earlier, you described the original EPC agreement that -- which was entered into before you joined SCANA; is that right?
A. Right.
Q. Okay. You -- do you have a general understanding with EPC -- as to EPC arrangements in the nuclear industry?
A. Yeah. I mean, some of the major projects that I referred to that we had done in my past were under EPC agreements.
Q. And what is -- if you can, in summary form, describe sort of like the hallmarks of an EPC arrangement. What does it really mean to have an arrangement like that?
A. So basically, in the case with Summer, it was a little bit different in that the contract was with a consortium, two members.
A lot of times, an EPC is with a single

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entity, and basically you are contracting with them to perform complete scope for engineering, procurement, and construction of a modification on a plant or, in this case, a new plant.
Q. And is it then the contractor or, in the case of the Summer project, the consortium's responsibility to do that engineering procurement and construct; is that right?
A. That's correct.
Q. Okay. And that is to -- and when I focus on the consortium or the contractor, that means it's their responsibility as distinct from the owner of the project; is that right?
A. That's correct.
Q. Okay. Is that a reasonable approach to the construction of new nuclear facilities, in your view?
A. In today's day and age, I think that's the only way you would build one.
Q. Why is that?
A. So something that's changed since plants were built in the '70s and '80s is that some utilities back then had the resources internal to their company that were either available or ready or could be ramped up and made available to do one or

1 more of those three functions.
2 So, for example, when I worked for Duke
3 Energy, the plants that Duke built back in the '70s
4 and the '80s, Duke did not have an EPC contract to
5 build those. Duke had a contract with, for Oconee,
6 Babcock & Wilcox; and for Catawba McGuire,
7 Westinghouse, to provide nuclear steam supply
8 systems, associated engineering work that goes with
9 the nuclear steam supply system, seismic analysis,
10 everything that kind of supports that proprietary
11 product that they offered. So that's the reactor
12 vessel, it's the steam generators, it's reactor
13 coolant system piping.
14 The rest of the plant, though, was
15 designed by Duke, and all the construction was done
16 by Duke. All the licensing was done by Duke. All
17 the procurement, aside from the nuclear steam supply
18 system which was provided by Westinghouse, was done
19 by Duke.
20 That requires a huge organization to do
21 that. Duke was able to do it because they had moved
22 from building large fossil plants to building nuclear
23 power plants, and so much of that workforce was in
24 place already. And so they simply shifted it from a
25 focus on fossil plants to a focus on nuclear plants.

1 There was some other utilities back then
2 also that took that same approach. There were other
3 utilities back then that didn't have those types of
4 resources because they weren't at, like, a transition
5 stage and a large construction program, and they
6 did -- I don't know exactly what their contracts
7 looked like, but they would have done something
8 similar to an EPC-type arrangement.
9 In today's day and age, though, utilities
10 do not have those types -- I don't know of a single
11 utility, public utility, that has that type of
12 resource already within the company or to a great
13 degree within the company and you merely have to
14 supplement it a little bit to bring it to an adequate
15 level to be able to take on a new nuclear plant and,
16 for that matter, even a large fossil plant or gas
17 plant.
18 Q. So are you aware -- since, let's say,
19 2000, are you aware of a singular nuclear
20 construction effort, new nuclear construction effort,
21 that was done outside the context of the EPC
22 arrangement?
23 A. Since 2000?
24 Q. Uh-huh.
25 A. There weren't any started in the United

1 States.
2 Q. Fair enough. So go back, at what point do
3 you recall being the last new nuclear development
4 that was outside the context of an EPC arrangement?
5 A. Well, the last one that was completed in
6 the '80s was probably Vogtle 1 and 2 because I
7 believe Southern Company was similar to Duke as far
8 as the resources they had to put on that project. I
9 don't think they had an EPC agreement for that.
10 The last of the '70s and '80s vintage
11 plants that was finished was actually Watts Bar 2,
12 which is owned by Tennessee Valley Authority, and
13 that wasn't finished until -- I can't remember
14 exactly when it came on line. It was started in
15 1980 -- 1980 or somewhere around there. It didn't go
16 online until about four years ago. I mean, it was
17 decades sitting between when they originally started
18 it, put it on hold, and then finally finished it.
19 That one was done under more of an
20 EPC-type arrangement. TVA didn't have all the
21 resources. They, in fact, contracted Bechtel to be
22 their prime contractor.
23 Q. Okay. So is it fair to say that, in your
24 view, given your experience in the industry, the only
25 reasonable way to construct new nuclear facilities in

1 this day and age is through an EPC arrangement?
2 A. In the United States, yes.
3 Q. Okay. All right. Now, an EPC arrangement
4 does have a cost, though. And by "cost," I don't
5 mean dollar cost, but it is -- it leads to a
6 different ability of an owner to direct construction
7 efforts, right?
8 A. That's correct.
9 Q. Can you explain that in a little bit more
10 detail?
11 A. So through an EPC, we, in our case,
12 contracted with the consortium, and that was
13 originally Westinghouse and Shaw, to take complete
14 responsibility for the engineer, procure, construct.
15 That meant they provided all the
16 management for that, the resources to -- to support
17 the different aspects that we're talking about there:
18 Engineering resources to do the design, the workforce
19 to actually do the hands-on construction. They let
20 the subcontracts to either -- subcontractors are
21 going to be working on site to do particular portions
22 of construction.
23 They also put out the procurement
24 specifications, went through the bid process and
25 contract process with suppliers to provide all the

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1 components that were needed. That was their
2 responsibility that the EPC charges them with.
3 And along with the EPC is -- is the fact
4 that they are running the show. We can't on a daily
5 basis direct their work. So we can't go out in the
6 field and tell one of their crews during construction
7 what to do. We can't go to one of the suppliers
8 that's providing components and tell them what to do
9 different because our contract is not with them. Our
10 contract was with Westinghouse and, again, originally
11 Shaw, then CB&I as a constructor.
12 Q. Okay. So even considering that
13 potential --
14 A. If we did -- if we did do that, then
15 Westinghouse could say we're in breach of contract.
16 Q. So even with that limitation, is it your
17 view that EPC arrangements are appropriate these days
18 for new nuclear construction?
19 A. Yes.
20 Q. Okay. Now, isn't it true -- and I think
21 you just alluded to this -- that you were familiar,
22 you are familiar, and you were familiar in early 2016
23 with Bechtel in the nuclear construction industry; is
24 that right?
25 A. I was familiar with Bechtel in the nuclear

1 construction, yes.
2 Q. Okay. And in 2016, you were familiar with
3 their involvement in the Watts Bar project, right?
4 A. I was.
5 Q. What's your understanding of their role in
6 the performance -- their performance at Watts Bar?
7 A. So when they made the final effort to
8 complete Watts Bar Unit 2, TVA put Bechtel in the
9 position of being the prime contractor, and TVA was
10 in an oversight role.
11 Bechtel did a miserable job. Project fell
12 behind schedule, severely over budget to the point
13 where TVA shut the project down for, I think it was,
14 a full six months and totally reorganized to turn it
15 into an owner-directed project.
16 Bechtel ended up not being the prime
17 contractor. They ended up being a subcontractor to
18 TVA. And TVA, through their project management
19 organization, directed the project.
20 Q. So this all occurred before 2016; is that
21 right?
22 A. Correct.
23 Q. Okay. And so you were familiar with
24 that -- with that Bechtel experience at the time you
25 heard Bechtel was doing an assessment --

1 A. I was.
2 Q. -- at the Summer project.
3 Did that color your view ultimately of
4 Bechtel and the help they could provide to SCE&G and
5 Santee through an assessment?
6 A. My perspective on Bechtel's ability for --
7 I would call Watts Bar 2 still new nuclear
8 construction. It was an older-design plant. But,
9 again, the expectations had increased over the years
10 not only from a regulatory perspective but from an
11 owner perspective.
12 As to the performance, I think they did
13 not do a very good job. And, again, the most telling
14 example of that was the fact that TVA shut the
15 project down for six months while they restructured
16 it.
17 Q. Okay. We talked a lot about scheduling
18 and information that SCE&G received or didn't receive
19 from Westinghouse related to scheduling. I just have
20 a couple questions on this.
21 You were ultimately responsible for
22 overseeing work on the project site; is that right?
23 A. Correct.
24 Q. Okay. And to do that, to carry out that
25 function, you needed a plan for addressing what you

1 were responsible for overseeing; isn't that fair,
2 roughly?
3 A. Yes, yeah.
4 Q. Okay. Did that require a schedule of some
5 sort, from your perspective?
6 A. You lost me a little bit on that.
7 Q. So you had to have a plan for overseeing?
8 A. An oversight plan?
9 Q. An oversight plan.
10 A. Correct.
11 Q. And then was it important in your
12 oversight rule to have some sense of schedule through
13 that?
14 A. Yes.
15 Q. Okay. And did you have the schedule
16 information that you thought most critical to
17 conducting that daily oversight role?
18 A. We did, and it was part of the schedule
19 that Westinghouse had committed to.
20 Q. Okay. In your view, did you -- was there
21 any point in time where you needed more to conduct
22 your oversight role in terms of the near-term plans
23 that you were evaluating?
24 A. I -- no. When I came into the project in
25 2012, I inherited an existing organization, and the

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1 oversight portion of that organization was nearly
2 complete. The operations maintenance side was not,
3 and we had to build that.
4 But after some period of evaluation,
5 looking at the folks that we had, their capabilities,
6 looking at folks that we had either hired directly or
7 contracted in that had certain skills and expertise,
8 I felt we had a good team that was adequate to
9 provide not only appropriate on-site oversight but
10 also, as problems occurred in suppliers or things
11 like that, we had the ability to go out and provide
12 those additional direct oversight on either an
13 intermittent basis or a continuous basis.
14 Q. Okay. One final topic on this particular
15 document, which I think was marked as Exhibit 2,
16 Westinghouse's letter to you dated July 16, 2014.
17 A. Yes. Okay.
18 Q. I think you discussed with Mr. Cox some
19 language in this second paragraph and specifically
20 the sentence that ends -- that begins on this page
21 and then ends on the next -- first page and ends on
22 the second.
23 And it writes: "However, in mid-April of
24 this year, we were informed by SCE&G that the owners
25 did not require any reports on the schedule until all

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1 potential mitigation efforts have been explored."
2 A. Uh-huh.
3 Q. Okay. Do you have -- why would you have
4 not required a report on the schedule at this time?
5 A. Because it's really not a schedule yet.
6 It's not an accurate schedule until you explored your
7 mitigation options and basically looked at all the
8 possibilities, how the activities tie together, where
9 there is a fit in a particular activity, whether
10 additional work needs to be done to reduce the
11 duration of it. And we needed to let them go through
12 those iterations and present to us their best and
13 final proposal and not some intermediate proposal.
14 MR. CHALLY: Okay. That's all I've got.
15 Thank you.
16 MR. COX: I have a few questions further.
17
18 FURTHER EXAMINATION
19 BY MR. COX:
20 Q. Mr. Jones, what is the basis for your
21 opinion that Bechtel did a miserable job on
22 Watts Bar?
23 MR. CHALLY: Object to form.
24 THE WITNESS: I think, again, the fact
25 that Watts Bar had -- or TVA had to shut the

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1 project down and restructure it and take Bechtel
2 out of the lead role.
3 BY MR. COX:
4 Q. So let's take that one by one. Part of
5 your opinion that Bechtel did a miserable job is
6 because the project was shut down?
7 A. That was the culmination of the problems
8 that Bechtel was not able to solve on that project.
9 There's a good Office of the Inspector General report
10 that covers the very same issue that makes for an
11 interesting read.
12 Q. What does that report say?
13 A. There was a -- I read it years ago because
14 we looked for lessons learned in there for our
15 project. But it basically says there were a number
16 of breakdowns -- inadequacies, I guess, is the term I
17 would use on Bechtel's part -- in their role to
18 perform that EPC-type function.
19 Q. Can you describe what those inadequacies
20 were?
21 A. I can't, not until I go back -- I'd have
22 to go back and pull the report out.
23 Q. Is part of your opinion that Bechtel did a
24 miserable job the fact that the project was shut
25 down?

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1 A. Yes. Plus I had discussions with folks at
2 TVA that were in lead roles.
3 Q. Who was that?
4 A. One was Mike Skaggs, who chaired our
5 Construction Oversight Review Board. I've known Mike
6 for many years. He's an exec- -- a senior executive
7 with TVA. Very straight shooter, reliable source of
8 information, kind of calls it like it is.
9 And Bechtel was just incapable of meeting
10 the expectations on that project in that lead role.
11 Q. And you didn't have firsthand knowledge of
12 the quality of Bechtel's performance on that project,
13 correct?
14 A. Meaning I was not there.
15 Q. You didn't observe Bechtel's performance
16 on that project?
17 A. Not directly, no.
18 Q. Did Westinghouse do a good job in its
19 performance on the V.C. Summer project?
20 A. In some areas, they did an adequate job
21 and they fulfilled their responsibilities. And in
22 others, they didn't.
23 Q. And the project ultimately was abandoned,
24 correct?
25 A. For V.C. Summer Units 2 and 3, it was

1 abandoned.
2 Q. That's not the result you were looking for
3 when you signed onto the project, is it?
4 A. That's correct.
5 MR. MITCHELL: Objection.
6 BY MR. COX:
7 Q. It's correct to say that you weren't
8 really interested in the results of the Bechtel
9 assessment because you felt that Bechtel was looking
10 to obtain a role for itself on the project, correct?
11 MR. CHALLY: Object to form.
12 THE WITNESS: No, that's not correct.
13 We were certainly interested in what they
14 came up with. The reality was, what they came
15 up with was circling some bullet holes that we
16 already knew and not providing much meaningful
17 insight about how to correct issues. It was a
18 pretty hollow report, in my opinion.
19 BY MR. COX:
20 Q. But if they were circling bullet holes
21 that you already knew, they were identifying the same
22 issues that you had identified, correct?
23 A. Correct, many of which we had actions
24 underway to try to help the consortium improve in.
25 Q. And those actions failed, didn't they?

1 A. Not all of them.
2 Q. Did any of them work?
3 A. I think so.
4 Q. Which one?
5 A. I don't have the report in front of me. I
6 can't go back and from memory recite that. Some of
7 them naturally went away when the consortium was
8 changed to a single person or single entity at
9 Westinghouse as opposed to two consortium members
10 that would stand the chance of bickering back and
11 forth on issues.
12 Q. So what concern went away when that
13 occurred?
14 A. There was one -- one entity to deal with,
15 which was Westinghouse. They could not point a
16 finger at Fluor, for example, that was now the
17 constructor because Fluor worked for them. Fluor was
18 not a partner with them.
19 Q. Did that improve the results on the
20 project?
21 A. I think we were on the track to improving
22 those results when Fluor came on board. I think
23 their ramp-up was slower than expected.
24 But by the end of '16, we were starting to
25 see some positive results. And then shortly into

1 '17, Westinghouse filed for bankruptcy.
2 Q. So you never saw the benefit of moving to
3 a single member of the consortium during your time on
4 the project?
5 A. We never saw the full benefit of it.
6 Q. Did you see any benefit?
7 A. Again, I think Fluor, although it was a
8 little bit slower ramping up for them, they were
9 improving by the end of '16.
10 Q. You mentioned the EPC did not allow SCE&G
11 to directly work with subcontractors to improve
12 performance on the project; is that correct?
13 A. Correct.
14 Q. What provision in the EPC prohibited SCE&G
15 from doing that?
16 A. Because Westinghouse had that
17 responsibility delegated in the EPC, not SCANA.
18 Q. Do you know the provision in the EPC that
19 provided that?
20 A. No. There is a table in there that
21 delineates responsibilities between the owner and the
22 consortium.
23 Q. And the reason that SCE&G, in your view,
24 could not take that action is because SCE&G signed a
25 contract that didn't allow it to take those actions,

1 correct?
2 MR. CHALLY: Object to form.
3 THE WITNESS: Well, the folks out in the
4 field doing the work didn't work for us. They
5 worked for Westinghouse or the constructor.
6 BY MR. COX:
7 Q. But if the contract told you that SCE&G
8 was permitted to directly interact with those
9 entities, then --
10 A. We were --
11 Q. -- that would address the issue of the
12 contract prohibiting it, correct?
13 A. It wouldn't be an EPC contract then. It
14 would be some other type of contract.
15 And I can't imagine that it would be a
16 contract where a Westinghouse and constructor
17 consortium would want to sign it. You're not going
18 to sign a contract that says "We're responsible for
19 everything, but you can go in as the owner and do
20 whatever you want and boss our people around."
21 MR. COX: No further questions. Thank
22 you, Mr. Jones.
23 FURTHER EXAMINATION
24 BY MR. ALPHIN:
25 Q. Mr. Chally asked you a couple of questions

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regarding EPCs.
Are you familiar with an EPC contract that has been completed on a new nuclear build in the United States?
A. Well, in recent history, the only other build that's going on is Vogtle. It's obviously not completed.
Q. And I think you testified that the TVA was done under an EPC arrangement?
A. An EPC-like arrangement. I don't know all the specifics of theirs, but that's where it started, was Bechtel being the prime contractor.
Q. And that was canceled, correct?
A. TVA?
Q. No, the EPC.
A. Yes. And TVA took over responsibility for managing the project.
Q. And when did that happen, do you know?
A. 2011 time frame, '10 time frame, I'm not sure.
Q. So that was something you were familiar with prior to your time at SCANA?
A. Yes.
Q. And was that something that you at SCANA, you and/or SCE&G and SCANA, considered doing with

Westinghouse?
A. No. I was not involved in any discussion with senior leadership that weighed the pros and cons of doing something like that.
Q. Was that something you would have recommended doing, knowing that outcome that had happened with the TVA project?
MR. CHALLY: Object to form.
THE WITNESS: Our project is -- was different than the TVA project. The TVA project was a plant that was about 80 percent completed and then sat there for a couple decades. So it was more akin to doing a major plant refurbishment. They didn't start from scratch.
This was a brand-new -- and that design had been built before. TVA Watts Bar Unit 1 was an exact replica of it. This was a first-of-a-kind plant. It had not been built before.
The risks and reward of one approach being we would take it over are quite a bit different than what TVA was facing.
BY MR. ALPHIN:
Q. And just to be clear, it's your testimony today that no EPC contract as it relates to a new

nuclear build has been successful; is that correct?
A. If you're talking about recent history, meaning the past decade, then, yeah, that's correct.
I can't comment on those plants that were built in the '70s and '80s, some of which were under EPC contracts, as to the relative success of those because, again, the company I worked for at that time did not build under EPCs. We had resources in-house.
Q. Do you know if Bechtel is currently doing work at the Vogtle plant?
A. They are from what I read in the media.
Q. Okay. Do you know if that's being done under an EPC contract?
A. I don't know their contractual arrangement there. No idea.
MR. ALPHIN: No further questions.
MR. CHALLY: Okay. All done. Thank you.
MR. MITCHELL: No questions.
VIDEOGRAPHER: This concludes the deposition. The time is 6:33 p.m.
- - -
(Witness excused.)
- - -
(Deposition was concluded at 6:33 p.m.)
- - -

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SIGNATURE OF DEPONENT

I, the undersigned, RONALD ALAN JONES, do hereby certify that I have read the foregoing deposition transcript and find it to be a true and accurate transcription of my testimony, with the following corrections, if any:

PAGE	LINE	CHANGE

_____
RONALD ALAN JONES

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C E R T I F I C A T E

I, Karen K. Kidwell, RMR, CRR, in and for the Commonwealth of Virginia, do hereby certify that there came before me on Tuesday, October 16, 2018, the person hereinbefore named, who was by me duly sworn to testify to the truth and nothing but the truth of his knowledge concerning the matters in controversy in this cause; that the witness was thereupon examined under oath, the examination reduced to typewriting under my direction, and the deposition is a true record of the testimony given by the witness.

I further certify that I am neither attorney or counsel for, nor related to or employed by, any attorney or counsel employed by the parties hereto or financially interested in the action.

This the 24th day of October, 2018.

_____
Karen K. Kidwell, RMR, CRR
Notary Public #7625774

My Commission Expires: 9/30/2019

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Ronald Jones
Vice President
New Nuclear Operations

SCE&G
A SCANA COMPANY

June 19, 2014
NND-14-0354

Chris Levesque
Westinghouse Electric Company
Nuclear Power Plants
1000 Westinghouse Drive, Suite 112
Cranberry Township, PA 16066

Subject: V.C. Summer Units 2 and 3 Guaranteed Substantial Completion Dates

Reference: (1) Engineering, Procurement, and Construction Agreement for AP 1000 Nuclear Power Plants, Dated May 23, 2008 – V.C. Summer Units 2 and 3

(2) VSP_VSG_002024, dated August 6, 2012

Dear Mr. Levesque,

The Consortium is in the process of preparing another re-baseline of the project work schedule. You had previously promised to provide that document by May 30, 2014, but we now understand that you anticipate taking an additional six weeks to prepare it. We urge you to deliver the new work schedule as soon as you are able because we need to advise third parties of your latest projections. We also remind you that we expect the upcoming re-baselined work schedule to include all mitigation measures reasonably possible to ensure completion of Units 2 and 3 on or near the currently projected completion dates.

We also wish to remind you that the current progress payment schedules are out of sync with the currently anticipated completion dates for units 2 and 3 substantial completion. Consequently, the payment schedules in their current form would require payment for progress well in advance of when it is actually achieved. This problem will likely remain and may get worse with the upcoming re-baselined work schedule. We plan to address this problem, once we receive the new re-baselined work schedule, by adjusting the progress payment schedules so that they coordinate with the re-baselined project work schedule.

The Consortium has found it necessary to again re-baseline the work schedule because of the Consortium's own performance deficiencies. We anticipate that the upcoming re-baselined work schedule will continue to show substantial completion of Unit 2

EXHIBIT 1
WIT: Jones
DATE: 10-16-18
K. KIDWELL, RMR, CRR, CRC

and Unit 3 well past the dates established in the parties' agreement of July 11, 2012. The Consortium is responsible for bearing all costs associated with its unexcused delays, including all escalation costs. Consequently, effective immediately, we will no longer pay the portion of escalation costs that is associated with the Consortium's unexcused delays. Additionally, we plan to adjust future escalation payments to account for escalation we have overpaid since we executed the July 11, 2012 agreement.

Please advise if you have any questions about these intended adjustments to the payment schedules and the escalation payments.

Sincerely,

Ronald Jones
Vice President
New Nuclear Operations

Jones/Smith/lw

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cc: Ron Jones – SCE&G
Carlette Walker – SCE&G
Alan Torres – SCE&G
Brad Stokes – SCE&G
April Rice – SCE&G
Roosevelt Word – SCE&G
Larry Cunningham – SCE&G
Dave Lavigne – SCE&G
Ryan Lamonica – SCE&G
John Mellette – SCE&G
Al Bynum – SCE&G
Kyle Young – SCE&G
Marion Cherry – Santee Cooper
Joel Hjelseth – Westinghouse
William Macecevic – Westinghouse
Daniel Churchman – Westinghouse
Daniel Magnarelli - Westinghouse
Travis Tomb – Westinghouse
Brian Mcintyre - Westinghouse
Jeff Coward – Westinghouse
Luke Miller – Westinghouse
Michael Frankie - Westinghouse
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Randy Harrison – CB&I Stone & Webster
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Terry Stockdale – CB&I Stone & Webster
Eric Zimmers – CB&I Stone & Webster
Lucinda Vasbinder – CB&I Stone & Webster
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AP1000®

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Nuclear Power Plants
1000 Westinghouse Drive, Suite 112
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USA

Mr. Ronald A. Jones
South Carolina Electric & Gas Company
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Telephone: (803) 932-5677
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Email: levesqcr@westinghouse.com

Our Reference: VSP_VSG_002819

VIA: E-Mail

July 16, 2014

Subject: **Response to NND-14-0354, "V.C. Summer Units 2 and 3 Guaranteed Substantial Completion Dates"**

References: **1) Engineering, Procurement, and Construction Agreement for AP1000® Nuclear Power Plants, Dated May 23, 2008 – V.C. Summer Units 2 and 3 ("Agreement")**
2) NND-14-0354, "V.C. Summer Units 2 and 3 Guaranteed Substantial Completion Dates," Dated June 19, 2014

Action: **No Action Required; For Information Only**

Dear Mr. Jones:

We are in receipt of your letter NND-14-0354 (Reference 2) dated June 19, 2014. As you note, Westinghouse Electric Company LLC (Westinghouse) and CB&I Stone & Webster, Inc. (Stone & Webster) – collectively referred to as the "Consortium" – are in the process of reviewing and updating the project schedule for the V.C. Summer nuclear facility (the "Project") and remain committed to providing a revised Project schedule as required to support Project construction. Due to a variety of factors, including substantial regulatory-driven changes and unforeseeable events, this has required a significant undertaking by the Consortium to fully analyze the impacts on Project construction schedule and mitigate associated schedule delays.

Throughout this process, the Consortium has offered to provide the Owners with information and feedback, as the Consortium appreciates the Owner's need to communicate schedule projections with third parties. However, in mid-April of this year, we were informed by SCE&G that the Owners did not

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"This document is the property of and contains Proprietary Information owned by Westinghouse Electric Company LLC and/or is the property of and contains Confidential and Proprietary Information owned by CB&I Stone & Webster, Inc. and/or their respective subcontractors and suppliers. It is transmitted to you in confidence and trust, and you agree to treat this document in strict accordance with the terms and conditions of the agreement under which it was provided to you."
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Westinghouse

EXHIBIT 9
WIT: Jones
DATE: 18-16-19
K. KIDWELL, RMR, CRR, CRC

CB&I Stone & Webster, Inc.

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require any reports on the schedule until all potential mitigation efforts had been explored. At that time, the Owners understood that the mitigation analysis would not be completed by the end of May 2014.

During a subsequent meeting with SCE&G on May 5, 2014, an e-mail that the Consortium was planning to send to the Owners relating to the ongoing, yet inconclusive, schedule mitigation analyses was discussed. SCE&G concurred with the content, but it was jointly decided that the Consortium would not send the e-mail until mitigation analyses were more complete. It was agreed that the Consortium (i) was in the process of revising the schedule and that this process identified further risks to the schedule, including risks to the CA01, CA03 and U2 CV Ring 2 dates; (ii) will continue its schedule development efforts and communicate the results only after it has evaluated achievable mitigation efforts; and (iii) expects a period of review by Owners before the schedule is considered final. SCE&G also requested that the Consortium present the updated schedule to the Owners on May 30, 2014, assuming the Consortium was ready.

The Consortium was prepared to provide the Owners with updated schedule information during a meeting scheduled for May 30, 2014. However, on May 29, 2014, SCE&G advised the Consortium that the Owners had elected to cancel the meeting. Although mitigation analysis continues, and as stated by the Consortium in a meeting with SCE&G on June 10, 2014, the current schedule shows that the significant dates identified by Steve Byrne in his email to me April 1, 2014, are not reasonably achievable. The Consortium will continue to analyze the schedule and study possible mitigation efforts. We expect to convey a revised integrated project schedule to the Owners on August 1, 2014.

In your letter, you also assert that that the current progress payment schedules are out of sync with the currently anticipated substantial completion dates for Units 2 and 3, resulting in payment schedules that require payment for progress well in advance of when it is actually achieved. This statement is not correct given the nature and structure of the milestone payment schedules in the EPC Agreement (Reference 1). As negotiated and agreed, the milestones identified in certain payment schedules are representative in nature and were designed to allow the Consortium to recover costs for major aspects of the Project work and maintain neutral cash flow. These costs are incurred by the Consortium on an ongoing basis despite a shift in the schedule. However, the Consortium is now negatively impacted because the representative milestone payments cannot be billed while the costs that the representative milestone payments were intended to cover continue to be incurred by the Consortium. This results in a negative cash position for the Consortium such that the Consortium is behind in cash collections by over $400M as of first quarter 2014 as compared to September 2012 cash flow submission.

In addition, the Consortium is negatively impacted by a schedule shift as it relates to firm price progress payments, which also were designed to cover ongoing Project work. Payment dates associated with these payments were not shifted as part of the 2012 settlement agreement. As a result of any schedule shift that is ultimately determined, the Consortium's Project work is expected to continue beyond the final invoice date stated in the applicable Exhibit to the EPC Agreement.

As noted above, the Consortium is committed to providing an updated schedule to support the Project construction in compliance with the EPC Agreement. We disagree with your general statement that all delays are the result of the Consortium's "performance deficiencies" and reject the statement that the Consortium is responsible for all costs associated with any delays. To the extent the revised Project schedule reflects delays, the mitigation of such delays and allocation of the costs associated therewith as

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between the Owners and the Consortium will be governed by the requirements of the EPC Agreement. We expect to address any such issues in detail consistent with the terms of the EPC Agreement once the Project schedule review is complete.

Finally, the Consortium does not accept and specifically rejects the assertion that the Owners are entitled to adjust progress payment schedules or refuse to pay or adjust future escalation payments. In this regard, the terms of the EPC Agreement are clear: The Owners' exclusive remedy for a non-excusable delay in completion of the Units is the assessment of delay liquidated damages. If and to the extent a non-excusable critical path delay occurs and ultimately impacts a contractual milestone date, the Consortium will either mitigate or be liable for delay liquidated damages in accordance with the terms of the EPC Agreement. The EPC Agreement does not permit the Owners to make any adjustment to contractual payment schedules or escalation payments required under the contract. To the extent the Owners dispute making such contractual payments, the EPC Agreement provides a mechanism through Article 8.4 to address such issues.

We expect that all parties will abide by the provisions of the EPC Agreement and the Owners will honor the allocations of risk and responsibility reflected in the EPC Agreement. Accordingly, we reserve all of the rights and remedies that Westinghouse and CB&I Stone & Webster have under the EPC Agreement, the 2012 settlement agreement, and at law or in equity.

If you have any questions, please feel free to contact JoAnne Hyde at (412) 374-5650, or the undersigned.

Sincerely,

Christopher R. Levesque
Vice President and Consortium Project Director
Westinghouse Electric Company LLC

JWH/CRL/ceh

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cc: Jeff Archie – SCE&G
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Robert B. Stokes – SCE&G
April Rice – SCE&G
David Lavigne – SCE&G
Larry Cunningham – SCE&G
Roosevelt Wood – SCE&G
Al Bynum – SCE&G
Guy Bradley – SCE&G
Marion Cherry – SCE&G
Joel Hjelseth – Westinghouse
Daniel Churchman – Westinghouse
Daniel Magnarelli – Westinghouse
JoAnne Hyde – Westinghouse
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From: WALKER, CARLETTE L
Sent: Friday, August 29, 2014 7:56 AM
To: JONES, RONALD A
Subject: Fw: Estimate Material for 8-29-2014
Attachments: Presentation for Combined Estimate Template - August 2014 Rev 0 - 08-28-14.pptx; Copy of Combined Estimate Template - August 2014 Rev 0 - 08-28-14 (3).xlsx

---

From: Hyde, JoAnne <hydej@westinghouse.com>
Sent: Thursday, August 28, 2014 6:55PM
To: WALKER, CARLETTE L
Cc: Christopher R. Levesque; Donald DePierro (don.depierro@cbi.com); Kenneth W. Hollenbach; Joseph Arostegui; Olcsvary, Duane C; Hyde, JoAnne
Subject: Estimate Material for 8-29-2014

***This is an EXTERNAL email. Please do not click on a link or open any attachments unless you are confident it is from a trusted source.

Hello Carlette,

Attached are the meeting materials for tomorrow's meeting. We look forward to reviewing this information with you in detail.

JoAnne W. Hyde
Consortium Commercial Director
V.C. Summer 2&3 Project
Westinghouse Electric Company
Nuclear Power Plants
1000 Westinghouse Drive Suite 112
Cranberry Township, PA 16066

hydej@westinghouse.com
Phone (412) 374-5650
Cell (412)951-4110

EXHIBIT 3
WIT: Jones
DATE: 10-16-18
K. KIDWELL, RMR, CRR, CRC

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VC Summer
Target and T&M Estimate Update

August 29, 2014

Jenkinsville, SC

The information contained herein is an estimate based on assumptions and facts known to the Contractor at this point in time. Contractor expressly reserves the right modify any information or estimate as may be necessary from time to time.

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SCANA PP052868

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Key Assumptions for Revised Estimate

1. Estimate developed beginning with CO-16 and adding projected forecast for the remainder of the project
2. Where appropriate, estimate is based on the same assumptions as used in development of the IPS
3. Estimate is based on the dates identified in the IPS
4. Where uncertainty remains, the best available information was utilized for estimating cost
5. Unit rates were unchanged. Productivity Factors and quantity adjustments are the basis for adjustment/change of labor hours.
6. Quantities were updated using design information and evaluated against other nuclear projects
7. Productivity factors were evaluated utilizing project experience to date and assumed improvements going forward
8. Estimate includes known and reasonably quantifiable impacts only
9. No cost is included for schedule acceleration other than limited 2nd shift work.
10. Estimate does not consider NNI expediting impact
11. Site Layout and Cyber Security reflect current outstanding proposal amounts
12. Contingency was estimated based on the ETC forecast. The risk profile will be updated upon completion of the time phasing.

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SCANA_RP0528589

Key Mitigations Strategies in Revised Estimate

1. E&DCRs will be incorporated in parent drawings.
2. The concrete plan improvements will continue to be implemented. These improvements include Tekla modeling and interference checking of the reinforcing with embedded commodities and reconciliation of known interferences prior to installation.
3. The suspended system designs will be modeled and clash detected to minimize physical inferences at the point of installation.
4. Generic tolerance requirements will be established in most cases reducing the need for individual specific NND's and EDCR's.
5. Constructability review of critical and complex installations will be performed in support of IPS requirements.
6. CBI will implement various Work Package improvements.
7. Critical deliverables for construction will be referenced and support the IPS requirements.

Implementation of the foregoing strategies is subject to regulatory changes and/or differing interpretations of existing regulations

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Improvement Activities

- Project Management Improvements:
  - Improved Schedule quality and control (ECS/IPS)
  - Aggressive use of milestone and issue management
  - Continued development of the OCC
  - Area Management Focus
  - Weekly Area Managers Meeting
    - 3 week look ahead rigorously addressed
  - POD led by Construction Manager with strong focus on daily expectations
- EPC Process Improvements:
  - Focus on key work streams:
    - Shield Building
    - Mechanical and Structural Modules
    - Concrete
    - Steel
    - Piping
    - Electrical
    - HVAC

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Improvement Activities cont'd

- Individual work stream optimization projects will identify and implement changes to improve erection rates and commodity installation rates, for example by improved tolerance management, improved clash detection methods, work package improvements through early E&DCR incorporation, etc.
- These work stream improvement projects will benefit from the use of multi-disciplinary teams (design, construction, quality, etc.)

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Estimate Approach

- Estimates were compiled through an aggregation of data from multiple project team members and subcontractors for remaining work
- Estimates for June 2019(U2) and 2020(U3) Substantial Completion dates (SCD) were developed as the base case
- Accelerating actions were included to determine the December 2018 (U2) and December 2019 (U3) Substantial Completion estimates
- Productivity factors are assumed to improve over the remaining life of the project
- Respective estimates were reviewed between Consortium Members
- Target Price adjusted to reflect lower profit associated with exceeding Established Target Price

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Schedule Overview

- VC Summer Unit 2 – Substantial Completion June 2019 *(Impacted/Partially Accelerated)*
  - 5X10 construction work schedule with selective extended work schedules (near-term & MAB excluded)
  - Fabrication and delivery of Main Steam/Feed Water penetration module will support construction needs
  - Fabrication and delivery of the Shield Building panels are based on the delivery dates provided by the vendor
  - The critical path proceeds through shield building wall panel deliveries from NNI into erection of the shield building walls and installation of the air intake structure, shield wall tension ring, top hat, shield building roof and setting of the PCS tank module on the roof. The path continues to operational testing through Fuel Load, continuing through Power Ascension, 100 percent power, then Substantial Completion.
  - Liquidated damages are assumed in the estimate based on the IPS.

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Summary of Cost Impacts – Target

June 2019 SCD Impacted / Partially Accelerated Case[1]
$2007 $M

Cost Area	CO-16 Target	Proposed Estimate Target	Variance Target
Direct Labor – Site Specific	$94.3	$92.3	($2.0)
Direct Labor – Unit 2	$160.3	$274.3	$114.0
Direct Labor – Unit 3	$166.3	$272.9	$106.6
Indirect Construction Labor	$190.3	$244.7	$54.5
FNM	$400.3	$632.5	$232.2
Subcontracts	$272.4	$416.5	$144.1
Distributables	$261.9	$336.9	$75.0
FNM Expenses	$16.8	$17.0	$0.3
Construction Equipment Fuel	$12.8	$25.4	$12.7
Other Costs	$127.0	$193.0	$66.0
CBI SubTotal	**$1,702.3**	**$2,505.6**	**$803.2**
EPC Mgmt	-	$31.5	$31.5
Containment Vessel	$68.7	$155.0	$86.3
Plant Startup & Testing	-	-	-
Other	$21.0	$21.0	-
Westinghouse SubTotal	**$89.7**	**$207.5**	**$117.8**
Total	**$1,792.0**	**$2,713.1**	**$921.0**

[1]Cost only – Does not include G&A, Profit, etc.

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Summary of Cost Impacts – T&M

June 2019 SCD Impacted / Partially Accelerated Case[1]

$2007 $M

Cost Area	CO-16 T&M	Proposed Estimate T&M	Variance T&M
Direct Labor – Site Specific	-	-	-
Direct Labor – Unit 2	-	-	-
Direct Labor – Unit 3	-	-	-
Indirect Construction Labor	-	$26.5	$26.5
FNM	$0.1	$6.6	$6.5
Subcontracts	$0.7	$0.7	-
Distributables	$36.5	$18.0	($18.5)
FNM Expenses	-	$1.0	$1.0
Start-up	$96.2	$97.0	$0.8
Other Costs	$47.2	$56.6	$9.4
CBI SubTotal	**$180.7**	**$206.5**	**$25.8**
EPC Mgmt	-	-	-
Containment Vessel	-	-	-
Plant Startup & Testing	$61.0	$102.1	$41.1
Other	$50.4	$104.6	$54.2
Westinghouse SubTotal	**$111.5**	**$206.7**	**$95.3**
Total	**$292.2**	**$413.2**	**$121.1**

[1]Cost only – Does not include G&A, Profit, etc.

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Summary of Cost Impacts – Target

Dec 2018 SCD Accelerated Case[1]

$2007 $M

Cost Area	CO-16 Target	Impacted Partially Accelerated Target Est. June SC	Proposed Acceleration	Variance to CO-16 Target
Direct Labor – Site Specific	$94.3	$92.3	-	($2.0)
Direct Labor – Unit 2	$160.3	$274.3	$12.4	$126.4
Direct Labor – Unit 3	$166.3	$272.9	$12.4	$119.0
Indirect Construction Labor	$190.3	$244.7	$25.3	$79.8
FNM	$400.3	$632.5	$75.0	$307.2
Subcontracts	$272.4	$416.5	$1.6	$145.7
Distributables	$261.9	$336.9	$32.2	$107.3
FNM Expenses	$16.8	$17.0	$7.5	$7.8
Construction Equipment Fuel	$12.8	$25.4	-	$12.7
Other Costs	$127.0	$193.0	-	$66.0
CBI SubTotal	**$1,702.3**	**$2,505.6**	**$166.5**	**$969.7**
EPC Mgmt	-	$31.5	($10.5)	$21.0
Containment Vessel	$68.7	$155.0	-	$86.3
Plant Startup & Testing	-	-	-	-
Vendor Installation Support	$21.0	$21.0	-	-
Westinghouse SubTotal	**$89.7**	**$207.5**	**($10.5)**	**$107.3**
Total	**$1,792.0**	**$2,713.1**	**$156.0**	**$1,077.0**

[1]Cost only – Does not include G&A, Profit, etc

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Summary of Cost Impacts – T&M

Dec 2018 SCD Accelerated Case[1]

$2007 $M

Cost Area	CO-16 T&M	Impacted Partially Accelerated Target Est. June SC	Proposed Acceleration	Variance to CO-16 T&M
Direct Labor – Site Specific	-	-	-	-
Direct Labor – Unit 2	-	-	-	-
Direct Labor – Unit 3	-	-	-	-
Indirect Construction Labor	-	$26.5	$2.5	$29.0
FNM	$0.1	$6.6	-	$6.6
Subcontracts	$0.7	$0.7	-	-
Distributables	$36.5	$18.0	$1.8	($16.7)
FNM Expenses	-	$1.0	-	$1.0
Start-up	$96.2	$97.0	-	$0.9
Other Costs	$47.2	$56.6	-	$9.3
CBI SubTotal	**$180.7**	**$206.5**	**$4.3**	**$30.1**
EPC Mgmt	-	-	-	-
Containment Vessel	-	-	-	-
Plant Startup & Testing	$61.0	$102.1	($1.4)	$39.7
Other	$50.4	$104.6	($3.2)	$51.0
Westinghouse SubTotal	**$111.5**	**$206.7**	**($4.6)**	**$90.7**
Total	**$292.2**	**$413.0**	**($0.3)**	**$120.8**

[1]Cost only – Does not include G&A, Profit, etc

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CB&I Direct Construction Approach

- **Impacted (partially accelerated)**
  - Unit 2 Substantial Completion June 2019 (Unit 3 June 2020)
  - Productivity analysis performed (*see productivity section*) by evaluating cost per unit/building/discipline
  - Design quantities validated (*see quantities section*) and labor forecasted
  - Consolidated deviations since CO16 into estimate template
- **Accelerated schedule**
  - Assumes all improvements identified to support Impacted (partially accelerated) schedule.
  - Unit 2 Substantial Completion Dec 2018 (Unit 3 Dec 2019)
    - *NNI Acceleration – cost under evaluation*
    - *SB Erection Acceleration – cost under evaluation*
    - *Inclusion of Schedule Contingency – $165M*
    - *Reduction of hotel loads – ($13M)*

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CB&I Direct Construction Labor - Estimate – $2007 $M

June 2019 SCD Impacted/Partially Accelerated Case

Cost Area	Site Specific	Unit 2	Unit 3	Total
Above Ground Electrical	$10.7	$74.4	$74.4	$159.5
Above Ground Pipe	$8.1	$71.2	$71.6	$150.9
Building Construction	$0.1	$2.2	$2.2	$4.5
Civil Site Work	$35.3	$0.4	$0.7	$36.4
Concrete	$25.1	$65.7	$64.5	$155.3
Instrumentation & Control	$0.6	$8.8	$8.8	$18.2
Major Equipment	$2.0	$23.7	$22.4	$48.1
Modules	$0	$7.6	$7.8	$15.4
Structural Steel	$0.6	$19.8	$19.8	$40.2
Under Ground Electrical	$4.8	$0.2	$0.4	$5.4
Under Ground Pipe	$5.1	$0.3	$0.2	$5.6
Total	**$92.3**	**$274.3**	**$272.9**	**$639.5**

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CB&I Direct Construction Labor - Site Specific Variances $2007 $M

June 2019 SCD Impacted /Partially Accelerated Case

Cost Area	CO-16	Current Estimate	Variance
Above Ground Electrical	$7.5	$10.7	$3.1
Above Ground Pipe	$7.0	$8.1	$1.1
Building Construction	$0.1	$0.1	-
Civil Site Work	$16.4	$35.3	$18.9
Concrete	$27.8	$25.1	($2.6)
Instrumentation & Control	$0.2	$0.6	$0.4
Major Equipment	$29.8	$2.0	($27.8)
Modules	-	-	-
Structural Steel	$0.5	$0.6	$0.1
Under Ground Electrical	$3.3	$4.8	$1.5
Under Ground Pipe	$1.8	$5.1	$3.3
Total	**$94.3**	**$92.3**	**($2.0)**

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CB&I Direct Construction Labor - Unit 2 Variances $2007 $M

June 2019 SCD Impacted /Partially Accelerated Case

Cost Area	CO-16	Current Estimate	Variance
Above Ground Electrical	$46.6	$74.4	$27.8
Above Ground Pipe	$47.6	$71.2	$23.5
Building Construction	$0.9	$2.2	$1.4
Civil Site Work	-	$0.4	$0.4
Concrete	$29.8	$65.7	$36.0
Instrumentation & Control	$6.4	$8.8	$2.4
Major Equipment	$17.1	$23.7	$6.5
Modules	$1.0	$7.6	$6.7
Structural Steel	$10.7	$19.8	$9.1
Under Ground Electrical	-	$0.2	$0.1
Under Ground Pipe	$0.2	$0.3	$0.1
Total	**$160.3**	**$274.3**	**$114.0**

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CB&I Direct Construction Labor- Unit 3 Variances $2007 $M

June 2019 SCD Impacted /Partially Accelerated Case

Cost Area	CO-16	Current Estimate	Variance
Above Ground Electrical	$46.6	$74.4	$27.8
Above Ground Pipe	$47.6	$71.6	$24.0
Building Construction	$0.9	$2.2	$1.4
Civil Site Work	$0.2	$0.7	$0.5
Concrete	$29.6	$64.5	$34.8
Instrumentation & Control	$6.4	$8.8	$2.4
Major Equipment	$20.4	$22.4	$2.0
Modules	$3.4	$7.8	$4.3
Structural Steel	$10.7	$19.8	$9.1
Under Ground Electrical	$0.3	$0.4	$0.2
Under Ground Pipe	$0.2	$0.2	$0.1
Total	**$166.3**	**$272.9**	**$106.6**

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CB&I Direct Construction Labor Variance Explanations

Direct Construction Discipline	Variance Explanations in Addition to PF
Electrical	• Communications System Redesign • Raceway Design Change • Normal Shutdown After Fire
Pipe	• Design Development
Concrete	• NI Basemat • Tolerance issues • Density of rebar • Formwork updated takeoffs • Increases in Anchor Bolt & Embed Quantities • Increase of ~ 25,000 cy
Major Equipment	• Turbine Installation Work Hour estimate was low based on comparable projects
Modules	• Third Party takeoff of mechanical modules quantities
Structural Steel	• Turbine Building Steel design development / Decking / Grating

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CB&I Indirect Construction - $2007 $M

June 2019 SCD Impacted / Partially Accelerated Case

Cost Area	CO-16 Target	CO-16 T&M	Estimate Target	Estimate T&M	Variance Target	Variance T&M
Indirect Construction Labor	$190.3	-	$244.7	$26.5	$54.5	$26.5
FNM	$400.3	$.01	$632.5	$6.6	$232.2	$6.6
Direct Subcontracts	$220.0	$0.7	$357.7	$0.7	$137.6	-
Indirect Subcontracts	$52.4	-	$58.8	$0.1	$6.5	$0.1
Distributables	$261.9	$36.5	$336.9	$18.0	$75.0	($18.5)
FNM Expenses	$16.8	-	$17.0	$1.0	$0.3	$1.0
Construction Equipment (Fuel)	$12.8	-	$25.4	-	$12.7	-
Start-up	-	$96.2	-	$97.0		$0.9
Other Costs	$127.0	$47.2	$193.0	$56.6	$66.0	$9.3
Total	**$1,281.4**	**$180.7**	**$1,866.1**	**$206.5**	**$584.7**	**$25.8**

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CB&I Indirect Construction Assumptions

- Forward looking craft ratios (Direct to Indirect) are forecasted to be more in line with original estimate
- Cost for Facility/Infrastructure changes are incorporated.
- The estimate incorporates schedule extension since CO-16
- Indirect cost differential between Unit 2 Accelerated Schedule and Unit 2 Impacted/Partially Mitigated schedule are identified as those required for supporting the Shield Building

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CB&I Indirect Construction Variance Explanations

Indirect Cost Area	Variance Explanations
Indirect Construction Labor	• Impacts related to project evolution have caused increases in the temporary infrastructure • This includes additional facilities for a projected increase in the number of FNMs, increased laydown / storage space, extended durations of preventative maintenance, warehousing / material support personnel, etc.
FNM	• Field Engineering has been impacted by design tolerances, volume of E&DCRs, work package process, etc. • Increases in QA/QC resources is attributed to the increase in regulatory oversight, enhanced supplier inspections, and first article surveys • A Corrective Action Program (CAP)team has been assembled to maintain corrective actions Additional resources have been required to support the design evolution
Subcontracts	• The majority of Direct Subcontract impacts can be grouped into three buckets: design change impacts, scope shift from direct construction (shield building), and increased estimates
Distributables	• Impacts related to project evolution have caused increases in the temporary infrastructure • This includes additional facilities for an increased number of FNMs, increased laydown / storage space, etc. • Per Diem cost impacts are attributed to increases in quantities and productivity
FNM Expenses	• There were no significant impacts to the FNM expenses since CO-16
Construction Equipment Fuel	• Costs associated with the projected schedule duration modification and the cost of fuel
Start-Up Costs	• No significant impacts identified at this time
Other Costs	• Cost increases resulting from estimate changes • Use of mock-ups to prove design prior to field work

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CB&I Indirect Cost Mitigations

Indirect Cost Area	Mitigation Explanations
Indirect Construction Labor	• Reduction in the temporary infrastructure • Decrease in the ratio of Indirect to Direct craft
FNM	• Completion of Engineering with certainty of finalization and predictability of schedule • A decrease in the volume of E&DCRs • Reduction in the size, number and complexity of the Construction work packages

Subcontracts	• Completion of the Design and increased "White Space" will allow subcontractors to:
	  • Improve the pre-construction planning
	  • Ensure the resources are onsite and in place to execute work scopes

Distributables	• Improve the Craft Productivity thus decreasing Craft Per Diem • Improved planning will result in a reduction of other distributable costs
FNM Expenses	• Continuous monitoring of the FNM Expense accounts
Construction Equipment Fuel	• Improved planning associated with the construction equipment execution • Reduction in the overall amount of required equipment
Start-Up Costs	• Alignment of the Start-up with the updated IPS and continuous monitoring of progress
Other Costs	• Continuous monitoring of the Other Cost accounts in conjunction with mitigations above could reduce the risk of the project thus reducing the Other Costs impact

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Westinghouse Summary

- **Containment Vessel** (Target) -
  - Includes schedule delay estimate and change orders
- **Vendor Support** (Target) – No change in estimate
- **Engineering** (T&M)
  - Start Up & Testing
    - Includes scope changes, first of a kind testing per license (CVAP and FPOT), and hotel load costs
  - Licensing
    - Includes hotel load and projected overall licensing effort
  - Simulator Instructor Training – No change in estimate
  - Delayed COL Study – No change in estimate
  - ITAAC Maintenance - Includes estimate for regulatory change
  - Affordable Care Act - Estimate for regulatory change
- **Import Duties** (T&M)
  - Reduction based on actuals

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WEC Summary of Cost Impacts - Target
$2007 $M

June 2019 SCD Impacted/Partially Accelerated Case

Cost Area	CO-16 Target	Proposed Estimate Target	Variance Target
EPC Management	-	$31.5	$31.5
WEC Subcontracts	-	-	-
Containment Vessel (CBI Services)	$68.7	$155.0	$86.3
Vendor Installation Support	$21.0	$21.0	
Import Duties	-	-	-
Total WEC Costs	**$89.7**	**$207.5**	**$117.8**

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WEC Summary of Cost Impacts – T&M

$2007 $M

June 2019 SCD Impacted / Partially Accelerated Case

Cost Area	CQ-16 T&M	Proposed Estimate T&M	Variance T&M
WEC Engineering	-	-	-
Plant Startup & Testing	$61.0	$102.1	$41.1
Licensing	$2.2	$39.3	$37.1
Simulator Instructor Training	$3.1	$3.1	$0.0
Delayed COL Study	$0.1	$0.1	$0.0
ITAAC Maintenance	-	$3.0	$3.0
Affordable Care Act	-	$5.0	$5.0
Other T&M	-	$24.2	$24.2
Import Duties	$45.0	$30.0	($15.0)
Total WEC Costs	**$111.5**	**$206.7**	**$95.2**

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Individual Estimates

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Quantity Changes

- The Quantity Estimate was broken into three (3) "Phases"
  - Phase I – Represented the change in quantities in Progress Tracker from CO-16 to June 2014
  - Phase II – Engineering estimated quantities for which the specific detailed quantities have not been identified *(i.e.. cable feet but not specific gauge)*
  - Phase III – Engineering estimate of quantity risk associated with impacts that are known but have yet to be quantified are captured in contingency *(i.e.. normal shut down after fire)*
- Non-key quantities associated with the key quantities were estimated to increase by the same percentage as the key quantities (i.e. Rebar to Concrete).

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Craft Productivity

- Analysis and reviews performed and consideration given to:
  - Unit – ability to recognize efficiencies of 2nd unit
  - Building – congestion, regulatory oversight, engineering completeness
  - Discipline – project and industry history
- Current PF =1.41 (U2 =2.15, U3 =1.74, SS =1.07)
  - Estimate based on several factors
    - Currently only 12.9% complete with direct construction. Typically would not reforecast PF until 20% complete with a particular scope
    - Assumes future Regulatory changes will not impair craft productivity
    - Design Reconciliation advantages (e.g. Tekla modeling)
    - Work Process Stream Improvements
- ETC PF of 1.15 to be realized through gradual improvements over 6 month period

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CB&I Schedule Impacts Estimate Summary - $2007 $M

June 2019 SCD Impacted/Partially Accelerated Case

Cost Area	Estimate Target	Estimate T&M
Indirect Construction Labor	$65.3	$3.4
FNM	$65.5	$0.2
Subcontracts	-	$2.4
Distributables	$72.5	-
FNM Expenses	$1.0	-
Construction Equipment Fuel	$4.4	-
Total	**$208.6**	**$6.0**

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Conclusions

- Estimate includes aggressive actions to mitigate schedule and cost impacts.
- Project is actively pursuing other improvement opportunities to control Owner/Consortium costs.
- The Consortium EAC team will be available to provide additional supporting information and answer questions as needed.

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Appendices

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Client Change Orders

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Site Layout Estimate Summary - $2007 $M

Cost Area	Estimate Target
Direct Labor – Site Specific	$5.6
Indirect Construction Labor	$1.8
FNM	$2.5
Direct Subcontracts	$5.9
Indirect Subcontracts	$0.4
Distributables	$0.8
FNM Expenses	-
Construction Equipment Fuel	-
Other Costs	$3.4
Total	**$20.5**

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Site Layout

- Estimate development incorporated a bottoms up approach focused on the engineered quantities. The approach was similar to previously provided estimates including:
  - Indirect Craft was developed using crewed approach for work items
    - For Example: General site clean-up was based on ratios to direct craft as per the As-Sold estimate

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Cyber Security Estimate Summary - $2007 $M

Cost Area	T&M
Indirect Construction Labor	$0.1
FNM	$5.6
Subcontracts	-
Distributables	$0.2
FNM Expenses	$1.0
Construction Equipment Fuel	-
Start-Up Costs	-
Other Costs	$1.7
Westinghouse	$24.2
Total	$32.8

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Cyber Security

- The Consortium has identified approximately 180 commodities
  - 71 of the commodities are identified as being CB&I scope
- There are approximately 49 Standard Plant systems and 22 Site Specific commodities that are defined as critical.
- Direct Labor costs are based on an estimated 500 CDAs.
- CB&I will support WEC's lead in the development of a Critical Digital Asset Tamper Seal procedure (per Section 2.1.3 of the TD).
- CB&I estimates includes impacts associated with the revision and implementation of internal procedures
  - Initial estimate is a minimum of fifteen (15) procedures will be impacted by cyber security requirements

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Accelerated Client Summary (2007)

Substantial Completion Date Unit 2 - Dec 2018, Unit 3 - Dec 2019

000's	2007 Dollars Sch @CO-16 PSC Approved		Estimate Site layout		Estimate Cyber Security		Estimate Quantity Changes		Estimate Craft Productivity		Estimate Schedule Impact		Estimate Base Scope Refinement		Estimate Regulatory Driven		Estimate Contingency / Risk Evaluation		Estimate Other Misc Adjustments		Estimate Field Non Manual		Estimate Acceleration		Estimate Total Cost		Target Variance 2007 $'s	T&M Variance 2008 $'s
			Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars		Current Projected Costs 2007 Dollars					
	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	EPC Target	T&M	Amount	Amount
Area:																												
Site Specific																												
Above Ground Electrical	7,525	-	-	-	-	-	351	-	1,334	-	-	-					-	-	1,458	-					10,667	-	3,143	-
Above Ground Pipe	6,999	-	-	-	-	-	(1,047)	-	1,009	-	-	-					-	-	1,103	-					8,064	-	1,065	-
Building Construction	113	-	-	-	-	-	(10)	-	11	-	-	-					-	-	13	-					126	-	14	-
Civil Site Work	16,362	-	5,610	8	-	-	4,036	-	4,460	-	-	-					-	-	4,822	-					35,290	8	18,928	8
Concrete	27,772	-	-	-	-	-	(10,361)	-	3,715	-	-	-					-	-	4,007	-					25,134	-	(2,639)	-
Instrumentation & Control	177	-	-	-	-	38	235	-	74	-	-	-					-	-	81	-					567	38	390	38
Major Equipment	29,770	-	-	-	-	-	(28,000)	-	104	-	-	-					-	-	100	-					1,975	-	(27,795)	-
Modules	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-					-	-	-	-
Structural Steel	470	-	-	-	-	-	(37)	-	64	-	-	-					-	-	70	-					566	-	97	-
Under Ground Electrical	3,318	-	-	-	-	-	(3)	-	720	-	-	-					-	-	778	-					4,812	-	1,494	-
Under Ground Pipe	1,815	-	-	-	-	-	1,221	-	994	-	-	-					-	-	1,059	-					5,090	-	3,275	-
Total Direct Labor Site Specific	94,321	-	5,610	8	-	38	(33,615)	-	12,486	-	-	-	-	-	-	-	-	-	13,490	-	-	-	-	-	92,292	46	(2,029)	46
Direct Labor - Unit 2																												
Above Ground Electrical	46,617	-	-	-	-	-	11,027	-	8,039	-	-	-					-	-	8,750	-			12,410	-	86,843	-	40,226	-
Above Ground Pipe	47,604	-	-	-	-	-	4,462	-	9,149	-	-	-					-	-	9,937	-			-	-	71,151	-	23,548	-
Building Construction	860	-	-	-	-	-	758	-	294	-	-	-					-	-	321	-			-	-	2,234	-	1,374	-
Civil Site Work	28	-	-	-	-	-	258	-	54	-	-	-					-	-	59	-			-	-	400	-	371	-
Concrete	29,772	-	-	-	-	-	18,082	-	8,571	-	-	-					-	-	9,303	-			-	-	65,728	-	35,956	-
Instrumentation & Control	6,351	-	-	-	-	-	4	-	1,155	-	-	-					-	-	1,257	-			-	-	8,766	-	2,415	-
Major Equipment	17,114	-	-	-	-	-	(7,175)	-	4,472	-	-	-					-	-	9,250	-			-	-	23,662	-	6,547	-
Modules	978	-	-	-	-	-	3,151	-	782	-	-	-					-	-	2,737	-			-	-	7,648	-	6,670	-
Structural Steel	10,716	-	-	-	-	-	3,529	-	2,673	-	-	-					-	-	2,908	-			-	-	19,826	-	9,111	-
Under Ground Electrical	44	-	-	-	-	-	65	-	20	-	-	-					-	-	22	-			-	-	152	-	108	-
Under Ground Pipe	210	-	-	-	-	-	32	-	21	-	-	-					-	-	24	-			-	-	287	-	77	-
Total Direct Labor Unit 2	160,294	-	-	-	-	-	34,193	-	35,231	-	-	-	-	-	-	-	-	-	44,568	-	-	-	12,410	-	286,696	-	126,402	-
Direct Labor - Unit 3																												
Above Ground Electrical	46,611	-	-	-	-	-	11,027	-	8,037	-	-	-					-	-	8,747	-			12,410	-	86,833	-	40,221	-
Above Ground Pipe	47,637	-	-	-	-	-	4,882	-	9,145	-	-	-					-	-	9,940	-			-	-	71,604	-	23,966	-
Building Construction	858	-	-	-	-	-	758	-	294	-	-	-					-	-	321	-			-	-	2,231	-	1,373	-
Civil Site Work	184	-	-	-	-	-	343	-	98	-	-	-					-	-	107	-			-	-	733	-	549	-
Concrete	29,640	-	-	-	-	-	18,113	-	7,996	-	-	-					-	-	8,712	-			-	-	64,461	-	34,821	-
Instrumentation & Control	6,351	-	-	-	-	-	4	-	1,155	-	-	-					-	-	1,257	-			-	-	8,766	-	2,415	-
Major Equipment	20,442	-	-	-	-	-	(10,378)	-	3,795	-	-	-					-	-	8,550	-			-	-	22,409	-	1,966	-
Modules	3,441	-	-	-	-	-	823	-	781	-	-	-					-	-	2,735	-			-	-	7,780	-	4,339	-
Structural Steel	10,716	-	-	-	-	-	3,527	-	2,664	-	-	-					-	-	2,899	-			-	-	19,806	-	9,090	-
Under Ground Electrical	262	-	-	-	-	-	61	-	59	-	-	-					-	-	64	-			-	-	447	-	185	-
Under Ground Pipe	159	-	-	-	-	-	32	-	21	-	-	-					-	-	23	-			-	-	235	-	76	-
Total Direct Labor Unit 3	166,302	-	-	-	-	-	29,192	-	34,045	-	-	-	-	-	-	-	-	-	43,354	-	-	-	12,410	-	285,303	-	119,001	-
Total Direct Construction Labor	420,917	-	5,610	8	-	38	29,770	-	81,763	-	-	-	-	-	-	-	-	-	101,412	-	-	-	24,819	-	664,292	46	243,374	46
Indirect Construction Labor	190,270	-	1,769	28	-	113	-	-	-	-	65,252	3,434					-	-	(12,560)	22,932	*		* 25,344	2,537	270,074	29,044	79,805	29,044
FNM	400,341	10	2,493	-	-	5,564	-	-	-	-	65,495	156					-	-			164,187	849	75,001	-	707,516	6,579	307,176	6,569
Direct Subcontracts	220,029	720	5,949	-	-	-	57,575	-	-	-	-	-					-	-	74,095	(66)			-	-	357,647	654	137,619	(66)
Indirect Subcontracts	52,374	-	376	-	-	5	-	-	-	-	-	-					-	-	6,087	-			1,606	-	60,443	5	8,069	5
Distributables	261,882	36,518	826	-	-	213	-	-	-	-	72,457	2,435					-	-	1,754	(21,118)			32,212	1,772	369,131	19,819	107,250	(16,699)
FNM Expenses	16,755	2	-	-	-	1,017	-	-	-	-	1,001	-					-	-	(727)	(1)			7,513	-	24,542	1,018	7,787	1,016
Construction Equipment Fuel	12,755	-	-	-	-	-	-	-	-	-	4,440	-					-	-	8,228	-			-	-	25,423	-	12,668	-
Start-Up Costs	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-			-	-	-	-	-	-
Craft Labor S/U	-	12,111	-	-	-	-	-	-	-	-	-	-					-	-	-	926			-	-	-	13,037	-	926
FNM Labor S/U	-	7,868	-	-	-	-	-	-	-	-	-	-					-	-	-	771			-	-	-	8,639	-	771
Other S/U	-	76,224	-	-	-	-	-	-	-	-	-	-					-	-	-	(829)			-	-	-	75,395	-	(829)
Other Costs	127,000	47,242	3,442	-	-	1,709	-	-	-	-	-	-					74,529	-	(11,995)	7,626			-	-	192,976	56,576	65,976	9,334
Total CB&I Costs	1,702,322	180,694	20,465	36	-	8,659	87,346	-	81,763	-	208,645	6,026	-	-	-	-	74,529	-	166,294	10,241	164,187	849	166,494	4,309	2,672,045	210,813	969,723	30,119
G & A	52,602	4,199																							82,566	5,130	29,964	931
Subtotal	1,754,924	184,893																							2,754,611	215,943	999,687	31,049
Profit	80,060	6,391																							128,511	10,229	48,451	3,838
Subtotal Unadjusted Price	1,834,984	191,285																							2,883,122	226,172	1,048,139	34,887
Target Price Adjustment	-																								(104,493)	-	(104,493)	-
Total Contract Target Price Payment (CB&I)	1,834,984																								2,778,629	226,172	943,646	226,172
EPC Mgmt/ Construction Support	-	-	-	-	-	-	-	-	-	-	-	-	21,000	-	-	-	-	-	-	-	-	-	-	-	21,000	-	21,000	-
WEC Subcontracts																												
Containment Vessel (CBI Services)	68,720										61,250		25,000												154,970	-	86,250	-
Vendor Installation Support	21,000																								21,000	-	-	-
WEC Engineering																									-	-	-	-
Plant Startup & Testing		61,047										2,700		15,000		22,000									-	100,747	-	39,700
Licensing		2,242										4,700		30,000											-	36,942	-	34,700
Simulator Instructor Training		3,124																							-	3,124	-	-
Delayed COL Study		50																							-	50	-	-
ITAAC Maintenance																2,625									-	2,625	-	2,625
Affordable Care Act																4,500									-	4,500	-	4,500
Other T&M						24,181																			-	24,181	-	24,181
Import Duties		45,000												(15,000)											-	30,000	-	(15,000)
Total WEC Costs	89,720	111,463	-	-	-	24,181	-	-	-	-	61,250	7,400	46,000	30,000	-	29,125	-	-	-	-	-	-	-	-	196,970	202,169	107,250	90,706
G & A	4,008																								8,673	-	4,665	-
Subtotal APC	93,728	111,463																							205,643	202,169	111,915	90,706
Profit	7,264																								15,937	-	8,673	-
Subtotal Unadjusted Price	100,992	111,463																							221,581	202,169	120,589	90,706
Target Price Adjustment																									(13,758)	-	(13,758)	-
Total Contract Target Price Payment (WEC)	100,992	111,463																							207,823	202,169	106,831	90,706
Total Project (Combined Cost)	1,792,042	292,157																							2,869,015	412,982	1,076,973	120,825
Total Project (Combined Price)	1,935,976	302,748																							2,986,452	428,341	1,050,476	125,593

Impacted/Partially Accelerated Client Summary (2007)

Substantial Completion Date Unit 2 - June 2019, Unit 3 - June 2020

000's	2007 Dollars Sch @ CO-16 PSC Approved		Estimate Site layout Current Projected Costs 2007 Dollars		Estimate Cyber Security Current Projected Costs 2007 Dollars		Estimate Quantity Changes Current Projected Costs 2007 Dollars		Estimate Craft Productivity Current Projected Costs 2007 Dollars		Estimate Schedule Impact Current Projected Costs 2007 Dollars		Estimate Base Scope Refinement Current Projected Costs 2007 Dollars		Estimate Regulatory Driven Current Projected Costs 2007 Dollars		Estimate Contingency / Risk Evaluation Current Projected Costs 2007 Dollars		Estimate Other Misc Adjustments Current Projected Costs 2007 Dollars		Estimate Field Non Manual Current Projected Costs 2007 Dollars		Estimate Acceleration Current Projected Costs 2007 Dollars		Estimate Total Cost Current Projected Costs 2007 Dollars		Target Variance 2007 $'s Amount	T&M Variance 2008 $'s Amount
	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	Target	T&M	EPC Target	T&M		
Area:																														
Site Specific																														
Above Ground Electrical	7,525	-	-	-	-	-	351	-	1,334	-	-	-					-	-	1,458	-					10,667	-	3,143	-		
Above Ground Pipe	6,999	-	-	-	-	-	(1,047)	-	1,009	-	-	-					-	-	1,103	-					8,064	-	1,065	-		
Building Construction	113	-	-	-	-	-	(10)	-	11	-	-	-					-	-	13	-					126	-	14	-		
Civil Site Work	16,362	-	5,610	8	-	-	4,036	-	4,460	-	-	-					-	-	4,822	-					35,290	8	18,928	8		
Concrete	27,772	-	-	-	-	-	(10,361)	-	3,715	-	-	-					-	-	4,007	-					25,134	-	(2,639)	-		
Instrumentation & Control	177	-	-	-	-	38	235	-	74	-	-	-					-	-	81	-					567	38	390	38		
Major Equipment	29,770	-	-	-	-	-	(28,000)	-	104	-	-	-					-	-	100	-					1,975	-	(27,795)	-		
Modules	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-					-	-	-	-		
Structural Steel	470	-	-	-	-	-	(37)	-	64	-	-	-					-	-	70	-					566	-	97	-		
Under Ground Electrical	3,318	-	-	-	-	-	(3)	-	720	-	-	-					-	-	778	-					4,812	-	1,494	-		
Under Ground Pipe	1,815	-	-	-	-	-	1,221	-	994	-	-	-					-	-	1,059	-					5,090	-	3,275	-		
Total Direct Labor Site Specific	94,321	-	5,610	8	-	38	(33,615)	-	12,486	-	-	-	-	-	-	-	-	-	13,490	-	-	-	-	-	92,292	46	(2,029)	46		
Direct Labor - Unit 2																														
Above Ground Electrical	46,617	-	-	-	-	-	11,027	-	8,039	-	-	-					-	-	8,750	-					74,433	-	27,816	-		
Above Ground Pipe	47,604	-	-	-	-	-	4,462	-	9,149	-	-	-					-	-	9,937	-					71,151	-	23,548	-		
Building Construction	860	-	-	-	-	-	758	-	294	-	-	-					-	-	321	-					2,234	-	1,374	-		
Civil Site Work	28	-	-	-	-	-	258	-	54	-	-	-					-	-	59	-					400	-	371	-		
Concrete	29,772	-	-	-	-	-	18,082	-	8,571	-	-	-					-	-	9,303	-					65,728	-	35,956	-		
Instrumentation & Control	6,351	-	-	-	-	-	4	-	1,155	-	-	-					-	-	1,257	-					8,766	-	2,415	-		
Major Equipment	17,114	-	-	-	-	-	(7,175)	-	4,472	-	-	-					-	-	9,250	-					23,662	-	6,547	-		
Modules	978	-	-	-	-	-	3,151	-	782	-	-	-					-	-	2,737	-					7,648	-	6,670	-		
Structural Steel	10,716	-	-	-	-	-	3,529	-	2,673	-	-	-					-	-	2,908	-					19,826	-	9,111	-		
Under Ground Electrical	44	-	-	-	-	-	65	-	20	-	-	-					-	-	22	-					152	-	108	-		
Under Ground Pipe	210	-	-	-	-	-	32	-	21	-	-	-					-	-	24	-					287	-	77	-		
Total Direct Labor Unit 2	160,294	-	-	-	-	-	34,193	-	35,231	-	-	-	-	-	-	-	-	-	44,568	-	-	-	-	-	274,287	-	113,992	-		
Direct Labor - Unit 3																														
Above Ground Electrical	46,611	-	-	-	-	-	11,027	-	8,037	-	-	-					-	-	8,747	-					74,423	-	27,812	-		
Above Ground Pipe	47,637	-	-	-	-	-	4,882	-	9,145	-	-	-					-	-	9,940	-					71,604	-	23,966	-		
Building Construction	858	-	-	-	-	-	758	-	294	-	-	-					-	-	321	-					2,231	-	1,373	-		
Civil Site Work	184	-	-	-	-	-	343	-	98	-	-	-					-	-	107	-					733	-	549	-		
Concrete	29,640	-	-	-	-	-	18,113	-	7,996	-	-	-					-	-	8,712	-					64,461	-	34,821	-		
Instrumentation & Control	6,351	-	-	-	-	-	4	-	1,155	-	-	-					-	-	1,257	-					8,766	-	2,415	-		
Major Equipment	20,442	-	-	-	-	-	(10,378)	-	3,795	-	-	-					-	-	8,550	-					22,409	-	1,966	-		
Modules	3,441	-	-	-	-	-	823	-	781	-	-	-					-	-	2,735	-					7,780	-	4,339	-		
Structural Steel	10,716	-	-	-	-	-	3,527	-	2,664	-	-	-					-	-	2,899	-					19,806	-	9,090	-		
Under Ground Electrical	262	-	-	-	-	-	61	-	59	-	-	-					-	-	64	-					447	-	185	-		
Under Ground Pipe	159	-	-	-	-	-	32	-	21	-	-	-					-	-	23	-					235	-	76	-		
Total Direct Labor Unit 3	166,302	-	-	-	-	-	29,192	-	34,045	-	-	-	-	-	-	-	-	-	43,354	-	-	-	-	-	272,894	-	106,592	-		
Total Direct Construction Labor	420,917	-	5,610	8	-	38	29,770	-	81,763	-	-	-	-	-	-	-	-	-	101,412	-	-	-	-	-	639,473	46	218,555	46		
Indirect Construction Labor	190,270	-	1,769	28	-	113	-	-	-	-	65,252	3,434					-	-	(12,560)	22,932					244,730	26,507	54,461	26,507		
FNM	400,341	10	2,493	-	-	5,564	-	-	-	-	65,495	156					-	-			164,187	849			632,516	6,579	232,175	6,569		
Direct Subcontracts	220,029	720	5,949	-	-	-	57,575	-	-	-	-	-					-	-	74,095	(66)					357,647	654	137,619	(66)		
Indirect Subcontracts	52,374	-	376	-	-	5	-	-	-	-	-	-					-	-	6,087	-					58,838	5	6,463	5		
Distributables	261,882	36,518	826	-	-	213	-	-	-	-	72,457	2,435					-	-	1,754	(21,118)					336,919	18,048	75,038	(18,470)		
FNM Expenses	16,755	2	-	-	-	1,017	-	-	-	-	1,001	-					-	-	(727)	(1)					17,029	1,018	274	1,016		
Construction Equipment Fuel	12,755	-	-	-	-	-	-	-	-	-	4,440	-					-	-	8,228	-					25,423	-	12,668	-		
Start-Up Costs	-	-	-	-	-	-	-	-	-	-	-	-					-	-	-	-					-	-	-	-		
Craft Labor S/U	-	12,111	-	-	-	-	-	-	-	-	-	-					-	-	-	926					-	13,037	-	926		
FNM Labor S/U	-	7,868	-	-	-	-	-	-	-	-	-	-					-	-	-	771					-	8,639	-	771		
Other S/U	-	76,224	-	-	-	-	-	-	-	-	-	-					-	-	-	(829)					-	75,395	-	(829)		
Other Costs	127,000	47,242	3,442	-	-	1,709	-	-	-	-	-	-					74,529	-	(11,995)	7,626					192,976	56,576	65,976	9,334		
Total CB&I Costs	1,702,322	180,694	20,465	36	-	8,659	87,346	-	81,763	-	208,645	6,026	-	-	-	-	74,529	-	166,294	10,241	164,187	849	-	-	2,505,551	206,504	803,229	25,810		
G & A	52,602	4,199																							77,422	4,997	24,820	798		
Subtotal	1,754,924	184,893																							2,582,973	211,501	828,049	26,608		
Profit	80,060	6,391																							117,835	9,680	37,776	3,289		
Subtotal Unadjusted Price	1,834,984	191,285																							2,700,808	221,181	865,824	29,896		
Target Price Adjustment	-																								(93,817)	-	(93,817)	-		
Total Contract Target Price Payment (CB&I)	1,834,984	191,285																							2,606,990	221,181	772,007	29,896		
EPC Mgmt/ Construction Support	-	-	-	-	-	-	-	-	-	-	-	-	31,500	-	-	-	-	-	-	-	-	-	-	-	31,500	-	31,500	-		
WEC Subcontracts																														
Containment Vessel (CBI Services)	68,720										61,250		25,000												154,970	-	86,250	-		
Vendor Installation Support	21,000																								21,000	-	-	-		
WEC Engineering																									-	-	-	-		
Plant Startup & Testing		61,047										4,050		15,000		22,000									-	102,097	-	41,050		
Licensing		2,242										7,050		30,000											-	39,292	-	37,050		
Simulator Instructor Training		3,124																							-	3,124	-	-		
Delayed COL Study		50																							-	50	-	-		
ITAAC Maintenance																3,000									-	3,000	-	3,000		
Affordable Care Act																5,000									-	5,000	-	5,000		
Other T&M						24,181																			-	24,181	-	24,181		
Import Duties		45,000												(15,000)											-	30,000	-	(15,000)		
Total WEC Costs	89,720	111,463	-	-	-	24,181	-	-	-	-	61,250	11,100	56,500	30,000	-	30,000	-	-	-	-	-	-	-	-	207,470	206,744	117,750	95,281		
G & A	4,008																								9,130	-	5,122	-		
Subtotal APC	93,728	111,463																							216,600	206,744	122,872	95,281		
Profit	7,264																								16,787	-	9,523	-		
Subtotal Unadjusted Price	100,992	111,463																							233,387	206,744	132,395	95,281		
Target Price Adjustment																									(14,607)	-	(14,607)	-		
Total Contract Target Price Payment (WEC)	100,992	111,463																							218,779	206,744	117,787	95,281		
Total Project (Combined Cost)	1,792,042	292,157																							2,713,021	413,248	920,979	121,091		
Total Project (Combined Price)	1,935,976	302,748																							2,825,770	427,925	889,794	125,177		

EAC Review Team

Preliminary Update

Preparation for 10/13/14 Executive Meeting

KEN BROWNE, MARGARET FELKEL, KEVIN KOCHEMS, SHERI WICKER, AND KYLE YOUNG

CONFIDENTIAL DRAFT

Prepared 10/6/2014

EXHIBIT 4
WIT: Jones
DATE: 10-16-18
K. KIDWELL, RMR, CRR, CRC

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Introduction

- Acknowledging that the EAC Review Team (EAC Team) has not completed its review, this presentation is a summary of costs we believe the Consortium is not entitled to.

- Note that all dollar amounts are 100%, in 2007 dollars, and based on COD's of 12/18 and 12/19.

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CB&I Direct Craft Productivity

- CB&I projects the To-Go PF will be 1.15. (ITD PF as of 8/14 is 1.46.)
- EAC Team recommends holding CB&I accountable to this PF, only paying up to this level.
- EAC Team anticipates a To-Go PF closer to 1.40 and recalculated the cost, resulting in an additional increase of approximately $101M. (This is the cost impact of the To-Go PF of 1.40 vs. 1.15 and is not included in the Consortium EAC.)
- This does not address excessive Indirect Craft present on site and an additional opportunity exists to challenge costs above established Direct/Indirect ratios.

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CB&I Schedule Impact

- CB&I estimates the Structural Module Delay in the schedule costs **$221M.**
- Based on CB&I's estimating methodology, the EAC Team believes this to be an inflated cost. Consortium did an estimate w/ a look forward on incremental cost we think last 12 months were the delay
- EAC Team recommends $0 entitlement as the delay is due to Structural Module Delays.
- In addition, CB&I has included a cost impact of **$114M** from 2013 Basemat Rebar "WEC Design Issue" in the "Other Misc. Adjustments" column of the EAC. (It is assumed that this cost has already been incurred by the Owner.)

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CB&I Contingency

- CB&I projects an additional $77M of contingency for a total contingency of $200M.
- EAC Team recommends removal of the $77M from EAC, leaving $123M remaining in contingency.
- Note: The Consortium Contingency account of $123M has been restored due to inclusion of previous usage of contingency in the "Quantity Changes" and "Other Misc. Adjustments" categories of the EAC.

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CB&I Shield Building Risk

- In addition to the CB&I issues contained in the EAC provided by the Consortium, the EAC review team has identified an omission that should be mentioned
  - Construction of the Shield Building presents an additional risk to the Project.
  - Increasing the base labor hours for Shield Building erection to the original estimate quantities represents an increase of $14.9M to the EAC at CB&I Services labor rates.

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CB&I Field Non-Manual

- CB&I projects an increase in FNM costs of $170M. [total $307M in "other" +
- EAC Team verified the EAC using the current CB&I FNM plan, which is lean. The EAC Team does not anticipate that CB&I will be able to comply with this plan.
- CB&I currently receives a contract based mark-up of 1.70 for all FNM labor costs. The Owner has verified on numerous occasions that the mark-up CB&I actually incurs on FNM labor costs is approximately 1.30.
- EAC Team recommends a reduction in FNM mark-up for all additional FNM costs above the original estimate using a 1.40 mark-up. This will result in an EAC reduction of approximately $48M.

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CB&I Acceleration

- CB&I projects an increase of approximately **$168M** for acceleration to meet the December 2018/2019 SCDs.
- This cost is based on a limited night shift of 340 Direct Craft, 100 Indirect Craft, and 60 FNM. There is also an additional 100 FNM on day shift to support the night shift.
- The proposed September 2018/November 2019 schedule will result in additional acceleration impacts, not yet quantified by the Consortium.
- EAC Team recommends $0 entitlement because the acceleration is necessary due to Structural Module Delays.

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CB&I Woodlands Cuts

- CB&I cut the EAC by $296M at a very high-level. How these cuts will be realized has yet to be determined.
- Under Target Price scheme, all actual costs are reimbursed.

	Woodlands Adjustmant	Project Adjustment	Total Adjustment
Indirect	(30,000)	-	(30,000)
FE Increase	(163,500)	-	(163,500)
FNM Reduction	(49,000)	-	(49,000)
Project Adjustment	-	25,000	25,000
FNM	(212,500)	25,000	(187,500)
Direct Subcontracts	(19,300)	-	(19,300)
Distribs	(37,000)	-	(37,000)
Escalation	(23,400)	-	(23,400)
OOMs	(532)	-	(532)
Project ICA	1,629	-	1,629
Other Costs	(22,303)	-	(22,303)
Total	(321,103)	25,000	(296,103)

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WEC Schedule Impact

- WEC projects a delay in the schedule will cost **$76M.**
- $64M of the $76M is due to increases in the CV subcontract cost. EAC Team found several errors in this estimate reducing the EAC impact to $35M. (WEC has been requested to revise the EAC)
- $12M of the $76M is due to hotel load increases for Plant Start-up and Licensing.
- EAC Team recommends $0 entitlement because the delay is due to Structural Module Delays.

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Base Scope Refinement

- **EPC Management** -WEC has indicated that their 'best talent' approach, in addition to CB&I on-site management, will add WEC staff costs totaling approximately **$22M**.
- WEC EPC Target Work Scope does **not** currently include this function or cost.
- EAC Team recommends $0 entitlement as this cost is due to Consortium (CB&I) inefficiencies.
- **Licensing**-WEC projects an increase in the Licensing T&M costs totaling **$28M**.
- EAC Team recommends $0 entitlement as this is Firm Price work.

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Regulatory Driven

- **Start-up and Testing** -WEC projects an increase in CVAP and FOAK testing of $23M. (Waiting on WEC Cost…)

- EAC Team recommends all home office planning and procedure development be removed from the EAC and considered Firm price $11.5M. (Pending receipt of WEC Cost)

(CVAP) Comprehensive vibration program

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Owner Challenges

- The cost of unrealized savings projections that have been included in the EAC by the Consortium will be reimbursed under Target Price and T&M payment processes.
- Much of the costs for Structural Module Delays and Pf-Impacts have already been paid through Target Price payments.
- When it is determined these or similar costs will not be paid by the Owner, the process to ensure they are withheld from an invoice will be a significant challenge. (Consortium may not agree with the reductions).

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