Southern Nuclear
Operating Company, Inc.
40 Inverness Center Parkway
Post Office Box 1295
Birmingham, Alabama 35201-1295

Tel 205.992.5000

SOUTHERN COMPANY
Energy to Serve Your World℠

November 7, 2008

Docket Nos.: 50-424
50-425

NL-08-1583

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Vogtle Electric Generating Plant
Generic Letter 2004-02 Extension Request for
Completion of Chemical Effects and Closeout of GL 2004-02

Ladies and Gentlemen:

By letters dated February 28, 2008, July 31, 2008, and August 22, 2008, Southern Nuclear Operating Company (SNC) submitted documentation to demonstrate acceptable containment sump strainer performance, for the Vogtle Electric Generating Plant (VEGP), consistent with Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors." As indicated in these submittals, SNC has performed extensive analysis, testing and plant modifications in addressing the concerns of the GL.

Part of the technical basis for SNC's approach for resolving the issues associated with the GL relies on results from testing at the VUEZ facility by Alion Science and Technology. As discussed with Mr. Jared S. Wermiel, Deputy Director of the Division for Engineering and Safety Systems, in a telephone call with SNC on September 11, 2008, the NRC identified several critical issues with the test protocol used in the testing at VUEZ, as reflected in the request for additional information (RAI) provided in NRC-to-SNC letter dated September 17, 2008.

The NRC staff has stated that based on their review of information provided by Alion on the VUEZ testing, it is highly unlikely that SNC's reliance on the VUEZ testing performed to date to demonstrate strainer adequacy will provide an adequate technical basis to resolve GL 2004-02. Progress has been made in resolving some of these issues; however, the most significant issues affecting the VUEZ test protocol have not been adequately addressed to NRC staff satisfaction as noted in the transmittal letter of the VEGP RAIs. After careful consideration of the NRC's concerns, SNC has determined the need to consider an alternate

approach to demonstrate adequate performance of our containment sump strainers. Since an alternate approach is to be utilized, response to the specific RAIs will not be submitted. A teleconference was held between SNC and members of the NRC staff on October 3, 2008 outlining SNC's plan for demonstrating adequate sump performance. This plan described the approach to be taken and a draft completion schedule for any needed additional testing (head loss test-for-success) or other actions, including submittal of additional documentation, as necessary, to provide the technical basis for our conclusion of acceptability of our sump performance, in accordance with GL 2004-02. This plan considers the concerns identified in the RAIs received via NRC letter dated September 17, 2008.

Since our proposed schedule for resolution of the GL issues extends into 2009, Enclosure 1 provides an extension request in accordance with the established process from SECY-06-0078, Status of Resolution of GSI-191, "Assessment of Effect of Debris Accumulation on PWR Sump Performance". A detailed description of SNC's plans, schedule, and justification is included in the extension request. It is noted that the RAIs sent by the NRC on September 17, 2008 are from a partial review of our responses to GL 2004-02 and do not represent a comprehensive set of RAIs. SNC understands that the RAIs associated with other portions of our submittals will be sent to us over the next two months. SNC will review any additional RAIs and factor them into the schedule accordingly. Any significant changes to the schedule will be discussed with your staff. The current extension request, as supported in Enclosure 1, is to complete SNC's closeout of Generic Letter 2004-02 by November 20, 2009. Note that this schedule is predicated on 1) a reasonable submittal of the test-for-success protocol by SNC and review/comment cycle by your staff and 2) resolution of any issues associated with the next revision of WCAP-16793 (In-Vessel Effects). Please note that the above schedule does not consider any additional design changes. In the unlikely event that additional plant design changes are required as a result of the alternate approach testing, SNC will promptly notify the NRC to discuss any impacts to the above schedule.

(Affirmation and signature are provided on the following page.)

Mr. M. J. Ajluni states he is Nuclear Licensing Manager of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

The NRC commitments contained in this letter are provided as a table in Enclosure 2. If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

Mark J Ajluni

M. J. Ajluni
Manager, Nuclear Licensing

Sworn to and subscribed before me this 7th *day of* November, *2008.*

Deborah A. Jaworska
Notary Public

My commission expires: 10/24/12

MJA/DWM/daj

Enclosures:
1. Extension Request for Completion Date for Generic Letter 2004 -02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors
2. List of Regulatory Commitments

cc: Southern Nuclear Operating Company
Mr. J. T. Gasser, Executive Vice President
Mr. T. E. Tynan, Vice President – Vogtle
Mr. D. H. Jones, Vice President – Engineering
RType: CVC7000

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. R. E. Martin, NRR Project Manager – Vogtle
Mr. E. D. Morris, Acting Senior Resident Inspector – Vogtle

State of Georgia
Mr. N. Holcomb, Commissioner – Department of Natural Resources

Vogtle Electric Generating Plant
Generic Letter 2004-02 Extension Request for
Completion of Chemical Effects and Closeout of GL 2004-02

Enclosure 1

Request for Completion Date for Generic Letter 2004-02,
Potential Impact of Debris Blockage on Emergency Recirculation During
Design Basis Accidents at Pressurized Water Reactors

Vogtle Electric Generating Plant
Generic Letter 2004-02 Extension Request for
Completion of Chemical Effects and Closeout of GL 2004-02

Enclosure 1

Request for Extension for Completion Date for Generic Letter 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors

Table of Contents

Enclosure 1

Request for Extension for Completion Date for Generic Letter 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors

1.0 Background

Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors," was issued on September 13, 2004. The GL requested that licensees perform a mechanistic evaluation of the potential for the adverse effects of post-accident debris blockage and operation with debris-laden fluids to impede or prevent the recirculation functions of the emergency core cooling system (ECCS) and containment spray system (CSS) following all postulated accidents for which these systems are required.

1.1 Correspondence Background

The following provides a condensed listing of the correspondence issued by the NRC or submitted by SNC for VEGP, on the subject of Generic Safety Issue (GSI) GSI-191, "Assessment of Debris Accumulation on PWR Sump Performance." The list includes correspondence addressing NRC Bulletin 2003-01 “Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors,” dated June 9, 2003 (Ref. 1) and NRC Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents for Pressurized-Water Reactors," dated September 13, 2004 (Ref. 7).

The NRC issued Bulletin 2003-01 on June 9, 2003 (Ref. 1) requesting a 60 day response providing a description of any interim compensatory measures that have been implemented, or that will be implemented, to reduce the risk which may be associated with potentially degraded or nonconforming ECCS and CSS recirculation functions until an evaluation to determine compliance is complete. SNC provided the 60 day response in a letter dated August 7, 2003 (Ref. 2). In response to an August 30, 2004 NRC request for additional information (Ref. 3.) supplemental letters dated October 29, 2004 (Ref. 4), and July 22, 2005 (Ref. 5) were provided by SNC. In a letter dated August 26, 2005 (Ref. 6) the NRC stated that based on the above responses, SNC was responsive and met the intent of Bulletin 2003-01.

The NRC issued Generic Letter (GL) 2004-02 on September 13, 2004 (Ref. 7). In this letter, the NRC asked for an initial 90 day response, a 12 month response and for the guidance of the GL to be met by December 31, 2007. In December 2004, NEI issued NEI 04-07 (Ref. 8) providing an evaluation methodology for the industry. The NRC letter dated December 6, 2004 (Ref. 9) provided the safety evaluation for NEI 04-07. The NRC had already issued RG 1.82 Rev 3 (Ref. 25) in November 2003.

SNC provided the 90 day response for VEGP in a letter dated February 25, 2005 (Ref. 10). SNC provided a 12 month response on August 31, 2005 (Ref. 11) providing more details on how SNC would meet the GL guidance.

The NRC issued a request for additional information on February 9, 2006 (Ref. 12) with a 60 day response time. Because much of the information needed to address the RAIs would not be available until ongoing testing

activities were completed. The NRC issued a letter dated March 28, 2006 (Ref. 13) stating that the RAI answers could be provided as part of the supplemental response by the end of December 2007. NRC letter dated January 4, 2007 (Ref. 18) provided clarification that even if a licensee had an extension for modifications past 2007, the supplemental response was still due by December 31, 2007.

SNC submitted an extension request to the end of the Unit 1 spring 2008 refueling outage in a letter dated June 22, 2006 (Ref. 14), supplemented by a letter dated July 28, 2008, (Ref. 15) for modification/installation of the Unit 1 ECCS flow orifices. This extension request to the end of the Unit 1 spring 2008 refueling outage was approved in NRC letter dated September 7, 2006 (Ref. 16).

SNC letter dated December 7, 2007 (Ref. 17), requested an extension for submittal of Chemical Effects testing results, Downstream effects – Components and Systems, and Downstream Effects – Fuel and Vessel until June 30, 2008. An extension was approved until June 30, 2008 in NRC letter dated December 19, 2007 (Ref. 18).

By letters dated February 28, 2008, July 31, 2008, and August 22, 2008 (Ref. 19, Ref. 20, and Ref. 23 respectively) SNC submitted documentation to demonstrate VEGP's acceptable containment sump strainer performance, consistent with Generic Letter (GL) 2004-02. In addition, by letter dated July 31, 2008, (Ref. 21), SNC submitted an extension request to August 29, 2008 for the completion of downstream effects evaluations in accordance with WCAP-16406-P Rev. 1 "Evaluation of Downstream Sump Debris Effects in Support of GSI-191" and WCAP-16793-NP, "Evaluation of Long-Term Cooling Considering Particulate, Fibrous and Chemical Debris in the Recirculating Fluid" and completion of chemical effects testing and evaluation of test results. An extension was approved in NRC letter dated August 18, 2008 (Ref. 22).

As indicated in these submittals, SNC has performed extensive analysis, testing and plant modifications in addressing the concerns of the GL. As previously reported to the Commission, modifications to replace the VEGP original containment sump strainers have been completed. These modifications represented a significant improvement of the previously existing design by providing greatly increased strainer surface areas, increased net positive suction head (NPSH) margin and reduced downstream effects. Modifications to mitigate downstream effects on Unit 1 & 2 have been completed. Installation of new Emergency Core Cooling System flow orifices allowed the ECCS throttle valves to be opened greater than the maximum expected strainer bypass debris size while maintaining the capability to ensure ECCS flow balance. The Refueling Water Storage Tank high level was increased and the low-low level (initiation of semi-automatic switchover to recirculation) level decreased to ensure adequate submergence of the new sump strainers while maintaining adequate NPSH for the ECCS and Containment Spray pumps and allowing sufficient time for completion of operator actions for switchover to recirculation.

Enclosure 1

Request for Extension for Completion Date for Generic Letter 2004-02, Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors

2.0 Reason for the Request for Extension

Part of the technical basis for SNC's approach for resolving the issues associated with the GL relies on results from testing at the VUEZ facility by Alion Science and Technology. As discussed with Mr. Jared S. Wermiel, Deputy Director of the Division for Engineering and Safety Systems, in a telephone call with SNC on September 11, 2008, the NRC identified several critical issues with the test protocol used in the testing at VUEZ, as reflected in the request for additional information (RAI) provided in the Enclosure to NRC-to-SNC letter dated September 17, 2008 (Ref. 24).

The NRC staff has stated that based on their review of information provided by Alion on the VUEZ testing, it is highly unlikely that SNC's reliance on the VUEZ testing performed to date to demonstrate strainer adequacy will provide an adequate technical basis to resolve GL 2004-02. Progress has been made in resolving some of these issues; however, the most significant issues affecting the VUEZ test protocol have not been adequately addressed to NRC staff satisfaction as noted in the transmittal letter of the VEGP RAIs.

After careful consideration of the NRC's concerns, SNC has determined the need to consider an alternate approach to demonstrate adequate performance of our new containment sump strainers. Since an alternate approach is to be utilized, response to the specific RAIs (Ref. 24) will not be submitted.

3.0 Technical Basis for Proposed Extension

VEGP considers that the conditions at VEGP continue to meet the criteria identified in SECY-06-0078, "Status of Resolution of GSI-191, Assessment of Debris Accumulation on PWR Sump Performance," for extension beyond the completion date of December 31, 2007, that was specified in GL 2004-02. The SECY criteria are:

- Proposed extensions to permit changes at the next outage of opportunity after December 2007 may be acceptable if, based on the licensee's request, the staff determines that:
    - The licensee has a plant-specific technical experimental plan with milestones and schedule to address the outstanding technical issues with enough margin to account for uncertainties.
    - The licensee identifies mitigative measures to be put in place prior to December 31, 2007, and adequately describes how these mitigative measures will minimize the risk of degraded ECCS and CSS functions during the extension period.
- For proposed extensions beyond several months, a licensee's request will more likely be accepted if the proposed mitigative measures include temporary physical improvements to the ECCS sump or materials inside containment to better ensure a high level of ECCS sump performance.

3.1 Plant-Specific Technical/Experimental Plan

3.1.1 SECY-06-0078 Criterion No. 1:

The licensee has a plant-specific technical/experimental plan with milestones and schedule to address outstanding technical issues with enough margin to account for uncertainties.

SNC Response

Activity	Target Completion Date
Develop and submit a draft test protocol to NRC	November 30, 2008
NRC review/comment on protocol	December 31, 2008
Develop scenarios for test-for-success	January 15, 2009
Develop test plan including resolution of NRC comments on test protocol	March 31, 2009
Perform integrated head loss/chemical effects testing to include test-for-success scenarios as required.	April 30, 2009
Update SNC design documentation.	September 21, 2009
Provide a supplemental response addressing chemical effects testing.	November 20, 2009

3.2 Mitigative Measures

3.2.1 SECY-06-0078 Criterion No. 2:

The licensee identifies mitigative measures to be put in place prior to December 31, 2007, and adequately describes how these mitigative measures will minimize the risk of degraded ECCS [emergency core cooling system] and CSS *[containment spray system] functions during the extension period.*

SNC Response

The following mitigative measures have already been implemented to minimize the risk of degraded ECCS and CSS functions during the extension period.

3.2.2 Mitigative Measures

The following mitigative measures have already been implemented to minimize the risk of degraded ECCS and CSS functions during the extension period:

- Bulletin 2003-01 training and procedural guidance to expedite plant cooldown in response to a small break LOCA are incorporated into plant emergency response procedures.

- VEGP has current guidance in ECA 1.1, *Loss of Emergency Coolant Recirculation,* to initiate makeup to the RWST. The guidance is also included in ECA 1.3, *Recirculation Sump Blockage.* Similar guidance has been added to ES 1.3, *Transfer to Cold Leg Recirculation* to start filling the RWST when transfer to Cold Leg Recirculation is complete.

- Procedural guidance exists regarding containment foreign material exclusion (FME) controls. This helps ensure that the strainers are not subjected to undue loading from foreign material.

- SNC has completed the installation of the new sump strainers on Units 1 and 2. These strainers have increased available surface area to deal with debris in the recirculation water. VEGP has installed new sump strainers on Units 1 & 2 that increased the available strainer area from approximately 54 sq ft to 765 sq ft for each of the RHR strainers, an approximate 1400% increase, and from approximately 54 sq ft to 590 sq ft for each of the Containment Spray strainers, an approximate 1075% increase. The new sump strainers have a smaller mesh size, 3/32” diameter vs. 1/8” square opening on the old strainers. The new strainers were sized to the original debris generation criteria of NEI 04-07 and NRC SER dated December 6, 2004**.** The debris loading has since been reduced significantly due to a reduction in the Zone of Influence for Nukon insulation and coatings based on recent industry testing.

- Preliminary head loss testing (without chemical effects) performed for Vogtle yielded that removal of Min-K insulation resulted in a significant reduction in head loss across a loaded strainer. Based on this testing, Min-K insulation that was in the original ZOI analyzed for GL 2004-02 was removed from VEGP’s containments.

- Modifications to mitigate downstream effects on Unit 1 & 2 have been completed. Installation of new Emergency Core Cooling System flow orifices allowed for the ECCS throttle valves to be opened greater than the maximum expected strainer bypass debris size while maintaining the capability to ensure ECCS flow balance.

- The Refueling Water Storage Tank high level was increased and the low-low level (initiation of semi-automatic switchover to recirculation) decreased to ensure adequate submergence of the new sump strainers while maintaining adequate NPSH for the ECCS and Containment Spray pumps and allowing sufficient time for completion of operator actions for switchover to recirculation.

- Inspections of the protective coatings in containment are part of a protective coatings program complying with Regulatory Guide 1.54, “Service Level I, II, and III Protective Coatings Applied to Nuclear Plants," dated June 1973, and ANSI N101.4-1972, "Quality Assurance for Protective Coatings Applied to Nuclear Facilities," dated November 28, 1972, to ensure that coatings do not adversely affect safety-related systems, structures or components.

- VEGP has a formal program for positively controlling potential debris sources in the containments. The program includes periodic inspections and assessment of containment materiel conditions and control of materials temporarily brought into or permanently installed in containment. In MODE 1 through MODE 4, the containment is a special foreign material exclusion zone requiring strict controls on the types and quantities of materials that may be taken into or left inside of the containment buildings.

3.3 Generic Letter 2004-02 Basis for Continued Operation

The NRC staff provided a justification for continued operation for pressurized water reactors through December 31, 2007. The following operability elements remain applicable to VEGP during the proposed extension period. These elements provide additional assurance that the ECCS can perform its safety function in the event of a LOCA.

- The probability of the most severe limiting initiating event (i.e. large and intermediate break LOCAs) is extremely low. More probable (although still low probability) small LOCAs would require less ECCS flow, take more time to use up the water inventory in the refueling water storage tank (RWST), and in some cases may not even require the use of recirculation from the ECCS sump because the flow through the break would be small enough that the operator will have sufficient time to initiate RHR operation and depressurize the reactor coolant system to terminate the loss of reactor coolant system inventory for higher elevation breaks.

- The NPSH analyses for the ECCS and CSS pumps do not credit containment overpressure.

- Application of the leak-before-break analysis principle has been approved by the NRC Staff. Postulated breaks in the reactor coolant loop (RCL), except for branch line connections, have been eliminated. Thus, the debris generation quantity is conservative.

VEGP Specific Basis

The bullets above are applicable to VEGP. In addition:

- Switchover to recirculation from the sump during a large break LOCA would not occur until approximately 27 minutes after accident initiation, allowing time for much of the debris to settle in other places within containment.

- VEGP has implemented mitigative measures and administrative requirements to minimize the risk of degraded ECCS functions during the extension period. These measures include the installation of strainers with substantially increased surface area, installation of new Emergency Core Cooling System flow orifices allowed for the ECCS throttle valves to be opened greater than the maximum expected strainer bypass debris size while maintaining the capability to ensure ECCS flow balance, monitoring of containment coatings condition, monitoring and control of containment cleanliness, and procedural action in the unlikely event of sump strainer blockage.

- The Refueling Water Storage Tank high level was increased and the low-low level (initiation of semi-automatic switchover to recirculation) level decreased to ensure adequate submergence of the new sump strainers while maintaining adequate NPSH for the ECCS and Containment Spray pumps and allowing sufficient time for completion of operator actions for switchover to recirculation.

  The continued applicability of these elements further supports the requested extension periods while the head loss testing, including chemical effects, is completed.

3.4 Risk Evaluation

The risk impact of this extension request was evaluated as follows. If the debris induced sump blockage had not been addressed at all and no recovery action from the sump blockage is credited, core damage is guaranteed if a large break LOCA occurs. Thus, the increase in annualized core damage frequency (CDF) due to a delay for T months is:

increase in annualized CDF = (the frequency of large LOCA)*(T/12)

However, Vogtle has already installed new sump strainers whose design was based on conservative assumptions for the amount of debris generated, and other mitigative actions have also been taken. Thus, the newly installed sump strainers deserve at least some partial credit even though all testing issues have not been fully closed. If partial credit is given to the newly installed sump strainers and if a recovery from sump strainer plugging is credited, the increase in annualized CDF due to the delay for T months may be estimated as:

increase in annualized CDF = (the frequency of large LOCA)*
(the failure probability of the new sump strainers)*
(the failure probability of recovery from sump plugging)* (T/12)

According to the most recent data (NUREG/CR-6928), the frequency of a Large Break LOCA for a PWR is 1.33E-6/yr. Considering that the new sump strainer design is based on a conservative amount of debris and other mitigative actions have also been taken, the probability of failure of the new sump strainers is low.

However, for this risk evaluation, it is conservatively assumed that the probability of failure of the new sump strainers is 0.5 and also the failure of probability of recovery from sump plugging is assumed to be 1.0 (means no credit for recovery is given). An extension of 14.5 months is requested. Since the Reg. 1.174 criteria is based on annualized increase in CDF, 14.5 months was split into two periods, 12 months and 2.5 months for the risk evaluations.

The increase in annualized CDF for the first 12 months is:

increase in annualized CDF = 1.33E-6*0.5*1.0*(12/12) = 6.55E-7/yr

And for the remaining 2.5 months:

increase in annualized CDF = 1.33E-6*0.5*1.0*(2.5/12) = 1.39E-7/yr

For both periods, the increase in annualized CDF is less than 1E-6/yr. If a credit is given for recovery action, the increase in annualized CDF would be smaller. In conclusion, the delay would not pose a significant increase in risk. The risk impact on large early release frequency (LERF) is also expected to be very small because large LOCA is not a significant contributor to LERF.

4.0 Conclusions

An extension for VEGP Units 1 and 2 until November 20, 2009, for completing the requested GL 2004-02 actions is acceptable because:

- VEGP has a plant-specific plan with milestones to address the outstanding technical issues including a test-for-success criteria for head loss testing including chemical effects.

- VEGP has implemented mitigative measures to minimize the risk of degraded ECCS functions during the extension period. These measures include: the installation of strainers with substantially increased surface area (originally sized in accordance with NEI 04-07, debris generation and transport methodology), reduced the calculated debris loading based on recent industry testing, removal of Min-K from the original zone-of-influence, monitoring of containment coatings condition, monitoring and control of containment cleanliness, and procedural action in the unlikely event of sump strainer blockage.

- The calculated increase in the core damage frequency is below the Regulatory Guide 1.174 definition of less than 1E-06 per year for a “very small change” in core damage frequency. Therefore, extending the compliance time to November 20, 2009 does not pose a significant increase in risk.

5.0 References

1. NRC Bulletin 2003-01, “Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors,” dated June 9, 2003

2. SNC-to-NRC letter (ML032240030, NL-03-1514) dated August 7, 2003, 60 Day Response to NRC Bulletin 2003-01, Combined SNC response for Joseph M. Farley Nuclear Plant (FNP) and Vogtle Electric Generating Plant (VEGP) as required by NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors"

3. NRC Bulletin 2003-01, “Request for Additional Information, Bulletin 2003-01, Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors” for VEGP Electric Generating Plant, Units 1 and 2, Docket Nos. 50-424 and 50-425, fax dated August 30, 2004

4. SNC-to-NRC letter (ML043070413, NL-04-2013) dated October 29, 2004 Response to a Request for Additional Information on NRC Bulletin 2003-01, Combined SNC response for Joseph M. Farley Nuclear Plant (FNP) and Vogtle Electric Generating Plant (VEGP) as required by NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors"

5. SNC-to-NRC letter (ML052080069, NL-05-1207) dated July 22, 2005, Revised Response to a Request for Additional Information on NRC Bulletin 2003-01, Combined SNC response for Joseph M. Farley Nuclear Plant (FNP) and Vogtle Electric Generating Plant (VEGP) as required by NRC Bulletin 2003-01, "Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors - Revision 1"

6. NRC-to-SNC letter (ML052300619, NL-05-1633) dated August 26, 2005 Vogtle Electric Generating Plant, Units 1 & 2 - Response to NRC Bulletin 2003-01, “Potential Impact of Debris Blockage on Emergency Sump Recirculation at Pressurized Water Reactors”

7. NRC Generic Letter (GL) 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents for Pressurized-Water Reactors," dated September 13, 2004

8. Nuclear Energy Institute (NEI) document NEI 04-07 Revision 0, December 2004, "Pressurized Water Reactor Sump Performance Evaluation Methodology"

9. Safety Evaluation by the Office of Nuclear Reactor Regulation Related to NRC Generic Letter 2004-02, Nuclear Energy Institute Guidance Report (Proposed Document Number NEI 04-07), "Pressurized Water Reactor Sump Performance Evaluation Methodology," Issued December 6, 2004

10. SNC-to-NRC letter (ML050610168, NL-05-0290) dated February 25, 2005 90 day response to GL 2004-02, Joseph M. Farley Nuclear Plant, Vogtle Electric Generating Plant Response to NRC Generic Letter 2004-02 "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors"

11. SNC-to-NRC letter (ML052430746, NL-05-1264) dated August 31, 2005 Combined SNC response for Joseph M. Farley Nuclear Plant (FNP) and Vogtle Electric Generating Plant (VEGP) as required by NRC Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized Water Reactors"

12. NRC-to-SNC letter (ML060380033, NL-06-0279) dated February 9, 2006 Vogtle Electric Generating Plant, Units 1 And 2, Request For Additional Information Re: Response To Generic Letter 2004-02, "Potential Impact Of Debris Blockage On Emergency Recirculation During Design-Basis Accidents At Pressurized Water Reactors" (TAC Nos. MC4727 and MC4728)

13. NRC-to-SNC letter (ML060870274, NL-06-0753) dated March 28, 2006, Alternative Approach For Responding To The Nuclear Regulatory Commission Request For Additional Information Letter Re: Generic Letter 2004-02

14. SNC-to-NRC letter (ML061730462, NL-06-1275) dated June 22, 2006, VEGP 1st extension request to complete CAs (Unit 1 downstream effects) for GL 2004-02, Vogtle Electric Generating Plant - Units 1 & 2 Request for Extension for Completing Corrective Actions for Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors"

15. SNC-to-NRC letter (ML062120593, NL-06-1483) dated July 28, 2006, Response to NRC RAI (6/30/06 phone call) on SNC Request for Extension for Completing Corrective Actions for Generic Letter 2004-02, “Potential Impact of Debris Blockage on Emergency Recirculation During Design Basis Accidents at Pressurized-Water Reactors”

16. NRC-to-SNC letter (ML062500269, NL-06-2055) dated September 7, 2006, Vogtle Electric Generating Plant, Unit 1, Approval Of Generic Letter 2004-02 Extension Request (SNC request dated 6/22/2006)

17. SNC-to-NRC letter (ML073440044, NL-07-1969) dated December 7, 2007 Vogtle Electric Generating Plant Units 1 and 2 Generic Letter 2004-02 Response Extension Request for completion of Chemical Effects testing and analysis, Downstream Effects analysis for Components - Systems, and Fuel - Vessel

18. NRC-to-SNC letter (ML073520145, NL-07-2367) dated December 19, 2007, Vogtle Electric Generating Plant, Units 1 and 2 -Generic Letter 2004-02. "Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized-Water Reactors," Extension Request Approval (to May 31, 2008)

19. SNC-to-NRC letter (ML080640601, NL-07-1777) dated February 28,2008, “Vogtle Electric Generating Plant Supplemental Response to NRC Generic Letter 2004-02”

20. SNC-to-NRC letter (ML082170513, NL-08-1155) dated July 31, 2008, “Vogtle Electric Generating Plant Supplemental Response to NRC Generic Letter 2004-02”

21. SNC-to-NRC letter (ML082170306, NL-08-1195) dated July 31, 2008, “Vogtle Electric Generating Plant NRC Generic Letter 2004-02 Response Extension Request”

22. NRC-to-SNC letter (ML082260504, NL-08-1350) dated August 18, 2008, “Vogtle Electric Generating Plant, Units 1 And 2 – Generic Letter 2004-02, "Potential Impact Of Debris Blockage On Emergency Recirculation During Design Basis Accidents At Pressurized Water Reactors," Extension Request Approval

23. SNC-to-NRC letter (ML082380890, NL-08-1228) dated August 22, 2008, “Vogtle Electric Generating Plant Supplemental Response to NRC Generic Letter 2004-02”

24. NRC-to-SNC letter (ML082560233, NL-08-1497) dated September 17, 2008, “Vogtle Electric Generating Plant, Units 1 And 2 - Request For Additional Information Regarding Generic Letter 2004-02, "Potential Impact Of Debris Blockage On Emergency Recirculation During Design-Basis Accidents At Pressurized Water Reactors"

25. Regulatory Guide 1.82, "Water Sources for Long Term Recirculation Cooling Following a Loss of Coolant Accident," Revision 3, November 2003

Vogtle Electric Generating Plant
Generic Letter 2004-02 Extension Request for
Completion of Chemical Effects and Closeout of GL 2004-02

Enclosure 2

List of Regulatory Commitments

Enclosure 2

List of Regulatory Commitments

The following table identifies those actions committed by Southern Nuclear Operating Company in this document for Vogtle Electric Generating Plant. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

Commitment	Scheduled Completion Date
VEGP Units 1 & 2 will be in compliance with the regulatory requirements listed in the Applicable Regulatory Requirements section of GL 2004-02	November 20, 2009