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Atlanta, GA 30308-3374

August 31, 2023

Ms. Sallie Tanner
Executive Secretary
Georgia Public Service Commission
244 Washington Street, SW
Atlanta, GA 30334-5701

RE: Georgia Power Company's Twenty-ninth Semi-annual Construction Monitoring Report for Plant Vogtle Units 3 and 4; Docket No. 29849

Dear Ms. Tanner:

Enclosed for filing is Georgia Power Company's Twenty-ninth Semi-annual Construction Monitoring Report for Plant Vogtle Units 3 and 4 pursuant to O.C.G.A. § 46-3A-7(b), Georgia Public Service Commission ("Commission") Rule 515-3-4-.07(2)(b), and the Commission's Final Order in Docket No. 27800.

There is no trade secret information included in this Twenty-ninth Semi-annual Report.

Should you have any questions, please call me at 404-506-3044.

Sincerely,

A handwritten signature in black ink that reads "Kelley M. Balkcom".

Kelley M. Balkcom
Director, Regulatory Affairs
mmcclosk@southernco.com

Vogle
UNITS 3 & 4

Twenty-ninth Semi-annual Vogle Construction Monitoring Report

August 2023 • Docket No. 29849



VOGTLE UNIT 3 COD

*The First Nuclear Unit Built in the
United States in over 30 Years*

 **Georgia Power**

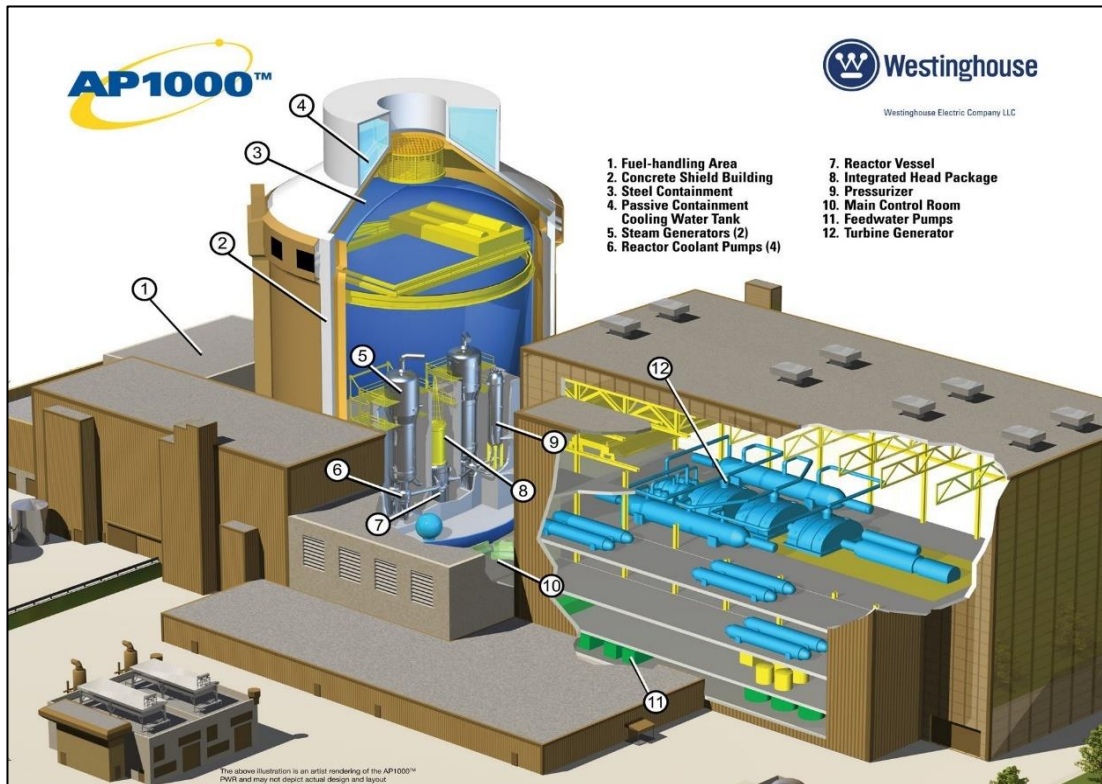
**Vogle Units 3 and 4
Twenty-ninth Semi-annual
Construction Monitoring Report**

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Unit 3 Nuclear and Turbine Islands

As of July 2023



EXECUTIVE SUMMARY

- **Georgia Power Company (“Georgia Power” or the “Company”) and Southern Nuclear Operating Company (“SNC”), as agent for Georgia Power, are committed to safety, quality, and compliance.**

Site leadership continues to cultivate and enhance a culture that promotes safety first. The Site continues to have an OSHA Recordable Incidence Rate below the heavy construction industry average. Through June 2023, the site continued to experience a low number of recordable incidents. SNC remains committed to enhancing the safety-first culture and has transitioned the site to the SNC safety program as construction is now completed.

During the reporting period of January 1, 2023, through June 30, 2023 (the “Reporting Period”), SNC did not receive any Notices of Violation for Unit 4 and remained in favorable standing with the NRC as indicated by its green status under the NRC’s Construction Reactor Oversight Process (“cROP”). With the receipt of the 103(g) finding in July for Unit 4, both Unit 3 and Unit 4 have now moved from the NRC’s cROP to the NRC’s Reactor Oversight Process (“ROP”). Since moving to the ROP, Unit 3 and 4 have received no Notices of Violation and are in favorable standing with the NRC. Similar to the cROP related to construction, through the ROP program, the NRC communicates plant performance and assessments to the public.

- **Unit 3 completes Start-up testing and achieves Commercial Operation**

On July 31, 2023, Vogtle Unit 3 completed all required Start-up and power ascension testing and the unit was declared to be in Commercial Operation. In the months leading up to Commercial Operation, the Site Operations team achieved initial criticality on March 6, 2023, synchronized to the grid on April 1, 2023, and performed power ascension testing by bringing the Unit through testing at the 0%, 25%, 50%, 75%, 90% and 100% reactor power levels to demonstrate that Unit 3 performed according to design. Through the Start-up testing process, and as of July 31, 2023, Unit 3 produced over 800,000 megawatt-hours of power. Achieving Commercial Operation means that Unit 3 is available to provide carbon free generation to the customers of Georgia Power and others across the state for the next 60-80 years. Since achieving Commercial Operation, Unit 3 has produced over 725,000 megawatt-hours of power.

- **Unit 4 receives the 103(g) finding from the NRC and successfully completes Fuel Load**

On July 20, 2023, the Company announced that documentation for the 364 Inspections, Test, Analysis, and Acceptance Criteria (“ITAAC”) had been submitted to the NRC in accordance with 10 C.F.R Part 52.103(g) (“103(g”). With the completion and submittal of all 364 ITAAC for Unit 4, the Project team was able to provide the NRC assurance that the Unit meets strict nuclear safety and quality standards.

On July 28, 2023, the NRC published its 103(g) finding that the acceptance criteria in the combined license for Unit 4 had been met. This event, a requirement for operation, allowed Unit 4 to load nuclear fuel and allows Start-up testing to begin.

On August 17, 2023, the Unit 4 team commenced fuel load, transferring 157 fuel assemblies from the storage pool to the reactor vessel. Unit 4 fuel load was completed on August 19, 2023.

- **Georgia Power incurred \$390 million of capital expenditures during the Reporting Period.**

Table 1 – 29th VCM Expenditures	
<i>Dollars in Millions</i>	
Original EPC & EPC Scope Change	\$ -
Interim Payments & Liens	0
Site Construction Management	309
Owners Costs	63
Ad Valorem Tax	20
Transmission Interconnection	0
Test Fuel Offsets	(1)
Total 29 th VCM Expenditures	<u>\$ 390</u>

- **Georgia Power presents \$390 million in capital expenditures for review only and does not request the Commission take any action at this time.**

As reported in the Company’s VCM 25 Report, Project expenditures have exceeded the \$7.3 billion capital cost forecast previously deemed reasonable by the Commission in its VCM 17 Order. In the Commission’s VCM 24 Order Adopting Stipulation, the Company agreed that it will not request verification and approval of any costs exceeding \$7.3 billion until the prudence review contemplated in the Commission’s VCM 17 Order. Thus, the Company is not currently seeking verification and approval of the \$390 million incurred during the Reporting Period as part of this VCM proceeding and presents these costs for Commission review only.

- **The Company’s share of the total project capital cost forecast remains approximately \$10.2 billion.**

The Company and SNC continue to monitor and evaluate costs associated with the completion of the Project. The total project capital cost forecast remains approximately \$10.2 billion. During the Reporting Period, \$43 million of established construction contingency was assigned to the Project’s base capital forecast for costs primarily associated with the Unit 3 schedule extension to July 2023, including the continued need for resources to support Unit 3 Start-up testing, as well as additional craft and support resources, and subcontract work for Unit 4.

Cumulative capital expenditures through the Reporting Period are \$9.8 billion after accounting for receipt of the Toshiba Parent Guaranty. The estimated remaining capital spend to complete the Project is approximately \$360 million, which includes Georgia Power’s share of Project contingency.

- **The projected in-service date for Unit 4 remains during late fourth quarter 2023 or the first quarter 2024.**

Unit 4's projected in-service date remains during late fourth quarter 2023 or the first quarter 2024. The Project team continues to work towards a more aggressive site work plan that currently targets a December 2023 in-service date. Unit 4's projected in-service date significantly depends on completing remaining subcontractor scopes of work while reducing the level of craft laborers based on work remaining.

As Unit 4 transitions further into testing, ongoing and potential future challenges include the management of contractors and vendors, subcontractor performance, the availability of materials and parts, and/or related cost escalation; supervisory, and technical support resources; and the timeframe and duration of final component and pre-operational testing. New challenges also may continue to arise as Unit 4 moves further into testing and Start-up, which may result in required engineering changes or remediation related to plant systems, structures, or components (some of which are based on new technology that only within the last few years began initial operation in the global nuclear industry at this scale). These challenges may result in further schedule delays and/or cost increases.

- **Vogtle Units 3 and 4 peak rate impact for customers is expected to be approximately ten percent.**

Vogtle Units 3 and 4 rate impacts were filed in Georgia Power Company's Application to Adjust Rates to Include Reasonable and Prudent Plant Vogtle Units 3 and 4 Costs in Docket No. 29849 on August 30, 2023. If the Stipulation reached with Staff and intervenors is approved, the total rate impact to Georgia Power retail customers from the construction and initial operation of Vogtle Units 3 and 4 would be approximately 10 percent, of which approximately 5 percent is already in retail rates. Accordingly, the month after Unit 4 achieves Commercial Operation, average retail rates would be adjusted by approximately 5 percent. Notably, this estimated impact to average retail rates does not take into account the inherent fuel savings and the value of decreased fuel pricing volatility.

RESPONSES TO STIPULATED QUESTIONS

1. The reasons for any additional change in the estimated costs and schedules of the Units since the process began.

The total Project capital cost forecast remains approximately \$10.2 billion. The details of the current total Project capital cost forecast are provided in Table 1.1, which also reflects the capital investment through June 30, 2023, actual-to-forecast variances, and total financing costs during construction. Total financing costs include amounts collected and forecasted to be collected pursuant to the NCCR tariff and amounts accrued and forecasted to be accrued through AFUDC.

During the Reporting Period, \$43 million of established construction contingency was assigned to the Project’s base capital forecast for costs primarily associated with the Unit 3 schedule extension to July 2023, including continued need for resources to support Unit 3 Start-up testing, as well as additional craft and support resources, and subcontract work for Unit 4.

Unit 3 achieved Commercial Operation on July 31, 2023, and Unit 4’s projected in-service date remains during late fourth quarter 2023 or the first quarter 2024. The Project team continues to work towards a more aggressive site work plan that currently targets a December 2023 in-service date. Unit 4’s projected in-service date significantly depends on completing remaining subcontractor scopes of work while reducing the level of craft laborers based on work remaining.

Table 1-A below shows a comparison of milestone dates between the current Unit 4 site work plan and the Risk Adjusted Schedule.

Table 1-A – Unit 4 Comparison to Risk Adjusted Schedule		
Unit 4 Major Milestone	August 2023 Site Work Plan	March 2024 Risk Adjusted Schedule
Hot Functional Testing Complete	May 2023 (Actual)	
Fuel Load Start	August 2023 (Actual)	
Commercial Operation Date	December 2023	March 2024

The Company and SNC recognize that the Project may continue to experience challenges, and that these challenges and unanticipated events, may require additional revisions to the site work plan, capital cost forecast, and/or Project schedule.

Table 1.1

Vogtle 3&4 Project Georgia Power Company Cost - Subject to Commission Verification and Approval Project To Date Through Period Ending June 30, 2023						
	Total Project Capital			Project to Date Capital		
	VCM 28 (\$ millions)	Total Current Forecast (\$ millions)	Variance (\$ millions)	Actual To Date (\$ millions)	Budget To Date (\$ millions)	Variance (\$ millions)
Construction & Capital Cost						
Original EPC ⁽¹⁾	\$ 3,198	\$ 3,198	-	\$ 3,198	3,198	0
Interim Payments & Liens	411	411	(0)	409	409	(1)
Site Construction Management						
Engineering Contractor	644	665	20	640	633	7
Procurement	1,534	1,548	13	1,522	1,517	5
Contract Construction	3,200	3,213	13	3,153	3,156	(3)
Construction Support & Project Management	997	968	(29)	842	861	(19)
Total Site Construction Management	6,376	6,393	17	6,157	6,166	(9)
Owner's Costs	1,208	1,233	25	1,169	1,158	11
Ad Valorem	336	336	-	297	305	(8)
Transmission Interconnection	62	62	(0)	62	62	(0)
Test Fuel Offsets	(4)	(4)	(0)	(1)	(2)	1
	1,601	1,627	25	1,527	1,523	4
Total Construction & Capital Cost⁽⁴⁾	11,586	11,629	43	11,290	11,296	(6)
Toshiba Parent Guarantee, net of customer refunds	(1,492)	(1,492)	-	(1,492)	(1,492)	-
Total to be Absorbed by GPC	(694)	(694)	-	(694)	(694)	-
Allocated Contingency Included Above ⁽⁴⁾	(2,100)	(2,143)	(43)	-	0	0
Total Construction & Capital Cost, net of Parent Guarantee and amounts to be absorbed by GPC⁽⁶⁾	\$ 7,300	\$ 7,300	(2)(3)	\$ 9,104	\$ 9,110	\$ (6)
Other Capital Cost						
Construction Monitor	33	33	-	25	26	(1)

Vogtle 3&4 Project Georgia Power Company Financing Cost - Recovered Pursuant to O.C.G.A. 46-2-25 (c.1), the January 3, 2017 Order Adopting Stipulation, and the VCM 17 Order Project To Date Through Period Ending June 30, 2023						
	Total Project Financing			Project to Date Financing		
		Total Current Forecast (\$ millions)		Actual To Date (\$ millions)	Budget To Date (\$ millions)	Variance (\$ millions)
Project Schedule Financing						
Return on CWIP in Rate Base ⁽⁵⁾		2,982		2,883	2,872	11
AFUDC - Accrued on CWIP Above Original Certified Cost		422		365	370	(5)
AFUDC - Accrued through Dec 2010 and Related Return		109		109	109	0
Total Project Schedule Financing		\$ 3,513		\$ 3,358	\$ 3,352	\$ 6
Total Capital Cost and Financing⁽⁶⁾		\$ 10,813		\$ 12,462	\$ 12,462	\$ -

Footnotes:

- Includes Original EPC contract payment milestones and EPC Scope Change.
- \$7.3 billion is the Total Construction & Capital Cost approved by Georgia Public Service Commission (Order dated January 11, 2018). Above excludes \$17 million in unspecified project contingency. Such amounts may be recommended for consideration by the GPSC as and when included in the Construction and Capital Cost forecast.
- Above excludes approximately \$407 million of costs associated with the cost-sharing and tender provisions of the joint ownership agreement that Georgia Power will not seek recovery for from retail customers.
- The Company is not requesting Commission approval of the \$2.1 billion of contingency allocated to construction cost categories in this filing but may request that the Commission evaluate expenditures allocated to contingency for rate recovery as and when appropriate.
- Excludes construction monitor fees pursuant to the VCM 19 Order.
- NCCR will only be collected on the certified capital cost of \$4.418 billion per the January 3, 2017 Order Adopting Stipulation and VCM 17 Order.

Note: Details may not add to totals due to rounding.

Table 1.2

Replacement Energy Costs and Deferred Operating Costs								
<i>Millions of Dollars</i>								
		Deferred Benefits		Deferred Operating Costs				
Date	VCM	Replacement Energy Cost	Deferred PTCs	O&M	Depreciation	Ad Valorem	Total Deferred Operating Costs	Net Cost
Total 2016		43.6	89.6	(67.0)	(41.2)	(9.3)	(117.5)	15.7
Total 2017		115.8	186.5	(130.4)	(112.3)	(23.2)	(265.9)	36.4
Total 2018		174.3	161.5	(131.9)	(127.7)	(25.6)	(285.1)	50.7
Total 2019		140.2	161.5	(150.2)	(127.9)	(25.0)	(303.1)	(1.4)
Total 2020		116.3	166.2	(140.6)	(127.9)	(36.2)	(304.6)	(22.2)
Total 2021		239.9	170.8	(135.1)	(131.7)	(44.4)	(311.3)	99.4
Total 2022		561.3	171.2	(159.1)	(134.9)	(49.2)	(343.2)	389.4
Jan-23	29th	17.8	15.3	(12.7)	(11.3)	(2.8)	(26.8)	6.3
Feb-23	29th	10.0	15.3	(13.8)	(11.3)	(3.7)	(28.9)	(3.6)
Mar-23	29th	11.9	15.3	(12.6)	(11.3)	(3.3)	(27.2)	0.0
Apr-23	29th	7.5	15.3	(10.8)	(11.3)	(3.3)	(25.5)	(2.6)
May-23	29th	10.5	15.3	(12.2)	(11.3)	(3.3)	(26.8)	(1.0)
Jun-23	29th	13.4	15.3	(9.2)	(11.3)	(3.3)	(23.8)	4.9
Total VCM 29		71.1	91.8	(71.3)	(68.0)	(19.7)	(159.0)	4.0
Total to Date		1,462.6	1,199.2	(985.5)	(871.7)	(232.5)	(2,089.7)	572.1

2. The status of the Company’s loan guarantee application at the DOE and to the extent that the application is granted, then the Company shall also report on the impact it has or would have on the final expected in-service cost of the Units.

Table 2 – DOE Loan Guarantee		
Available	Received	Remaining
\$5.13 billion	\$5.13 billion	\$0

Georgia Power has borrowed all \$5.13 billion related to Vogtle Units 3 and 4 costs through the DOE Loan Guarantee Agreement and a multi-advance credit facility among Georgia Power, the DOE, and the Federal Financing Bank.

The DOE loan guarantee does not have a material impact on the in-service cost of Vogtle Units 3 and 4, but it does provide benefits to customers through access to lower credit spreads during construction and future operation. Georgia Power customers are estimated to save approximately \$513 million, which has already been secured through draws against the credit facility.

3. The status of Quality and Compliance, Procurement, Engineering, Construction and Operational Readiness.

TOTAL PROJECT PERCENT COMPLETE

As of July 31, 2023, the total Project is approximately 99.7% complete. With direct construction on both Units complete and Unit 3 now operating, the only remaining scopes of work are limited subcontractor construction and completing the Initial Test Program (“ITP”) and Start-up activities for Unit 4. Subcontracted scopes of work are approximately 99% complete as of July 2023. The ITP scope is approximately 97% complete and will continue to progress as the final systems transition to the Operations team.

Table 3.1 – Total Project Percent Complete	
Project Phase	July 2023 % Complete
Engineering	100%
Procurement	99.9%
Construction	99.8%
I&C / Cyber Security	100%
Initial Test Program	97.0%
Total Project*	99.7%

* Start-up activities are not included in the Total Project Percent Complete calculation

QUALITY AND COMPLIANCE

During the Reporting Period, the Company provided oversight of the Project while SNC directed and provided guidance to contractors and actively addressed issues and concerns. SNC also continued quality oversight of construction, the ITP organization, and Site Operations to help achieve and maintain compliance with laws, regulations, and Project licensing documents. SNC-led Quality Assurance (“QA”) teams monitored the safety and quality of work being conducted by Bechtel and various subcontractors through audits and field surveillances.

During the Reporting Period, the Construction Quality Control organization, which has supported early identification of adverse quality installation, continued to improve first-time quality via corrective actions led by Quality Control’s documentation of non-conforming inspection results, and faster inspection turnaround time. Additionally, SNC and Bechtel continue to implement lessons learned from Unit 3 to Unit 4 to reduce quality issues. The Company and SNC are committed to completing Unit 4 safely and with the highest quality.

With Unit 3 having achieved Commercial Operation, Quality Control (“QC”) has been turned over to the SNC fleet QC organization. This transition allows the Maintenance and Operations teams to leverage the processes and procedures utilized by the SNC fleet. Upon Unit 4 achieving Commercial Operation, it too will transition to this organization for the life of the Unit.

ENGINEERING

During the Reporting Period, the overall Engineering organization continued to support construction, ITP, and Start-up progress. The Start-up Engineering organization focused on processes and programs that supported completion of Start-up testing on Unit 3. The ITP Design Engineering team focused on resolving issues identified during component and system testing in preparation for Fuel Load and Start-up testing on Unit 4. The Construction Engineering organization continues to support the transition of Unit 4 to Operations. With the completion of Unit 4 Hot Functional Testing (“HFT”) on May 1, and Fuel Load completion on August 19, the Engineering organization is now focused on supporting Unit 4 Start-up which is forecasted to be completed during the next Reporting Period.

On July 31, 2023, Unit 3 achieved Commercial Operation and the Site Engineering organization fully supports Unit 3 Operations, while the Start-up, ITP and Construction engineering teams continue to support Unit 4 Start-up testing. On August 11, 2023, design authority transitioned from Westinghouse to SNC for all systems, structures, and components on Unit 4. This is a significant step as SNC now has full design authority for the four-unit site. Unit 4 direct construction is now 100% complete and construction resources have demobilized from the site. In the coming months, Unit 4 will transition into startup testing and then power ascension in preparation for Commercial Operation.

PROJECT PERFORMANCE

During the Reporting Period, Unit 4 completed HFT, submitted all required ITAACs, and received the 103(g) finding from the NRC. On August 17, 2023, the Project Team started Fuel Load on Unit 4 and completed loading fuel two days later on August 19, 2023. The remaining Unit 4 schedule will follow a similar startup schedule as Unit 3 with resting at various MODEs, Initial Criticality, and then power ascension testing up to 100% at various output levels. Unit 4’s projected in-service date is during late fourth quarter 2023 or the first quarter 2024.

Project Milestones

Table 3.2 shows the remaining major milestones for each Unit, along with the actual (designated with the (A)) or estimated dates in the current Risk Adjusted Schedules.

Table 3.2 – Remaining Project Milestones		
	Milestone	July 2023 Risk Adjusted Schedule Dates
Unit 3	Initial Criticality	March 6, 2023 (A)
	Initial Synchronization to the electric grid	April 1, 2023 (A)
	100% Rated Thermal Power	May 29, 2023 (A)
	Commercial Operation	July 31, 2023 (A)
Unit 4	Milestone	March 2024 Risk Adjusted Schedule Dates
	Complete Hot Functional Testing	May 1, 2023 (A)
	Complete Fuel Receipt	July 11, 2023 (A)
	Commence Fuel Load	August 17, 2023 (A)
	Start Power Ascension Testing	December 2023
	Initial Criticality	December 2023
	Initial Sync to Grid	January 2024
	100% Rated Thermal Power	February 2024
	Commercial Operation	March 2024

PROJECT RISK

With Commercial Operation of Unit 3, the Project has retired a significant portion of the overall Project risk; however, the focus on risk retirement remains a high priority with the Project Management team. The emphasis on risk mitigation was demonstrated during the completion of Unit 4 HFT, which incorporated many of the lessons learned from Unit 3 and was completed ahead of the anticipated 46-day schedule. A robust process remains in place to evaluate areas of risk commensurate with their significance, potential impact, and likelihood of occurrence. Risks continue to be actively managed, and mitigation plans are developed and administered, to decrease the probability and scope of such impacts.

The Project risk register documents threats and opportunities that are routinely evaluated until the risk event is realized or retired, as well as mitigation plans that have been developed and executed to reduce the potential impacts of identified risks. The Project risk register is provided monthly to Commission Staff as a recurring data request (STF-142-4) and is included in the Company's Monthly Status Report. The following section discusses one of the remaining Project risks as well as strategies the Project team is undertaking to mitigate impacts of the risk.

- *The risk the Project experiences a significant unanticipated challenge during the Start-up phase that requires modification.*

During the Reporting Period, as Unit 3 progressed through Start-up testing, the Unit experienced several challenges with the First of A-Kind ("FOAK") secondary side, and configuration of components and systems that were relied upon to complete Start-up testing. The identification and resolution of these challenges impacted completion of Unit 3 Start-up. These challenges have been captured and are being reviewed and resolved in advance of Start-up testing on Unit 4. This is anticipated to decrease the likelihood of experiencing the same issues seen on Unit 3 but does not completely eliminate the risk to experience other challenges during Unit 4 Start-up.

PROJECT CONTINGENCY

Since the 28th VCM Report, \$43 million of established construction contingency was assigned to the Project's base capital forecast for costs primarily associated with the Unit 3 schedule extension to July 2023, including support resources for Unit 3 Start-up testing, as well as additional craft and support resources, and subcontract work for Unit 4

The Company continues to anticipate that all the forecasted contingency, including the additional construction contingency, will be spent by the completion of the Project.

CONSTRUCTION

Unit 3

In the previous reporting period direct construction on Unit 3 was completed when Bechtel closed their final Unit 3 construction work package in December 2022. During this Reporting Period the remainder of the sub-contracted scopes of work were completed, which included architectural finishes and coatings. On July 31, 2023, Unit 3 achieved Commercial Operation.

Unit 4

During the Reporting Period, Unit 4 completed HFT in less than 46 days which was ahead of the Site plan. The main contributor to the successful execution of Unit 4 HFT was the Project's focus on incorporating lessons learned from Unit 3. The lessons learned included execution of an electrical outage, utilization of the auxiliary boiler, and improvements to the testing procedures along with prior experience.

After completing HFT, the Unit 4 team focused on finalizing the remaining scope to support Fuel Load. This scope included receipt of all 157 fuel assemblies which were received and stored



Unit 4 Completed Hot Functional Testing

in the spent fuel pool pending completion of the final activities to support the start of fuel load. Additionally, the ITAAC organization continued to support construction and testing for submittal of ITAAC Completion Notifications (“ICN”). On July 21, 2023, SNC submitted the Unit 4 “All ITAACs Complete Letter” to the NRC, which was the final submission to support the NRC’s issuance of the 103(g)-finding required

for Fuel Load. The completion of these ITAACs provided the NRC assurance that Unit 4 meets strict nuclear safety and quality standards. On July 28, 2023, the Project received the 103(g) finding from the NRC, signifying no further NRC findings were necessary for SNC to load fuel or begin the Unit 4 Start-up sequence. On August 17, 2023, the Unit 4 team started fuel load activities and completed them two days later on August 19, 2023.

The progress of construction is evident in each of the buildings onsite, including the Nuclear Island where all rooms and areas have been turned over to ITP. In containment final preparations were completed prior to the start of Fuel Load and scaffolding continues to be removed as areas are completed. In the Auxiliary Building, the Main Control Room is fully functional and was



Unit 4 Main Control Room

utilized throughout the HFT evolution. Rooms and areas in the Annex Building have been turned over and are now occupied by SNC personnel, who are responsible for controlling the activities associated with testing. Several systems in the Turbine Building are being evaluated for application of lessons learned from Unit 3

testing and modifications will be planned and completed prior to commencement of Start-up testing.

Subcontracts

During the Reporting Period, subcontractors continued their forward momentum, and many Subcontractors completed their scope of work for the Project. HVAC installation and balance testing on Unit 4 have been completed, and penetration seal work supported the successful completion of HFT.

The coatings contractor has made significant progress with completion of scope associated with Fuel Load and is tracking for completion of the required scope ahead of site need dates. Contractors engaged to support Start-up testing were transitioned from Unit 3 to Unit 4 and made significant



Unit 3 Turbine Building Coating

progress to support the completion of Fuel Load and the upcoming commencement of Start-up testing. The experience of the subcontractors and the application of lessons learned have played a significant role in the successful completion of the Unit 4 Subcontract scope.

TURNOVER AND TESTING

Unit 3 Start-up Testing and Site Operations

During the Reporting Period, Unit 3 completed all the Start-up testing and declared Commercial Operation on July 31, 2023.

Unit 3 first achieved initial criticality on March 6, 2023, when the nuclear chain reaction in the reactor was both initiated and became self-sustaining. On April 1, 2023, the Project team synchronized the Unit 3 generator to the power grid and generated electricity for the first time.



Unit 3 Planned Maintenance Outage

Since then, Unit 3 has completed testing at 0%, 25%, 50%, 75%, 90% and 100% reactor power levels and, as of July 31, 2023, generated over 800,000 megawatt-hours of power. On July 7, 2023, the Project team completed the Unit 3 Planned Maintenance Outage, which was one of the last steps required to place Unit 3 in service. Unit 3 is now operating as a safe, clean, reliable and affordable energy source to the state of Georgia.

Unit 4 Hot Functional Testing (“HFT”)

During the Reporting Period, all the systems for Unit 4 have been transferred to ITP.

Unit 4 HFT started on March 20, 2023, and completed on May 1, 2023, within the established 46-day testing schedule. During HFT, Unit 4 progressed through testing at various temperature and pressure plateaus to ensure the Unit performed according to design, without fuel in the reactor. Operators used the heat generated by the Reactor Coolant Pumps to raise the temperature and pressure of plant systems to normal operating levels. The Unit’s main turbine was raised to normal operating speed using plant steam. This test represented the first time that components and systems were operated together and allowed operators to exercise procedures and complete testing as required before Fuel Load. Completion of HFT validated many testing ITAACs that were required to receive the 103(g) letter from the NRC.

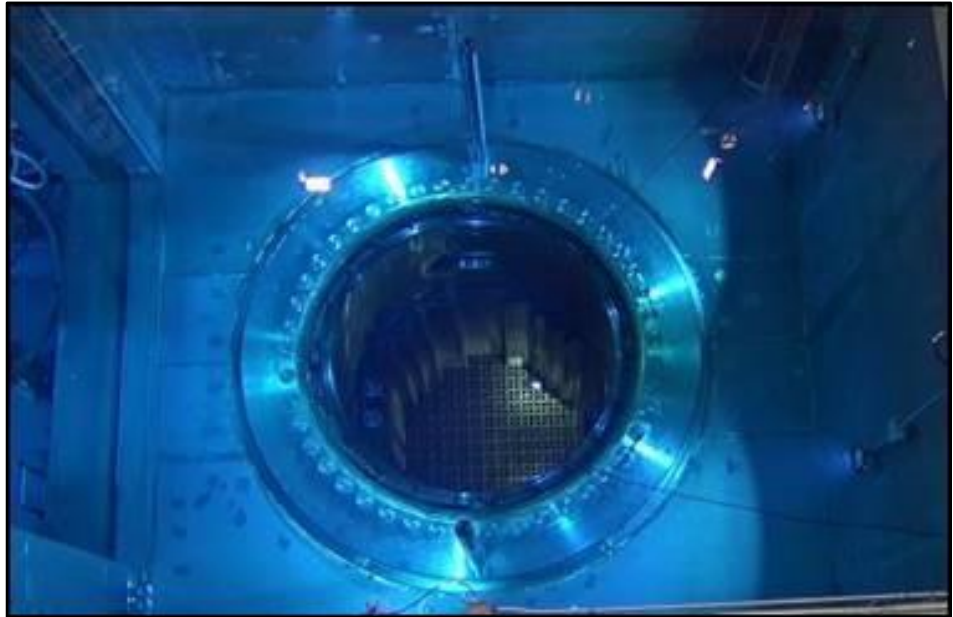
Unit 4 Operations

During the Reporting Period, the WANO team conducted a full WANO Pre-Startup Review on Unit 4 to assess the overall station readiness for operational activities and whether SNC is prepared to operate Unit 4 in a safe and reliable manner. The team reviewed all the functional areas including programs, processes, and procedures. They also interviewed station personnel and conducted field walkdowns. At the conclusion, the WANO team determined that Unit 4 is ready for fuel load and startup.

Unit 4 Startup Testing

Upon completion of work scope required for Fuel Load, Start-up testing is expected to begin. On June 28, 2023, Unit 4 had received all the new fuel assemblies and with the NRC's issuance of the 103(g) finding on July 28, 2023, the Site was permitted to load fuel into the Reactor Vessel to begin Start-up testing.

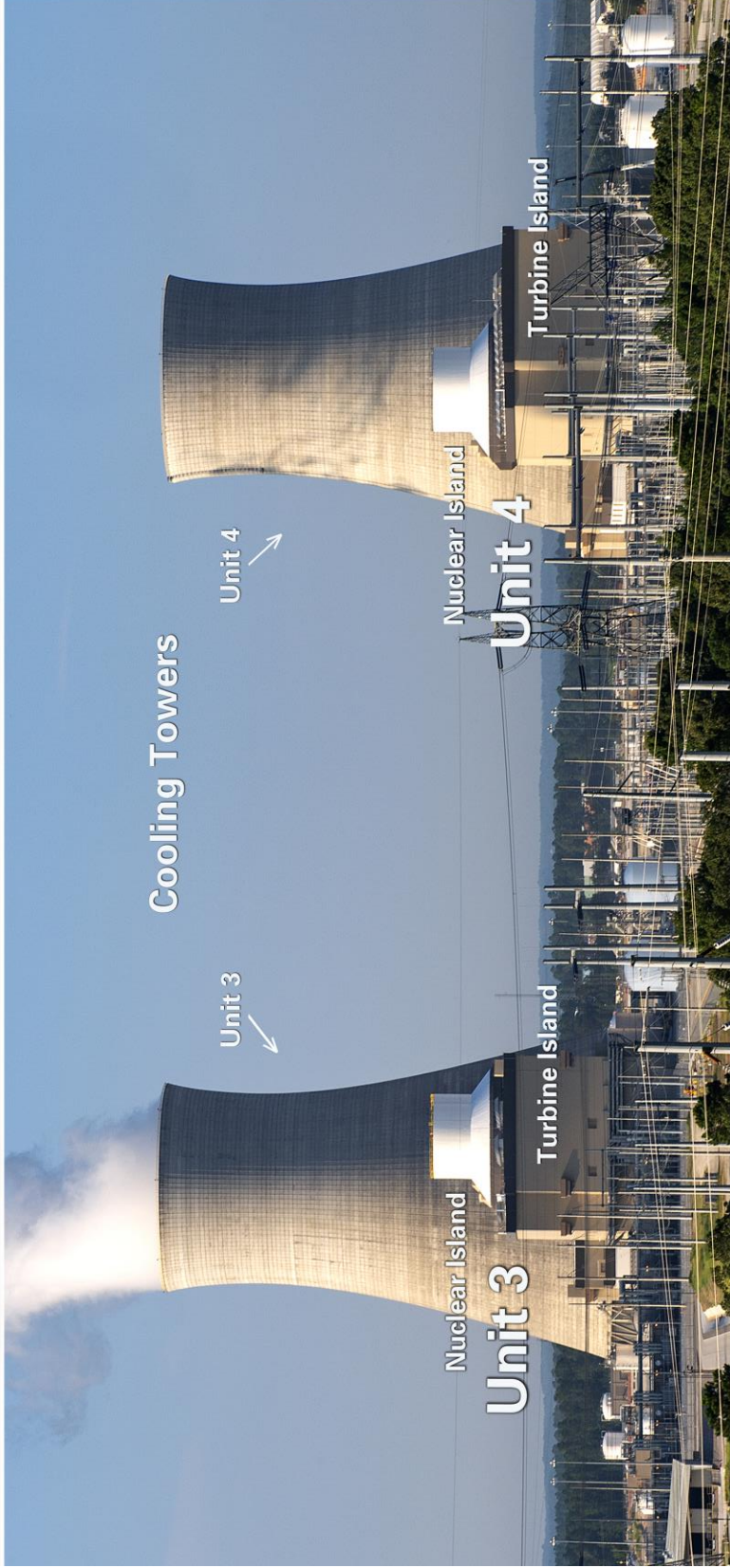
Fuel load began on August 17, 2023, and was completed on August 19, 2023. Startup testing will demonstrate the integrated operation of the primary coolant system and steam supply system at design temperature and pressure with fuel inside the reactor. Operators will utilize the general operating procedures to bring the plant from cold



Unit 4 Fuel Load

shutdown to initial criticality, synchronize the Unit to the grid, and achieve power ascension through multiple steps, ultimately raising power to 100%.

Vogtle 3&4 - Construction, July 26, 2023



Glossary of Abbreviations

103(g)	10 C.F.R Part 52.103(g)
cROP	Construction Reactor Oversight Process
DOE	Department of Energy
HFT	Hot Functional Testing
I&C	Instrumentation & Controls
ICN	ITAAC Closure Notifications
ITAAC	Inspection, Test, Analysis, and Acceptance Criteria
ITP	Initial Test Program
NRC	Nuclear Regulatory Commission
ROP	Reactor Oversight Process
SNC	Southern Nuclear Company
VCM	Vogtle Construction Monitoring