Jeffrey T. Gasser
Vice President

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

Tel 205.992.7721
Fax 205.992.0403

SOUTHERN COMPANY
Energy to Serve Your World℠

November 5, 2003

Docket No.: 50-425

NL-03-2266

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

Vogtle Electric Generating Plant – Unit 2
Followup Written Request For Notice Of Enforcement Discretion And
Request To Revise Technical Specifications
Surveillance Requirements 3.3.1.5 and 3.3.2.2
On An Exigent Basis For Unit 2

Ladies and Gentlemen:

Technical Specification Surveillance Requirements SR 3.3.1.5 and SR 3.3.2.2 require the performance of the ACTUATION LOGIC TEST on a 31 day STAGGERED TEST BASIS. During the performance of these surveillances on October 26, 2003, problems were encountered with a test switch (Memories Test Switch) that precluded portions of these surveillances from being completed. The affected equipment is the Unit 2 Train B Solid State Protection System (SSPS) actuation logic.

Specifically, the portions of these surveillances not completed on October 26, 2003, were:

1. Memory test for feedwater isolation,
2. ACTUATION LOGIC TEST for feedwater isolation on Safety Injection or P-14 (Technical Specification Table 3.3.2-1, Function 5a), and
3. Permissive P-10 block of source range trip.

These tests were required to be completed by no later than 4:36 am (EST) on Wednesday November 5, 2003.

On November 3, 2003, Southern Nuclear Operating Company (SNC) requested a Notice of Enforcement Discretion (NOED) to extend the surveillance interval for the above surveillances to provide SNC and the NRC staff sufficient time to process an exigent change to VEGP Unit 2 Technical Specifications in accordance with 10 CFR 50.91 (a) (6). If for any reason Unit 2 has to be taken to Mode 3 during the duration of the enforcement discretion, the faulty switch will be replaced. SNC verbally requested an extension of 28 days from 4:36 am (EST) on Wednesday November 5, 2003. On November 4, 2003, the NRC verbally granted to SNC the NOED for the requested duration.

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In accordance with the guidance in the NRC Inspection Manual Part 9900: Operations – Notice of Enforcement Discretion, SNC has prepared a written follow-up request for the NOED. Enclosure 1 of this letter contains the written request for the NOED.

Because the above-described surveillances will become due three times before the end of the current fuel cycle, and the Memories Test Switch is not functioning, SNC is requesting an exigent Technical Specification change in accordance with 10 CFR 50.91(a)(6) to extend the surveillance interval of the above-described tests. SNC is requesting that the surveillance interval be extended to the end of the current cycle (Cycle 10) or the next Unit 2 shutdown to MODE 5, whichever comes first.

SNC proposes to extend the surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST for:

1. Power Range Low Setpoint Trip Block (Switch position 1)
2. Intermediate Range Block (Switch position 2)
3. Source Range Neutron Flux Trip Block (Switch positions 3 and 4)
4. Safety Injection (SI) Block, Pressurizer (Switch positions 5 and 6)
5. SI Block, High Steam Pressure Rate (Switch positions 7 and 8)
6. Auto SI Block (Switch position 9)
7. Feedwater Isolation on P-14 or SI (Switch positions 10 and 11)

In addition to the functions listed above, SNC is requesting an extension of the surveillance interval for the portions of the ACTUATION LOGIC TEST for Feedwater Isolation on P-14 or SI that pass through the memories circuits and the Power Range block of the Source Range Trip test for the Unit 2 Train B SSPS to the next refueling outage at the end of Cycle 10 or the next Unit 2 shutdown to MODE 5, whichever comes first.

The request to amend the Technical Specifications has been prepared in accordance with the requirements of 10 CFR 50.90. SNC requests that the exigent Technical Specification amendment be granted by no later than the close of business on December 2, 2003.

Enclosure 1 contains the written request for the NOED. Enclosure 2 provides the basis for the proposed change to the Technical Specifications (TS). Pursuant to 10 CFR 50.92, Enclosure 3 demonstrates that the proposed change to the TS does not involve a significant hazards consideration. Enclosure 4 contains a mark-up of the affected pages from the current VEGP Technical Specifications and Bases. Enclosure 5 contains the typed version of the revised affected TS and Bases pages. SNC has determined that the proposed license amendment will not significantly affect the quality of the environment.

Mr. J. T. Gasser states he is a Vice President 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.

If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

Jeffrey T. Gasser

Sworn to and subscribed before me this 5th *day of* November, *2003.*

Notary Public

My commission expires: 11/10/06

JTG/RJF

Enclosures:

1. Request for Notice of Enforcement Discretion
2. Basis for Change Request
3. 10 CFR 50.92 Significant Hazards Evaluation
4. Marked-Up Technical Specification and Bases Pages
5. Typed Revised Technical Specification and Bases Pages

cc: Southern Nuclear Operating Company
Mr. J. D. Woodard, Executive Vice President
Mr. W. F. Kitchens, General Manager – Plant Vogtle
Mr. M. Sheibani, Engineering Supervisor – Plant Vogtle
Document Services RTYPE: CVC7000

U. S. Nuclear Regulatory Commission
Mr. L. A. Reyes, Regional Administrator
Mr. F. Rinaldi, NRR Project Manager – Vogtle
Mr. J. Zeiler, Senior Resident Inspector – Vogtle

State of Georgia
Mr. L. C. Barrett, Commissioner – Department of Natural Resources

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ENCLOSURE 1

Request for Notice of Enforcement Discretion

Enclosure 1
Vogtle Electric Generating Plant – Unit 2
Request for Notice of Enforcement Discretion

1. The Technical Specification that will be violated.

Technical Specification Surveillance Requirements SR 3.3.1.5 and SR 3.3.2.2 require the performance of the ACTUATION LOGIC TEST on a 31 day STAGGERED TEST BASIS. During the performance of these surveillances, problems were encountered with a test switch (Memories Test Switch) in positions 10 and 11 that precluded portions of these surveillances from being completed.

Those portions of the above surveillances that could not be completed due to the failure of the Memories Test Switch are as follows:

- P-14 initiated P-4/FWI seal-in (Normal Memory Test)
- SI initiated P-4/FWI seal-in (Normal Memory Test)
- P-14 initiated FWI (FWI Actuation Logic Test)
- SI initiated FWI (FWI Actuation Logic Test)
- P-10 block of Source Range Neutron Flux Reactor Trip (P-10/P-6 Interlock Test)

Most of these tests are concerned with Feedwater Isolation (FWI.) The remaining test is for blocking of the Source Range Neutron Flux Reactor Trip.

Normal Memory Test
The normal memory test section creates conditions for a seal-in circuit test. After testing in positions 1-9, the memory test switch is moved to position 10. The reactor trip or P-4 signal input is provided to the circuit. The P-4 signal is required for seal-in to occur. The set push button is connected to the steam generator hi-hi level or P-14 input signal. Closing the set button provides input into the circuit causing an output that should seal in. A light indicates the output signal or FWI is active. Releasing the set button removes the normal input into the circuit. The light remaining on ensures that the P-4 and FWI signal will seal-in an FWI. Opening the reset button will remove the P-4 signal. The output light turning off provides indication that the seal-in was removed.

The memory test switch is moved to position 11 to set the Safety Injection (SI) input into FWI seal-in circuit. The same process for P-14 is followed for the SI input.

This test does not test that only an SI or P-14 will create an FWI signal. The P-4 is present when the set button is operated.

FWI Actuation Logic Test
This actuation logic test ensures P-14 or SI will create an FWI signal. This test uses the same setup as described in the normal memory test. However, the P-4 signal is removed before providing the P-14 input. By pushing the set button, only a P-14 signal is provided to the circuit. Light indication ensures that an FWI is active. Releasing the set button and the output light turning off ensures no other signal caused the FWI. Moving the memory test switch to the next position aligns the circuit to perform the same test for the SI signal.

P-10/P-6 Interlock Test
Additional special testing for the P-10/P-6 interlock was not performed. When above P-10, this test ensures that P-10 will block the Source Range Neutron Flux Reactor Trip should a reset of

the P-6/block signal occur. The memory test switch is moved to position 3 for this test. The same process is then used as described for the FWI actuation logic test.

Specifically, the portions of these surveillances not completed are:

1. Memory test for feedwater isolation,
2. ACTUATION LOGIC TEST for feedwater isolation (Technical Specification Table 3.3.2-1, Function 5a), and
3. Permissive P-10 block of source range trip.

These tests are required to be completed by no later than 4:36 AM (EST) on Wednesday November 5, 2003.

2. The circumstances surrounding the situation, including root causes, the need for prompt action, and identification of any relevant historical events.

The SSPS performs the decision logic for actuating a reactor trip or ESF actuation, generates the electrical output signal that will initiate the required trip or actuation, and provides the status, permissive, and annunciator output signals to the main control room.

On 10/26/03, VEGP was performing surveillance test procedure 14421-2, "Solid State Protection System and Reactor Trip Breaker Train B Operability Test" on VEGP Unit 2. As part of the testing of the SSPS actuation logic, a "memories test" is performed at the Logic Test Panel on the circuits that ensure that blocks and permissives remain in their desired states for the given plant conditions and inputs. To perform this test, a rotary switch (Memories Test Switch) is required to be manipulated. The switch is made up of a bank of switches and contacts held together by screws and nuts. The functions tested by the use of this switch are:

1. Power Range Low Setpoint Trip Block (Switch position 1)
2. Intermediate Range Block (Switch position 2)
3. Source Range Neutron Flux Trip Block (Switch positions 3 and 4)
4. Safety Injection (SI) Block, Pressurizer (Switch positions 5 and 6)
5. SI Block, High Steam Pressure Rate (Switch positions 7 and 8)
6. Auto SI Block (Switch position 9)
7. Feedwater Isolation on P-14 or SI (Switch positions 10 and 11)

On October 26, 2003, memory testing with the switch in positions 1 – 9 was completed satisfactorily. During the performance of the test, the expected response was not obtained for switch positions 10 and 11. On switch positions 6, 7, and 9, the operator had to apply some force to the switch for it to operate successfully. The need to provide some force to the switch to obtain the proper response had been observed previously. Because of the force required to operate the switch, the response not obtained has been attributed to a malfunction of the switch and not the logic circuit.

The following is a history of the problems with the Unit 2 Train B Memories Test Switch:

- 04/23/01 – Switch positions 2 and 8 initially indicate BAD. Switch was moved to previous positions and retested successfully. A maintenance work order was written and scheduled for refueling outage 2R10.

- 11/23/02 – Switch positions 2, 5, and 9 initially indicate BAD. Retest was successful.
- 03/16/03 – Switch positions 4, 8, and 9 initially test BAD. Retest was successful.
- 09/07/03 – Switch positions 2, 5, 7, 8, and 11 initially test BAD. Retest was successful but multiple attempts were required for positions 8 and 11 to pass.
- 10/26/03 – Condition documented in this proposed request for enforcement discretion.

Based on this history and the ability to successfully complete the test in the past, it was expected that we would be able to complete the required surveillances until the switch is replaced in refueling outage 2R10.

As a result of the malfunction of the Memories Test Switch, SNC has been unable to complete the actuation logic surveillances referenced above. These surveillances will become late November 5, 2003 at 4:36 AM EST, at which time the applicable portions of the Unit 2 Train B SSPS will have to be declared inoperable in accordance with Technical Specifications. Replacement of the Memories Test Switch during power operation is not feasible due to the fact that Train B SSPS would be out of service for as much as 36 hours, and the attendant risk increase due to such an activity. Therefore, SNC is requesting enforcement discretion for the interval of the above referenced surveillances for a period not to exceed 28 days from 4:36 AM EST on November 5, 2003.

3. The safety basis for the request, including an evaluation of the safety significance and potential consequences of the proposed course of action.

SNC is requesting enforcement discretion to not have to complete the following portions of the above-referenced surveillances:

1. Memory test for feedwater isolation,
2. ACTUATION LOGIC TEST for feedwater isolation (Technical Specification Table 3.3.2-1, Function 5a), and
3. Permissive P-10 block of source range trip.

The safety basis for the proposed NOED is as follows. There are four alternatives to address this issue. The first is to replace the faulty memories test switch during power operation. This would involve taking Train B SSPS out of service for at least 36 hours, thus incurring an increase in risk while one train of SSPS is out of service plus the attendant trip risk while working on the SSPS while at power. This alternative was ruled out because of the additional time required beyond the current 24-hour Completion Time and the trip risk. Another option is to shut the unit down to Mode 5 to replace the faulty switch. This shutdown option would involve an increase in risk due to shutting the unit down, plus an additional thermal cycle on the reactor coolant pressure boundary. A third alternative is to complete the surveillance using jumpers to mimic the function of the memories test switch. While this alternative is feasible, it is not the preferred option because it involves entering the logic cabinet and installing jumpers which poses a potential trip risk and the potential for error. The fourth alternative is to remain at power until the refueling outage scheduled for April 2004.

The risk associated with remaining at power under the conditions of the proposed NOED were evaluated as follows.

Actuation and seal-in circuits for feedwater isolation
Since the subject circuits could not be tested properly, a conservative assumption is that the Train B feedwater isolation signal is in a degraded condition from October 26, 2003. As a result, the failure probability of the Train B feedwater isolation signal and that of the seal-in circuit will be increased until the function is tested successfully.

However, the Train A feedwater isolation (both actuation and seal-in circuits) has been verified operable via surveillance testing. Therefore, feedwater isolation will be assured by the Train A SSPS and all valves will remain closed by the seal-in signal. Even if the feedwater isolation signal from Train A fails (by random failure), feedwater isolation can still be accomplished by Train B even though the failure probability of Train B is higher.

For the simplicity of the risk analysis, it was assumed that the Train B feedwater isolation signals (actuation and seal-in) are completely lost during the duration of the NOED. This is a very conservative assumption because, as discussed above, the effect of the degradation is to increase the failure probability of the Train B feedwater isolation signal for the period beginning October 26 through the duration of the NOED.

In the case of a secondary side break (SSB), feedwater isolation, as well as closure of the main steam isolation valves (MSIVs) and termination of auxiliary feedwater (AFW) flow, is required for the isolation of the faulted steam generator (SG) from the intact SGs for reducing the cooldown rate associated with the secondary break. However, core damage would not occur as long as the reactor coolant system remains intact and high pressure safety injection is successful. Out of the total 11 SSB core damage sequences, only the following 3 sequences have been identified as core damage sequences involving failure of SG isolation:

Sequence 1:
(secondary break occurs) AND (reactor trip success) AND (no loss of RCP seal cooling, i.e., RCP seals are intact) AND (failure of SG isolation) AND (AFW success) AND (failure of high pressure safety injection)

Sequence 2:
(secondary break occurs) AND (reactor trip success) AND (RCP seal cooling lost) AND (failure of SG isolation)

Sequence 3:
(secondary side break occurs) AND (reactor trip failed) AND (failure of SG isolation)

Feedwater isolation may also be needed for the isolation of the ruptured SG in steam generator tube rupture (SGTR) sequences. However, in the Vogtle PRA model the automatic feedwater isolation signal was not credited, only manual isolation of the faulted SG was credited. Thus, the estimated SGTR risk with failure of the Train B feedwater isolation signal remained the same as those for the base cases.

The rest of the initiating events do not involve any secondary side breaches, and feedwater isolation is not required. Thus, the above 3 SSB sequences are the only contributors to the CDF and LERF risk associated with the degradation of the Train B feedwater isolation signal.

Since the total contribution of all of the SSB sequences to the total CDF and LERF is very small, less than 0.5% of the total risk for both CDF and LERF risks, and the automatic signal from the Train A SSPS or the capability to manually isolate feedwater is not affected by the condition addressed by this enforcement discretion, the risk increase associated with degradation of the Train B feedwater isolation signal was estimated to be negligible by the criteria of Regulatory Guide 1.177.

P-10 Block of Source Range Neutron Flux Trip (excluding memory test)
During the performance of the surveillance, testing of the P-10 block of the source range trip was not completed. During power operation, the source range neutron flux trip function is blocked. When operating above the P-10 setpoint, P-10 ensures that the source range neutron flux remains blocked. The consequences of a failure of the source range trip block could be a reactor trip. For this to occur a failure of P-10 is required and an operator error would have to occur to reinstate the source range trip. This is not a likely scenario since it requires two separate and unrelated failures.

Operating history at VEGP has demonstrated the SSPS to be highly reliable. For Unit 1, there have been approximately 180 performances of actuation logic testing, and for Unit 2, approximately 150 performances. The actuation logic test procedure currently performs approximately 170 individual logic tests. A review of the test results has not revealed any logic failures. In addition, all inputs to the SSPS have been demonstrated to be operable via other required Technical Specification surveillance testing. The very small increase in risk discussed above is outweighed by compensatory measures discussed in item 7 below. Hence, there is no net increase in risk. Therefore, operation under the proposed NOED, as demonstrated by our risk evaluation, presents the safest course of action as compared to repairing the switch at power or shutting the unit down to repair the switch.

4. The justification for the duration of the noncompliance.

The duration of the noncompliance (28 days) will allow SNC and the NRC staff sufficient time to process an exigent change to VEGP Unit 2 Technical Specifications in accordance with 10 CFR 50.91 (a) (6).

5. The basis for the conclusion that the noncompliance will not be of potential detriment to the public health and safety and that no significant hazard consideration is involved.

Public health and safety will not be adversely impacted by continuance of power operation of VEGP Unit 2 under the conditions described herein. By maintaining Unit 2 at power, the risk of a transient during power reduction requiring the actuation of the SSPS is offset. SNC has evaluated the request for enforcement discretion against the criteria set forth in 10 CFR 50.92 and concludes that the request involves no significant hazards consideration.

Significant Hazards Evaluation

ANALYSIS

Operation of the plant as described above with regard to standards for a determination of no significant hazard as defined in 10 CFR 50.92 (three factor test) is shown in the following:

1) Operation of VEGP Unit 2 in accordance with the requested enforcement discretion does not involve a significant increase in the probability or consequences of an accident previously evaluated.

   The proposed action does not physically alter any plant structures, systems or components. The affected logic circuits cannot initiate an accident. There will not be a significant increase in the consequences of any accident previously evaluated as a result of this NOED because the incremental conditional large early release probability is very small in accordance with the criteria of Regulatory Guide 1.177. Therefore, the enforcement discretion does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2) The requested enforcement discretion does not create the possibility of a new or different kind of accident from any accident previously evaluated.

   The requested enforcement discretion involves an extension of a previously determined acceptable surveillance interval. The enforcement discretion does not introduce any new equipment, create new failure modes for existing equipment, or create any new limiting single failures. In addition, compensatory actions will be in place which will offset the very small increase in risk. Therefore, the requested enforcement discretion does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3) The requested enforcement discretion does not involve a significant reduction in a margin of safety.

   The extended surveillance interval for the SSPS ACTUATION LOGIC TEST has been shown to have a very small impact on plant risk using the criteria of Regulatory Guides 1.174 and 1.177. In addition, compensatory actions will be in place in the case of a failure of the P-10 source range neutron flux trip block function or the Feedwater Isolation function. Therefore, the enforcement discretion does not involve a significant reduction in a margin to safety.

CONCLUSION

Based on the preceding analysis, SNC concludes that operation of VEGP in accordance with the requested enforcement discretion does not involve a significant hazards consideration as defined in 10 CFR 50.92.

6. The basis for the conclusion that the noncompliance will not involve adverse consequences to the environment.

The requested enforcement discretion does not affect normal operation of the unit and does not alter any accident analysis results. Therefore, this will not involve any significant change in the types or amounts of effluents that may be released offsite and no increase in the individual or

cumulative occupational radiation exposure. This request for enforcement discretion does not involve any adverse environmental consequences.

7. Proposed compensatory measures.

P-10 Block of Source Range Trip (excluding memory test)

Memory test selector switch position 3 is utilized to verify that P-10 will block the Source Range (SR) Reactor Trip Signal if a reset of the P-6 signal should occur while above the P-10 setpoint. If P-6 clears and P-10 fails to block the SR trip signal while reactor power is above P-10, the reactor will trip due to Source Range Hi Flux as indicated by control room annunciator ALB09 A05. Procedure 19000-C, Reactor Trip or Safety Injection, provides direction to address this event. In addition, during unit shutdown, unit operating procedure 12005-C provides adequate procedural guidance to ensure unblocking of the SR trips occur as required.

Feedwater Isolation on P-14 or SI (Memory and Actuation Logic)

Memories test selector switch positions 10 and 11 are utilized to check the actuation and seal-in circuit for a FWI due to a SI or Steam Generator Hi-Hi Level (P-14) signal. Once FWI is initiated, closure of the main and bypass feedwater isolation valves (MFIV's and BFIV's) and the main and bypass feedwater control valves (MFRV's and BFRV's) is sealed in as long as a reactor trip P-4 signal exists. If valve closure does not occur or is not sealed when a SI or P-14 signal occurs, 19000-C, Reactor Trip or Safety Injection provides direction to close the MFIV's, BFIV's, MFRV's and BFRV's . Specifically, step 5 of 19000-C directs the operator to verify feedwater isolation has occurred, and if the expected response is not obtained then the procedure directs the operator to shut the valves as necessary.

Compensatory Measures

The control room operators will be briefed on the circuits in Train B SSPS that have not been tested due to the failure of the Memories Test Switch. This briefing will include a discussion of how a failure of these circuits would affect Unit 2 operations. In view of the inability to test the above described functions, the operators will be directed to take the following compensatory measures:

1. Operators are to be aware of the inability to test B-FWI and maintain an increased sensitivity to verifying FWI following Reactor Trip.

2. In the event that FWI is necessary and does not occur, Operators will: place the MFRV and BFRV controllers in manual and closed; MFIV's in fast close/PTL; and BFIV's in the close/auto position.

3. Twice per shift, while in Modes 1-4, Operators will verify correct indications for following and log completion of this activity in the unit control log:

   - SG Levels
   - Pressurizer Pressure
   - Steam Generator Pressure
   - Containment Pressure

- P-6, P-10 bypass and permissive light panels (BPLPs) and associated trip status lights
- SR Trip Blocked BPLP's

4. Operator rounds will be increased to twice per shift for inspection of the main steam valve rooms and turbine building for steam leaks. This will increase the likelihood of precursors to secondary side breaks being identified so that prompt action can be taken.

Finally, if for any reason Unit 2 has to be taken to Mode 3 during the duration of the enforcement discretion, the faulty switch will be replaced.

8. Review by the Plant Review Board.

This request for enforcement discretion has been reviewed and approval has been recommended by the organization tasked to advise the General Manager - Nuclear Plant on all matters related to nuclear safety at VEGP, i.e., the Plant Review Board.

9. Satisfaction of NOED criteria.

This NOED is intended to avoid unnecessary transients as a result of compliance with the license condition and, thus, to minimize potential safety consequences and operational risks. We conclude by qualitative evaluation based on the above discussions and compensatory measures in place that operation under this NOED provides the safest course of action when compared to the alternatives discussed under Item 3.

Southern Nuclear believes that it has met the criteria for NOED as provided in NRC Inspection Manual Part 9900: Operations – Notices of Enforcement Discretion section B (2.1).

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ENCLOSURE 2

Basis for Change Request

Enclosure 2
Vogtle Electric Generating Plant – Unit 2
Request to Revise Technical Specifications
Surveillance Requirements SR 3.3.1.5 and 3.3.2.2

Basis for Proposed Change

Introduction

The Reactor Trip System (RTS) instrumentation and Engineered Safety Feature Actuation System (ESFAS) instrumentation is segmented into four distinct but interconnected modules. These modules are:

1. Field transmitters or process sensors,
2. Signal Process Control and Protection System,
3. Solid State Protection System (SSPS), and
4. Reactor trip switchgear.

The SSPS performs the decision logic for actuating a reactor trip or ESF actuation, generates the electrical output signal that will initiate the required trip or actuation, and provides the status, permissive, and annunciator output signals to the main control room.

On 10/26/03, SNC was performing surveillance test procedure 14421-2, "Solid State Protection System and Reactor Trip Breaker Train B Operability Test" on VEGP Unit 2. As part of the testing of the SSPS actuation logic, a "memories test" is performed at the Logic Test Panel on the circuits that ensure that blocks and permissives remain in their desired states for the given plant conditions and inputs. In addition, a portion of the feedwater isolation logic is tested. To perform this test, a rotary switch (Memories Test Switch) is required to be manipulated. The switch is made up of a bank of switches and contacts held together by screws and nuts. The functions tested by the use of this switch are:

1. Power Range Low Setpoint Trip Block (Switch position 1)
2. Intermediate Range Trip Block (Switch position 2)
3. Source Range Neutron Flux Trip Block (Switch positions 3 and 4)
4. Safety Injection (SI) Block, Pressurizer (Switch positions 5 and 6)
5. SI Block, High Steam Pressure Rate (Switch positions 7 and 8)
6. Auto SI Block (Switch position 9)
7. Feedwater Isolation on P-14 or SI (Switch positions 10 and 11)

On October 26, 2003, memory testing with the switch in positions 1 – 9 was completed satisfactorily. However, for switch positions 10 and 11, the expected response was not obtained. On switch positions 6, 7, and 9, the operator had to apply some force to the switch for it to operate successfully. The need to provide force to the switch to obtain the proper response had been observed previously. Because of the force required to operate the switch, the response not obtained has been attributed to a malfunction of the switch and not the logic circuit.

As a result of the malfunction of the Memories Test Switch, SNC has been unable to complete the actuation logic surveillances referenced above. The inability to complete these surveillances on October 26, 2003 has been addressed by a Notice of Enforcement Discretion (NOED) granted by the NRC on November 4, 2003, and documented as Enclosure 1 to this letter. The Memories Test Switch is presently in the "Off" position for the Unit 2 Train B SSPS, all actuation logic is operable, and all permissives and blocks are in their correct state. However, the Memories Test

Enclosure 2
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Basis for Proposed Change

Switch for Train B SSPS is unavailable for use for subsequent actuation logic testing for Train B. Train A SSPS actuation logic testing is not affected by this condition.

Proposed Change

The impacted surveillance requirements are SR 3.3.1.5 and SR 3.3.2.2 "ACTUATION LOGIC TEST". The surveillance interval for each of these surveillance requirements is 31 days on a STAGGERED TEST BASIS. The next performance of these surveillances for Unit 2 Train B SSPS will be due 62 days from October 26, 2003. Therefore, due to the malfunction of the Memories Test Switch, SNC proposes to extend the surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST for the seven functions listed above as well as the memories test for Feedwater Isolation on P-14 or SI (Switch positions 10 and 11), portions of the ACTUATION LOGIC TEST for Feedwater Isolation on P-14 or SI that pass through the memories circuits, and the Power Range block of the Source Range Trip test for the Unit 2 Train B SSPS to the next refueling outage at the end of Cycle 10 or the next Unit 2 shutdown to MODE 5, whichever comes first. For the reasons discussed below, SNC has concluded that the risk associated with continued power operation is less than risks associated with attempting a repair of the switch either while at power or by shutting the unit down to implement the repair. It should be noted that all other portions of the ACTUATION LOGIC TEST will continue to be performed at the current surveillance interval. SNC requests that the exigent Technical Specification amendment be granted by no later than the close of business on December 2, 2003.

The proposed marked-up Technical Specification pages are shown in Enclosure 4. The change will add a note to SR 3.3.1.5 and SR 3.3.2.2 as follows:

Note to SR 3.3.1.5

The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the test of the Power Range Block of the Source Range Neutron Flux Trip Block for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

Note to SR 3.3.2.2

The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the portions of the ACTUATION LOGIC TEST for Feedwater Isolation on P-14 or SI that pass through the memories circuits for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

Justification for Proposed Change

VEGP Unit 2 is currently operating in MODE 1 at full power. In this mode, the blocks and permissives for the functions described above are in their expected states. This is evidenced by observation of status light indications in the control room and by the fact that the unit is operating at full power.

Basis for Proposed Change

Attempting to repair the Memories Test Switch with the unit in operation involves several risks. The maintenance would require removing Train B SSPS from service for as much as 36 hours. With one train inoperable, current Technical Specifications require the train to be restored to OPERABLE in 24 hours or be in MODE 3 within the next 6 hours. Therefore, enforcement discretion would be required to allow the repair to be made. However, the risk of having an entire train of SSPS actuation logic out of service at power would be undesirable as compared to the proposed alternative. In addition, a repair of this complexity during power operation has a significant trip risk and inadvertent ESFAS actuation risk associated with it. SNC has also evaluated the alternative of shutting Unit 2 down to Mode 5 to repair the switch. This would involve an increase in risk due to shutting the unit down, plus an additional thermal cycle on the reactor coolant pressure boundary.

SNC has evaluated the risk impact associated with the proposed change as follows. With respect to all permissives and blocks tested by the Memories Test Switch, there is an insignificant increase in risk due to the proposed extension of the surveillance interval since these functions are in their correct state for power operation. The primary impact on risk is due to the extension of the surveillance interval for feedwater isolation from safety injection or steam generator high high level (P-14). For the simplicity of the risk analysis, it was assumed that the Train B feedwater isolation signal (actuation and seal-in) are completely lost for the duration of the proposed extension of the surveillance interval. This is a very conservative assumption because the real impact of the proposed change is to increase the failure probability of the Train B feedwater isolation signal rather than render it inoperable.

In the case of a secondary side break (SSB), feedwater isolation, as well as closure of the main steam isolation valves (MSIVs) and termination of auxiliary feedwater (AFW) flow, is required for the isolation of the faulted steam generator (SG) from the intact SGs for reducing the cooldown rate associated with the secondary break. However, core damage would not occur as long as the reactor coolant system remains intact and high pressure safety injection is successful. Out of the total 11 SSB core damage sequences, only the following 3 sequences have been identified as core damage sequences involving failure of SG isolation:

Sequence 1:
(secondary break occurs) AND (reactor trip success) AND (no loss of RCP seal cooling, i.e., RCP seals are intact) AND (failure of SG isolation) AND (AFW success) AND (failure of high pressure safety injection)

Sequence 2:
(secondary break occurs) AND (reactor trip success) AND (RCP seal cooling lost) AND (failure of SG isolation)

Sequence 3:
(secondary side break occurs) AND (reactor trip failed) AND (failure of SG isolation)

Feedwater isolation may also be needed for the isolation of the ruptured SG in steam generator tube rupture (SGTR) sequences. However, in the Vogtle PRA model the automatic feedwater isolation signal was not credited but only manual isolation of the faulted SG was credited. Thus,

Basis for Proposed Change

the estimated SGTR risk with failure of the Train B feedwater isolation signal remained the same as those for the base cases.

The rest of the initiating events do not involve any secondary side breaches, and feedwater isolation is not required. Thus, the above 3 SSB sequences are the only contributors to the CDF and LERF risk associated with the degradation of the Train B feedwater isolation signal.

The success for SG isolation requires:

1. For a break inside containment, closure of at least 1 of 2 MSIVs, the associated MSIV bypass valves, and feedwater isolation and bypass valves on the faulted SG.

   If the faulted SG cannot be isolated, then each of the non-faulted SGs must be isolated by closing at least 1 of 2 MISVs, the associated MSIV bypass valves, and the feedwater isolation and bypass valves on each intact SG. Operator action to terminate AFW flow to the faulted SG by closing 2 of 2 AFW valves is also required.

2. For a break outside containment, closure of at least 1 of 2 MSIVs, the associated MSIV bypass valves and feed water isolation and bypass valves on 3 intact SGs. Operator action to terminate AFW flow to any unisolated SG by closing 2 of 2 AFW valves is also required.

Isolation of MSIVs, their bypass valves, and AFW flow would not be affected by the degradation of the Train B feedwater isolation signal. The degradation of the Train B feedwater isolation signal affects only the failure probability of feedwater isolation for steam generator isolation.

Successful feedwater isolation of a SG requires:

1. Closure of the associated main feedwater isolation valve (MFIV) and its bypass valve (BFIV) OR
2. Closure of the associated main feed water regulating valve (MFRV). (MFRV bypass valve should also close but it is normally closed during power operation.)

The MFIVs, BFIVs, and MFRVs receive a feedwater isolation signal from SSPS Train A and B. Either one of these signals will close the valves.

In the VEGP PRA model, failure of isolation of these valves will occur if:

> (FW isolation signal A fails)*(FW isolation signal B fails)*(manual initiation of FW isolation signal fails).

With the degradation of the Train B feedwater isolation signal, only the failure probability of the Train B feedwater isolation signal will increase linearly as time goes on from the start of the degraded condition. For example, if T is the surveillance test interval, and two tests are missed, the average failure probability of the Train B feedwater isolation signal during the period between $t = T$ and $t = 3T$ (degradation starts at $t = T$ when the first surveillance test is missed) becomes 4

Basis for Proposed Change

times larger than that of the base case. The failure probability of the Train A feedwater isolation signal remains the same because it will be tested as scheduled.

For the simplicity of the evaluation, it was conservatively assumed that the Train B feedwater isolation signal is completely lost during the degraded condition and the incremental increase in annualized CDF (delta CDF) and incremental increase in annualized LERF(delta LERF) were evaluated as follows:

1. Using the VEGP PRA model, the base case CDF and base case LERF were evaluated.

   BCDF = base case CDF = 1.7124E-5/yr
   BLERF = base case LERF = 1.1917E-7/yr
   (minimal cutset truncation values were 1.0E-10/yr and 5.0E-12/yr for CDF and LERF calculations, respectively.):

2. The parts of the VEGP fault tree model which are affected by the degradation of the Train B feedwater isolation signal were modified as follows.

   In the base case, the failure of the feedwater isolation signal for valve X is modeled as:

   (gate representing the failure of feedwater signal for valve X) =
   (gate representing the failure of feedwater isolation signal A for valve X) AND
   (gate representing the failure of feedwater isolation signal B for valve X) AND
   (gate representing the failure of manual initiation of feedwater isolation signal)

   If it is assumed that the feedwater isolation signal for valve X is failed for a whole year, the fault tree for the failure of the feedwater isolation signal for valve X is changed to:

   (gate representing the failure of feedwater signal for valve X given FW isolation signal B failed) =
   (gate representing the failure of feedwater isolation signal A for valve X) AND
   (gate representing the failure of manual initiation of feedwater isolation signal)

   Note that the above logic was created by setting the gate representing feedwater isolation signal B failure to logical "TRUE". Gates representing feedwater isolation signals for the MFIVs, BFIVs, and MFRVs were modified.

3. Using the modified fault trees, minimal cutsets for CDF and LERF were generated and CDF and LERF were evaluated:

   CDFFWB = CDF with feedwater isolation signal B failed for year = 1.7125E-5/yr
   LERFFWB =LERF with feedwater isolation signal B failed for year = 1.1917E-7/yr

   (minimal cutset truncation values were 1.0E-10/yr and 5.0E-12/yr for CDF and LERF calculations, respectively.):

4. Delta CDF and Delta LERF were calculated as:

Basis for Proposed Change

Delta CDF = CDFFWB – BCDF = 1.7125E-5 - 1.7124E-5 = 1.0E-9/yr
Delta LERF = LERFFWB – BLERF = 1.1917E-7 – 1.1917E-7 = 0 (or < 1E-11)

Note that CDFFWB and LERFFWB were estimated based on the very conservative assumption that the Train B feedwater isolation signal is unavailable for a year.

5. According to the Regulatory Guides 1.174 and 1.177 criteria, (delta CDF < 1E-6 and delta LERF <1E-7 for very small risk impact), the risk increase due to the degradation of the Train B feedwater isolation signal is insignificant.

   Another criteria in Reg. 1.177 should be met to finally conclude that the risk impact is very small:

   ICCDP (Incremental Conditional Core Damage Probability) < 5E-7, and
   ICLERP (Incremental Conditional Large Early Release Probability) < 5E-8.

   ICCDP = (the conditional CDF with the subject equipment out of service – base CDF) *(duration of single AOT under consideration)
   ICLERP = (the conditional LERF with the subject equipment out of service – base LERF) * (duration of single AOT under consideration)

The conditional CDF (LERF) with the subject equipment out of service is calculated assuming the subject equipment is out of service for a whole year. Also, if the status of the remaining train is not known, common cause failure probabilities of the remaining train are also modified. However, in the case evaluated, it is known that the Train A feedwater solation signal is operable and testable and thus the degradation of the Train B feedwater isolation signal will not affect common cause failures. If common cause failures are not affected, the conditional CDF (LERF) with the subject equipment out of service is the same as CDFFWB (LERFFWB) calculated above.

Then,

ICCDP = (delta CDF calculated above)*(duration of single AOT under consideration)
= 1.0E-9 *(duration of single AOT under consideration)

ICLERP = (delta LERF calculated above)*(duration of single AOT under consideration)
< 1.0E-11*(duration of single AOT under consideration)

Since the duration of the proposed extended surveillance interval is less than a year,

ICCDP < 1.0E-9, and
ICLERP < 1.0E-11

Basis for Proposed Change

Based on Regulatory Guide 1.177 criteria (ICCDP < 5E-7 and ICLERP <5E-8 for a very small risk impact), the risk increase due to the degradation of the Train B feedwater isolation signal is insignificant.

Thus the risk increase associated with the proposed extension of the surveillance interval for the affected portions of the Unit 2 Train B actuation logic test is very small. Therefore, from a risk perspective, the proposed alternative of increasing the surveillance test interval for the affected portions of the Unit 2 Train B SSPS actuation logic test is the preferred alternative from the standpoint of the health and safety of the public.

The following discussion describes the functions tested by the Memories Test, and measures that can be taken to ensure safe plant operation should a malfunction occur.

Nuclear Instrumentation System (NIS) Power Range – Low Setpoint Reactor Trip

Memories test selector switch position 1 checks the seal in circuit associated with the blocking and unblocking of the power range (PR) nuclear instrumentation (NI) low setpoint reactor trip. This trip function may be manually blocked when 2/4 PR NI's are above P-10 and will automatically unblock when 3/4 PR NI's lower below the P-10 setpoint. Under present conditions, this trip function is blocked.

When reducing power, at the permissive P-10 setpoint, procedures require the operator to verify that the trip is automatically unblocked. Measures can be taken such that if, due to equipment malfunction, the trip does not unblock in Train B, the reactor is placed in Hot Standby, Mode 3.

NIS Intermediate Range Reactor Trip

Memories test selector switch position 2 checks the seal in circuit associated with the blocking and unblocking of the intermediate range (IR) NI high flux reactor trip. This trip function may be manually blocked when 2/4 PR NI's are above P-10 and will automatically unblock when 3/4 PR NI's lower below the P-10 setpoint. Under present conditions, this trip function is blocked. The Technical Specification Bases are clear that this feature is important only during reactor startup.

When reducing power, at the permissive P-10 setpoint, procedures require the operator to verify that the trip is automatically unblocked. Measures can be taken such that if, due to equipment malfunction, the trip does not unblock in Train B, the reactor is placed in Hot Standby, Mode 3.

NIS Source Range Neutron Flux Reactor Trip

Memories test selector switch positions 3 and 4 check the seal in circuit associated with the blocking and unblocking of the source range NI high flux reactor trip. This trip function may be manually blocked when 1/2 IR NI's are above P-6, auto maintains blocks above P-10, and also will automatically unblock when 2/2 IR NI's lower below the P-6 setpoint. Under present conditions, this trip function is blocked.

When reducing power, at the permissive P-6 setpoint, procedures require the operator to verify that the trip is automatically unblocked. Measures can be taken such that if, due to equipment

Basis for Proposed Change

malfunction the trip does not unblock in Train B, the operator should manually reset the SR block. If the trip cannot be enabled, the Rx trip breakers are opened.

Pressurizer Low Pressure Safety Injection Actuation

Memories test selector switch positions 5 and 6 check the seal in circuit associated with blocking of the pressurizer low pressure safety injection (SI) when below P-11. This actuation function may be manually blocked when 2/3 pressurizer pressure indications are below the P-11 setpoint. The SI function will be automatically enabled when 2/3 pressurizer pressure instruments go above the P-11 setpoint. Under present conditions, this actuation function is enabled.

Per existing procedures, when reducing primary system pressure, safety injection actuation from low pressurizer pressure at the permissive P-11 setpoint is manually blocked. If, due to an equipment malfunction SI from low pressurizer pressure cannot be blocked in Train B, safety injection actuation can be bypassed by placing the bypass test instrumentaton (BTI) switches associated with pressurizer low pressure SI in bypass. This in effect accomplishes the same net result as using the main control board block switches below P-11.

High Steam Pressure Rate and Low Steamline Pressure Safety Injection Actuation

Memories test selector switch positions 7 and 8 check the seal in circuit associated with blocking of the safety injection actuation and steamline isolation from Low Steamline Pressure when below P-11. This actuation function may be manually blocked when 2/3 pressurizer pressure indications are below the P-11 setpoint. The function will be automatically enabled when 2/3 pressurizer pressure instruments go above the P-11 setpoint. Under present conditions, this actuation function is enabled. Blocking this function below P-11 simultaneously enables the high steam pressure rate steamline isolation.

At pressurizer pressure below the permissive P-11 setpoint, safety injection actuation and steamline isolation from Low Steamline Pressure can be manually blocked. If, due to an equipment malfunction, these functions cannot be blocked, these actuations can be bypassed by placing the BTI switches associated with Low Steamline Pressure in bypass.

Note that the automatic steamline isolation on steam pressure rate function will be inoperable if this block circuit does not work. High steamline pressure rate bistable status lights will be monitored and steamline actuation manually actuated if conditions warrant.

Automatic Safety Injection Block

Memories test selector switch position 9 checks the seal in circuit associated with blocking of automatic SI after safety injection has been actuated and after it has been reset (65 seconds or more after actuation). Safety injection cannot be re-actuated by any of its initiating logic as long as a reactor trip P-4 signal exists.

If, due to a malfunction, resetting SI does not block SI re-actuation in one of the two logic trains as indicated by the AUTO SI BLOCKED permissive lamp in the control room, the following steps can be taken:

Basis for Proposed Change

- Clear any SI signal present
  1. Block the pressurizer pressure SI signal and main steamline low pressure SI signal if below P-11 using the main control board block switches Or
  2. Place any tripped SI bistables in bypass using BTI
- Reset SI.

Feedwater Control-Feedwater Isolation

Memories test selector switch positions 10 and 11 check the seal in circuit associated with seal in of the FWI in the presence of P-4. Feedwater isolation is initiated by Steam Generator Hi-Hi Level or SI. Once it is initiated, closure of the feedwater isolation valves and the main and bypass feedwater control valves is sealed in as long as a reactor trip P-4 signal exists.

If, due to a malfunction, feedwater isolation does not occur or valve closure is not sealed in as indicated by control room annunciator ALB13 E04, feedwater isolation can be effected manually by closing any open feedwater isolation valves from control board controls. Specifically, step 5 of procedure 19000-C, Reactor Trip or Safety Injection, directs the operator to verify feedwater isolation has occurred, and if the expected response is not obtained then the procedure directs the operator to shut the valves as necessary.

P-10 Block of Source Range Neutron Flux Trip (excluding memory test)

During power operation, the source range neutron flux trip function is blocked. When operating above the P-10 setpoint, P-10 ensures that the source range neutron flux trip remains blocked. The consequences of a failure of the source range trip block could be a reactor trip. For this to occur a failure of P-10 is required and an operator error would have to occur to reinstate the source range trip. This is not a likely scenario since it requires two separate and unrelated failures.

Conclusion

Operating history at VEGP has demonstrated the SSPS to be highly reliable. For Unit 1, there have been approximately 180 performances of actuation logic testing, and for Unit 2, approximately 150 performances. The actuation logic test procedure currently performs approximately 170 individual logic tests. A review of the test results has not revealed any logic failures. In addition, all inputs to the SSPS have been demonstrated to be operable via other required Technical Specification surveillance testing. By the criteria of RG 1.177, the risk increase associated with the proposed change is very small. In addition, there are measures that can be taken to mitigate a malfunction in the Train B actuation logic should it occur. Therefore, operation under the proposed change, as demonstrated by our risk-informed evaluation, presents the safest course of action as compared to repairing the switch at power or shutting the unit down to repair the switch.

Vogtle Electric Generating Plant – Unit 2
Followup Written Request For Notice Of Enforcement Discretion And
Request To Revise Technical Specifications
Surveillance Requirements 3.3.1.5 and 3.3.2.2
On An Exigent Basis For Unit 2

ENCLOSURE 3

10 CFR 50.92 Significant Hazards Evaluation

Enclosure 3
Vogtle Electric Generating Plant
Request To Revise Technical Specifications
Surveillance Requirements SR 3.3.1.5 and 3.3.2.2

10 CFR 50.92 Significant Hazards Evaluation

Proposed Change

On 10/26/03, Vogtle Electric Generating Plant (VEGP) was performing surveillance test procedure 14421-2, "Solid State Protection System and Reactor Trip Breaker Train B Operability Test" on VEGP Unit 2. As part of the testing of the SSPS actuation logic, a "memories test" is performed at the Logic Test Panel on the circuits that ensure that blocks and permissives remain in their desired states for the given plant conditions and inputs. To perform this test, a rotary switch (Memories Test Switch) is required to be manipulated. The switch is made up of a bank of switches and contacts held together by screws and nuts. The functions tested by the use of this switch are:

1. Power Range Low Setpoint Trip Block (Switch position 1)
2. Intermediate Range Trip Block (Switch position 2)
3. Source Range Neutron Flux Block (Switch positions 3 and 4)
4. Safety Injection (SI) Block, Pressurizer (Switch positions 5 and 6)
5. SI Block, High Steam Pressure Rate (Switch positions 7 and 8)
6. Auto SI Block (Switch position 9)
7. Feedwater Isolation on P-14 or SI (Switch positions 10 and 11)

On October 26, 2003, memory testing with the switch in positions 1 – 9 was completed satisfactorily. During the performance of the test, the expected response was not obtained for switch positions 10 and 11. On switch positions 6, 7, and 9, the operator had to apply some force to the switch for it to operate successfully. The need to provide some force to the switch to obtain the proper response had been observed previously. Because of the force required to operate the switch, the response not obtained has been attributed to a malfunction of the switch and not the logic circuit.

As a result of the malfunction of the Memories Test Switch, SNC will be unable to perform testing on the Train B SSPS associated with the Memories Test Switch until such time as the switch can be replaced. Therefore, Southern Nuclear Operating Company (SNC) proposes to extend the surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST for the above-listed functions. In addition to the functions listed above, SNC is requesting an extension of the surveillance interval for the portions of the ACTUATION LOGIC TEST for Feedwater Isolation on P-14 or SI that pass through the memories circuits and the Power Range block of the Source Range Trip test for the Unit 2 Train B SSPS to the next refueling outage at the end of Cycle 10 or the next Unit 2 shutdown to MODE 5, whichever comes first.

SNC is requesting an exigent Technical Specification change in accordance with 10 CFR 50.91(a)(6) to extend the surveillance interval of the above-described tests. SNC is requesting that the surveillance interval be extended to the end of the current cycle (Cycle 10) or the next Unit 2 shutdown to MODE 5, whichever comes first.

Enclosure 3
Vogtle Electric Generating Plant
Request To Revise Technical Specifications
Surveillance Requirements SR 3.3.1.5 and 3.3.2.2

10 CFR 50.92 Significant Hazards Evaluation

Evaluation

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

   The proposed change does not physically alter any plant structures, systems or components. The SSPS at VEGP has a history of high reliability. In addition, similar changes to the surveillance interval for actuation logic testing for Westinghouse SSPS actuation logic has been approved by the NRC with their approval of WCAP-15376 and Technical Specification Task Force (TSTF) 411. Therefore there will not be a significant increase in the probability of an accident previously evaluated. There will not be a significant increase in the consequences of any accident previously evaluated as a result of this Technical Specification amendment because the incremental conditional large early release probability is very small in accordance with the criteria of Regulatory Guide 1.177. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

   The proposed change involves an extension of a previously determined acceptable surveillance interval. The proposed change does not introduce any new equipment, create new failure modes for existing equipment, or create any new limiting single failures. In addition, compensatory actions will be in place which will offset the very small increase in risk. Therefore, the requested Technical Specification amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety.

   The extended surveillance interval for the SSPS ACTUATION LOGIC TEST has been shown to have a very small impact on plant risk using the criteria of Regulatory Guides 1.174 and 1.177. In addition, compensatory actions in place will be in place in the case of a failure of the functions listed above. Therefore, the enforcement discretion does not involve a significant reduction in a margin to safety.

Conclusion

Based on the preceding analysis, it is concluded that operation of the VEGP in accordance with the proposed change does not involve a significant hazards consideration as defined in 10 CFR 50.92.

Environmental Evaluation

Southern Nuclear has evaluated the proposed changes and determined the changes do not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in the

10 CFR 50.92 Significant Hazards Evaluation

individual or cumulative occupational radiation exposure. Accordingly, the proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), an environmental assessment of the proposed changes is not required.

Vogtle Electric Generating Plant – Unit 2
Followup Written Request For Notice Of Enforcement Discretion And
Request To Revise Technical Specifications
Surveillance Requirements 3.3.1.5 and 3.3.2.2
On An Exigent Basis For Unit 2

ENCLOSURE 4

Marked-Up Technical Specification and Bases Pages

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.3.1.4	----------NOTE---------- This Surveillance must be performed on the reactor trip bypass breaker prior to placing the bypass breaker in service. --- Perform TADOT.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.5	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.6	----------NOTES---------- 1. Not required to be performed until 7 days after THERMAL POWER is ≥ 75% RTP. 2. Neutron detectors are excluded from CHANNEL CALIBRATION. --- Calibrate excore channels to agree with incore detector measurements.	92 EFPD
SR 3.3.1.7	----------NOTES---------- 1. For the Source Range Instrumentation this surveillance shall include verification that interlocks P-6 and P-10 are in their required state for existing unit conditions. 2. Not required to be performed for Source Range Instrumentation prior to entering MODE 3 from MODE 2 until 4 hours after entry into MODE 3. --- Perform COT.	92 days

INSERT

(continued)

INSERT TO SR 3.3.1.5

----------NOTE ----------

The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the test of the Power Range Block of the Source Range Neutron Flux Trip Block for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

SURVEILLANCE REQUIREMENTS

----------NOTE----------
Refer to Table 3.3.2-1 to determine which SRs apply for each ESFAS Function.

	SURVEILLANCE	FREQUENCY
SR 3.3.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.2.2	Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.3	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.4	Perform COT.	92 days
SR 3.3.2.5	Perform SLAVE RELAY TEST.	18 months
SR 3.3.2.6	----------NOTE---------- Verification of setpoint not required for manual initiation functions. --- Perform TADOT.	18 months

INSERT

(continued)

INSERT TO SR 3.3.2.2

---NOTE ---

The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the portions of the ACTUATION LOGIC TEST for Feedwater Isolation on P14 or SI that pass through the memories circuits for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.3 (continued)

The Frequency of every 31 EFPD is adequate. It is based on unit operating experience, considering instrument reliability and operating history data for instrument drift. Also, the slow changes in neutron flux during the fuel cycle can be detected during this interval.

SR 3.3.1.4

SR 3.3.1.4 is the performance of a TADOT every 31 days on a STAGGERED TEST BASIS. This test shall verify OPERABILITY by actuation of the end devices.

The RTB test shall include separate verification of the undervoltage and shunt trip mechanisms. Independent verification of RTB undervoltage and shunt trip function is not required for the bypass breakers. No capability is provided for performing such a test at power. The independence test for bypass breakers is included in SR 3.3.1.13. The bypass breaker test shall include a local shunt trip. A Note has been added to indicate that this test must be performed on the bypass breaker prior to placing it in service.

The Frequency of every 31 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.

SR 3.3.1.5

SR 3.3.1.5 is the performance of an ACTUATION LOGIC TEST. The SSPS is tested every 31 days on a STAGGERED TEST BASIS, using the semiautomatic tester. The train being tested is placed in the bypass condition, thus preventing inadvertent actuation. Through the semiautomatic tester, all possible logic combinations, with and without applicable permissives, are tested for each protection function. The Frequency of every 31 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.

INSERT →

(continued)

INSERT TO BASES FOR SR 3.3.1.5

SR 3.3.1.5 is modified by the following Note: The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the test of the Power Range Block of the Source Range Neutron Flux Trip Block for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.1 (continued)

channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and reliability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

The Frequency is based on operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.2.2

SR 3.3.2.2 is the performance of an ACTUATION LOGIC TEST. The SSPS is tested every 31 days on a STAGGERED TEST BASIS, using the semiautomatic tester. The train being tested is placed in the bypass condition, thus preventing inadvertent actuation. Through the semiautomatic tester, all possible logic combinations, with and without applicable permissives, are tested for each protection function. In addition, the master relay coil is pulse tested for continuity. This verifies that the logic modules are OPERABLE and that there is an intact voltage signal path to the master relay coils. The Frequency of every 31 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.

INSERT →

(continued)

INSERT TO BASES FOR SR 3.3.2.2

SR 3.3.2.2 is modified by the following Note: The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the portions of the ACTUATION LOGIC TEST for Feedwater Isolation on P14 or SI that pass through the memories circuits for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

Vogtle Electric Generating Plant – Unit 2
Followup Written Request For Notice Of Enforcement Discretion And
Request To Revise Technical Specifications
Surveillance Requirements 3.3.1.5 and 3.3.2.2
On An Exigent Basis For Unit 2

ENCLOSURE 5

Typed Revised Technical Specification and Bases Pages

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.3.1.4	----------NOTE---------- This Surveillance must be performed on the reactor trip bypass breaker prior to placing the bypass breaker in service. ---------- Perform TADOT.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.5	----------NOTE---------- The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the test of the Power Range Block of the Source Range Neutron Flux Trip Block for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first. ---------- Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.1.6	----------NOTES---------- 1. Not required to be performed until 7 days after THERMAL POWER is ≥ 75% RTP. 2. Neutron detectors are excluded from CHANNEL CALIBRATION. ---------- Calibrate excore channels to agree with incore detector measurements.	92 EFPD

(continued)

SURVEILLANCE REQUIREMENTS (continued)

SURVEILLANCE		FREQUENCY
SR 3.3.1.7	----------NOTES---------- 1. For the Source Range Instrumentation this surveillance shall include verification that interlocks P-6 and P-10 are in their required state for existing unit conditions. 2. Not required to be performed for Source Range Instrumentation prior to entering MODE 3 from MODE 2 until 4 hours after entry into MODE 3. ---------- Perform COT.	92 days

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SURVEILLANCE REQUIREMENTS

----------NOTE----------
Refer to Table 3.3.2-1 to determine which SRs apply for each ESFAS Function.

	SURVEILLANCE	FREQUENCY
SR 3.3.2.1	Perform CHANNEL CHECK.	12 hours
SR 3.3.2.2	----------NOTE---------- The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the portions of the ACTUATION LOCIC TEST for Feedwater Isolation on P14 or SI that pass through the memories circuits for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first. --- Perform ACTUATION LOGIC TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.3	Perform MASTER RELAY TEST.	31 days on a STAGGERED TEST BASIS
SR 3.3.2.4	Perform COT.	92 days
SR 3.3.2.5	Perform SLAVE RELAY TEST.	18 months
SR 3.3.2.6	----------NOTE---------- Verification of setpoint not required for manual initiation functions. --- Perform TADOT.	18 months

(continued)

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.5 (continued)

SR 3.3.1.5 is modified by the following Note: The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the test of the Power Range Block of the Source Range Neutron Flux Trip Block for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

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BASES (continued)

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BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.2.1 (continued)

channels. It is based on the assumption that instrument channels monitoring the same parameter should read approximately the same value. Significant deviations between the two instrument channels could be an indication of excessive instrument drift in one of the channels or of something even more serious. A CHANNEL CHECK will detect gross channel failure; thus, it is key to verifying the instrumentation continues to operate properly between each CHANNEL CALIBRATION.

Agreement criteria are determined by the unit staff, based on a combination of the channel instrument uncertainties, including indication and reliability. If a channel is outside the criteria, it may be an indication that the sensor or the signal processing equipment has drifted outside its limit.

The Frequency is based on operating experience that demonstrates channel failure is rare. The CHANNEL CHECK supplements less formal, but more frequent, checks of channels during normal operational use of the displays associated with the LCO required channels.

SR 3.3.2.2

SR 3.3.2.2 is the performance of an ACTUATION LOGIC TEST. The SSPS is tested every 31 days on a STAGGERED TEST BASIS, using the semiautomatic tester. The train being tested is placed in the bypass condition, thus preventing inadvertent actuation. Through the semiautomatic tester, all possible logic combinations, with and without applicable permissives, are tested for each protection function. In addition, the master relay coil is pulse tested for continuity. This verifies that the logic modules are OPERABLE and that there is an intact voltage signal path to the master relay coils. The Frequency of every 31 days on a STAGGERED TEST BASIS is adequate. It is based on industry operating experience, considering instrument reliability and operating history data.

SR 3.3.2.2 is modified by the following Note: The surveillance interval for the Memories Test portion of the ACTUATION LOGIC TEST and the portions of the ACTUATION LOGIC TEST for Feedwater Isolation on P14 or SI that pass through the memories circuits for the Unit 2 Train B SSPS can be extended to the Unit 2 end-of-cycle 10 refueling outage or the next Unit 2 shutdown to MODE 5, whichever comes first.

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