

**THE OFFICE OF REGULATORY STAFF**

**DIRECT TESTIMONY & EXHIBITS**

**OF**

**M. ANTHONY JAMES, P.E.**

**AUGUST 14, 2018**



**DOCKET NO. 2017-207, 305, 370-E**

**Request of the Office of Regulatory Staff for Rate Relief to South Carolina Electric & Gas Company's Rates Pursuant to S.C. Code Ann. § 58-27-920**

1 **DIRECT TESTIMONY & EXHIBITS OF**

2 **M. ANTHONY JAMES, P.E.**

3 **ON BEHALF OF**

4 **THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF**

5 **DOCKET NO. 2017-207, 305, 370-E**

6 **IN RE: REQUEST OF THE OFFICE OF REGULATORY STAFF FOR RATE**

7 **RELIEF TO SOUTH CAROLINA ELECTRIC & GAS COMPANY'S RATES**

8 **PURSUANT TO S.C. CODE ANN. § 58-27-920**

9  
10 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.**

11 **A.** My name is Anthony James. My business address is 1401 Main Street, Suite 900,  
12 Columbia, South Carolina 29201. I am employed by the State of South Carolina as the  
13 Director of Energy Policy for the Office of Regulatory Staff (“ORS”).

14 **Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

15 **A.** I hold a Bachelor’s Degree in Engineering and a Master’s Degree in Earth and  
16 Environmental Resources Management from the University of South Carolina. I am a  
17 Professional Engineer registered in the State of South Carolina. I am also a Certified Public  
18 Manager. I have been employed as a Project Engineer at environmental engineering  
19 consulting firms and at the South Carolina Department of Health and Environmental  
20 Control (“DHEC”). I joined DHEC in 1991 and was ultimately responsible for  
21 coordinating DHEC’s statewide wastewater compliance efforts. In 2004, I joined ORS  
22 working in the Electric Department where I held various staff positions. I was promoted  
23 to Deputy Director of the Electric and Natural Gas Division in 2012. As Deputy Director,

1 my duties grew to include providing general oversight of the Electric Department as well  
2 as the Natural Gas Department. In 2014, I was promoted to Director of New Nuclear  
3 Development to monitor the two (2) new nuclear construction projects in South Carolina –  
4 the SCE&G V.C. Summer Nuclear Units 2 and 3 located in Jenkinsville, SC (the “Project”)  
5 and the Duke Energy project in Cherokee, SC. In 2015, I was promoted to Director of  
6 Energy Policy. As Director of Energy Policy, I continue to be responsible for the  
7 monitoring of new nuclear construction projects; however, I am now also responsible for  
8 directing the activities of the State Energy Office. I have more than twenty-five years of  
9 experience as an environmental engineer in regulatory compliance.

10 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC SERVICE**  
11 **COMMISSION OF SOUTH CAROLINA (“COMMISSION” OR “PSC”)?**

12 **A.** Yes. I have testified before the Commission in general base rate cases, several fuel  
13 adjustment clause proceedings, and hearings to update the schedule and budget for the  
14 Project. I have also been an ORS witness in proceedings related to renewable energy  
15 resources, specifically, net metering programs and smart grid standards, and provided  
16 updates to the PSC via allowable ex parte briefings.

17 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS**  
18 **PROCEEDING?**

19 **A.** The purpose of my direct testimony is to provide support for ORS’s request for  
20 suspension of the revised rates collection approved by the Commission associated with the  
21 South Carolina Electric & Gas Company’s (“SCE&G” or “Company”) construction of the  
22 Project. However, my testimony will not address the legal issues surrounding the Base

1 Load Review Act (“BLRA”), which are currently being addressed by the South Carolina  
2 State Attorney General’s office. These are legal arguments, and I am not an attorney.

3 **Q. PLEASE STATE WHY ORS BELIEVES REVISED RATES COLLECTION**  
4 **SHOULD BE SUSPENDED.**

5 **A.** Revised rates should be suspended for a number of reasons. The South Carolina  
6 Attorney General has called into question the constitutionality of the BLRA. ORS does  
7 not believe ratepayers should continue to pay SCE&G pursuant to a statute deemed  
8 “constitutionally suspect” by the South Carolina Attorney General. Moreover, SCE&G  
9 has stopped construction of the Project. As a result, it should no longer receive the same  
10 benefits as if construction was ongoing. Finally, SCE&G withheld material information  
11 from the Commission and ORS. ORS’s investigation is not yet complete, but it shows that  
12 the Bechtel Power Corporation’s (“Bechtel”) Project assessment which included a detailed  
13 schedule analysis was never shared with the Commission. Governor McMaster released  
14 the 2016 Bechet Report and has supported ORS’s efforts to obtain information (*See Direct*  
15 *Exhibit MAJ-1*).

16 The South Carolina Public Service Authority (“Santee Cooper”) has provided ORS  
17 with access to documents and information that has been of great assistance to ORS. ORS  
18 continues to review documents provided by Santee Cooper and by SCE&G. Together, the  
19 number of pages approach 2 million.

20 **Q. PLEASE IDENTIFY CERTAIN PERTINENT INFORMATION WITHHELD BY**  
21 **SCE&G.**

22 **A.** While SCE&G has continued to refuse to cooperate by providing ORS the  
23 necessary information, ORS has been able to fill in certain gaps by using records that

1 Santee Cooper, a state agency, provided. The documents set forth in Direct Testimony of  
2 Elizabeth H. Warner, Exhibit A support ORS's contention that information was withheld  
3 from the PSC. They are attached to the Direct Testimony of Ms. Elizabeth Warner, the  
4 Vice President, Legal Services and Corporate Secretary for Santee Cooper, who affirms  
5 that these documents are state records.

6 **Q. PLEASE PROVIDE EXAMPLES OF THE INFORMATION WITHHELD.**

7 **A.** By the fall of 2014, SCANA (SCE&G's parent company) agreed to hire an outside  
8 engineering firm to conduct a comprehensive assessment of the Project to determine its  
9 overall status (*See* Direct Testimony of Elizabeth H. Warner, Exhibit A.1 ORS\_00002007).

10 At no time during the hearings held July 21-22, 2015, did SCE&G disclose to the  
11 Commission that it intended to have Bechtel provide an assessment of the Project. A  
12 review of the hearing transcripts in Docket No. 2015-103-E reflects that Bechtel was never  
13 mentioned. Yet, the Company acknowledged in its Exhibits 8, 10, and 13 of its response  
14 to ORS's Motion to Compel<sup>1</sup>, that meetings with Bechtel took place on or about April 7,  
15 2015, July 1, 2015, and July 13, 2015. SCE&G's Exhibit 12, an email from Jeff Archie  
16 (SCE&G Sr. V.P. & Chief Nuclear Officer) to Steve Byrne (former SCE&G President for  
17 Generation and Transmission), dated July 16, 2015, discusses the issue of "Precluding  
18 complications with the litigation with SNC is something that the consortium is very  
19 interested in and it resonates with Mike."

20 On October 22, 2015, Bechtel provided the Project owners, SCE&G and Santee  
21 Cooper, a power point presentation of their assessment results (SCE&G Exhibit 9).

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<sup>1</sup> *See* Direct Exhibit MAJ-2 (SCE&G Exhibits 8, 9, 10, 12, 13 and 31).

1 Company representatives Kevin Marsh (former Chairman and CEO of SCANA and  
2 SCE&G), Steve Byrne and Jeff Archie attended the Bechtel presentation.

3 On page 24, Bechtel's schedule assessment shows the commercial operation dates  
4 for Unit 2 would fall between December 2020 and August 2021 and for Unit 3 would fall  
5 between June 2022 and June 2023. A month earlier, the PSC approved new completion  
6 dates of June 2019 for Unit 2 and June 2020 for Unit 3. The Bechtel dates were years  
7 beyond the dates that had just been approved by the Commission.

8 Additionally, according to SCE&G, the federal production tax credits ("PTCs")  
9 were worth approximately \$1.1 billion per unit or \$2.2 billion in total. Although there were  
10 other criteria to qualify for the PTCs, the most pivotal was the requirement that the new  
11 units must be in service before January 1, 2021. The Bechtel dates show that neither unit  
12 would likely qualify for the PTCs and thereby force the Company to forego \$2.2 billion in  
13 ratepayer benefits. The Bechtel completion dates were of great monetary significance and  
14 strong motivation for SCE&G to conceal the Bechtel assessment.

15 As reflected in SCE&G Exhibit 31 provided by SCE&G in response to ORS's  
16 Motion to Compel, a meeting was held on January 14, 2016 regarding the Bechtel  
17 assessment. GW (George Wenick) provides that he is just counsel and provides guidance,  
18 and he warns "if we don't  $\Delta$  their prediction will be viewed as owners opinion –  
19 consequences." Those consequences are not specified but they are clearly motivation for  
20 concealing the assessment. Lonnie Carter, (former Santee Cooper President and CEO),  
21 asked if there could be two reports one public and one not, and he expressed concern that  
22 the report would be viewed as "whitewashed." Kevin Marsh (KBM) stated that the  
23 presentation in October was the report.

1 **Q. DID SCE&G SEEK TO KEEP THE BECHTEL ASSESSMENT HIDDEN?**

2 **A.** Yes. The February 2016 Bechtel report was published in 2017 by the *Post &*  
3 *Courier*, and that document curiously states that “A specific assessment of the project  
4 schedule is not included in this report.” (Page 3). (See Direct Testimony of Elizabeth H.  
5 Warner, Exhibit A.5 ORS\_00008356, Bechtel February 5, 2016 final; and Direct  
6 Testimony of Elizabeth H. Warner, Exhibit A.4 ORS\_00006138, Bechtel November 9,  
7 2015 draft).

8 Because SCE&G withheld Bechtel’s assessment which included a construction  
9 schedule analysis, yet another modification to the schedule and budget, and additional  
10 revised rates revenue was approved by the Commission (Docket No. 2016-223-E; Docket  
11 No. 2016-224-E).

12 **Q. WAS SCE&G REQUIRED TO PROVIDE THE COMMISSION WITH THE MOST**  
13 **CURRENT INFORMATION AFFECTING THE SCHEDULE AND BUDGET OF**  
14 **THE PROJECT?**

15 **A.** Yes. Notably, S.C. Code Ann. § 58-33-280(B) states, “[t]he revised rates filing  
16 shall include the most recent monitoring report filed under Section 58-33-277(A) updated  
17 to reflect information current as of the date specified in the filing.” (emphasis added). The  
18 information required in SCE&G’s quarterly reports included (1) the progress of  
19 construction of the plant; (2) updated construction schedules; (3) schedules of the capital  
20 costs incurred including updates to the information required by Section 58-33-270(B)(5);  
21 (4) updated schedules of the anticipated capital costs; and (5) other information as the  
22 Office of Regulatory Staff may require.” Additionally, the Commission required in its

1 Order 2009-104(A) that SCE&G's quarterly monitoring reports be filed with the  
2 Commission.

3 Pursuant to S.C. Code Ann. § 58-33-277(A), SCE&G is required to file reports with  
4 the Office of Regulatory Staff quarterly until the plant begins commercial operation. These  
5 reports must contain the following information: (1) the progress of construction of the  
6 plant; (2) updated construction schedules; (3) schedules of the capital costs incurred  
7 including updates to the information required by Section 58-33-270(B)(5); (4) updated  
8 schedules of the anticipated capital costs; and (5) other information as the Office of  
9 Regulatory Staff may require.

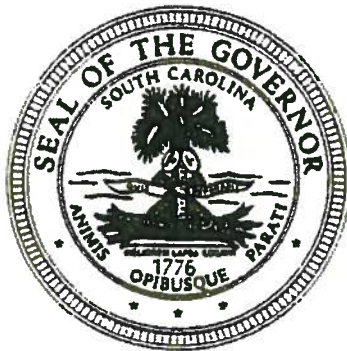
10 **Q. DID THIS COMMISSION REQUIRE REPORTS FROM A CERTIFIED PUBLIC**  
11 **ACCOUNTANT REGARDING SCANA/SCE&G'S FINANCIAL STATUS?**

12 **A.** Yes. Initially, ORS sought the expert services of bankruptcy counsel, and on  
13 January 19, 2018, ORS filed the report of its bankruptcy counsel that concluded the  
14 suspension of revised rates collections was unlikely to force SCE&G into bankruptcy.  
15 Pursuant to Commission Order Nos. 2018-81 and 2018-102, ORS, with the assistance of  
16 the State Auditor's Office, engaged the accounting firm of Baker Tilly Virchow Krause,  
17 LLP ("Baker Tilly") to conduct an analysis that would be reported to the Commission.  
18 ORS filed with this Commission the Baker Tilly report and the affidavit of Mr. Russell A.  
19 Hissom, CPA, Partner with Baker Tilly.

20 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

21 **A.** Yes, it does.





**HENRY MCMASTER**  
GOVERNOR

May 22, 2018

The Honorable Nanette S. Edwards  
Acting Executive Director  
South Carolina Office of Regulatory Staff  
1401 Main Street, Suite 900  
Columbia, South Carolina 29201

Dear Director Edwards:

It has been reported that SCE&G is withholding certain V.C. Summer-related documents from the S.C. Office of Regulatory Staff ("ORS"). If or to the extent that Santee Cooper may be in possession of, or have access to, some or all of the documents that ORS is seeking, please do not hesitate to let me know if I can be of assistance in utilizing my constitutional and statutory authority to direct Santee Cooper to produce the same.

Thank you for your leadership during this difficult time. As always, if I can ever be of service or assistance regarding the foregoing or otherwise, please do not hesitate to call.

Yours very truly,

A handwritten signature in blue ink, appearing to read 'Henry McMaster', is written over a faint, larger version of the same signature.

Henry McMaster

HM/tl

U.S. GAO - Hanford Waste Treatment Plant: DOE Needs to Take Action to Resolve Technical an... Page 2 of 2

MANAGED WTP  
BIG D&G  
FPL EPR

4/7/15

WHAT DO  
COST ACCOUNT PSC  
OTHER ASSUMPTS

WITNESSES WAS  
WIND D.J.  
SEVERAL CONTRACTOR  
BE TALKING TO VOGTLE

MEMO RE: REVIEW

3. Recommendation: To improve DOE's management and oversight of the WTP project, the Secretary of Energy should take appropriate steps to determine whether any incentive payments made to the contractor for meeting project milestones were made erroneously and, if so, take appropriate actions to recover those payments.

Status: Open 1

Comments: When we confirm what actions the agency has taken in response to this recommendation, we will provide updated information.

Agency Affected: Department of Energy

BECHTEL MTG KBM/SAB/MIKE CROSBY/MKRY

MIKE ADAMS - FPM CPO - PRODUCTION SAMBLE BOARD MEMBER  
CRAIG ALBERT - USED TO WORK FOR WEC  
CARL PAU - RETIRED, CONSULTANT

- MA - HAD GOOD KNOWLEDGE OF CBE FINANCIAL SITUATION. AWARE OF INTER-CONTRACTOR ISSUES
- HAVE DONE ASSESSMENTS BEFORE
- CA - BECHTEL RECENT REORGANIZATION. COMBINED GOVT & NON-GOVT NUCLEAR BIZ JAN 1 2015 STRATEGIC PLAN MTG. - NEED SUCCESS OF VCS & VOGTLE FOR MORE NUCLEAR WORK IN US.
- CURRENTLY FINISHING WATTS BAR, OLD DEC 2015 - LISA LETSONS LEARNED SINCE CONTRACT SIGN IN 2002
- HELPING EDF W/ HINKLEY IN UK
- DID 2012 ASSMNT @ SANMAY FOR CNRC
- NOT INTERESTED IN REPLACING ANYONE
- KB - HOW CBE VIEW BECHTEL
- CA - INITIALLY NOT WELL, CONCEPT OF OWNED ENGINEER (I THINK THIS IS WHAT THEY WANT) NOT FOREIGN FOR THEM
- CR VIEWS WEC AS POTENTIALLY MORE DIFFICULT THAN CBI
- CR - CURRENTLY HELPING TVO W/ EPR. MEXIA WOULD NOT TRAIL TO BECHTEL INITIALLY. NOW MORE OPEN.
- INVOLVED @ VOGTLE U1 & 2 - SUGGESTED TO UTILITY - LOOK/SOUND LIKE UTILITY CONTRACTORS
- BROUGHT IN LATE ON STD 1 & 2, PARTICIPATED AFTER FACT AS WITNESSES IN PROCEEDING HEARINGS.
- CA - IDEA OF ASSMNT IS TO START - MAYBE THE CLOUDS WILL PART.
- INTEND TO HAVE CARL OVERSEE ASSESSMENT
- KB HOW LONG TO START & COMPLETE ASSMNT, ASSUMING CBE KNOWS
- CA - COULD START IN A FEW WEEKS - 2 MONTHS +
- 2 WEEKS DATA GATHER
- 7 WEEKS TO EVAL/COMPARE/STUDY
- REPORT OUT
- WILL NEED CA'S

WILL EVALUATE PROS MGT, ENIG, PROCUREMENT, CONSTRUCTION, "MODURE YARDS," RECOMMENDATIONS TO FIX.

LITIGATION - WITNESS? - CA WOULD HAVE TO EVALUATE

THEY ARE NOT YET TALKING TO VOGTLE.

BECHTEL HAS 3 PEOPLE @ VOGTLE 3/4 (MID LEVEL)

\$1M ESTIMATE. - BALLPARKED. 2MO FOR 10-12 PEOPLE

## U.S. GAO - Hanford Waste Treatment Plant: DOE Needs to Take Action to Resolve Technical an... Page 1 of 2

**HANFORD WASTE TREATMENT PLANT:****DOE Needs to Take Action to Resolve Technical and Management Challenges**

GAO-13-36: Published: Dec 19, 2012. Publicly Released: Jan 18, 2013.

**What GAO Found**

The Department of Energy (DOE) faces significant technical challenges in successfully constructing and operating the Waste Treatment and Immobilization Plant (WTP) project that is to treat millions of gallons of highly radioactive liquid waste resulting from the production of nuclear weapons. DOE and Bechtel National, Inc. identified hundreds of technical challenges that vary in significance and potential negative impact and have resolved many of them. Remaining challenges include (1) developing a viable technology to keep the waste mixed uniformly in WTP mix tanks to both avoid explosions and so that it can be properly prepared for further processing; (2) ensuring that the erosion and corrosion of components, such as tanks and piping systems, is effectively mitigated; (3) preventing the buildup of flammable hydrogen gas in tanks, vessels, and piping systems; and (4) understanding better the waste that will be processed at the WTP. Until these and other technical challenges are resolved, DOE will continue to be uncertain whether the WTP can be completed on schedule and whether it will operate safely and effectively.

Since its inception in 2000, DOE's estimated cost to construct the WTP has tripled and the scheduled completion date has slipped by nearly a decade to 2019. GAO's analysis shows that, as of May 2012, the project's total estimated cost had increased to \$13.4 billion, and significant additional cost increases and schedule delays are likely to occur because DOE has not fully resolved the technical challenges faced by the project. DOE has directed Bechtel to develop a new cost and schedule baseline for the project and to begin a study of alternatives that include potential changes to the WTP's design and operational plans. These alternatives could add billions of dollars to the cost of treating the waste and prolong the overall waste treatment mission.

DOE is taking steps to improve its management and oversight of Bechtel's activities but continues to face challenges to completing the WTP project within budget and on schedule. DOE's Office of Health, Safety, and Security has conducted investigations of Bechtel's activities that have resulted in penalties for design deficiencies and for multiple violations of DOE safety requirements. In January 2012, the office reported that some aspects of the WTP design may not comply with DOE safety standards. As a result, DOE ordered Bechtel to suspend work on several major WTP systems, including the pretreatment facility and parts of the high-level waste facility, until Bechtel can demonstrate that activities align with DOE nuclear safety requirements. While DOE has taken actions to improve performance, the ongoing use of an accelerated approach to design and construction—an approach best suited for well-defined and less-complex projects—continues to result in cost and schedule problems, allowing construction and fabrication of components that may not work and may not meet nuclear safety standards. While guidelines used in the civilian nuclear industry call for designs to be at least 90 percent complete before construction of nuclear facilities, DOE estimates that WTP is more than 55 percent complete though the design is only 80 percent complete. In addition, DOE has experienced continuing problems overseeing its contractor's activities. For example, DOE's incentives and management controls are inadequate for ensuring effective project management, and GAO found instances where DOE prematurely rewarded the contractor for resolving technical issues and completing work.

**Why GAO Did This Study**

In December 2000, DOE awarded Bechtel a contract to design and construct the WTP project at DOE's Hanford Site in Washington State. This project—one of the largest nuclear waste cleanup facilities in the world—was originally scheduled for completion in 2011 at an estimated cost of \$4.3 billion. Technical challenges and other issues, however, have contributed to cost increases and schedule delays. GAO was asked to examine (1) remaining technical challenges, if any, the WTP faces; (2) the cost and schedule estimates for the WTP; and (3) steps DOE is taking, if any, to improve the management and oversight of the WTP project. GAO reviewed DOE and contractor data and documents, external review reports, and spoke with officials from DOE and the Defense Nuclear Facilities Safety Board and with contractors at the WTP site and test facilities.

**What GAO Recommends**

GAO recommends that DOE (1) not resume construction on WTP's pretreatment and high-level waste facilities until, among other things, the facilities design has been completed to the level established by nuclear industry guidelines; (2) ensure the department's contractor performance evaluation process does not prematurely reward contractors for resolving technical issues later found to be unresolved; and (3) take appropriate steps to determine whether any incentive payments were made erroneously and, if so, take actions to recover them. DOE generally agreed with the report and its recommendations.

For more information, contact David C. Trimble at (202) 512-3841 or [trimbled@gao.gov](mailto:trimbled@gao.gov).

**Recommendations for Executive Action**

1. **Recommendation:** To improve DOE's management and oversight of the WTP project, the Secretary of Energy should not resume construction on the WTP's pretreatment and high-level waste facilities until critical technologies are tested and verified as effective, the facilities' design has been completed to the level established by nuclear industry guidelines, and Bechtel's preliminary documented safety analyses complies with DOE nuclear safety regulations.

Agency Affected: Department of Energy

Status: Open <sup>1</sup>

Comments: When we confirm what actions the agency has taken in response to this recommendation, we will provide updated information.

2. **Recommendation:** To improve DOE's management and oversight of the WTP project, the Secretary of Energy should ensure the department's contractor performance evaluation process does not prematurely reward contractors for resolving technical issues later found to be unresolved. For example, DOE could seek to modify its contracts to withhold payment of incentive fees until the technical challenges are independently verified as resolved.

Agency Affected: Department of Energy

Status: Open <sup>1</sup>

Comments: When we confirm what actions the agency has taken in response to this recommendation, we will provide updated information.



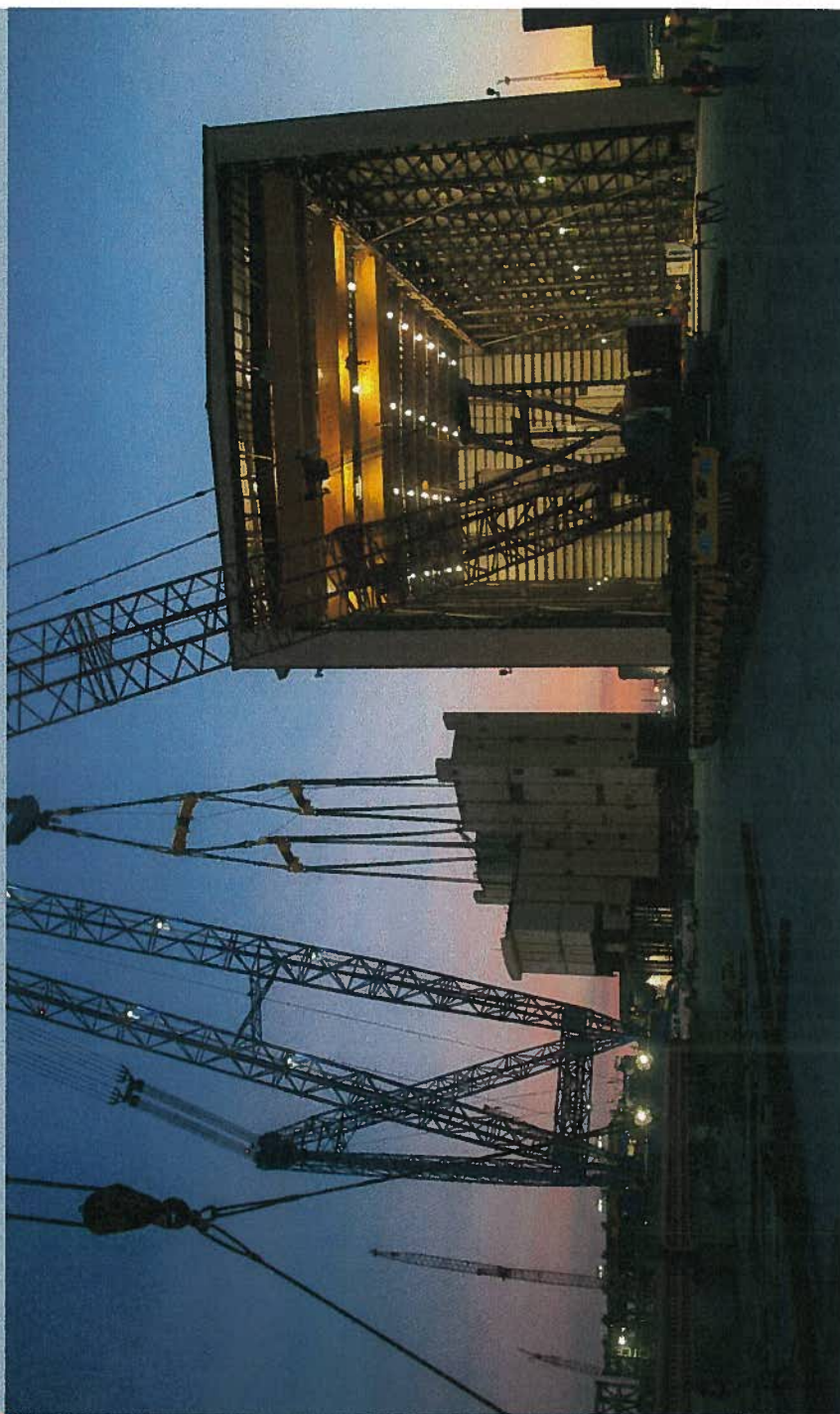
**DRAFT**

# V.C. Summer Nuclear Generating Station Units 2 & 3 Preliminary Results of Bechtel Assessment

October 22, 2015 Presentation to SCE&G and Santee Cooper



INFRASTRUCTURE  
MINING & METALS  
NUCLEAR, SECURITY & ENVIRONMENTAL  
OIL, GAS & CHEMICALS



Strictly Confidential to  
SCE&G and SCP&S

# Agenda

**DRAFT**

- Overview
- Introduction
- Assessment Timeline
- Assessment Scope
- Bechtel Assessment Team
- Project Management
- Engineering & Licensing
- Procurement
- Construction
- Start-Up
- Project Controls
  - Schedule Assessment
- Preliminary Conclusions





# Overview

**DRAFT**

- The objective of the assessment was to assist the Owners to better understand the current status and potential challenges of the project and to help ensure the project is on the most cost efficient trajectory to completion.
- Based on our assessment, the current schedule is at risk. Significant issues include:
  - To-go scope quantities, installation rates, productivity, and staffing levels all point to completion later than current forecast.
  - While EPC plans and schedules are integrated; the plans and schedules are not reflective of actual project circumstances.
  - The Consortium lacks project management integration needed for EPC.
  - There is a lack of a shared vision, goals, and accountability between the Owners and the Consortium.
  - The WEC-CB&I relationship is extremely poor, caused to a large extent by commercial issues.
  - The Contract does not appear to be serving the Owners or the Consortium particularly well.
  - The issued design is often not constructible resulting in a significant number of changes.
- The oversight approach taken by the Owners does not allow for real-time, appropriate cost and schedule mitigation.

# Introduction

**DRAFT**

- The assessment was performed in accordance with an August 6, 2015 Professional Services Agreement between Bechtel Power Corporation and Smith, Currie & Hancock LLP (SCH) for the purpose of assisting SCH in giving legal advice.
- The objective of the assessment was to assist SCH and the Owners (South Carolina Electric & Gas Company and South Carolina Public Service Authority) to better understand the current status and potential challenges of the project in anticipation of litigation and also to help ensure the project is on the most cost efficient trajectory to completion.
- Bechtel's team evaluated the current status and forecasted completion plan through the design, supply chain, and construction aspects of the project.
  - Focus was on understanding the issues that have caused impacts to date, assessing the effectiveness of the mitigation plans put into place to address those issues, and reviewing the project management tools and work processes being employed to plan and execute the project, including change management, through completion and turnover of the units.
- Materials received, collected or prepared by Bechtel in connection with the assessment are the property of the Owners and shall be treated as confidential.

# Assessment Timeline

**DRAFT**

- **Schedule:**
  - Issue draft report 7 weeks following site mobilization for Owners' review.
- **The assessment included:**
  - Data validation
  - Site walkdowns
  - Leadership team interviews
  - Functional breakout sessions
  - Preparation of report
- **Key dates:**
  - August 14: Initial documents received from Consortium
  - August 19: Portions of Integrated Project Schedule received
  - September 8: Bechtel Team mobilized to site
  - September 9: Consortium presentation to Bechtel Team
  - October 22: Bechtel presentation to SCE&G and Santee Cooper





# Assessment Scope

**DRAFT**

- During the assessment period, the Bechtel team:
  - Reviewed 353 Consortium and Owner documents.
  - Attended 70 meetings with Consortium and Owner personnel.
  - Conducted 35 interviews of Consortium and Owner personnel.
  - Completed 24 site walkdowns/real-time observations.
  - Attended 7 subject-specific presentations.
- Bechtel's assessment is based on the data, schedule, and other information obtained from the Consortium and the Owners:
  - Construction bulk quantities were obtained from the Consortium (various questions on these quantities were identified).
  - Some data and information was provided electronically by the Owners and the Consortium. For the majority of data and information, a single hard copy was placed in a Reading Room at the site and no additional copies could be made. This limited our ability to fully assess the information [e.g., engineering schedules, ROYG (red-orange-yellow-green) report, etc.]
  - Many documents were redacted.
- Only key observations are identified in this presentation. Additional observations will be included in the final report.

# Bechtel Assessment Team

**DRAFT**

 <b>Carl Rau</b> Executive Sponsor	 <b>Dick Miller</b> Assessment Team Leader
 <b>Ty Troutman</b> Principal Vice President Assessment Reviewer	 <b>John Atwell</b> Principal Vice President Assessment Reviewer
 <b>George Spindle</b> Construction	 <b>Mike Robinson</b> Construction
 <b>Ed Sherow</b> Engineering and Licensing	 <b>Ron Beck</b> Engineering and Construction
 <b>Steve Routh</b> Engineering and Licensing	 <b>Bob Exton</b> Procurement & Contracts
 <b>Jason Moore</b> Project Controls	 <b>Jonathan Burstein</b> Project Controls
 <b>Bob Pedigo</b> Startup	 <b>Jerry Pettis</b> Project Administration

- 14 senior managers supported by Bechtel functional departments
- Over 500 years of total experience
- Over 300 years of EPC nuclear experience
- Experience on over 85 EPC projects



# Project Management Key Observations and Recommendations

DRAFT

- The Consortium's project management approach does not provide appropriate visibility and accuracy to the Owners on project progress and performance.
- There is a lack of accountability in various Owner and Consortium departments.
- The Consortium's lack of project management integration (e.g., resolution of EPC issues) is a significant reason for the current construction installation issues and project schedule delays.
- The approach taken by the Owners does not allow for real-time, appropriate cost and schedule mitigation.

## Recommendation:

- » Owner: Develop an Owners' Project Management Organization and staff it with EPC-experienced personnel who are empowered with the roles, responsibilities, and accountabilities for making the needed project-related decisions to keep the project on track.
- » Consortium: Assign recognized high-performing personnel to the current Consortium management personnel (i.e., shadow positions) as part of a major improvement plan.

# Project Management

## Key Observations and Recommendations (cont'd)

DRAFT

- The WEC-CB&I relationship is extremely poor, caused to a large extent by commercial issues.
- **Recommendation:** The Owners should take an active role in determining the reason(s) for the relationship and develop an action plan, including possible new contract terms, to fix the relationship.
- The overall morale on the project is low.
  - **Recommendation:**
    - » The Project needs to experience some successes, no matter how small. Publish and post scheduled activities for the coming months around the job site. Post activities that have a high likelihood of being completed within schedule. Reward those responsible for achieving success (i.e., make success contagious).
    - » Recognize individuals for their contributions to the project. For example, have an employee of the month from the various functions/various craft trades and publicly reward them. Rewards could include preferred parking for a month, gift certificates, etc.



# **Project Management**

## **Key Observations and Recommendations (cont'd)**

**DRAFT**

- It appears that the Contract has created an imbalance between the Owners and the Consortium. The Consortium does not appear to be commercially motivated to meet Owner goals.
  - WEC Engineering has not been completely responsive to Procurement and Construction requests for clarification and changes (e.g., timeliness, constructible designs); this is believed to be caused mostly by the commercial situation (i.e., WEC fixed price engineering).
  - The Consortium's commercial structure, while not shared, is outwardly affecting the day-to-day working relationships between the Consortium partners and is creating performance issues, including significant non-manual turnover.
- Recommendation:**
- » Align commercial conditions with the project goals.
  - » Facilitate Owner and Consortium teambuilding. If necessary, replace personnel with others that share the goals developed by the project.
  - » Determine the realistic to-go forecast costs for the project.

# Engineering & Licensing Key Observations and Recommendations

**DRAFT**

- Based on the team's observation of current civil work, the issued design is often not constructible (currently averaging over 600 changes per month). The complexity of the engineering design has resulted in a significant number of changes to make the design constructible.

## **Recommendation:**

- » Locate dedicated WEC engineering response teams to the site with design authority to resolve current Engineering & Design Coordination Reports (E&DCR) problems.
  - » Establish a WEC/CB&I "Light Structures" design organization at the site to work with construction to redesign and reissue piping, HVAC, conduit, and tray supports.
- The construction planning and constructability review efforts are not far enough out in front of the construction effort to minimize impacts.

**Recommendation:** Intensify efforts of Strategic Planning Group, work package planning, constructability reviews, etc. to early identify design changes needed.

**DRAFT**

# Engineering & Licensing Key Observations and Recommendations (cont'd)

- Resolution of many E&DCRs is behind schedule. The E&DCR backlog is not decreasing.
  - Recommendation:** Provide additional staffing to address emergent E&DCRs and work off current backlog. Locate more appropriate resources to the site to address early any emergent E&DCRs.
  
- Engineering staffing remains extremely high (around 800 total engineers for WEC and CB&I) for the reported percent complete of the design; however, it appears that the staffing is needed to complete the design and provide support to construction.
  - Recommendation:**
    - » Allocate dedicated resources to complete and issue the remaining design on or ahead of current schedule which is ≈ the end of 2016.
    - » Plan to reduce engineering headcount and aggressively monitor.

# DRAFT

## Engineering & Licensing Key Observations and Recommendations (cont'd)

- There is significant engineering and licensing workload remaining for electrical design, I&C, Post-Design Engineering Closure Plan, ITAAC closure, etc. Much of this remaining engineering will potentially impact construction.
  - » **Recommendation:** Allocate dedicated resources to complete and issue the remaining design on or ahead of the current schedule which is approximately the end of 2016.
  - » Convene a group of SMEs and commit to completing the scoping, resource loading, and scheduling of Post-Design Engineering Closure Plan work by no later than 1Q2016.
- 119 license amendment requests (LARs) and 657 departures have been identified to date. This is a significant project workload that appears to be well planned and scheduled. Interactions with the NRC are good with a focus on meeting construction need dates (CNDs). Emergent issues potentially requiring NRC approval of LARs remain a significant project concern.
  - » **Recommendation:** Continue planning and scheduling efforts for LARs and departures and active interactions with NRC to meet CNDs. Intensify efforts of Strategic Planning Group, work package planning, constructability reviews, etc. to emphasize early identification of potential departures.



**DRAFT**

# Procurement

## Key Observations and Recommendations

- There is a significant disconnect between construction need dates and procurement delivery dates. There are:
    - 457 open WEC and 2,907 open CB&I equipment deliveries.
    - 31 WEC and 28 CB&I Standard Plant POs to be placed.
  - The ROYG (red-orange-yellow-green) report is described as inaccurate.
- Recommendation:**
- » The Consortium should complete their schedule adherence effort by 10/31/15 so that mitigation plans can be implemented, resulting in the ROYG report properly addressing CNDs, PO awards, and supplier deliveries.
  - » Assess resource needs to properly manage this activity.
- The amount of stored material onsite is significant, creating the need for an extended storage and maintenance program. Inventory validation in the yard is reported to be only at 48% accuracy.

**Recommendation:** Investigate and determine if component and material deliveries can be delayed for shipment (i.e., delay fabrication and delivery to minimize onsite storage durations) in order to minimize the need to perform extended period PM and storage actions on site. Implement every opportunity to minimize onsite storage duration after initial delivery.

# Procurement

## Key Observations and Recommendations (cont'd)

DRAFT

- The current Min/Max warehousing program is insufficient for the scale of the construction effort, which is impacting productivity.
  - » **Recommendation:**
    - » Expedite the finalization of the Min/Max strategy and implementation of the identified Blanket Purchase Orders (BPOs) so that construction can use them, versus writing individual material requisitions.
    - » In reviewing the report of BPOs in place that would support a Min/Max system, there must be further discussion with construction and field engineering as to what products should be maintained within the Min/Max system.
    - » Educate site personnel on the use and process of the BPOs and the Min/Max system. It was evident that material was ordered versus use of Min/Max – BPOs.

# Construction

## Key Observations and Recommendations

**DRAFT**

- Construction productivity is poor: Unit 2 is 2.3, Unit 3 is 1.6.
  - Recommendation:**
    - » Achieve more timely resolution of engineering issues.
    - » Assemble a team of subject matter experts to review proposed resolutions.
    - » Re-assess tolerances and repair procedures to give construction more latitude in resolving issues.
    - » Simplify the work packaging process (see next slide).
    - » Efforts need to be made to keep the craft at the workforce (have coffee breaks and lunch at their place of work).
  
- Manual and non-manual sustained overtime is negatively affecting productivity.
  - Recommendation:**
    - » The work week should be reduced to no more than 48 hours (four 10 hour days, one 8 hour day). Spot overtime beyond 48 hours should be kept to a minimum.
    - » Consider craft incentive plan.

**DRAFT**

# Construction

## Key Observations and Recommendations (cont'd)

- CB&I's work packaging procedures are overly complex and inefficient, directly affecting craft productivity.
  - Recommendation:**
    - » Simplify the process.
    - » Reduce the scope of the package.
    - » Limit the foreman's package to only the information needed.
    - » Incorporate changes into the design drawings before work begins.
  
- Aging of the construction workforce is impacting productivity.
  - Recommendation:**
    - » Develop mentoring and training plan to promote junior craft and field engineering personnel with periodic evaluations and feedback sessions.
    - » Create and staff shadow positions for senior level positions within the Consortium intent on developing new talent that is focused on project completion.

# Construction

## DRAFT

### Key Observations and Recommendations (cont'd)

- The indirect to direct craft ratio (1,100 persons to 800 persons) is very high at 130% (typical mega-project is 35 to 40%).
  - Recommendation:** Develop a plan to identify targeted reductions to reduce the indirect ratio to a reasonable level and monitor it weekly.
- Field non-manual turnover is high at 17.4% per annum.
  - Recommendation:** Perform evaluation of high turnover rate to correct the problem.

# Construction

## Key Observations and Recommendations (cont'd)

DRAFT

- The workable backlog can support significantly more than the current craft workforce. The current construction percent complete per month is only 0.5%.  
**Recommendation:**
  - » Staff up to work available areas.
  - » Increase the amount of time the craft are at the workforce. Perform time and motion study.
  - » Consider combining the Unit 2 and 3 Nuclear Island teams to reduce non-manual staffing and allow flexibility when issues are encountered.
  - » Use the onsite training facility and local vocational schools to train more crafts that can't be recruited (rebar ironworkers now; pipefitters and electricians in the future).
  
- The project safety, housekeeping, and quality records are very good.  
**Recommendation:** Keep up the good work! Consider simplifying the tailgate write-up so it can be more easily understood and retained. Reconsider need for each craftsman to sign the morning bulletin.



# Start-Up Key Observations and Recommendations

DRAFT

- The startup test program schedule is in the early stages of development.  
**Recommendation:** Expedite the effort to reconcile the Component Test and Pre-Operational Test system templates currently loaded in the project schedule to the actual systems' scope and estimated unit rates. Completing this activity is critical to having a reasonable understanding of the overall project completion schedule.
- The current boundary identification package (BIP) turnover rate appears to be overly aggressive and not consistent with the current construction completion schedule.  
**Recommendation:** Reconcile the timing of BIP turnovers to the planned construction percent complete dates. This will impact when Component Testing and Pre-Operational testing activities will occur, thus driving the project completion schedule.

# Project Controls Key Observations and Recommendations

DRAFT

- The Consortium's forecasts for schedule durations, productivity, forecasted manpower peaks, and percent complete do not have a firm basis.
  - **Recommendation:** See Schedule Assessment (starts on next slide).
- The Owners do not have an appropriate project controls team to assess/validate Consortium reported progress and performance.
  - **Recommendation:** Form Owners' Project Controls team (Project Controls Manager, Lead Planner, Lead Cost). Establish tracking tools separate from the Consortium for verification of project progress and performance. Require the appropriate level of detailed information from the Consortium.





**DRAFT**

# Schedule Assessment

## Key Bases

- Data from 21 completed nuclear units and 4 units in the planning phase was used.
- Civil/steel activities:
  - Walked down and assessed based on current progress and performance.
- Bulk commodities and major equipment:
  - Logic and installations derived from Bechtel historical data.
  - Median sustained rates from Bechtel historical data used for creation of installation durations.
- Craft:
  - Peak craft limited by building saturation levels.
  - All activities worked on a 48 hour week; second shift at 20%.
  - Indirect to direct craft ratio is 35% (currently 130%).
- Stagger between Unit 2 and Unit 3 commercial operation dates:
  - Based on critical craft peaks (pipefitters including welders & electricians).

# Schedule Assessment

## Key Assumptions

DRAFT

- Current civil progress and performance will remain unchanged.
- Piping and electrical progress and performance is based on similar Bechtel experience.
- Sufficient quality craft is available up to 3,700 peak.
- All modules and material will be available to support the assessed construction dates.
- Preventive maintenance keeps all equipment operationally ready.
- Quantities provided by the Consortium were used and are accurate:
  - Exception: The annex building quantities are considered unreliable, hence schedule extension due to higher than expected quantities in this area not included.
- No construction equipment limitations.
- Design and work packages are available to support construction need dates.
- The following items do not enter the critical path:
  - NRC approval of license amendment requests
  - ITAAC closures
  - Cyber security
  - Simulator construction and operator qualifications

# Schedule Assessment

## Preliminary Results

**DRAFT**

- Preliminary assessment of the Unit 2 and 3 Commercial Operation Dates based on the Key Bases and Assumptions stated above:

	Unit 2	Unit 3
Current COD	June 2019	June 2020
Adjustment	18 to 26 months	24 to 36 months
New COD	Dec 2020 to Aug 2021	June 2022 to June 2023

- The critical path will change from the shield wall to more typical bulk installations through overall project checkout and testing/start-up.
- Increasing schedule confidence to 75% increases the schedule duration by 8 months (included in the 26 months for Unit 2 and the 36 months for Unit 3).
- The stagger between the Unit 2 and 3 CODs extends by 6 months to 18 months.
- The peak monthly construction percent complete is reduced from 3.1% to 2.3%.
- Primary checkout window adjusts by 6 months to 18 months per unit.
- Total craft population increases by 25% to ~3,700.
  - At peak, 850 pipefitters and 730 electricians are required.
- Bulk installation durations increased by a minimum of 30%.

# Schedule Assessment

## Preliminary Results (cont'd)

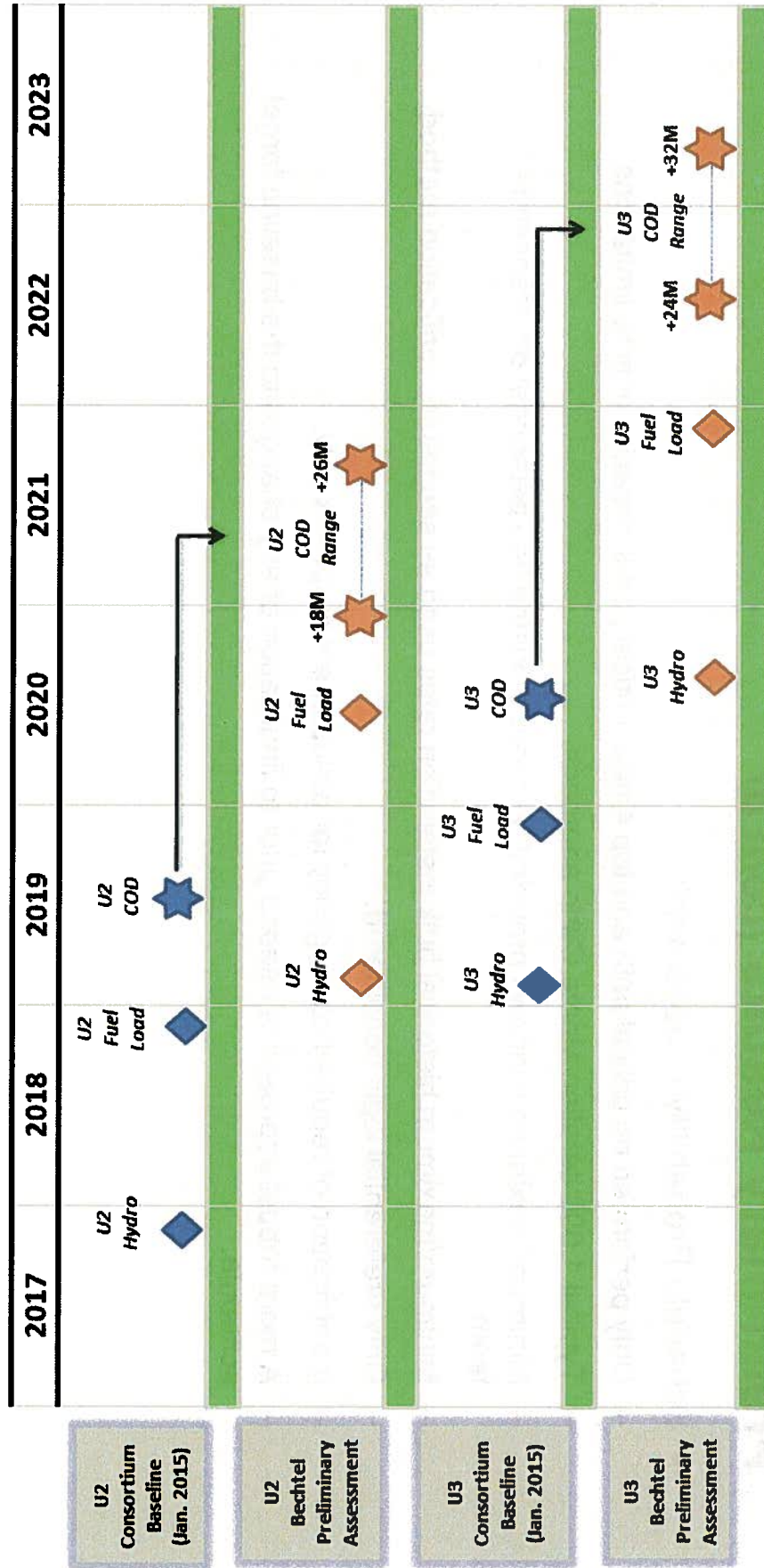
**DRAFT**

- Schedule Probability Assessment:
  - Only performed on critical path and top 4 near critical paths because of time limitations.
  - Typical 1,000 iteration Monte Carlo approach.
  - Minimum/maximum windows provided by senior construction personnel on assessment team.
  - Minimum/maximum historical bulk installation rates used as secondary verification method.
  - Only preferential logic considered.
  - Identification of required contingency for assessment purposes only.
  - A more robust approach is needed prior to finalization of any changes to the baseline target schedule.



# Schedule Assessment Milestone Comparison

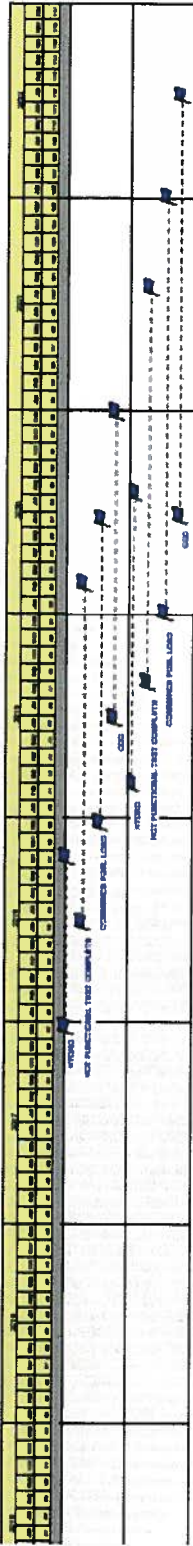
**DRAFT**





# Schedule Assessment Total Craft Manpower Comparison

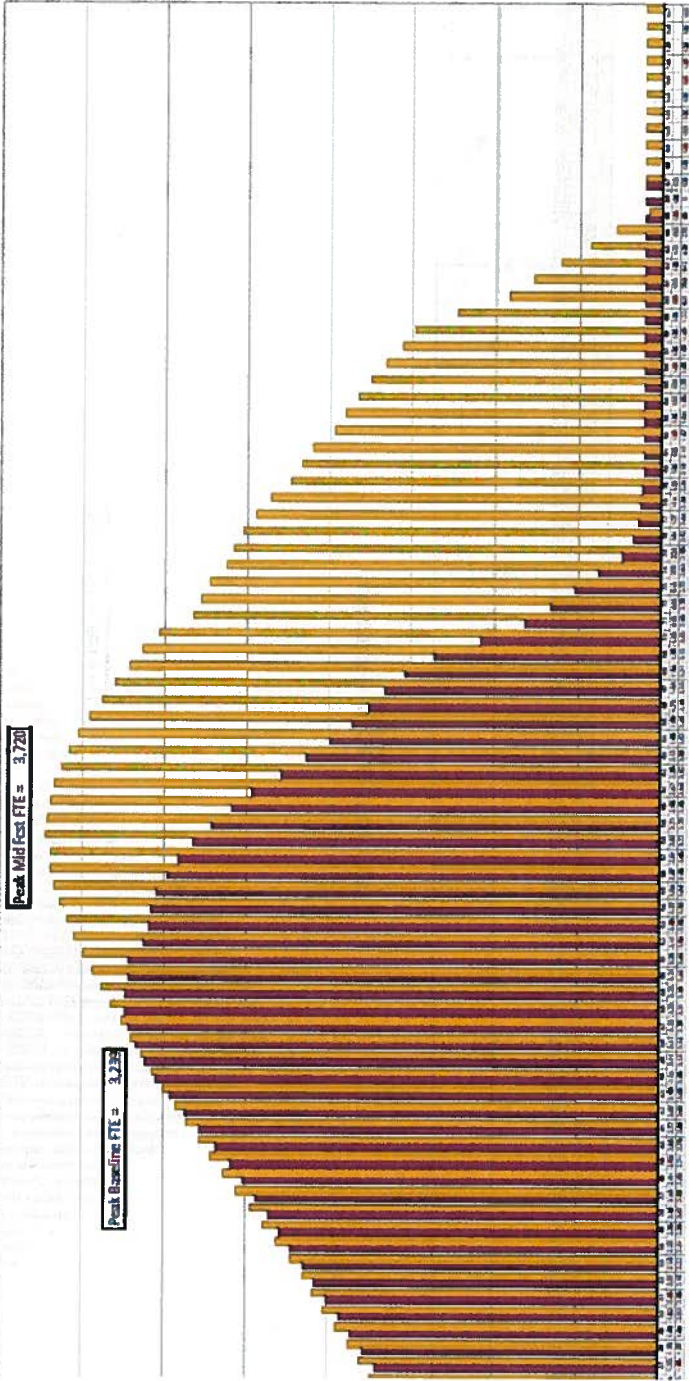
DRAFT



V.C. 3 SUMMER  
TOTAL UNIT 2 & 3 CRAFT MANPOWER CURVE (18 mo duration)

Peak Mid Est FTE = 3,720

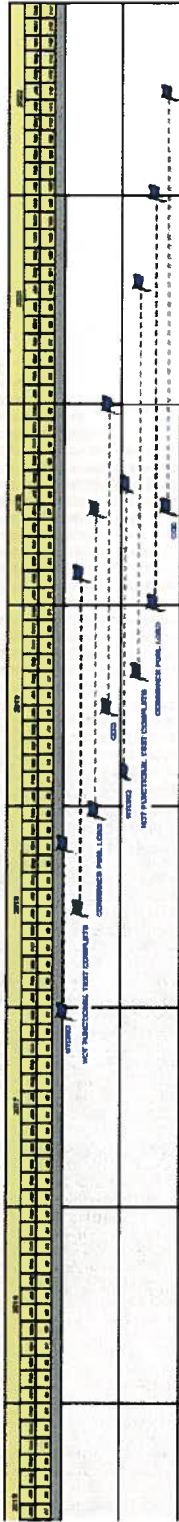
Peak Baseline FTE = 3,238



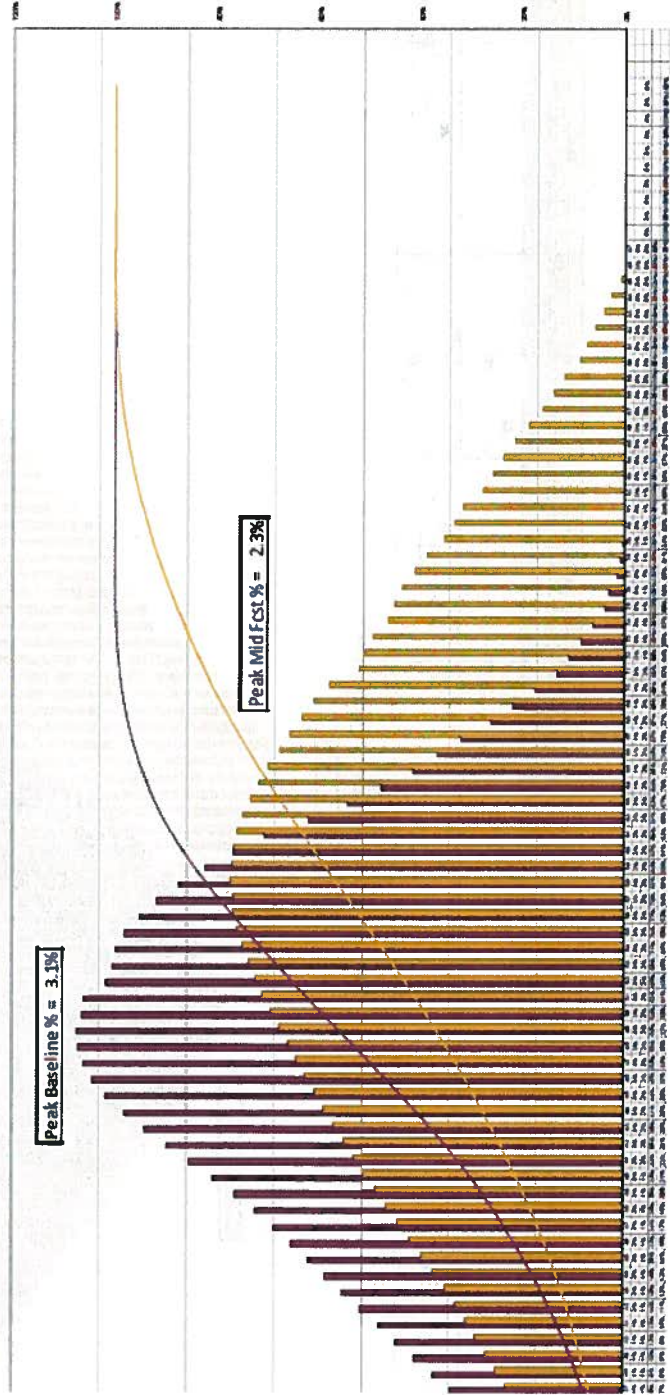
8/26/2018 10:00 AM

DRAFT

# Schedule Assessment Construction Percent Complete Comparison



VC - SUMMER  
TOTAL UNIT 2 & 3 PERCENT COMPLETE CURVE



# Preliminary Conclusions

**DRAFT**

- The AP1000 is a first-of-a-kind technology, 10 CFR 52 is a new licensing process, and these are the first new nuclear plants being constructed in the U.S. in decades. Challenges would be expected.
- However, the V.C. Summer Units 2 and 3 project suffers from various fundamental EPC and major project management issues that must be resolved for project success:
  - The Consortium’s project management approach does not provide appropriate visibility and accuracy to the Owners on project progress and performance.
  - The Consortium’s forecasts for schedule durations, productivity, forecasted manpower peaks, and percent complete do not have a firm basis. Bechtel’s preliminary assessment of the Unit 2 and 3 Commercial Operation Dates indicates:

	Unit 2	Unit 3
Current COD	June 2019	June 2020
Adjustment	18 to 26 months	24 to 36 months
New COD	Dec 2020 to Aug 2021	June 2022 to June 2023



# Preliminary Conclusions (cont'd)

**DRAFT**

- There is a lack of a shared vision, goals, and accountability between the Owners and the Consortium.
- The Consortium lacks project management integration needed for EPC.
- The WEC-CB&I relationship is extremely poor, caused to a large extent by commercial issues.
- The overall morale on the project is low.
- The Contract does not appear to be serving the Owners or the Consortium particularly well.
- The issued design is often not constructible resulting in a significant number of changes. The construction planning and constructability review efforts are not far enough out in front of the construction effort to minimize impacts.
- There is significant engineering and licensing workload remaining (currently over 800 engineers). ITAAC closure will be a significant effort.
- Emergent issues potentially requiring NRC approval of LARs remain a significant project concern.
- There is a significant disconnect between construction need dates and procurement delivery dates.
- The amount of stored material onsite is significant, creating the need for an extended storage and maintenance program.

## **Preliminary Conclusions (cont'd)**

**DRAFT**

- Construction productivity is poor for various reasons including changes needed to the design, sustained overtime, complicated work packages, aging workforce, etc.
- The indirect to direct craft ratio is very high.
- Field non-manual turnover is high.
- The schedule for the startup test program is in the early stages of development. The BIP turnover rate appears to be overly aggressive.
- The Owners do not have an appropriate project controls team to assess/validate Consortium reported progress and performance.

Mtg w/ Bechtel  
7/13/15

CRAIG  
Albert

MIKE  
Adams

CARL  
Rau

\*\* Need agreements / NDA's ASAP  
Need before 7/28 Kickoff

\*\* ☐ 7/31 Conf call - status

Weekly status reports

5) May be light at top. TBD Steve/Jeff/Ron?

Should Jeff Archie be 100% of project?

9) 500 Bechtel personnel freeing up  
in September from Watts Bar Option only

**From:** ARCHIE, JEFFREY B(/O=SCANA/OU=COLUMBIA/CN=RECIPIENTS/CN=JARCHIE)  
**To:** BYRNE, STEPHEN A  
**CC:**  
**BCC:**  
**Subject:** Video Conference  
**Sent:** 07/16/2015 08:19:00 AM -0400 (EDT)  
**Attachments:**

---

Spoke to Crosby this morning. He is going to call in with his legal and participate in our discussion with the consortium tomorrow. Also he is softening on the George Wenick issue. We need to consider if focusing on precluding discovery by SNC needs to be more of a driver for engaging Wenick as we continue to discuss it with Santee. Precluding complications with the litigation with SNC is something that the consortium is very interested in and it resonates with Mike.

Sent from my BlackBerry 10 smartphone on the Verizon Wireless 4G LTE network.

**From:** Pelcher, Steve([stephen.pelcher@santeecooper.com](mailto:stephen.pelcher@santeecooper.com))  
**To:** BYNUM, ALVIS J JR  
**CC:**  
**BCC:**  
**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3  
**Sent:** 06/29/2015 01:37:00 PM -0400 (EDT)  
**Attachments:**

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\*\*\*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.

---

Al: As I shared with you, I was not part of the super-secret conversation that Lonnie and Kevin (with Steve Byrne present) had with Danny Roderick. I have not been read into those conversation.  
What little I know about this is that Bechtel is now being viewed as a joint resource to put the project on track, rather than an Owners resource only. This is obviously a shift in how we originally intended to use Bechtel.  
You might want to chat with Steve Byrne or Kevin and get their direction on this, possibly before getting back to Martyn. (I wonder if Craig Albert has circled back to Martyn yet, including on the upcoming July 1<sup>st</sup> meeting?)  
Thanks.  
Steve

---

**From:** BYNUM, ALVIS J JR [<mailto:ABYNUM@scana.com>]  
**Sent:** Monday, June 29, 2015 1:11 PM  
**To:** Pelcher, Steve  
**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3  
Steve

The materials that we got from WEC concern me. Why are they involving them? Some of the restrictions, etc. seem problematic to me. I must be missing something  
Al

---

**From:** Pelcher, Steve [<mailto:stephen.pelcher@santeecooper.com>]  
**Sent:** Monday, June 29, 2015 1:09 PM  
**To:** Daw, Martyn  
**Cc:** BYNUM, ALVIS J JR  
**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3  
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---

Martyn: I will defer to Al Bynum on suggesting a time for such a conversation.  
Thanks.  
Steve

---

**From:** Daw, Martyn [<mailto:mndaw@bechtel.com>]  
**Sent:** Monday, June 29, 2015 12:13 PM  
**To:** BYNUM, ALVIS J JR; Pelcher, Steve  
**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3  
Al/Steve - please can you let me know a good time for us to speak  
Thanks  
Martyn

---

**From:** Daw, Martyn  
**Sent:** Wednesday, June 24, 2015 7:32 AM  
**To:** 'BYNUM, ALVIS J JR'; 'Pelcher, Steve'  
**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3 [\*EXTERNAL\*]  
Al/Steve - my business folk have requested an update as to the plan for getting the Purchase Order/contract in place.

I'm currently in the UK on business but can be available for a call at your convenience.

Please let me know

Thanks

Martyn

---

**From:** Daw, Martyn

**Sent:** Saturday, June 20, 2015 10:02 AM

**To:** 'BYNUM, ALVIS J JR'; 'Pelcher, Steve'

**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3 [\*EXTERNAL\*]

Hi Al and Steve (and welcome back to Al from his trip to Asia)

I understand the green light has been given for the assessment. Shall we have a chat early next week about getting the Purchase Order/contract in place? We discussed previously that it would make sense just to use the terms of one of the existing contracts between SCE&G and Bechtel. We can be flexible on this.

It would be good to get the PO/contract in place before the kick-off meeting which I think is planned for July 1.

Thanks and look forward to hearing from you

Martyn

---

**From:** Daw, Martyn

**Sent:** Monday, June 01, 2015 6:42 PM

**To:** 'BYNUM, ALVIS J JR'; Pelcher, Steve

**Cc:** Cherry, Marion; Crosby, Michael; LINDSAY, RONALD; BYRNE, STEPHEN A; Albert, Craig

**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3 [\*EXTERNAL\*]

Thanks very much, Al

Martyn

---

**From:** BYNUM, ALVIS J JR [<mailto:ABYNUM@scana.com>]

**Sent:** Monday, June 01, 2015 1:28 PM

**To:** Daw, Martyn; Pelcher, Steve

**Cc:** Cherry, Marion; Crosby, Michael; LINDSAY, RONALD; BYRNE, STEPHEN A; Albert, Craig

**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3 [\*EXTERNAL\*]

Here is the signed O-1

---

**From:** Daw, Martyn [<mailto:mndaw@bechtel.com>]

**Sent:** Monday, June 01, 2015 1:10 PM

**To:** Pelcher, Steve; BYNUM, ALVIS J JR

**Cc:** Cherry, Marion; Crosby, Michael; LINDSAY, RONALD; BYRNE, STEPHEN A; Albert, Craig

**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3

\*\*\*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.

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Steve - thanks again to you and Al for the call this morning.

Attached is a pdf of the Proprietary Data Agreement signed by Bechtel Power Corporation. Please can Al or you let me know if you'd like me to send along the original with the wet signature.

I look forward to hearing from you/Al as to the path forward with respect to getting a PO in place. As I indicated on the phone, we are flexible on this and we are willing to be retained by your outside counsel if you believe that would be preferable.

On the documents side, I believe that Dick Miller will be point of contact for Bechtel but I am confirming this as I write.

Thanks again for the discussion this morning

Martyn

---

**From:** Pelcher, Steve [<mailto:stephen.pelcher@santecooper.com>]

**Sent:** Monday, June 01, 2015 12:04 PM

**To:** Daw, Martyn; Bynum, Alvis

**Cc:** Cherry, Marion; Crosby, Michael; Lindsay, Ronald ; Byrne, Stephen A.; Albert, Craig

**Subject:** RE: Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3 [\*EXTERNAL\*]



Martyn/Al: It was great speaking with you this morning.

As a follow up to our conversation, I believe that the **very first action item** will be for Bechtel to send a partially executed copy of the Proprietary Data Agreement to Al Bynum for the Owner's countersignature. Please keep Santee Cooper in the loop so that Santee Cooper might have a fully executed copy of that agreement for our records.

Next up, regarding the documents that Bechtel will review as part of its assessment, Marion Cherry of Santee Cooper has been working with somebody at SCE&G in assembling the documents that will be reviewed. I have copied Marion on this Email. (**Marion: Who have you been working with at SCE&G on assembling these documents?**) My notes indicate that the Bechtel guy who will likely be the logistical link in receiving these documents is 'Dick Miller' but I may be mistaken about this. Note to Al: As a process point, we need to make sure anything that we share with Bechtel fits within the definition of "Contractor Discloseable Information" as that is defined in Section 19.3(b) of the EPC.

During the call, we discussed the possibility that Bechtel might be retained by George Wenick (Smith, Currie & Hancock LLC), if there is an advantage in doing so. Al Bynum will have a conversation with George about that later today, so that we might close that loop on that possibility.

Al mentioned that he will begin his annual vacation this Thursday, although that we should contact his boss, Ron Lindsay, should something come up while he is away.

Finally, we concluded our conversation with a discussion of the form of the Purchase Order the Owners would use to retain Bechtel (assuming Bechtel isn't retain by Smith Currie.) A suggestion was made that we might "re-purpose" an existing PO the Owners have Bechtel to provide licensing and engineering support. Al identified Kyle Nash as the guy at SCE&G would likely process this paperwork.

Thanks again for the good conversation.

Let's stay in touch.

Steve

-----Original Appointment-----

**From:** Pelcher, Steve

**Sent:** Monday, June 01, 2015 9:28 AM

**To:** Pelcher, Steve; Daw, Martyn ; Bynum, Alvis

**Subject:** Implementing Bechtel's Assessment of V.C. Summer Units 2 and 3

**When:** Monday, June 01, 2015 11:00 AM-11:30 AM (UTC-05:00) Eastern Time (US & Canada).

**Where:** Dial-in Number: (877)635-0568; Participant Code: 8437614016

Date of Call: June 1, 2015

Time of Call: 11:00AM

Duration of Call: 30 Minutes

**Dial-in Number: (877)635-0568**

**Participant Code: 8437614016**

Discuss:

Process for execution of "Proprietary Data Agreement."

Process of jump starting Bechtel's review of documents consistent with Proprietary Data Agreement and Section 19.3 of the EPC.

Process of Owners executing a PO with Bechtel.

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SANTZE/SCANA 11/14/16 Re 3<sup>rd</sup> PARTY ASSMNT

SANTZE: LONNIE/M. BAXLEY/M. CRUSBY/S. PELCHER/M. CHARLEY

SCANA: KBM/JBA/SAB/RYN LINDSAY/A. BYNUM

G. WENICK.

GW GAVE OVERVIEW OF WHY WE ENGAGED BECHTEL

LC A YEAR AGO SANTZE APPROACHED SCANA W/ NOTION OF 3<sup>rd</sup> PARTY ASSMNT AS PROJ WASN'T GOING WELL - HAD TO DO SOMETHING,

SANTZE BOARD IS TUNED IN TO THIS

PROTECTING FROM LITIGATION PERSPECTIVE IS IN CONFLICT W/ ORIG INTENT

PROTECTION DOESN'T MEAN ONLY GW CAN SEE REPT. - SANTZE ATTY AT LEAST MUST SEE

GW I'M JUST COUNSEL AND LOOK FOR GUIDANCE

MANY BECHTEL RECOMMENDATIONS MUST BY NEW AGREEMENT

RC SKED THEY WOULD NEED TO HAVE "MORE ROBUST" LOCK @ SKED

CONCERN W/ BECHTEL METHODS FOR SKED PREDICTION

KBM WE DIDN'T ENGAGE TO COME UP W/ NEW PREDICTED COMPLETION DATE

GW IF WE DON'T Δ THEIR PREDICTION WILL BE VIEWED AS OWNERS OPINION - CONSEQUENCES

LC OTHER SKED ESTIMATES NO LONGER RELEVANT - NEED FLUOR INPUT ON WHAT THEY CAN DO.

COULD WE HAVE 2 REPORTS ONE PUBLIC/ONE NOT

GW DISCLOSURE ISSUES - POTENTIALLY

I'M CONSTRUCTION LAWYER &amp; I'M TELLING YOU THAT MUCH OF INFO PROVIDED IS NOT USEFUL PARTICULARLY SKED WHICH IS BASED ON 'DIR PREDICTIONS'

RL HIRED GW AS CONST LITIGATION EXPERT

LC DON'T WANT BECHTEL TO WHISPER IN MARKET THAT WE WHITENISHED REPORT

MB WERE ON SAME TEAM - CAN'T DEFEND NOT SEEING WHAT IS IN DRAFT REPORT

RL CAN HAVE GW EXPLAIN TO YOUR BOARD

KBM PRESENTATION IN OCT WAS THE REPORT - DIDN'T DIRECT ANYTHING ELSE

LET COUNSEL GO THROUGH DRAFT TODAY AND SEE IF WE CAN AGREE

SP NEED WORDS AROUND STANDARDS USED FOR REVIEW.

GW STD IS RELIABILITY