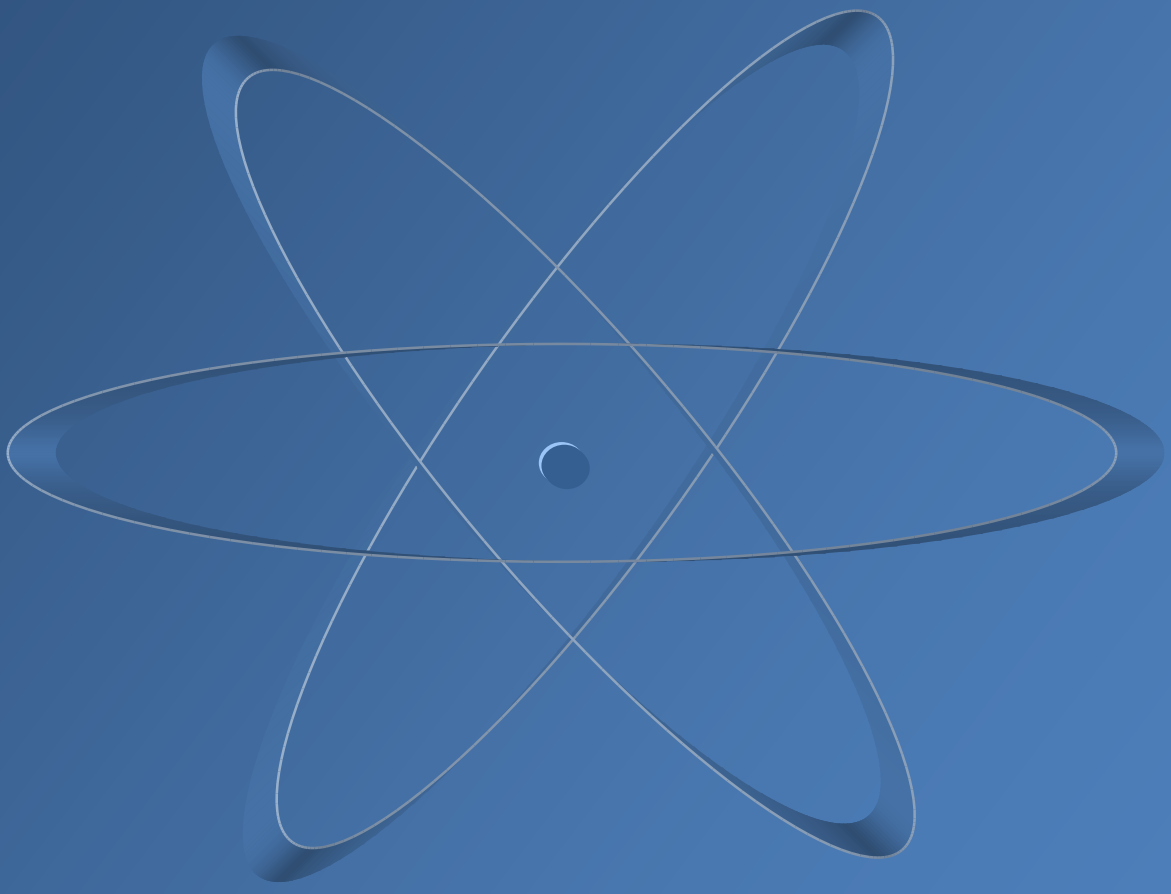
South Carolina Office of Regulatory Staff

Review of South Carolina Electric & Gas Company's 2013 2nd Quarter Report on V. C. Summer Units 2 and 3 Status of Construction



October 10, 2013

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Executive Summary

On August 14, 2013, SCE&G submitted its 2013 2nd Quarter Report related to construction of the Units. The Report is filed in Commission Docket No. 2008-196-E and covers the quarter ending June 30, 2013. With reference to the Base Load Review Act, ORS's review of the Company's Report focuses on SCE&G ability to adhere to the approved schedule and approved budget.

Approved Schedule Review

On June 5, 2013, SCE&G announced that its Engineering, Procurement and Construction contract partners, Westinghouse Electric Company and Chicago Bridge and Iron, had preliminarily indicated to SCE&G that the substantial completion date of Unit 2 is expected to be delayed until the 4th quarter of 2017 or the 1st quarter of 2018, with the substantial completion date of Unit 3 expected to be delayed similarly[1]. This potential delay is primarily due to challenges in the project schedule related to delays in sub-module fabrication and delivery, specifically the CA01 module. CA01 is a structural module which sits inside of the containment vessel and forms the refueling canal, steam generator compartments and pressurizer compartment. SCE&G's Milestone Schedule reflects a delay in the Unit 2 substantial completion date from March 15, 2017 to December 14, 2017. On SCE&G's Milestone Schedule, the Unit 3 substantial completion date remains unchanged as schedule re-sequencing for Unit 3 is still underway and the substantial completion date is still being evaluated. Per the Base Load Review Order, overall construction is considered to be on schedule if the substantial completion dates are not accelerated more than twenty-four (24) months or delayed more than eighteen (18) months. As of June 30, 2013, eighty-six (86) of the 146 milestone activities had been completed. Thirteen (13) yet to be completed milestone activities had been delayed by ten (10) months or more. ORS identified thirteen (13) milestones being delayed ten (10) months or longer, with one (1) milestone indicating a delay of sixteen (16) months and one (1) milestone indicating a delay of seventeen (17) months. Subsequent to the end of the quarter, on July 26, 2013, ORS filed a letter notifying the Commission of the delay in these milestones.

ORS has identified several ongoing construction challenges that pose a potential risk to the on-time completion of the project. ORS continues to monitor these areas closely. The most significant issue is the continued delay in the delivery of the structural sub-modules. Despite continuing high-level management and executive focus from Chicago Bridge and Iron, Westinghouse Electric Company and SCE&G, the delivery and quality problems associated with these sub-modules are still not satisfactorily resolved. Delays in these sub-modules affect almost all subsequent critical path sequences in the construction schedule.

[1] SCE&G has not agreed to any contractual change to the Guaranteed Substantial Completion Dates for the Units.

Approved Budget Review

The current approved base project cost in 2007 dollars is $4.548 billion. There has been no increase in the total base project cost (in 2007 dollars). With escalation applied, the total cash flow budgeted for the project is $5.563 billion. The cumulative amount spent on the project as of December 31, 2012 was $1.773 billion. The cumulative project cash flow is forecasted to be approximately $365 million below the capital cost schedule at the end of 2013 approved in Order No. 2012-884. Due to escalation, an increased project cash flow of approximately $80.388 million is necessary to complete the project in 2019. SCE&G has estimated the costs associated with the delay in the substantial completion dates for Unit 2 and Unit 3 to be approximately $200 million. Since SCE&G has not accepted responsibility for these costs, this report includes no increases to the cash flow attributable to the delay in the substantial completion dates. As of June 30, 2013, the SCE&G forecasted gross construction cost of the plant is $5.800 billion as compared to the approved gross construction cost of $5.755 billion, which represents an increase of approximately $46 million.

Subsequent to the end of the quarter, on September 9, 2013 and in Docket 2013-336-E, SCE&G filed a petition and notice for an allowable ex parte communication briefing to address a regulatory accounting issue related to accumulated deferred income taxes. This tax issue arises as a result of the construction of the Units. In short, traditional accounting tax practices as compared to accounting tax treatment under the Base Load Review Act create a timing difference that temporarily causes SCE&G increased tax liability exposure. If SCE&G's petition is approved, the Company reports to ORS that this temporary tax liability exposure will not have an impact on ratepayers. The briefing before the Commission is scheduled for October 17, 2013.

Introduction and Background

On March 2, 2009, the Public Service Commission of South Carolina ("Commission") approved South Carolina Electric & Gas Company's ("SCE&G" or the "Company") request for the construction of V.C. Summer Nuclear Station Units 2 and 3 (the "Units") and the Engineering, Procurement and Construction ("EPC") Contract. This approval can be found in the Base Load Review Order No. 2009-104(A) filed in Docket No. 2008-196-E. On January 21, 2010, the Commission approved the Company's request to update milestones and capital cost schedules in Order No. 2010-12, which is filed in Docket No. 2009-293-E. On May 16, 2011, the Commission approved SCE&G's petition for revisions and updates to capital cost schedules in Order No. 2011-345, which is filed in Docket No. 2010-376-E.

The anticipated dependable capacity from the Units is approximately 2,234 megawatts ("MW"), of which 55% (1,228 MW) will be available to serve SCE&G customers. South Carolina Public Service Authority ("Santee Cooper") is expected to receive the remaining 45% (1,006 MW) of the electric output when the Units are in operation, and is paying 45% of the costs of the construction of the Units. In October 2011, SCE&G and Santee Cooper executed the permanent construction and operating agreements for the project. The agreements grant SCE&G primary responsibility for oversight of the construction process and operation of the Units as they come online. On March 30, 2012, the Nuclear Regulatory Commission ("NRC") voted to issue SCE&G a Combined Construction and Operating License ("COL") for the construction and operation of the Units.

In 2010, SCE&G reported that Santee Cooper began reviewing its level of ownership participation in the Units. Since then, Santee Cooper has sought partners in its 45% ownership. Santee Cooper signed a Letter of Intent with Duke Energy Carolinas, LLC in 2011. Subsequently, Santee Cooper signed Letters of Intent with South Mississippi Electric Power Association, American Municipal Power, Inc. and several other organizations. However, as of May 12, 2013 all pending Letters of Intent had expired. Santee Cooper and Duke Energy Carolinas, LLC are continuing negotiations regarding an ownership share in the Units.

On May 15, 2012, SCE&G filed an application with the Commission in Docket No. 2012-203-E for updates and revisions to schedules related to the construction of the Units ("Update Filing"). The Update Filing indicated that SCE&G intended to delay the substantial completion date of Unit 2 from April 2016 until March 2017, while advancing the substantial completion date for Unit 3 from January 2019 to May 2018. The requested schedule changes, along with an increase to the base project cost totaling $278.05 million, were approved by the Commission in Order No. 2012-884 on November 15, 2012.[2] Petitions for Rehearing or Reconsideration were filed on behalf of the Sierra Club and the South Carolina Energy Users Committee. Both of these

[2] Petitions for Rehearing or Reconsideration were filed on behalf of the Sierra Club and the South Carolina Energy Users Committee. Both of these petitions were denied via Commission Order No. 2013-5 issued on February 14, 2013. The Sierra Club and the South Carolina Energy Users Committee subsequently filed appeals with the Supreme Court of South Carolina. Those appeals are now pending.

petitions were denied via Commission Directive on December 12, 2012. The changes associated with these new substantial completion dates will be updated in the Company's EPC Contract with Westinghouse Electric Company ("WEC") and Chicago Bridge and Iron ("CB&I"). CB&I became a party to the EPC Contract via its acquisition of the Shaw Group, Inc.

On August 14, 2013, SCE&G submitted its 2013 2nd Quarter Report ("Report") related to construction of the Units. The Report is filed in Commission Docket No. 2008-196-E and covers the quarter ending June 30, 2013. The Company's Report is submitted pursuant to S.C. Code Ann. § 58-33-277 (Supp. 2012) of the Base Load Review Act ("BLRA"), which requires the Report to include the following information:

1. Progress of construction of the plant;
2. Updated construction schedules;
3. Schedules of the capital costs incurred including updates to the information required in Section 58-33-270(B)(5);
4. Updated schedules of the anticipated capital costs; and
5. Other information as the Office of Regulatory Staff may require.

With reference to Section 58-33-275(A) of the BLRA, ORS's review of the Company's Report focuses on SCE&G's ability to adhere to the approved construction schedule and the approved capital cost schedule.

Approved Schedule Review

Milestone Schedule

As of June 30, 2013, ORS verified that of the Milestone Schedule's 146 activities:

- Eighty-six (86) milestone activities have been completed (includes eighty-six (86) historical and zero (0) future milestones)
- Sixty (60) milestone activities are yet to be completed (includes eleven (11) delayed historical and forty-nine (49) future milestones)

ORS also verified that during the 2nd Quarter of 2013:

- Five (5) milestone activities were scheduled to be completed
  - One (1) of these milestones has been completed
  - Four (4) of these milestones have not been completed

Per the Base Load Review Order, overall construction is considered to be on schedule if the substantial completion dates are not accelerated more than twenty-four (24) months or delayed more than eighteen (18) months. As part of its review of the approved schedule, ORS identifies Caution Milestones. Caution Milestones are those that have been delayed ten (10) months or longer. If any Milestone is delayed sixteen (16) months or greater, ORS may issue a formal notification to the Commission of the delay. As of the end of the 2nd quarter of 2013, ORS identified that the Company's notification of the change in Substantial Completion for Unit 2 resulted in thirteen (13) milestones being delayed ten (10) months or longer, with one (1) milestone indicating a delay of sixteen (16) months and one (1) milestone indicating a delay of seventeen (17) months. Additional information on this subject can be found in "Notable Activities Occurring After June 30, 2013" later in this report.

- **Milestone Activity No. 88** – *Set Nuclear Island Structural Module CA03 for Unit 2.*
  Status: Delayed 17 months.
  While the delay in this milestone is primarily due to delays associated with the fabrication and setting of the CA01 module, there are additional contributing factors. The sub-modules for CA03 were originally scheduled to be manufactured by Chicago Bridge & Iron's module fabrication facility, known as CB&I Lake Charles ("CB&I-LC"), but in order to expedite the work on other modules, the fabrication of these sub-modules was transferred to Pegasus Steel, LLC earlier this year. In reworking the milestone schedule to accommodate delays associated with the CA01 module, WEC and CB&I also discovered a problem in the logic of the previous schedule, as the proper support for the CA03 module will not be available until both the placement of CA01 module and the concrete pour associated with that activity have been completed.

- **Milestone Activity No. 92** – *Start Containment Large Bore Pipe Supports for Unit 2.*
  Status: Delayed 16 months.
  While the delay in this milestone is primarily due to delays associated with the fabrication and setting of the CA01 module, there are additional contributing factors. In reworking the milestone schedule to accommodate delays associated with the CA01 module, WEC and CB&I discovered a problem in the logic of the previous schedule, as the Containment Vessel Large Bore Pipe Supports cannot be installed until the same activities associated with the placement of CA01, as stated for Milestone Activity No. 88, have been completed.

Appendix A shows details of SCE&G's Milestone Schedule as of June 30, 2013. A complete list of Caution Milestones, along with the reasons for the delays provided by SCE&G, WEC and CB&I, is attached as Appendix B. ORS continues to closely review and monitor these milestones.

SCE&G's Milestone Schedule attached to the Report indicates that overall construction supports a substantial completion date of December 14, 2017 for Unit 2 and May 15, 2018 for Unit 3. The substantial completion date for Unit 2 reflects a delay from the substantial completion date approved by the Commission in Order No. 2012-884 of March 15, 2017. While delayed, this substantial completion date falls within the parameters allowed by the Base Load Review Order. SCE&G's Milestone Schedule does not reflect a delay from Order No. 2012-884 for Unit 3, though a similar delay is anticipated. WEC has not yet made a revised detailed integrated schedule for Unit 3 available. ORS will continue to monitor this matter closely.

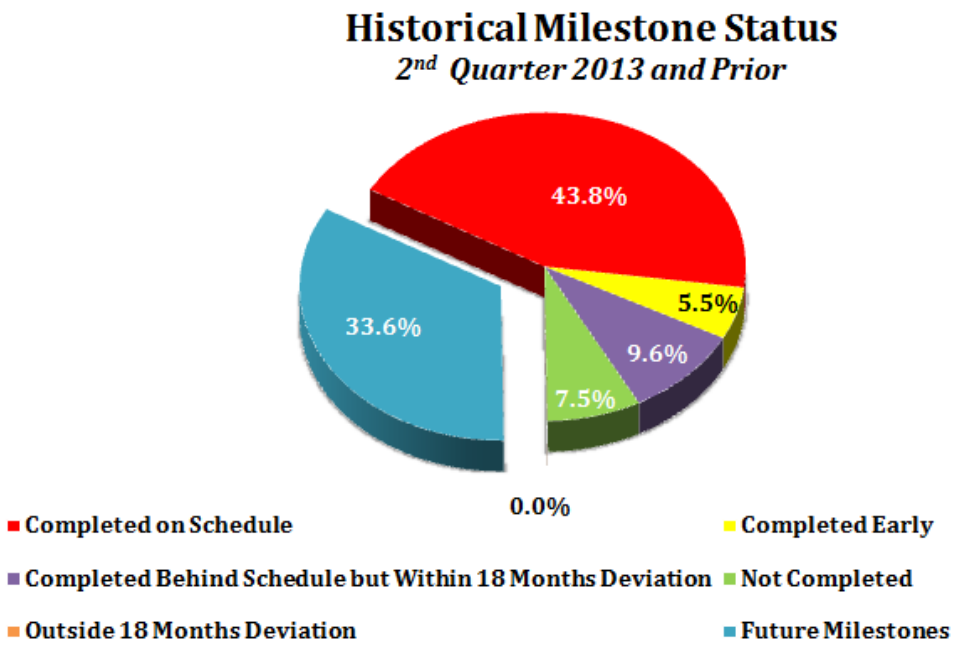
ORS reviews all invoices associated with the Milestone Schedule and during the 2nd quarter of 2013, there was one (1) invoice paid. ORS reviews invoices to ensure that the invoices are paid in accordance with Company policies and practices and in accordance with the terms of the EPC contract. ORS also reviews the escalation applied to these invoices for consistency with the appropriate Handy Whitman inflation indices.

Table 1 shows the status of the ninety-seven (97) historical milestones and Chart 1 shows the status of all 146 milestones for the 2nd quarter of 2013 and prior.[3]

Table 1:

Historical Milestones *2nd Quarter 2013 and Prior* ***97 of 146 Total Milestones***	# of Milestones	% of All Milestones[4]
Completed on Schedule	64	43.8%
Completed Early	8	5.5%
Completed Behind Schedule but Within 18 Months Deviation	14	9.6%
Not Completed	11	7.5%
Outside 18 Months Deviation	0	0.0%
Total Historical Milestones	**97**	**66.4%**

Chart 1:



[3] The numbers reported by ORS and SCE&G may vary. For reporting purposes, ORS applies a 30 day threshold before a milestone is deemed accelerated or delayed. SCE&G uses a threshold less than 30 days. For instance, if a milestone is scheduled to be completed January 2, 2013 and the actual completion date is December 29, 2012, SCE&G deems the milestone as completed one month early since it is completed in a prior calendar month. ORS would report this milestone as being accomplished on schedule since it was completed within 30 days of the scheduled completion date.

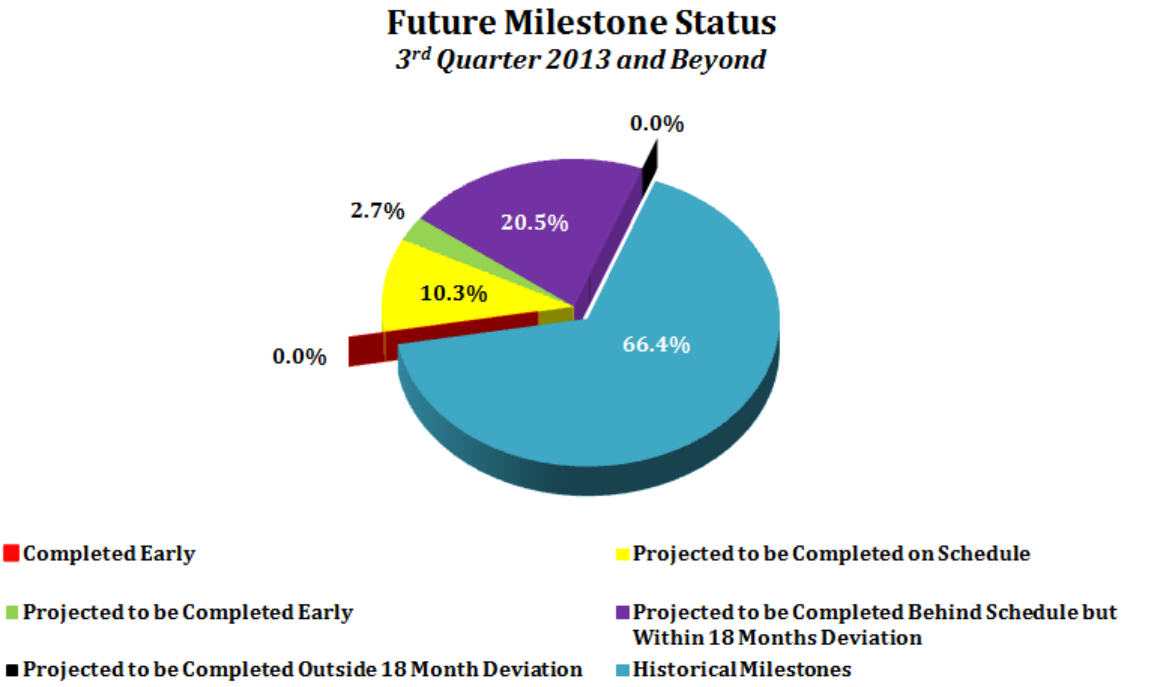
[4] Slight variances may occur due to rounding.

Table 2 shows the status of the forty-nine (49) future milestones and Chart 2 shows the status of all 146 milestones for the 3rd quarter 2013 and beyond.

Table 2:

Future Milestones *3rd Quarter 2013 and Beyond* ***49 of 146 Total Milestones***	# of Milestones	% of All Milestones[5]
Completed Early	0	0.0%
Projected to be Completed on Schedule	15	10.3%
Projected to be Completed Early	4	2.7%
Projected to be Completed Behind Schedule but Within 18 Months Deviation	30	20.5%
Projected to be Outside 18 Months Deviation	0	0.0%
Total Future Milestones	**49**	**33.6%**

Chart 2:



[5] Slight variances may occur due to rounding.

Specific Construction Activities

Site construction activities continue to progress. A workforce of approximately 1,600 WEC/CB&I (including subcontractors) and 330 SCE&G personnel is currently on site. Major construction activities during the 2nd quarter of 2013 are listed below:

- The Unit 2 Containment Vessel Bottom Head ("CVBH") was set into place atop the CR10 module on May 22, 2013. Grout was placed underneath the CVBH on June 30, 2013. This was the largest lift performed to date by the Heavy Lift Derrick, with the CVBH weighing approximately 990 tons.

- Progress continued on the Unit 2 Turbine building basement, with the supports placed for one segment of the condenser and walls on the east, south and west sides reaching a height of twelve (12) feet above the base mat.

- Approximately 75% of the precast panels for Cooling Tower 2A and 25% of the precast panels for Cooling Tower 3A have been set into place. Fans, shrouds and electrical equipment are being installed. Foundation pilings for Cooling Tower 2B were installed and preparations were made in advance of pouring the foundation. Foundation and basin work on Cooling Tower 3B by CB&I were also completed.

- Unit 3 CVBH work continued with the first course of steel plates being placed on the erection stand.

- Installation of the plates that make up the Unit 2 Containment Vessel ("CV") Rings continued. Unit 2 CV Ring 1 fabrication and installation of internal stiffeners is largely complete. Welding was completed on the seams of the first three courses of plates for CV Ring 2.

- Several major components were delivered to the site during the quarter, including the Unit 2 Reactor Vessel ("RV"), Unit 2 Closure Head and the major components of Unit 2 Turbine Generator.

- Progress continued on the CA20 sub-modules inside the Module Assembly Building ("MAB"). A total of thirty-nine (39) of seventy-two (72) CA20 sub-modules had been delivered to the site from CB&I Lake Charles as of the end of the 2nd quarter of 2013, with two (2) of these arriving on site during the 2nd quarter of 2013. During the 3rd quarter of 2012, it was determined as a result of a WEC design review that the weld process used at many points on the modules, called a "fillet weld", did not meet the requirement reflected in the current licensing basis drawings for a full penetration weld. During the quarter, CB&I contractors began re-welding the modules inside of the MAB using full penetration welds. The delivery and assembly of all of the structural modules, including CA20, is a critical path activity.

- CB&I-LC has been the focus of intense management attention. Delays in sub-module fabrication have contributed to the anticipated delay in the Unit 2 substantial completion date. CB&I has implemented a new leadership team and developed a new schedule for Unit 2 sub-module production. In an effort to improve delivery times, CB&I shifted work from CB&I-LC to other fabricators, including the CA04 module, the CA03 module, and Shield Building modules. Further delays in the sub-module fabrication schedule, particularly the CA01 module may result in Milestones exceeding the window allowed by the BLRA. ORS continues to closely monitor the impact module delays have on cost and schedule.

- Shipment of the completed squib valves for the Units is on hold as their manufacturer addresses anomalies uncovered during the qualification testing of the valves and deficiencies identified by the NRC in document packages related to work performed by sub-contractors.

Photographs of 2nd quarter construction activities are shown in Appendix C.

Critical Path Activities

Critical path activities are those that drive the construction schedule. These assessments are based on previous critical paths and projected future critical paths.

- **Unit 2 CA01 Module**
  Fabrication and delivery of the sub-modules being manufactured at CB&I-LC continues to challenge the schedule. Of the sub-modules required to be assembled, the CA01 module remains one of the major critical concerns and challenges to the schedule of the project. None of these sub-modules have been completed or shipped to the site. There are various options being pursued by the project, including work-arounds and re-sequencing of the installation, to reduce the impact of the delay of these sub-modules. This is currently the most critical activity in the assembly of the nuclear island building because the CA01 module must be placed before the setting of the CV rings can progress beyond the 1st ring. This critical path activity is behind schedule and could further delay the completion date.

- **Unit 2 CA20 Module**
  Delays also continue regarding the fabrication and delivery of the CA20 sub-modules from CB&I-LC. It is especially concerning that the revised schedule worked out with CB&I, to which they had committed, during the 2nd quarter has not been met. The sub-modules needed to proceed with the assembly of module CA20 are not yet on-site which may impact the construction of the shield building and further delay the project. However, the weld repairs on the on-site sub-modules as discussed in the 2013 1st quarter ORS Report have begun and are progressing well. This critical path activity is behind schedule.

- **Unit 2 Shield Building**
  Because of the production and quality issues associated with CB&I-LC, fabrication of the Shield Building modules has been reassigned to Newport News Industries ("NNI") in Virginia. Mobilization and preparation for production continued at NNI throughout the quarter. Although fabrication is now underway, no sub-modules have yet been delivered to the site. A detailed schedule for their delivery is not yet available; however, the first sub-modules are to be delivered in December 2013. In addition, work associated with completing the mock-ups to field test the installation activities associated with the installation of the shield building modules has now been scheduled to be completed by the end of the year.

- **Unit 3 Basemat**
  Significant progress has been made in this area. The mudmat has been poured and the water-proof membrane has been installed. Installation of the reinforcing steel and the embedded components is progressing well with an expected concrete pour of the basemat to occur in mid-October 2013. This is the current critical path activity for Unit 3 and is on schedule.

- **Unit 3 Modules**
  Module assembly is a future critical path activity for Unit 3. Neither an overall revised construction schedule nor a revised sub-module delivery schedule has been released for Unit 3. However, SCE&G has indicated that they anticipate Unit 3 will be delayed in a similar manner to Unit 2. These sub-modules, and therefore the associated modules, are behind schedule.

Transmission

On February 28, 2011, SCE&G entered into a contract with Pike Electric for the permitting, engineering and design, procurement of material, and the construction of four (4) 230 kV transmission lines and associated facilities related to the Units. This project will consist of two (2) phases.

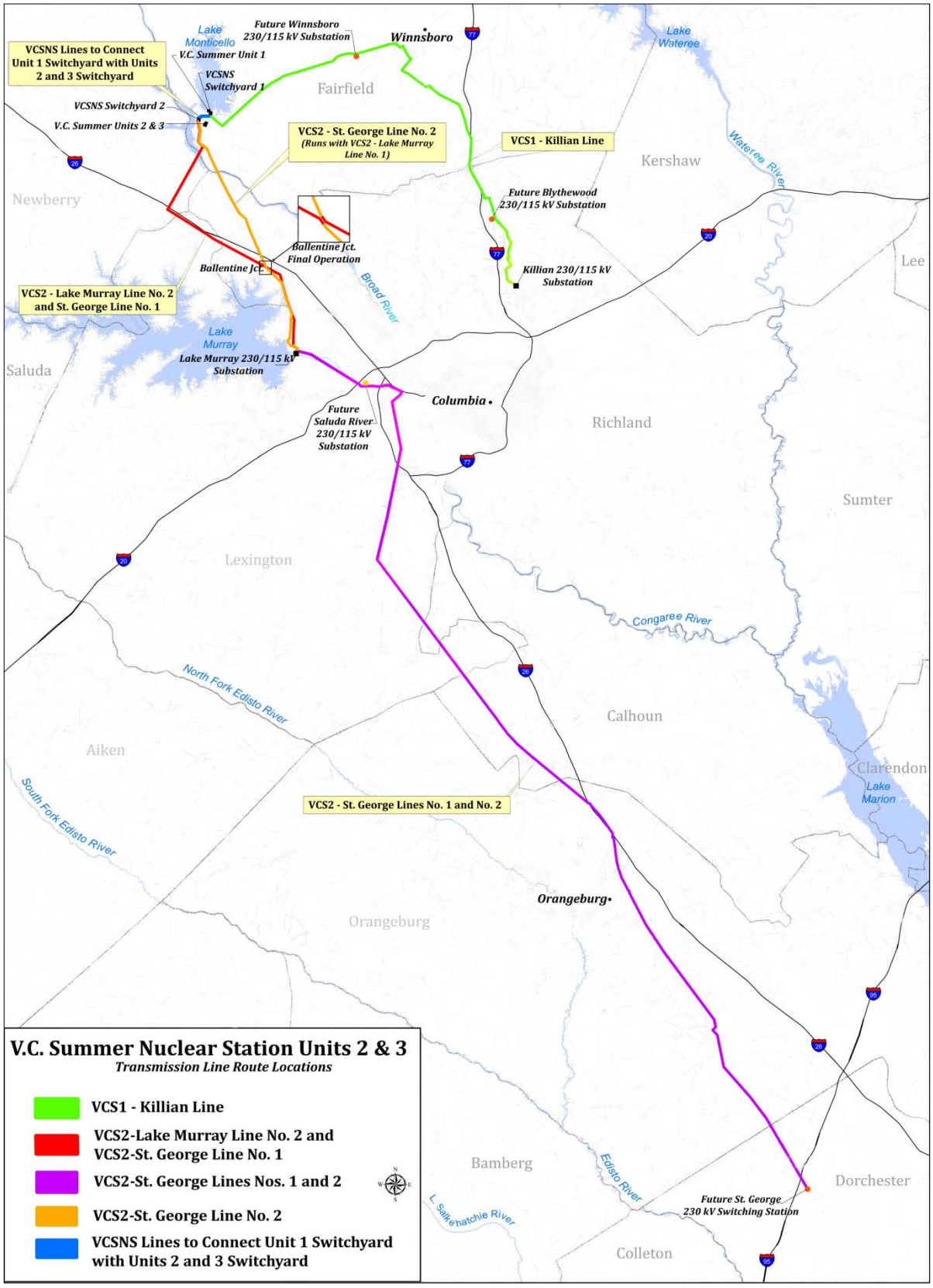
Phase 1 consists of construction of two (2) new 230 kV transmission lines in support of Unit 2: the VCS1–Killian Line and the VCS2–Lake Murray Line #2. The VCS1–Killian Line will connect the existing V.C. Summer Switchyard ("Switchyard 1") to the Company's existing Killian Road 230 kV Substation. The VCS2–Lake Murray Line #2 will connect the newly-constructed Switchyard ("Switchyard 2") to the Company's existing Lake Murray 230 kV Substation. Switchyard 2 will allow the connection of both the Unit 2 and Unit 3 generators to the grid. Also, for Phase 1, two (2) new 230 kV interconnections between Switchyard 1 and Switchyard 2 have been constructed. Construction of the Phase 1 lines continued during the 2nd quarter of 2013. As of June 30, 2013, the VCS1–Killian Line was approximately ninety-five percent (95%) complete and the VCS2–Lake Murray Line #2 was approximately eighty percent (80%) complete.

Phase 2 consists of construction of two (2) new 230 kV transmission lines and associated facilities in support of Unit 3. The construction of these lines and associated facilities was approved in Order No. 2012-730. Facilities in Phase 2 are the VCS2–St. George Line #1, VCS2–St. George Line #2, and St. George 230 kV Switching Station, and Saluda River 230/115 kV Substation.

Both the VCS2–St. George Line #1 and VCS2–St. George Line #2 will connect Switchyard 2 to the yet-to-be constructed St. George 230 kV Switching Station. Construction on these lines began during the quarter; however, construction of the St. George 230 kV Switching Station has not yet begun. A third new 230 kV interconnection between Switchyard 1 and Switchyard 2 will be required for Phase 2. SCE&G entered into an agreement to purchase the site for the Saluda River 230/115 kV Substation, to be built adjacent to and interconnect with the VCS2-St. George lines. The preliminary environmental assessment of this site has been completed and lay out of the substation is progressing.

Map 1 shows the geographical location of SCE&G's new transmission lines and other SCE&G associated facilities to support the Units.

Map 1: New SCE&G Transmission Lines and Facilities Supporting V.C. Summer Units 2 & 3



Change Orders and Amendments

During the 2nd quarter of 2013, no Change Orders or Amendments were executed. The four (4) Change Orders that were being negotiated at the end of the 1st quarter 2013 remain under negotiation. No Change Orders or Amendments have been executed since early 2012, despite continued negotiations.

The first of these Change Orders, Change Order #16, would incorporate the settlement agreement with WEC/CB&I into the EPC Contract. The costs associated with this Change Order are incorporated in the Company's Update Filing. Execution of this change order has been delayed pending the resolution of a question regarding the application of the Handy-Whitman inflation indices. The Company is withholding payment of disputed amounts on invoices that are affected by these indices pending resolution of this matter.

The second Change Order under negotiation would incorporate Phase II of the cyber security changes previously catalogued in Change Order #14. The third incorporates potential design changes to the offsite water treatment system. The final Change Order under negotiation would address WEC/CB&I's costs associated with recent federal health care legislation.

Table 3 details all Change Orders and Amendments. A list of definitions for each type of Change Order is found below.

- **Contractor Convenience:** These changes are requested by the contractor. They are undertaken at the contractor's own expense, and are both generally consistent with the contract and reasonably necessary to meet the terms of the contract.

- **Entitlement:** The contractor is entitled to a Change Order in the event certain actions occur, including changes in law, uncontrollable circumstances, and other actions as defined in the contract.

- **Owner Directed:** These changes are requested by the Company.

Table 3:

Change Orders and Amendments					
No.	**Summary**	**Cost Categories Involved**	**Type of Change**	**Date Approved**	**Status**
1	Operator training for WEC Reactor Vessel Systems and Simulator training	Fixed Price with 0% escalation [6]	Owner Directed	7/22/2009	Approved
2	Limited Scope Simulator	Firm Price	Owner Directed	9/11/2009	Approved
3	Repair of Parr Road	Time and Materials	Owner Directed	1/21/2010	Approved
4	Transfer of Erection of CA20 Module from WEC to Shaw	Target Price work shifting to Firm Price	Contractor Convenience	N/A	Superseded by Change Order No. 8
5	**Supplements Change Order No. 1** Increased training by two (2) weeks	Fixed Price with 0% escalation [6]	Owner Directed	5/4/2010	Approved
6	Hydraulic Nuts	Fixed Price	Owner Directed	7/13/2010	Approved
7	St. George Lines #1 & 2	Firm and Target Price Categories	Entitlement	7/13/2010	Approved
8	Target to Firm/Fixed Shift	Target, Firm and Fixed Price Categories	Owner Directed	4/29/2011	Approved
9	Switchyard Lines Reconfiguration	Firm and Target Price Categories	Owner Directed	11/30/2010	Approved
10	Primavera	Fixed Price with 0% escalation	Owner Directed	12/16/2010	Approved
11	COL Delay Study	Fixed Price, but would be applied to T&M Work Allowances	Owner Directed	2/28/2011	Approved
12	2010 Health Care Act Costs (Shaw)	Firm	Entitlement	11/14/2011	Approved
13	Ovation Workstations	No Cost	Owner Directed	3/12/2012	Approved
14	Cyber Security Phase I	Firm Price and T&M Price	Entitlement	3/15/2012	Approved
15	Liquid Waste System Discharge Piping	Firm Price	Owner Directed	3/15/2012	Approved
16	Resolves WEC/CB&I claims related to COL Delay & other items	Target & Firm Price	Entitlement	N/A	Pending

Amendment #1	Includes Change Orders 1 and 2	Executed on 8/2/2010
Amendment #2	Incorporates Change Orders 3, 5-11	Executed on 11/15/2011
Amendment #3	Includes modified insurance wording	Executed on 4/30/12

[6] Fixed Price with 0% escalation, but would be applied to Time and Materials Work Allowances by adding a new category for Simulator Instructor training and reducing Startup Support by a commensurate amount.

Licensing and Inspection Activities

Federal Activities

As of June 30, 2013, SCE&G has identified the need to submit more than fifty (50) License Amendment Requests ("LARs") to the NRC. The exact number of LARs required varies, as one LAR may address multiple identified issues. A LAR is the process by which a licensee requests changes to the COL issued by the NRC. The licensee may request a Preliminary Amendment Request ("PAR") to accompany a LAR. PARs allow the licensee to continue with construction at its own risk while awaiting final dispensation of the LAR. A total of twelve (12) LARs had been submitted through the end of the 1st quarter of 2013. During the 2nd quarter of 2013, no additional LARs were submitted. A table of LARs submitted to the NRC, and accompanying PARs, if requested, is attached as Appendix D. Issues surrounding the approval of LARs are discussed in more detail in the section entitled "Construction Challenges."

The NRC conducts monthly civil inspections to monitor construction progress. While no additional issues were identified in the monthly civil inspections, discussions continued during the quarter surrounding the unresolved issue ("URI") related to concrete reinforcement in the basemat elevator pits and sump areas discussed in ORS's 2012 3rd Quarter Report. On December 21, 2012, the NRC re-exited the September 2012 Monthly Civil Inspection identifying this as a potential violation.

On March 26, 2013 the NRC re-exited its September 2012 Monthly Civil Inspection and identified one (1) potential White finding. White findings are findings of low to moderate safety significance. This finding was issued related to design control surrounding the issue of the concrete reinforcement in the basemat elevator pits and sump areas. Two (2) LARs have since been approved by the NRC relating to this issue. The Company has submitted additional documentation to the NRC to help the NRC determine the final significance of this finding and a regulatory conference was held on April 30, 2013. The information presented at the regulatory conference satisfied the NRC and the finding was determined to be a Green finding on May 16, 2013. Green findings are findings of very low safety significance.

The NRC also conducted an inspection of SCE&G's Quality Assurance Program on May 3, 2013. No findings were identified during this inspection.

State Activities

As of June 30, 2013 there are currently no major state construction-related permits outstanding.

Approved Budget Review

ORS's budget review includes an analysis of the 2nd Quarter 2013 capital costs, project cash flow, escalation and Allowance for Funds Used during Construction ("AFUDC").

Capital Costs

To determine how consistently the Company adheres to the budget approved by the Commission in Order No. 2012-884, ORS evaluates nine (9) major cost categories for variances. These cost categories are:

- Fixed with No Adjustment
- Firm with Fixed Adjustment A
- Firm with Fixed Adjustment B
- Firm with Indexed Adjustment
- Actual Craft Wages
- Non-Labor Cost
- Time & Materials
- Owners Costs
- Transmission Projects

ORS monitors variances due to project changes (e.g., shifts in work scopes, payment timetables, construction schedule adjustments, Change Orders). At the end of the 2nd quarter of 2013, SCE&G's total base project cost (in 2007 dollars) is $4.548 billion.

Project Cash Flow

As shown in Appendix 2 of the Company's Report, the cumulative amount spent on the project as of December 31, 2012 was $1.773 billion. The cumulative amount forecasted to be spent on the project by December 31, 2013 is $2.513 billion.

With reference to Appendix 2, ORS evaluated the total revised project cash flow (Line 37) with respect to the annual project cash flow, adjusted for changes in escalation (Line 16). This evaluation provides a comparison of the Company's current project cash flow to the cash flow schedule approved by the Commission in Order No. 2012-884. To produce a common basis for the comparison, Line 16 adjusts the approved cash flow schedule to reflect the current escalation rates. As of December 31, 2012, the comparison shows the yearly maximum annual variance from the approved cash flow schedule through the life of the project. The comparison also shows that the cumulative project cash flow is forecasted to be approximately $364.7 million under budget at the end of 2013. Due to escalation, at the completion of the project in

2019 the cumulative project cash flow is forecasted to be approximately $80.4 million over budget.

Table 4 shows the annual and cumulative project cash flows as compared to those approved in Order No. 2012-884.

Table 4:

Project Cash Flow Comparison

$'s in Thousands [7]

		Annual Over/(Under)	Cumulative Over/(Under)
Actual	2007	-	-
	2008	$0	$0
	2009	$0	$0
	2010	$0	$0
	2011	$0	$0
	2012	($142,003)	($142,003)
Projected	2013	($222,686)	($364,689)
	2014	($31,487)	($396,176)
	2015	**$71,371**	($324,805)
	2016	**$125,051**	($199,754)
	2017	**$165,731**	($34,023)
	2018	**$57,576**	**$23,553**
	2019	**$56,835**	**$80,388**

In summary, the Report shows no increase in the total base project cost (in 2007 dollars). Due to escalation, an increased project cash flow of approximately $80.4 million is necessary to complete the project in 2019. These forecasts reflect the updated capital cost schedules approved in Order No. 2012-884, the current construction schedule and the inflation indices in the Company's Appendix 4. This increased project cash flow is due to increased escalation resulting from construction delays and short-term escalation rate increases since the filing. SCE&G has estimated the costs associated with the delay in the substantial completion dates for Unit 2 and Unit 3 to be approximately $200 million. Since SCE&G has not accepted responsibility for these costs, this report includes no increases to the project cash flow attributable to the delay in the substantial completion dates.

[7] Slight variances may occur due to rounding.

AFUDC and Escalation

The forecasted AFUDC for the total project as of the end of the 2nd quarter of 2013 is $237.7 million and is currently based on a forecasted 6.09% AFUDC rate.

Changes in the AFUDC rate, timing changes in project spending due to construction schedule shifts, and five-year average escalation rates are all factors that impact the projected project cash flow. Worldwide economic conditions previously reduced the projected escalation cost of the project; however, these economic conditions are now improving. Due to increases in escalation rates, as well as changes to the timing of payments due to construction delays, the overall project cost has increased. More specifically, as of June 30, 2013, the SCE&G forecasted gross construction cost of the plant is $5.800 billion as compared to the approved gross construction cost of $5.755 billion, which represents an increase of approximately $46 million.

Annual Request for Revised Rates

Pursuant to the BLRA, SCE&G may request revised rates no earlier than one year after the request of a Base Load Review Order or any prior revised rates request. SCE&G filed its Annual Request for Revised Rates with the Commission in Docket No. 2013-150-E on May 30, 2013, the anniversary date of SCE&G's previous request for revised rates.

Table 5 below shows the requested increases and approved increases from all prior Revised Rate Filings with the Commission.

Table 5:

Requested vs. Approved Increases
SCE&G Revised Rate Filings

Docket No.	Order No.	Requested Increase	ORS Examination	Approved Increase	Retail Increase
2008-196-E	2009-104(A)	$8,986,000	($1,183,509)	$7,802,491	0.43%
2009-211-E	2009-696	$22,533,000	$0	$22,533,000	1.10%
2010-157-E	2010-625	$54,561,000	($7,260,000)	$47,301,000	2.31%
2011-207-E	2011-738	$58,537,000	($5,753,658)	$52,783,342	2.43%
2012-186-E	2012-761	$56,747,000	($4,598,087)	$52,148,913	2.33%
2013-150-E	2013-680(A)	$69,671,000	($2,430,768)	$67,240,232	2.87%

Additional ORS Monitoring Activities

ORS continually performs the following activities, as well as other monitoring activities as deemed necessary:

- Audits capital cost expenditures and resulting AFUDC in CWIP
- Physically observes construction activities
- Bi-monthly on-site review of construction documents
- Holds monthly update meetings with SCE&G
- Meets quarterly with representatives of WEC
- Participates in NRC Public Meetings regarding SCE&G COL and other construction activities

Construction Challenges

Based upon the information provided by the Company in its Report, as well as information obtained via additional ORS monitoring activities, ORS identifies the following ongoing challenges in the construction of the Units:

Structural Modules

The most significant, currently identified challenge to the project is the continued inability of CB&I-LC to reliably meet the quality and schedule requirements of the project. Despite intense and continuous management focus from CB&I-LC, CB&I, WEC and SCE&G, CB&I-LC has been unable to meet its revised schedules to deliver sub-modules to the site in a timely manner. CB&I-LC has also continued to struggle with quality issues, ranging from design compliance to the completion of final inspection paperwork. This issue is the most immediate challenge to the project. Although SCE&G and CB&I have demonstrated success performing the field activities associated with the on-site assembly of the limited number of CA20 modules received, this area remains as a significant challenge to the project. Specifically, the on-site weld repairs that need to be made, resulting from an incorrect interpretation of the approved design during the module fabrication process, and the assembly of the sub-modules into modules to be installed in the Nuclear Island, are significant construction challenges. The weld repairs are now underway and appear to be progressing well, but the tardy delivery of the sub-modules remains a cause for concern.

Shield Building Modules

Although shield building module fabrication has been reassigned to NNI, thus freeing CB&I-LC to concentrate on the structural modules, NNI's performance has not yet been demonstrated and a delivery schedule has not yet been provided. The shield building modules are more complex and present even greater fabrication and erection challenges to the project than the structural modules. Though some mock-ups have been produced, these mock-ups are only being used for testing purposes, and have not yet been completed at the site. The full extent of challenges in this area remains unknown; however, given the project's history with structural module fabrication, it is an area of concern moving forward. NNI will need to demonstrate sustained and reliable performance in both the quality and on-time delivery of sub-modules, and CB&I will need to do the same in the area of erecting the shield building modules on-site.

Structural Design Compliance

The issues relating to the basemat design, as well as a portion of the issues relating to the structural modules and shield building modules, are related to compliance with the design approved by the NRC. This structural design compliance is emerging as an issue affecting multiple areas of the project. WEC has had challenges providing accurate directions for fabrication, in part because of differences in the interpretation of the Design Control Document ("DCD") approved by the NRC. Issues include, but are not limited to, 1) a lack of compliance with applicable building codes for concrete and rebar to 2) the failure to correctly translate the requirement for full penetration welds in structural modules to documents used for fabrication. This raises questions of whether the overall WEC structural design will face similar challenges at each new phase of construction. WEC has taken steps to engage the services of structural experts from several leading nuclear plant design and engineering firms to assist them in the structural design area, which indicates a commitment to addressing these issues going forward. This is an area that presents a significant continuing challenge to the project, and remains an open concern at this time. The challenges associated with the connections used between the walls and the Nuclear Island basemat appear to have been met, but there continue to be new issues developing in the design of the embedment attachments to the walls and in the reinforcing steel design within the walls. Sustained progress in this area will be a key indicator of how the project will address the remaining structural compliance issues. These concerns have resulted in many design drawings being placed on "hold" and WEC needs to provide a detailed schedule for the release of the holds on these design drawings so that they can be released for construction.

Instrumentation and Control Design

The completion of the WEC Instrumentation and Control ("I&C") design is also presenting a significant challenge to the project. The most obvious impact that is of concern is the effect of this on the availability of the Plant Reference Simulator ("PRS") and it appears there may be a delay in the delivery of the PRS. The PRS must be available to support operator training. The current schedule for delivery of the PRS has very little margin for any delays. However, I&C design must also support plant equipment procurement and construction activities above and beyond those required for completion of the PRS. This is also presenting a significant challenge to the project that must be monitored closely.

Overlapping Unit 2 & Unit 3 Construction Schedules

The delays in the progress on Unit 2 construction, in particular those associated with sub-module fabrication and erection, may begin to challenge the ability of the project to work on both Units simultaneously while adhering to the approved schedule. This has the potential to result in significant challenges to the Unit 3 construction schedule. A detailed integrated schedule for both units must be provided that reflects how this challenge will be addressed and sustained satisfactory performance in meeting these schedules must be demonstrated to alleviate this concern.

Manufacturing of Major Equipment

Factors such as design changes, labor conditions, shipping conditions, and the financial stability of foreign manufacturers due to financial market conditions must be monitored closely. Significant progress was demonstrated this quarter with the delivery of the Unit 2 RV and Closure Head, the delivery of the Unit 2 Deaerator, Moisture-Separator Reheaters and the majority of the Turbine-Generator; however, these challenges still remain for the remaining equipment.

License Amendment Reviews

Construction compliance issues requiring LARs and the preparation of the necessary supporting documentation are proving to be more problematic and require significantly more resources than originally planned. As demonstrated by the extended review required of the basemat reinforcing LARs, the activities and efforts required resulted in actual construction delays and costs. There are several additional LARs that may require similar efforts. Therefore, the resolution of these LARs presents a potential challenge to the construction of the Units.

Notable Activities Occurring after June 30, 2013

The BLRA allows SCE&G forty-five (45) days from the end of the current quarter to file its Report. Items of importance that occurred subsequent to the closing of the 2nd quarter of 2013 are reported below.

Caution Milestones

As previously discussed, ORS identified that the Company's notification of the change in Substantial Completion for Unit 2 resulted in thirteen (13) milestones being delayed ten (10) months or longer, with one (1) milestone indicating a delay of sixteen (16) months and one (1) milestone indicating a delay of seventeen (17) months. On July 26, 2013, ORS filed a letter notifying the Commission of the delay in these milestones, which is attached as Appendix E.

NRC Licensing

On July 29, 2013 the NRC issued an inspection report for the period of April 1, 2013 to June 30, 2013 with two (2) green findings, both of very low safety significance. As they were of very low safety significance, these findings were treated as non-cited violations in accordance with NRC policies.

Structural Modules

As structural module delivery is contributing to delays in the anticipated substantial completion date, this is an area of intense focus. A revised Unit 2 sub-module delivery schedule was provided to SCE&G by CB&I-LC in June. Initially, CB&I-LC was meeting the revised delivery dates; however, by August they were again delivering sub-modules behind schedule. As of August 6, 2013, there were five (5) sub-modules previously scheduled to be delivered that had not arrived on site. A total of forty-four (44) CA20 sub-modules had been delivered to the site from CB&I-LC as of September 27, 2013 with five (5) of these arriving on site subsequent to the end of the 2nd quarter of 2013. In addition to the CA20 sub-modules, eighteen (18) other modular components, including modules and sub-modules, were delivered to the site subsequent to the end of the quarter. SCE&G and ORS staff visited the CB&I-LC facility in Louisiana on September 25, 2013 to observe module fabrication activities.

Turbine Building

Subsequent to the end of the quarter, significant progress was made on the Unit 2 Turbine Building. One (1) of the three (3) sections of the Unit 2 Main Condenser was installed in August 2013, and CH80, a major structural module for the turbine building, was installed in September 2013. These represent major activities toward the completion of the Unit 2 Turbine Building.

Accumulated Deferred Income Tax Timing Difference

Subsequent to the end of the quarter, on September 9, 2013 and in Docket 2013-336-E, SCE&G filed a petition and notice for an allowable ex parte communication briefing to address a regulatory accounting issue related to accumulated deferred income taxes. This tax issue arises as a result of the construction of the Units. In short, traditional accounting tax practices as compared to accounting tax treatment under the Base Load Review Act create a timing difference that temporarily causes SCE&G increased tax liability exposure. If SCE&G's petition is approved, the Company reports to ORS that this temporary tax liability exposure will not have an impact on ratepayers. The briefing before the Commission is scheduled for October 17, 2013.

SCE&G's 2013 3rd quarter report is due forty-five (45) days after September 30, 2013. ORS expects to continue publishing a review evaluating SCE&G's quarterly reports.

Appendix A

Detailed Milestone Schedule as of June 30, 2013

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
1	Approve Engineering, Procurement and Construction Agreement	5/23/2008		No	No	5/23/2008	
2	Issue Purchase Orders ("P.O.") to Nuclear Component Fabricators for Units 2 and 3 Containment Vessels	12/3/2008		No	No	12/3/2008	
3	Contractor Issue P.O. to Passive Residual Heat Removal Heat Exchanger Fabricator – First Payment - Unit 2	8/31/2008		No	No	8/18/2008	
4	Contractor Issue P.O. to Accumulator Tank Fabricator – Unit 2	7/31/2008		No	No	7/31/2008	
5	Contractor Issue P.O. to Core Makeup Tank Fabricator - Units 2 & 3	9/30/2008		No	No	9/30/2008	
6	Contractor Issue P.O. to Squib Valve Fabricator- Units 2 & 3	3/31/2009		No	No	3/31/2009	
7	Contractor Issue P.O. to Steam Generator Fabricator - Units 2 & 3	6/30/2008		No	No	5/29/2008	1 Month Early
8	Contractor Issue Long Lead Material P.O. to Reactor Coolant Pump Fabricator - Units 2 & 3	6/30/2008		No	No	6/30/2008	
9	Contractor Issue P.O. to Pressurizer Fabricator - Units 2 & 3	8/31/2008		No	No	8/18/2008	
10	Contractor Issue P.O. to Reactor Coolant Loop Pipe Fabricator - First Payment - Units 2 & 3	6/30/2008		No	No	6/20/2008	

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
11	Reactor Vessel Internals – Issue Long Lead Material P.O. to Fabricator - Units 2 & 3	11/21/2008		No	No	11/21/2008	
12	Contractor Issue Long Lead Material - P.O. to Reactor Vessel Fabricator - Units 2 & 3	6/30/2008		No	No	5/29/2008	1 Month Early
13	Contractor Issue P.O. to Integrated Head Package Fabricator - Units 2 & 3	7/31/2009		No	No	7/31/2009	
14	Control Rod Drive Mechanism – Issue P.O. for Long Lead Material to Fabricator - Units 2 & 3 - First Payment	6/21/2008		No	No	6/21/2008	
15	Issue P.O.'s to Nuclear Component Fabricators for Nuclear Island Structural CA20 Modules	7/31/2009		No	No	8/28/2009	
16	Start Site Specific and Balance of Plant Detailed Design	9/11/2007		No	No	9/11/2007	
17	Instrumentation & Control Simulator - Contractor Place Notice to Proceed - Units 2 & 3	10/31/2008		No	No	10/31/2008	
18	Steam Generator - Issue Final P.O. to Fabricator for Units 2 & 3	6/30/2008		No	No	6/30/2008	
19	Reactor Vessel Internals - Contractor Issue P.O. for Long Lead Material (Heavy Plate and Heavy Forgings) to Fabricator - Units 2 & 3	1/31/2010		No	No	1/29/2010	
20	Contractor Issue Final P.O. to Reactor Vessel Fabricator - Units 2 & 3	9/30/2008		No	No	9/30/2008	

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
21	Variable Frequency Drive Fabricator Issue Transformer P.O. - Units 2 & 3	4/30/2009		No	No	4/30/2009	
22	Start Clearing, Grubbing and Grading	1/26/2009		No	No	1/26/2009	
23	Core Makeup Tank Fabricator Issue Long Lead Material P.O. - Units 2 & 3	10/31/2008		No	No	10/31/2008	
24	Accumulator Tank Fabricator Issue Long Lead Material P.O. - Units 2 & 3	10/31/2008		No	No	10/31/2008	
25	Pressurizer Fabricator Issue Long Lead Material P.O. - Units 2 & 3	10/31/2008		No	No	10/31/2008	
26	Reactor Coolant Loop Pipe - Contractor Issue P.O. to Fabricator - Second Payment - Units 2 & 3	4/30/2009		No	No	4/30/2009	
27	Integrated Head Package - Issue P.O. to Fabricator - Units 2 & 3 - Second Payment	7/31/2009		No	No	7/31/2009	
28	Control Rod Drive Mechanism - Contractor Issue P.O. for Long Lead Material to Fabricator - Units 2 & 3	6/30/2008		No	No	6/30/2008	
29	Contractor Issue P.O. to Passive Residual Heat Removal Heat Exchanger Fabricator - Second Payment - Units 2 & 3	10/31/2008		No	No	10/31/2008	
30	Start Parr Road Intersection Work	2/13/2009		No	No	2/13/2009	

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
31	Reactor Coolant Pump - Issue Final P.O. to Fabricator - Units 2 & 3	6/30/2008		No	No	6/30/2008	
32	Integrated Heat Packages Fabricator Issue Long Lead Material P.O. - Units 2 & 3	10/31/2009		No	No	10/1/2009	1 Month Early
33	Design Finalization Payment 3	1/31/2009		No	No	1/30/2009	
34	Start Site Development	6/23/2008		No	No	6/23/2008	
35	Contractor Issue P.O. to Turbine Generator Fabricator - Units 2 & 3	2/28/2009		No	No	2/19/2009	
36	Contractor Issue P.O. to Main Transformers Fabricator - Units 2 & 3	9/30/2009		No	No	9/25/2009	
37	Core Makeup Tank Fabricator Notice to Contractor Receipt of Long Lead Material - Units 2 & 3	11/30/2010		No	No	12/30/2010	Delayed 1 Month
38	Design Finalization Payment 4	4/30/2009		No	No	4/30/2009	
39	Turbine Generator Fabricator Issue P.O. for Condenser Material - Unit 2	8/31/2009		No	No	8/28/2009	
40	Reactor Coolant Pump Fabricator Issue Long Lead Material Lot 2 - Units 2 & 3	4/30/2009		No	No	4/30/2009	

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
41	Passive Residual Heat Removal Heat Exchanger Fabricator Receipt of Long Lead Material - Units 2 & 3	5/31/2010		No	No	5/27/2010	
42	Design Finalization Payment 5	7/31/2009		No	No	7/31/2009	
43	Start Erection of Construction Buildings to include Craft Facilities for Personnel, Tools, Equipment; First Aid Facilities; Field Offices for Site Management and Support Personnel; Temporary Warehouses; and Construction Hiring Office	10/9/2009		No	No	12/18/2009	Delayed 2 Months
44	Reactor Vessel Fabricator Notice to Contractor of Receipt of Flange Nozzle Shell Forging - Unit 2	7/31/2009		No	No	8/28/2009	
45	Design Finalization Payment 6	10/31/2009		No	No	10/7/2009	
46	Instrumentation and Control Simulator - Contractor Issue P.O. to Subcontractor for Radiation Monitor System - Units 2 & 3	12/31/2009		No	No	12/17/2009	
47	Reactor Vessel Internals - Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	6/30/2011		No	No	7/29/2011	
48	Turbine Generator Fabricator Issue P.O. for Moisture Separator Reheater/Feedwater Heater Material - Unit 2	4/30/2010		No	No	4/30/2010	
49	Reactor Coolant Loop Pipe Fabricator Acceptance of Raw Material - Unit 2	4/30/2010		No	No	2/18/2010	2 Months Early

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
50	Reactor Vessel Internals - Fabricator Start Weld Neutron Shield Spacer Pads to Assembly - Unit 2	7/31/2012		No	No	8/28/2012	
51	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 2	6/30/2009		No	No	6/30/2009	
52	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 2	11/30/2010		No	No	12/23/2010	
53	Start Excavation and Foundation Work for the Standard Plant for Unit 2	3/15/2010		No	No	3/15/2010	
54	Steam Generator Fabricator Notice to Contractor of Receipt of 2nd Steam Generator Tubesheet Forging - Unit 2	2/28/2010		No	No	4/30/2010	Delayed 2 Months
55	Reactor Vessel Fabricator Notice to Contractor of Outlet Nozzle Welding to Flange Nozzle Shell Completion - Unit 2	2/28/2010		No	No	12/30/2010	Delayed 10 Months
56	Turbine Generator Fabricator Notice to Contractor Condenser Fabrication Started - Unit 2	5/31/2010		No	No	5/17/2010	
57	Complete Preparations for Receiving the First Module On Site for Unit 2	8/18/2010		No	No	1/22/2010	6 Months Early
58	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Transition Cone Forging - Unit 2	4/30/2010		No	No	4/21/2010	
59	Reactor Coolant Pump Fabricator Notice to Contractor of Manufacturing of Casing Completion - Unit 2	11/30/2010		No	No	11/16/2010	

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
60	Reactor Coolant Loop Pipe Fabricator Notice to Contractor of Machining, Heat Treating & Non-Destructive Testing Completion - Unit 2	12/31/2010		No	No	3/20/2012	Delayed 14 Months
61	Core Makeup Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 2	9/30/2012		No	No	11/26/2012	Delayed 1 Month
62	Polar Crane Fabricator Issue P.O. for Main Hoist Drum and Wire Rope - Units 2 & 3	2/28/2011		No	No	2/1/2011	
63	Control Rod Drive Mechanisms - Fabricator to Start Procurement of Long Lead Material - Unit 3	6/30/2011		No	No	6/14/2011	
64	Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 2	10/31/2011		No	No	3/26/2012	Delayed 4 Months
65	Start Placement of Mud Mat for Unit 2	6/29/2012		No	No	7/20/2012	
66	Steam Generator Fabricator Notice to Contractor of Receipt of 1st Steam Generator Tubing - Unit 2	1/31/2011		No	No	9/28/2010	4 Months Early
67	Pressurizer Fabricator Notice to Contractor of Welding of Upper and Intermediate Shells Completion - Unit 2	10/31/2010		No	No	10/28/2011	Delayed 12 Months
68	Reactor Vessel Fabricator Notice to Contractor of Closure Head Cladding Completion - Unit 3	6/30/2012		No	No	6/28/2012	

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
69	Begin Unit 2 First Nuclear Concrete Placement	8/24/2012		No	No	3/9/2013	Delayed 6 Months
70	Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 2	9/30/2011		No	No	12/1/2011	Delayed 2 Months
71	Fabricator Start Fit and Welding of Core Shroud Assembly - Unit 2	6/30/2011		No	No	7/29/2011	
72	Steam Generator Fabricator Notice to Contractor of Completion of 1st Steam Generator Tubing Installation - Unit 2	5/31/2011		No	No	1/27/2012	Delayed 8 Months
73	Reactor Coolant Loop Pipe - Shipment of Equipment to Site - Unit 2	12/31/2012	9/30/2013	No	No		Delayed 9 Months
74	Control Rod Drive Mechanism - Ship Remainder of Equipment (Latch Assembly & Rod Travel Housing) to Head Supplier - Unit 2	6/30/2012		No	No	7/16/2012	
75	Pressurizer Fabricator Notice to Contractor of Welding of Lower Shell to Bottom Head Completion - Unit 2	10/31/2010		No	No	12/22/2011	Delayed 13 Months
76	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 2	5/31/2012		No	No	5/4/2012	
77	Design Finalization Payment 14	10/31/2011		No	No	10/31/2011	

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
78	Set Module CA04 For Unit 2	11/6/2012	8/29/2013	No	No		Delayed 9 Months
79	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Final Post Weld Heat Treatment - Unit 2	6/30/2010		No	No	5/24/2011	Delayed 10 Months
80	Passive Residual Heat Removal Heat Exchanger Fabricator Notice to Contractor of Completion of Tubing - Unit 2	5/31/2012		No	No	5/29/2012	
81	Polar Crane Fabricator Notice to Contractor of Girder Fabrication Completion - Unit 2	10/31/2012		No	No	10/23/2012	
82	**Turbine Generator Fabricator Notice to Contractor Condenser Ready to Ship - Unit 3**	**8/31/2013**	**8/22/2013**	**No**	**No**		
83	Set Containment Vessel Ring #1 for Unit 2	1/7/2013	11/7/2013	No	No		**Delayed 10 Months**
84	Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2	7/31/2012	7/31/2013	No	No		**Delayed 12 Months**
85	**Reactor Coolant Pump Fabricator Notice to Contractor of Stator Core Completion - Unit 3**	**8/31/2013**	**8/30/2013**	**No**	**No**		
86	Reactor Vessel Fabricator Notice to Contractor of Receipt of Core Shell Forging - Unit 3	9/30/2012		No	No	3/29/2012	6 Months Early

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
87	Contractor Notified that Pressurizer Fabricator Performed Cladding on Bottom Head - Unit 3	1/31/2013		No	No	11/9/2011	14 Months Early
88	**Set Nuclear Island Structural Module CA03 for Unit 2**	**6/26/2013**	**11/22/2014**	**No**	**No**		**Delayed 17 Months**
89	Squib Valve Fabricator Notice to Contractor of Completion of Assembly and Test for Squib Valve Hardware - Unit 2	5/31/2012		No	No	5/10/2012	
90	Accumulator Tank Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	3/31/2013	9/2/2013	No	No		Delayed 5 Months
91	Polar Crane Fabricator Notice to Contractor of Electric Panel Assembly Completion - Unit 2	3/31/2013		No	No	3/6/2013	
92	**Start Containment Large Bore Pipe Supports for Unit 2**	**6/28/2013**	**10/22/2014**	**No**	**No**		**Delayed 16 Months**
93	Integrated Head Package - Shipment of Equipment to Site - Unit 2	3/31/2013	2/6/2014	No	No		**Delayed 10 Months**
94	**Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 2**	**5/31/2013**	**9/4/2013**	**No**	**No**		**Delayed 3 Months**
95	**Steam Generator Fabricator Notice to Contractor of Completion of 2nd Steam Generator Tubing Installation - Unit 3**	**6/30/2013**	**7/15/2013**	**No**	**No**		

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
96	Steam Generator Fabricator Notice to Contractor of Satisfactory Completion of 1st Steam Generator Hydrotest - Unit 2	1/31/2013		No	No	1/14/2013	
97	Start Concrete Fill of Nuclear Island Structural Modules CA01 and CA02 for Unit 2	4/3/2014	5/23/2015	No	No		**Delayed 13 Months**
98	Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2	12/31/2012	11/4/2013	No	No		**Delayed 10 Months**
99	Refueling Machine Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 2	11/30/2013	3/27/2014	No	No		Delayed 3 Months
100	Deliver Reactor Vessel Internals to Port of Export - Unit 2	1/31/2014	6/10/2014	No	No		Delayed 4 Months
101	Set Unit 2 Containment Vessel #3	4/24/2014	3/16/2015	No	No		**Delayed 10 Months**
102	**Steam Generator - Contractor Acceptance of Equipment at Port of Entry - Unit 2**	**7/31/2013**	**12/30/2013**	**No**	**No**		**Delayed 5 Months**
103	**Turbine Generator Fabricator Notice to Contractor Turbine Generator Ready to Ship - Unit 2**	**4/30/2013**		**No**	**No**	**5/28/2013**	
104	Pressurizer Fabricator Notice to Contractor of Satisfactory Completion of Hydrotest - Unit 3	3/31/2014	1/7/2014	No	No		2 Months Early

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
105	Polar Crane - Shipment of Equipment to Site - Unit 2	1/31/2014	9/17/2014	No	No		Delayed 7 Months
106	Receive Unit 2 Reactor Vessel On Site From Fabricator	5/13/2014	7/11/2013	No	No		10 Months Early
107	Set Unit 2 Reactor Vessel	6/23/2014	6/3/2015	No	No		**Delayed 11 Months**
108	Steam Generator Fabricator Notice to Contractor of Completion of 2nd Channel Head to Tubesheet Assembly Welding - Unit 3	12/31/2013	2/28/2014	No	No		Delayed 2 Months
109	Reactor Coolant Pump Fabricator Notice to Contractor of Final Stator Assembly Completion - Unit 3	8/31/2014	12/1/2014	No	No		Delayed 3 Months
110	Reactor Coolant Pump - Shipment of Equipment to Site (2 Reactor Coolant Pumps) - Unit 2	10/31/2013	12/31/2013	No	No		Delayed 2 Months
111	Place First Nuclear Concrete for Unit 3	10/9/2013	10/1/2013	No	No		
112	Set Unit 2 Steam Generator	10/23/2014	9/6/2015	No	No		**Delayed 10 Months**
113	**Main Transformers Ready to Ship - Unit 2**	**9/30/2013**	**9/13/2013**	**No**	**No**		

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
114	Complete Unit 3 Steam Generator Hydrotest at Fabricator	2/28/2014	7/16/2014	No	No		Delayed 4 Months
115	**Set Unit 2 Containment Vessel Bottom Head on Basemat Legs**	**10/11/2012**		**No**	**No**	**5/22/2013**	**Delayed 7 Months**
116	Set Unit 2 Pressurizer Vessel	5/16/2014	6/15/2015	No	No		**Delayed 13 Months**
117	Reactor Coolant Pump Fabricator Notice to Contractor of Satisfactory Completion of Factory Acceptance Test - Unit 3	2/28/2015	1/16/2015	No	No		1 Month Early
118	Deliver Reactor Vessel Internals to Port of Export - Unit 3	6/30/2015	6/12/2015	No	No		
119	Main Transformers Fabricator Issue P.O. for Material - Unit 3	2/28/2015	2/2/2015	No	No		
120	Complete Welding of Unit 2 Passive Residual Heat Removal System Piping	2/5/2015	11/15/2015	No	No		Delayed 9 Months
121	Steam Generator - Contractor Acceptance of Equipment At Port of Entry - Unit 3	4/30/2015	4/6/2015	No	No		
122	Refueling Machine - Shipment of Equipment to Site - Unit 3	2/28/2015	4/6/2015	No	No		Delayed 1 Month
123	Set Unit 2 Polar Crane	1/9/2015	10/12/2015	No	No		Delayed 9 Months

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
124	Reactor Coolant Pumps - Shipment of Equipment to Site - Unit 3	6/30/2015	1/4/2016	No	No		Delayed 6 Months
125	Main Transformers Ready to Ship - Unit 3	7/31/2015	5/28/2015	No	No		2 Months Early
126	Spent Fuel Storage Rack - Shipment of Last Rack Module - Unit 3	7/31/2014	7/4/2014	No	No		
127	**Start Electrical Cable Pulling in Unit 2 Auxiliary Building**	**8/14/2013**	**7/9/2014**	**No**	**No**		**Delayed 10 Months**
128	Complete Unit 2 Reactor Coolant System Cold Hydro	1/22/2016	10/15/2016	No	No		Delayed 8 Months
129	Activate Class 1E DC Power in Unit 2 Auxiliary Building	3/15/2015	12/19/2015	No	No		Delayed 9 Months
130	Complete Unit 2 Hot Functional Test	5/3/2016	2/14/2017	No	No		Delayed 9 Months
131	Install Unit 3 Ring 3 for Containment Vessel	8/25/2015	12/9/2015	No	No		Delayed 3 Months
132	Load Unit 2 Nuclear Fuel	9/15/2016	7/18/2017	No	No		**Delayed 10 Months**
133	Unit 2 Substantial Completion	3/15/2017	12/14/2017	No	No		Delayed 9 Months

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
134	Set Unit 3 Reactor Vessel	10/22/2015	6/7/2016	No	No		Delayed 7 Months
135	Set Unit 3 Steam Generator #2	2/25/2016	10/4/2016	No	No		Delayed 7 Months
136	Set Unit 3 Pressurizer Vessel	7/16/2015	3/7/2016	No	No		Delayed 7 Months
137	Complete Welding of Unit 3 Passive Residual Heat Removal System Piping	6/16/2016	1/20/2017	No	No		Delayed 7 Months
138	Set Unit 3 Polar Crane	5/9/2016	12/5/2016	No	No		Delayed 7 Months
139	Start Unit 3 Shield Building Roof Slab Rebar Placement	5/26/2016	6/10/2016	No	No		
140	Start Unit 3 Auxiliary Building Electrical Cable Pulling	11/7/2014	6/9/2015	No	No		Delayed 7 Months
141	Activate Unit 3 Auxiliary Building Class 1E DC Power	5/15/2016	5/15/2016	No	No		
142	Complete Unit 3 Reactor Coolant System Cold Hydro	3/22/2017	3/22/2017	No	No		
143	Complete Unit 3 Hot Functional Test	7/3/2017	7/3/2017	No	No		

Key:	Milestones Not Completed	Completed Prior to Q2-13	Current Quarter	Scheduled to Be Completed Q3-13	ORS Caution Milestone

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Outside 18 - 24 Month Contingency?	Impact to Substantial Completion Date? [1]	Actual Completion Date	Deviation from Order No. 2012-884
144	Complete Unit 3 Nuclear Fuel Load	11/15/2017	11/15/2017	No	No		
145	Begin Unit 3 Full Power Operation	4/8/2018	4/8/2018	No	No		
146	Unit 3 Substantial Completion	5/15/2018	5/15/2018	No	No		

Notes:

White highlighting represents Future or Historical Milestones that have not been completed.
Grey highlighting represents Future or Historical Milestones that were completed prior to the 2nd Quarter 2013.
Yellow highlighting represents those Milestones that are scheduled to be or have been completed during the 2nd Quarter 2013. This is based on the schedule approved by the Commission in Order No. 2012-884.
Green highlighting represents Future Milestones that are scheduled to be completed in the 3rd Quarter of 2013. This is based on the schedule approved by the Commission in Order No. 2012-884.
Red highlighting represents "Caution Milestones." Caution Milestones are those that are delayed by 10 months or greater.

Appendix B

Caution Milestones

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Deviation from Order No. 2012-884	Reason Given for Delay
83	Set Containment Vessel Ring #1 for Unit 2	1/7/2013	11/7/2013	Delayed 10 Months	The Containment Vessel Ring 1 sits atop the Containment Vessel Bottom Head, which sits atop the CR10 module. The delays here are due to engineering and design approvals, notably design approvals related to the basemat concrete. The setting of the Containment Vessel Ring #1 previously also depended on the setting of the CA20 module, but a work around for this has been established. A bulkhead is being installed to allow concrete to be poured around the CVBH prior to the setting of the CA20 module.
84	Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2	7/31/2012	7/31/2013	Delayed 12 Months	Delays are due to design changes to casings, modifications of welding preparation and schedule resequencing. The casings were delivered to the port of export and the vessel carrying the cases departed on July 6, 2013.
88	Set Nuclear Island Structural Module CA03 for Unit 2	6/26/2013	11/22/2014	Delayed 17 Months	Delays are due to delays associated with the fabrication and setting of the CA01 module, as well as schedule resequencing. Manufacturing of the sub-modules for the CA03 module was moved from CB&I-LC to Pegasus Steel, LLC earlier in the year to allow CB&I-LC to focus on the CA01 module. WEC also discovered a problem in the logic of the previous schedule, as the proper support for the CA03 module will not be available until both the placement of the CA01 module and the concrete pour associated with that activity have been completed.

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Deviation from Order No. 2012-884	Reason Given for Delay
92	Start Containment Large Bore Pipe Supports for Unit 2	6/28/2013	10/22/2014	Delayed 16 Months	Delays are due to delays associated with the fabrication and setting of the CA01 module, as well as schedule resequencing. WEC discovered a problem in the logic of the previous schedule, as the Containment Vessel Large Bore Pipe Supports cannot be installed until activities associated with the placment of the CA01 module have been completed. The revised date for the setting of the CA03 module still supports a target substantial completion date of December 14, 2017 for Unit 2.
93	Integrated Head Package - Shipment of Equipment to Site - Unit 2	3/31/2013	2/6/2014	Delayed 10 Months	The delay is due to design changes to the radial arm hoist to resolve issues with system integration.
97	Start Concrete Fill of Nuclear Island Structural Modules CA01 and CA02 for Unit 2	4/3/2014	5/23/2015	Delayed 13 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module. This milestone is also impacted by a construction activity resequencing that calls for the welding of the Pressurizer and Steam Generator Supports to be welded to the CA01 wall prior to the placement of concrete after the setting of CA01.
98	Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2	12/31/2012	11/4/2013	Delayed 10 Months	The delay is due to schedule refinement and the need for engineering design approval prior to shipment.
101	Set Unit 2 Containment Vessel #3	4/24/2014	3/16/2015	Delayed 10 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module.

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Scheduled Completion Date as of Q2-13	Deviation from Order No. 2012-884	Reason Given for Delay
107	Set Unit 2 Reactor Vessel	6/23/2014	6/3/2015	Delayed 11 Months	The delay is primarily due to delays associated with the fabrication and setting of the CA01 module. A portion of the delay is also due to a schedule change related to the installment of overlay plates for the supports for major components.
112	Set Unit 2 Steam Generator	10/23/2014	9/6/2015	Delayed 10 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module.
116	Set Unit 2 Pressurizer Vessel	5/16/2014	6/15/2015	Delayed 13 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module.
127	Start Electrical Cable Pulling in Unit 2 Auxiliary Building	8/14/2013	7/9/2014	Delayed 10 Months	The delay is due to overall schedule resequencing.
132	Load Unit 2 Nuclear Fuel	9/15/2016	7/18/2017	Delayed 10 Months	The delay is due to overall schedule resequencing.

Appendix C

Construction Site Photographs

Unit 2 Nuclear Island

Unit 2 CVBH Placement

Unit 2 CV Ring 2

Unit 2 Turbine Island

Unit 2 Condenser

Unit 2 Reactor Vessel Delivery

Unit 3 Nuclear Island

Appendix D

License Amendment Requests

NRC LAR No.	Summary	LAR Submittal Date	LAR Status	LAR Approval Date	PAR Status	PAR No Objection Letter Date
12-01	Stud Spacing around Electrical Penetrations	8/29/2012	Pending			
12-02	Definition of Wall Thickness in Table 3.3.1	9/26/2012	Pending	5/30/2013	Approved	1/16/2013
13-01	Basemat Shear Reinforcement Design Spacing	1/15/2013	Approved	2/26/2013	Approved	1/29/2013
13-02	Basemat Shear Reinforcement Design Details	1/18/2013	Approved	3/1/2013	Approved	1/29/2013
13-03	Turbine Building Eccentric and Concentric Bracing	2/7/2013	Pending			
13-04	Reconciliation of Tier 1 Value Differences	2/7/2013	Pending			
13-05	Structural Module Shear Stud Size and Spacing	2/14/2013	Approved	5/23/2013		
13-06	Primary Sampling System Changes	2/7/2013	Pending			
13-07	Changes to Chemical and Volume Control System	3/13/2013	Pending			
13-08	Module Obstructions and Details	2/28/2013	Withdrawn			
13-09	*Reserved*					
13-10	Human Factors Engineering Integrated Plan	3/13/2013	Pending			
13-11	Nuclear Island Walls Reinforcement Criteria	3/26/2013	Approved	6/6/2013	Approved	4/10/2013

Appendix E

ORS Letter to the Commission on Caution Milestones

C DUKES SCOTT
EXECUTIVE DIRECTOR

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July 26, 2013

VIA ELECTRONIC FILING

Jocelyn G. Boyd, Esquire
Chief Clerk & Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

Re: Combined Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity and for a Base Load Review Order for the Construction and Operation of a Nuclear Facility in Jenkinsville, South Carolina - **V.C. Summer Nuclear Station Units 2 and 3 Construction Milestones**
Docket No.: 2008-196-E

Dear Ms. Boyd:

Pursuant to the South Carolina Office of Regulatory Staff's ("ORS") nuclear monitoring of V.C. Summer Units 2 & 3 ("the Units") according to S.C. Code § 58-33-277 of the Base Load Review Act ("BLRA"), ORS herein advises the Public Service Commission of South Carolina (the "Commission") that there are existing matters that impact the construction schedule.

On June 5, 2013, South Carolina Electric & Gas Company ("SCE&G") announced that its Engineering, Procurement and Construction contract partners, Westinghouse Electric Company and Chicago Bridge and Iron ("the Consortium"), had preliminarily indicated to SCE&G that the substantial completion date of Unit 2 is expected to be delayed until the 4th quarter of 2017 or the 1st quarter of 2018, with the substantial completion date of Unit 3 expected to be delayed similarly[1]. This potential delay is primarily due to challenges in the project schedule related to delays in sub-module fabrication and delivery, specifically the CA01 module. CA01 is a structural module which sits inside of the containment vessel and forms the refueling canal, steam generator compartments and pressurizer compartment.

During the month of June, SCE&G received a draft revised construction schedule for Unit 2 from the Consortium. This draft revised construction schedule reflected a change to the target substantial completion date for Unit 2 from March 15, 2017 to December 15, 2017. Based on the

[1] SCE&G has not agreed to any contractual change to the Guaranteed Substantial Completion Dates for the Units.

revised target substantial completion date, a revised construction schedule was generated by the Consortium to reflect the delays in sub-module fabrication and delivery and module fabrication and installation. Rather than shifting all activities forward by the same amount, many construction activities were re-sequenced to reduce the impact of module delays on the overall project. A similar delay to the Unit 3 target substantial completion date is also likely; however, no revised construction schedule for Unit 3 has yet been made available, and specific delay information for Unit 3 construction is not available at this time. ORS will continue to monitor this information closely.

During ORS's monthly project meetings with SCE&G on July 8, 2013 and July 9, 2013, SCE&G provided to ORS an analysis of the impact of these schedule changes on the BLRA Milestone Schedule ("Milestone Schedule").

Per the Base Load Review Order, overall construction is considered to be on schedule if the substantial completion dates are not accelerated more than twenty-four (24) months or delayed more than eighteen (18) months. ORS found no milestone to exceed these criteria; therefore, construction is considered to be on schedule.

As part of its review of the approved schedule, ORS identifies Caution Milestones. Caution Milestones are those that have been delayed ten (10) months or longer. If any Milestone is delayed sixteen (16) months or greater, ORS may issue a formal notification to the Commission of the delay.

As of July 9, 2013, based on the revised construction schedule, ORS identified fifteen (15) Caution Milestones, with one (1) milestone indicating a delay of 16 months and one (1) milestone indicating a delay of 17 months.

- **Milestone Activity No. 88** – *Set Nuclear Island Structural Module CA03 for Unit 2.*
  Status: Delayed 17 months.

  While the delay in this milestone is primarily due to delays associated with the fabrication and setting of the CA01 module, there are additional factors contributing to the delay of this milestone. The sub-modules for CA03 were originally scheduled to be manufactured by CB&I Lake Charles, but in order to expedite the work on other modules their responsibility for these sub-modules was transferred to Pegasus Steel, LLC earlier this year. In reworking the milestone schedule to accommodate delays associated with the CA01 module, the Consortium also discovered a problem in the logic of the previous schedule, as the proper support for the CA03 module will not be available until both the placement of CA01 module and the concrete pour associated with that activity have been completed.

- **Milestone Activity No. 92** – *Start Containment Large Bore Pipe Supports for Unit 2.*
  Status: Delayed 16 months.

  While the delay in this milestone is primarily due to delays associated with the fabrication and setting of the CA01 module, there are additional factors contributing the delay of this milestone. In reworking the milestone schedule to accommodate delays associated with the CA01 module, the Consortium discovered a problem in the logic of the previous schedule, as the Containment Vessel Large Bore Pipe Supports cannot be installed until the same activities associated with the placement of CA01 as stated for Milestone 88 have been completed.

In accordance with our practice, ORS is formally notifying the Commission of these delayed milestones. ORS has conducted an initial review of these delayed milestones. ORS has held meetings with SCE&G and the Consortium on the revised construction schedule, reviewed documents, and compared activities in the revised construction schedule with observed site activities.

A complete list of Caution Milestones, along with the reasons for the delays provided by SCE&G and the Consortium for their delays, is attached. ORS continues to closely review and monitor these milestones.

ORS appreciates the opportunity to provide this information and present our findings to the Commission.

Sincerely,

Allyn H. Powell

Enclosure

cc: Shannon Bowyer Hudson (via e-mail)
K. Chad Burgess, Esquire (via e-mail)
Matthew W. Gissendanner, Esquire (via e-mail)
Belton T. Zeigler, Esquire (via e-mail)
Gary Pope Jr., Esquire (via e-mail)
Scott Elliott, Esquire (via e-mail)
Pamela Greenlaw (via e-mail)
Robert Guild, Esquire (via e-mail)

ORS Caution Milestones - July 2013

Attachment 1

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Revised Target Completion Date as of July 9, 2013	Deviation from Order No. 2012-884	Reason Given for Delay
78	Set Module CA04 For Unit 2	11/6/2012	8/17/2013	Delayed 10 Months	The delays are associated with the delivery, receipt and fabrication of the CA04 module. The CA04 module is being fabricated on site, and the CA04 sub-modules were in the module assembly building as of 7/12/2013. CB&I plans to work extended hours to set the module in accordance with the revised target completion date.
83	Set Containment Vessel Ring #1 for Unit 2	1/7/2013	11/7/2013	Delayed 10 Months	The Containment Vessel Ring 1 sits atop the Containment Vessel Bottom Head ("CVBH"), which sits atop the CR10 module. The delays here are due to engineering and design approvals, notably design approvals related to the basemat concrete. The setting of the Containment Vessel Ring #1 previously also depended on the setting of the CA20 module, but a work around for this has been established. A bulkhead is being installed to allow concrete to be poured around the CVBH prior to the setting of the CA20 module.
84	Reactor Coolant Pump Fabricator Delivery of Casings to Port of Export - Unit 2	7/31/2012	6/13/2013	Delayed 11 Months	Delays are due to design changes to casings, modifications of welding preparation and schedule resequencing. The casings were delivered to the port of export and the vessel carrying the cases departed on July 6, 2013.
88	Set Nuclear Island Structural Module CA03 for Unit 2	6/26/2013	11/22/2014	Delayed 17 Months	Delays are due to delays associated with the fabrication and setting of the CA01 module, as well as schedule resequencing. Manufacturing of the sub-modules for the CA03 module was moved from CB&I Lake Charles to Pegasus Steel, LLC earlier in the year to allow CB&I Lake Charles to focus on the CA01 module. WEC also discovered a problem in the logic of the previous schedule, as the proper support for the CA03 module will not be available until both the placement of the CA01 module and the concrete pour associated with that activity have been completed.

ORS Caution Milestones - July 2013

Attachment 1

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Revised Target Completion Date as of July 9, 2013	Deviation from Order No. 2012-884	Reason Given for Delay
92	Start Containment Large Bore Pipe Supports for Unit 2	6/28/2013	10/22/2014	Delayed 16 Months	Delays are due to delays associated with the fabrication and setting of the CA01 module, as well as schedule resequencing. WEC discovered a problem in the logic of the previous schedule, as the Containment Vessel Large Bore Pipe Supports cannot be installed until activities associated with the placment of the CA01 module have been completed. The revised date for the setting of the CA03 module still supports a target substantial completion date of December 15, 2017 for Unit 2.
93	Integrated Head Package - Shipment of Equipment to Site - Unit 2	3/31/2013	2/28/2014	Delayed 11 Months	The delay is due to design changes to the radial arm hoist to resolve issues with system integration.
97	Start Concrete Fill of Nuclear Island Structural Modules CA01 and CA02 for Unit 2	4/3/2014	5/28/2015	Delayed 13 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module. This milestone is also impacted by a construction activity resequencing that calls for the welding of the Pressurizer and Steam Generator Supports to be welded to the CA01 wall prior to the placement of concrete after the setting of CA01.
98	Passive Residual Heat Removal Heat Exchanger - Delivery of Equipment to Port of Entry - Unit 2	12/31/2012	10/31/2013	Delayed 10 Months	The delay is due to schedule refinement and the need for engineering design approval prior to shipment.

ORS Caution Milestones - July 2013

Attachment 1

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Revised Target Completion Date as of July 9, 2013	Deviation from Order No. 2012-884	Reason Given for Delay
101	Set Unit 2 Containment Vessel #3	4/24/2014	3/19/2015	Delayed 11 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module.
107	Set Unit 2 Reactor Vessel	6/23/2014	6/7/2015	Delayed 12 Months	The delay is primarily due to delays associated with the fabrication and setting of the CA01 module. A portion of the delay is also due to a schedule change related to the installment of overlay plates for the supports for major components.
112	Set Unit 2 Steam Generator	10/23/2014	9/6/2015	Delayed 11 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module.
116	Set Unit 2 Pressurizer Vessel	5/16/2014	6/17/2015	Delayed 13 Months	The delay is due to delays associated with the fabrication and setting of the CA01 module.

ORS Caution Milestones - July 2013

Attachment 1

Activity No.	Milestone	Completion Date Approved in Order No. 2012-884	Revised Target Completion Date as of July 9, 2013	Deviation from Order No. 2012-884	Reason Given for Delay
127	Start Electrical Cable Pulling in Unit 2 Auxiliary Building	8/14/2013	7/15/2014	Delayed 11 Months	The delay is due to overall schedule resequencing.
129	Activate Class 1E DC Power in Unit 2 Auxiliary Building	3/15/2015	1/16/2016	Delayed 10 Months	The delay is due to overall schedule resequencing.
132	Load Unit 2 Nuclear Fuel	9/15/2016	7/20/2017	Delayed 10 Months	The delay is due to overall schedule resequencing.