Don E. Grissette Vice President Southern Nuclear Operating Company, Inc. 40 Inverness Center Parkway Post Office Box 1295 Birmingham, Alabama 35201

Tel 205.992.6474 Fax 205.992.0341

March 29, 2006



NL-06-0633

Docket No.: 50-425

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

Vogtle Electric Generating Plant Emergency Technical Specification Revision Request <u>Condensate Storage Tank</u>

Ladies and Gentlemen:

Pursuant to 10 CFR 50.90 and 10 CFR 50.91(a)(5), Southern Nuclear Operating Company (SNC), hereby requests an emergency amendment to Vogtle Electric Generating Plant (VEGP) Unit 2 Technical Specifications (TS). The proposed change to the TS contained herein revises Limiting Condition for Operation (LCO) 3.7.6, "Condensate Storage Tank (CST)" to require two CSTs to be OPERABLE and to increase the combined safety-related minimum volume. In addition, LCO 3.7.6, Condition A is revised to address the fact that an additional volume requirement is added to the LCO statement, and Required Action A.1 is revised to specify that the required volume(s) be restored to within limit(s). Surveillance Requirement (SR) 3.7.6.1 is revised to reflect the additional limit for CST volume. The change is applicable to Unit 2 only.

On March 20, 2006, control room operators received indication of an increase in radioactivity in the VEGP Unit 2 containment building. A robotic camera observed a leakage inside the bioshield wall in the area of the Train "A" Loop 1 inboard RHR loop suction isolation valve 2HV-8701B. Unit 2 was shutdown and placed in Mode 5 on March 22, 2006, in accordance with plant Technical Specifications. Since December 2005, this is the third shutdown due to RCS leakage from the bypass line around this valve.

In an effort to eliminate the potential for further leakage from this line, a design modification has been implemented that removed the bypass line from RCS Loop 1. The modification also removed the valve bonnet depressurization vent line. The bypass line was originally installed to provide a means to relieve pressure buildup between the inboard RHR valve (2HV-8701B) and the outboard RHR valve (2HV-8701A). Pressure buildup between the valves could hinder the ability to open these valves. In addition, the inboard valve bonnet depressurization vent line provided a means to relieve pressure within the valve to address concerns about pressure locking and thermal binding that could also hinder the ability to open the valve. The vent line was tied into the bypass line for this purpose.

U. S. Nuclear Regulatory Commission NL-06-0633 Page 2

In order to relieve sufficient pressure between the RHR loop suction isolation valves and in the bonnet of the inboard valve, a 12-hour delay is required before placing RHR Train "A" in service for performing a plant cooldown. During this time, cooling of the RCS is provided by the auxiliary feedwater (AFW) system. To achieve the necessary pressure reduction an additional three (3) hours, for a total of twelve (12) hours, is required prior to placing RHR Train "A" in service. Technical Specification (TS) 3.7.6, "Condensate Storage Tank (CST)" requires one CST to be OPERABLE with a safety-related volume of at least 340,000 gallons. To accommodate the additional three (3) hours of AFW cooling, the minimum required CST inventory must be increased from 340,000 gallons to 378,000 gallons. In order to ensure the required inventory, both CSTs will be required to be OPERABLE.

Pursuant to 10 CFR 50.91(a)(5), SNC finds that an emergency situation exists. The need for the additional CST inventory was identified late on March 25, 2006. The impact of the design change on CST inventory was unanticipated, and on March 28, 2006, it was determined that a change to the Technical Specifications was required. Therefore, this Technical Specification amendment is required in order to resume operation of the unit.

Enclosure 1 provides a description and justification for the proposed change. Enclosure 2 contains the 10 CFR 50.92 evaluation and the justification for the categorical exclusion from performing an environmental assessment. Enclosure 3 provides the marked-up Technical Specifications and Bases pages. Enclosure 4 provides the typed revised Technical Specifications and Bases pages.

SNC requests the NRC review and approve this amendment request by 0800 EST on March 30, 2006 to support entry of Unit 2 into Mode 3.

In accordance with the requirements of 10 CFR 50.91, a copy of this letter and all applicable enclosures will be sent to the designated State official of the Environmental Protection Division of the Georgia Department of Natural Resources.

(Affirmation and signature are on the following page.)

U. S. Nuclear Regulatory Commission NL-06-0633 Page 3

Mr. D. E. Grissette 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.

This letter contains no NRC commitments. If you have any questions, please advise.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY

D. E. Grissette

Swarn to and subscribed before me this 29th day of March, 2006. 12/17/08 commission expires:

DEG/RJF/daj

Enclosures: 1. Description of and Justification for Proposed Changes

- 2. 10 CFR 50.92 Significant Hazards Evaluation and Environmental Assessment
- 3. Marked-up Technical Specifications and Bases Pages
- 4. Typed Revised Technical Specifications and Bases Pages

cc: Southern Nuclear Operating Company

Mr. J. T. Gasser, Executive Vice President Mr. T. E. Tynan, General Manager – Plant Vogtle RType: CVC7000

<u>U. S. Nuclear Regulatory Commission</u> Dr. W. D. Travers, Regional Administrator Mr. C. Gratton, NRR Project Manager – Vogtle Mr. G. J. McCoy, Senior Resident Inspector – Vogtle

State of Georgia

Mr. L. C. Barrett, Commissioner - Department of Natural Resources

Vogtle Electric Generating Plant Emergency Technical Specification Revision Request Condensate Storage Tank

Description of and Justification for Proposed Changes

.

Vogtle Electric Generating Plant Emergency Technical Specification Revision Request Condensate Storage Tank

Description of Proposed Change

The proposed change to the TS contained herein revises Limiting Condition for Operation (LCO) 3.7.6, "Condensate Storage Tank (CST)" to require two CSTs to be OPERABLE and to increase the combined safety-related minimum volume. In addition, LCO 3.7.6, Condition A is revised to address the fact that an additional volume requirement is added to the LCO statement, and Required Action A.1 is revised to specify that the required volume(s) be restored to within limit(s). Surveillance Requirement (SR) 3.7.6.1 is revised to reflect the additional limit for CST volume. The change is applicable to Unit 2 only.

On March 20, 2006, control room operators received indication of an increase in radioactivity in the VEGP Unit 2 containment building. A robotic camera observed a leakage inside the bioshield wall in the area of the Train "A" Loop 1 inboard RHR loop suction isolation valve 2HV-8701B. Unit 2 was shutdown and placed in Mode 5 on March 22, 2006, in accordance with plant Technical Specifications. Since December 2005, this is the third shutdown due to RCS leakage from the bypass line around this valve.

In an effort to eliminate the potential for further leakage from this line, a design modification has been implemented that removed the bypass line from RCS Loop 1. The modification also removed the valve bonnet depressurization vent line. The bypass line was originally installed to provide a means to relieve pressure buildup between the inboard RHR valve (2HV-8701B) and the outboard RHR valve (2HV-8701A). Pressure buildup between the valves could hinder the ability to open these valves. In addition, the inboard valve bonnet depressurization vent line provided a means to relieve pressure within the valve to address concerns about pressure locking and thermal binding that could also hinder the ability to open the valve. The vent line was tied into the bypass line for this purpose.

In order to relieve sufficient pressure between the RHR loop suction isolation valves and in the bonnet of the inboard valve, a 12-hour delay is required before placing RHR Train "A" in service for performing a plant cooldown. During this time, cooling of the RCS is provided by the auxiliary feedwater (AFW) system. To achieve the necessary pressure reduction an additional three (3) hours, for a total of twelve (12) hours, is required prior to placing RHR Train "A" in service. Technical Specification (TS) 3.7.6, "Condensate Storage Tank (CST)" requires one CST to be OPERABLE with a safety-related volume of at least 340,000 gallons. To accommodate the additional three (3) hours of AFW cooling, the minimum required CST inventory must be increased from 340,000 gallons to 378,000 gallons. In order to ensure the required inventory, both CSTs will be required to be OPERABLE.

Alignment of the CSTs will be controlled by plant procedures including the process for swapping from one CST to the other. Plant procedures will also ensure that a combined active volume of at least 378,000 gallons is available.

Basis for proposed Change

Technical Specification (TS) 3.7.6, "Condensate Storage Tank (CST)" requires one CST to be OPERABLE with a safety-related volume of at least 340,000 gallons. To accommodate the additional three (3) hours of AFW cooldown, the minimum required

CST inventory must be increased from 340,000 gallons to 378,000 gallons. In order to ensure the required inventory, both CSTs will be required to be OPERABLE.

For Unit 2 only, two CSTs will be required to be OPERABLE with a combined safetyrelated volume of \geq 378,000 gallons, and the CST aligned to supply the auxiliary feedwater pumps shall have a safety-related volume \geq 340,000 gallons. The basis for requiring an additional 38,000 gallons of safety-related usable CST inventory is to support the elimination of the bypass line and associated valve bonnet depressurization line for the 2HV-8701B RHR suction isolation valve. The elimination of the bypass line and valve bonnet depressurization line requires an additional three hours for a total of 12 hours prior to placing RHR Train A in service. The additional time ensures that the 2HV-8701B valve bonnet and the space between the 2HV-8701B and 2HV-8701A RHR suction isolation valves have depressurized sufficiently to allow the suction isolation valves to be opened.

The amount of CST inventory needed to account for the integrated decay heat for 3 additional hours in Mode 3 (for a total of 7 hours) is 33,500 gallons, and the amount of CST inventory needed to address RCP heat for 3 additional hours in Mode 3 (for a total of 7 hours) is 6,600 gallons for a total of 40,100 gallons (33,500 + 6,600).

The additional inventory of 40,100 gallons was added to the current amount of $336,090^*$ gallons for a total of 376,190 gallons (336,090 + 40,100). The inventory of 376,190 gallons was rounded up to 378,000 gallons for the value to be included in the Technical Specifications.

*Note that the current Technical Specification value of 340,000 gallons was determined by rounding up the calculated value of 336,090 gallons.

Need for the Technical Specification Change

The proposed change to the VEGP Unit 2 Technical Specifications 3.7.6 is needed to support the resumption of operation of VEGP Unit 2. The change ensures that adequate CST inventory to maintain the unit in Mode 3 for an additional three hours prior to placing the RHR system in service to continue plant cooldown.

Regulatory Analysis

The CSTs support the operation of the auxiliary feedwater (AFW) system. Acceptability of the design of the auxiliary feedwater system is based on specific general design criteria and regulatory guides:

- 1. General Design Criteria (GDC) 2, as related to structures housing the system and the system itself being capable of withstanding the effects of earthquakes. Acceptability is based on meeting position C.1 of Regulatory Guide 2.9 for safety-related portions and position C.2 for nonsafety-related portions. The proposed changes involving the increase of the minimum required CST inventory has no impact on the ability of the CSTs to withstand the effects of earthquakes.
- 2. GDC 4, with respect to structures housing the system and the system itself being capable of withstanding the effects of external missiles and internally generated missiles, pipe whip, and jet impingement forces associated with pipe breaks. The proposed changes involving the increase of the minimum required CST inventory has no impact on the ability of the CSTs to withstand the effects of external missiles and internally generated missiles, pipe whip, and jet impingement forces associated with pipe breaks.
- 3. GDC 5, as related to the capability of shared systems and components important to safety to perform required safety functions. The proposed changes involving the increase of the minimum required CST volume does not adversely impact the ability of the CSTs to perform their safety function to support the operation of the AFW system.
- 4. GDC 19, as related to the design capability of system instrumentation and controls for prompt hot shutdown of the reactor and potential capability for subsequent cold shutdown. Acceptance is based on meeting Branch Technical Position RSB 5-1 with regards to cold shutdown from the control room using only safety grade equipment. The proposed changes involving the increase of the minimum required CST inventory does not adversely impact the ability to achieve cold shutdown from the control room using safety grade equipment. Only the minimum required volume is increased, the CSTs remain safety grade components.
- 5. GDC 34 and 44, to assure:
 - a. The capability to transfer heat loads from the reactor system to a heat sink under both normal operating and accident conditions. Increasing the minimum required volume of the CSTs ensures that this capability is maintained.
 - b. Redundancy of components so that under accident conditions the safety function can be performed assuming a single active component failure. The CSTs are passive components, and all trains of the AFW system are aligned to one CST at a time while in standby. There is no single active failure of a CST that would affect redundancy of the AFW system. The proposed change to increase the minimum required CST volume has no effect on redundancy.
 - c. The capability to isolate components, subsystems, or piping if required so that the system safety function will be maintained. The proposed changes involving the increase to the minimum required CST inventory has no effect on the capability to isolate associate components, subsystems or piping.
 - d. The proposed changes involving the increase to the minimum required CST inventory should have no adverse impact on the reliability of the AFW system.

- 6. GDC 45, as related to design provisions made to permit periodic inservice inspection of system components and equipment. The proposed changes involving the increase to the minimum required CST inventory will have no effect on design provisions for periodic inservice inspection.
- 7. GDC 46, as related to design provisions made to permit appropriate functional testing of the system and components to assure structural integrity and leak-tightness, operability and performance of active components, and capability of the integrated system to function as intended during normal, shutdown, and accident conditions. The proposed changes involving the increase to the minimum required CST inventory has no effect on the capability to perform functional testing of the AFW system.

Vogtle Electric Generating Plant Emergency Technical Specification Revision Request Condensate Storage Tank

10 CFR 50.92 Significant Hazards Evaluation and Environmental Assessment

Vogtle Electric Generating Plant Emergency Technical Specification Revision Request Condensate Storage Tank

Description of Proposed Change

The proposed change to the TS contained herein revises Limiting Condition for Operation (LCO) 3.7.6, "Condensate Storage Tank (CST)" to require two CSTs to be OPERABLE and to increase the combined safety-related minimum volume. In addition, LCO 3.7.6, Condition A is revised to address the fact that an additional volume requirement is added to the LCO statement, and Required Action A.1 is revised to specify that the required volume(s) be restored to within limit(s). Surveillance Requirement (SR) 3.7.6.1 is revised to reflect the additional limit for CST volume. The change is applicable to Unit 2 only.

On March 20, 2006, control room operators received indication of an increase in radioactivity in the VEGP Unit 2 containment building. A robotic camera observed a leakage inside the bioshield wall in the area of the Train "A" Loop 1 inboard RHR loop suction isolation valve 2HV-8701B. Unit 2 was shutdown and placed in Mode 5 on March 22, 2006, in accordance with plant Technical Specifications. Since December 2005, this is the third shutdown due to RCS leakage from the bypass line around this valve.

In an effort to eliminate the potential for further leakage from this line, a design modification has been implemented that removed the bypass line from RCS Loop 1. The modification also removed the valve bonnet depressurization vent line. The bypass line was originally installed to provide a means to relieve pressure buildup between the inboard RHR valve (2HV-8701B) and the outboard RHR valve (2HV-8701A). Pressure buildup between the valves could hinder the ability to open these valves. In addition, the inboard valve bonnet depressurization vent line provided a means to relieve pressure within the valve to address concerns about pressure locking and thermal binding that could also hinder the ability to open the valve. The vent line was tied into the bypass line for this purpose.

In order to relieve sufficient pressure between the RHR loop suction isolation valves and in the bonnet of the inboard valve, a 12-hour delay is required before placing RHR Train "A" in service for performing a plant cooldown. During this time, cooling of the RCS is provided by the auxiliary feedwater (AFW) system. To achieve the necessary pressure reduction an additional three (3) hours, for a total of twelve (12) hours, is required prior to placing RHR Train "A" in service. Technical Specification (TS) 3.7.6, "Condensate Storage Tank (CST)" requires one CST to be OPERABLE with a safety-related volume of at least 340,000 gallons. To accommodate the additional three (3) hours of AFW cooling, the minimum required CST inventory must be increased from 340,000 gallons to 378,000 gallons. In order to ensure the required inventory, both CSTs will be required to be OPERABLE.

Alignment of the CSTs is controlled by plant procedures including the process for swapping from one CST to the other. Plant procedures also ensure that a combine active volume of at least 378,000 gallons is available.

10 CFR 50.92 Significant Hazards Evaluation

In 10 CFR 50.92(c), the Nuclear Regulatory Commission (NRC) provides the following standards to be used in determining the existence of a significant hazards consideration:

...a proposed amendment to an operating license for a facility licensed under 50.21(b) or 50.22, or for a testing facility involves no significant hazards consideration, if operation of the facility in accordance with the proposed amendment would not: (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) Involve a significant reduction in the margin of safety.

Southern Nuclear Operating Company (SNC) has reviewed the proposed amendment request and determined that its adoption does not involve a significant hazards consideration based upon the following discussion:

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

In order to relieve sufficient pressure between the RHR loop suction isolation valves and in the bonnet of the inboard valve, a 12-hour delay is required before placing RHR Train "A" in service for performing a plant cooldown. During this time, cooling of the RCS is provided by the auxiliary feedwater (AFW) system. To achieve the necessary pressure reduction an additional three (3) hours, for a total of twelve (12) hours, is required prior to placing RHR Train "A" in service. Technical Specification (TS) 3.7.6, "Condensate Storage Tank (CST)" requires one CST to be OPERABLE with a safety-related volume of at least 340,000 gallons. To accommodate the additional three (3) hours of AFW cooling, the minimum required CST inventory must be increased from 340,000 gallons to 378,000 gallons. In order to ensure the required inventory, both CSTs will be required to be OPERABLE. The proposed change continues to ensure that the accident analysis assumptions continue to be met. In addition, the proposed does not result in any functional change to any systems, structures, or components and has no impact on any assumed initiator of any analyzed accident.

Therefore, based on the conclusions of the above analysis, 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 previously evaluated?

In order to relieve sufficient pressure between the RHR loop suction isolation valves and in the bonnet of the inboard valve, a 12-hour delay is required before placing RHR Train "A" in service for performing a plant cooldown. During this time, cooling of the RCS is provided by the auxiliary feedwater (AFW) system. To achieve the necessary pressure reduction an additional three (3) hours, for a total of twelve (12) hours, is required prior to placing RHR Train "A" in service.

Technical Specification (TS) 3.7.6, "Condensate Storage Tank (CST)" requires one CST to be OPERABLE with a safety-related volume of at least 340,000 gallons. To accommodate the additional three (3) hours of AFW cooling, the minimum required CST inventory must be increased from 340,000 gallons to 378,000 gallons. In order to ensure the required inventory, both CSTs will be required to be OPERABLE. The proposed change continues to ensure that the accident analysis assumptions continue to be met. In addition, the proposed does not result in any functional change to any systems, structures, or components.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

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

In order to relieve sufficient pressure between the RHR loop suction isolation valves and in the bonnet of the inboard valve, a 12-hour delay is required before placing RHR Train "A" in service for performing a plant cooldown. During this time, cooling of the RCS is provided by the auxiliary feedwater (AFW) system. To achieve the necessary pressure reduction an additional three (3) hours, for a total of twelve (12) hours, is required prior to placing RHR Train "A" in service. Technical Specification (TS) 3.7.6, "Condensate Storage Tank (CST)" requires one CST to be OPERABLE with a safety-related volume of at least 340,000 gallons. To accommodate the additional three (3) hours of AFW cooling, the minimum required CST inventory must be increased from 340,000 gallons to 378,000 gallons. In order to ensure the required inventory, both CSTs will be required to be OPERABLE. The proposed change continues to ensure that the accident analysis assumptions continue to be met. In addition, the proposed does not result in any functional change to any systems, structures, or components.

Therefore, the proposed change does not involve a significant decrease in the margin of safety.

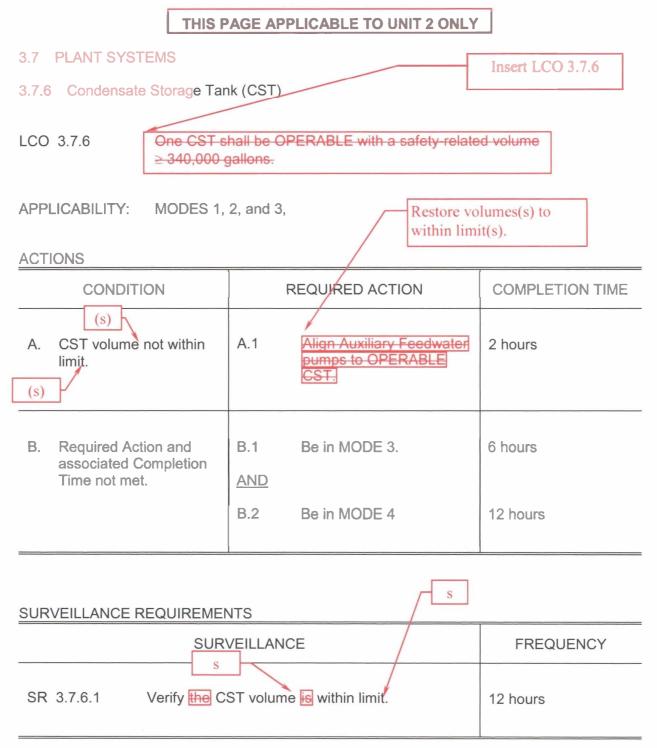
Environmental Assessment

Southern Nuclear has evaluated the proposed changes and determined the changes do not involve (1) a significant hazards consideration, (2) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (3) a significant increase in the individual or cumulative occupational exposure. Accordingly, the proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9), and an environmental assessment of the proposed changes is not required.

Vogtle Electric Generating Plant Emergency Technical Specification Revision Request Condensate Storage Tank

Marked-up Technical Specifications and Bases Pages

CST



LCO 3.7.6 INSERT

Two CSTs shall be OPERABLE with:

- a. A combined safety-related volume of \geq 378,000 gallons; and
- b. The CST aligned to supply the auxiliary feedwater pumps shall have a safety-related volume \geq 340,000 gallons.

BASES	THIS PAGE APPLICABLE TO UNIT 2 ONLY
LCO (continued)	established in Reference 4 and exceeds the volume required by the accident analysis.
	The OPERABILITY of the CST is determined by maintaining the tank level at or above the minimum required level. Either CST V4001 or CST V4002 may be used to satisfy the LCO requirement.
INSERT FOR LCO 3.7.6	For Unit 2 only, two CSTs are required to be OPERABLE with a combined safety-related volume of ≥ 378,000 gallons, and the CST aligned to supply the auxiliary feedwater pumps shall have a safety-related volume ≥ 340,000 gallons. The basis for requiring an additional 38,000 gallons of safety-related usable CST inventory is to support the elimination of the bypass line and associated valve bonnet depressurization line for the 2HV-8701B RHR suction isolation valve. The elimination of the bypass line and valve bonnet depressurization line requires an additional 3 hours for a total of 12 hours prior to placing RHR Train A in service. The additional time ensures that the 2HV-8701B valve bonnet and the space between the 2HV-8701B and 2HV-8701A RHR suction isolation valves have depressurized sufficiently to allow the suction isolation valves to be opened.

ľ

APPLICABILITY	In MODES 1, 2, and 3, the CST is required to be OPERABLE.
	Due to the reduced heat removal requirements and short period of time in MODE 4 and the availability of RHR in MODE 4, the LCO does not require a CST to be OPERABLE in this MODE.
	In MODE 5 or 6, the CST is not required because the AFW System is not required.

(continued)

BASES (continued)

ACTIONS

A.1 and A.2

ACTIONS	<u>A. Land A. Z</u>
	If the required CST volume is not within limit, the Completion Fime of 2 hours provides sufficient time for the three AFW pumps to be aligned to the OPERABLE CST. This Completion Time is acceptable based on: 1) Operating experience to perform the required valve operations; 2) The ACTIONS being entered as soon as the CST level decreased below the limit, which would most probably leave sufficient capacity in the inoperable CST to support AFW pump operation for at least the 2 hour Completion Time; and 3) The low probability of an event occurring during this interval that would require the CST to be fully OPERABLE.
	<u>B 1 and B.2</u> If the AFW pumps cannot be aligned to an OPERABLE CST within the required Completion Time, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours, and in MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.
SURVEILLANCE REQUIREMENTS	SR 3.7.6.1 s CST V4001 (LI-5101 and LI-5111A) CST V4002 (LI-5104 and LI-5116A) s This SR verifies that the CST contains the required volume of cooling water. The 12 hour Frequency is based on operating experience and the need for operator awareness of unit evolutions that may affect the CST inventory between checks. Also, the 12 hour Frequency is considered adequate in view of other indications in the control room, including alarms, to alert the operator to abnormal deviations in the CST level.
	If one or both of the CST volumes are not within limits, the volume(s) must be restored to within limits within 2 hours. This Completion Time is acceptable based on : 1) The ACTIONS being entered as soon as the CST level(s) decreased below limit(s), which would provide reasonable assurance of at least sufficient capacity to support AFW operation for at least the 2 hour Completion Time; and 2) The low probability of an event occurring during this interval that would require the CSTs to be fully OPERABLE.



CST B 3.7.6

Vogtle Electric Generating Plant Emergency Technical Specification Revision Request Condensate Storage Tank

Typed Revised Technical Specifications and Bases Pages

3.7 PLANT SYSTEMS

- 3.7.6 Condensate Storage Tank (CST)
- LCO 3.7.6 Two CSTs shall be OPERABLE with:
 - a. A combined safety-related volume of \geq 378,000 gallons; and
 - b. The CST aligned to supply the auxiliary feedwater pumps shall have a safety-related volume ≥ 340,000 gallons.

APPLICABILITY: MODES 1, 2, and 3,

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. CST volume(s) not within limit(s).	A.1 Restore volume(s) to within limit(s).	2 hours
B. Required Action and associated Completion Time not met.	B.1 Be in MODE 3.	6 hours
	B.2 Be in MODE 4	12 hours

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.7.6.1	Verify CST volumes within limits.	12 hours

BASES	
LCO (continued)	established in Reference 4 and exceeds the volume required by the accident analysis.
	The OPERABILITY of the CST is determined by maintaining the tank level at or above the minimum required level. Either CST V4001 or CST V4002 may be used to satisfy the LCO requirement.
	For Unit 2 only, two CSTs are required to be OPERABLE with a combined safety-related volume of ≥ 378,000 gallons, and the CST aligned to supply the auxiliary feedwater pumps shall have a safety-related volume ≥ 340,000 gallons. The basis for requiring an additional 38,000 gallons of safety-related usable CST inventory is to support the elimination of the bypass line and associated valve bonnet depressurization line for the 2HV-8701B RHR suction isolation valve. The elimination of the bypass line and valve bonnet depressurization line requires an additional 3 hours for a total of 12 hours prior to placing RHR Train A in service. The additional time ensures that the 2HV-8701B valve bonnet and the space between the 2HV-8701B and 2HV-8701A RHR suction isolation valves have depressurized sufficiently to allow the suction isolation valves to be opened.
APPLICABILITY	In MODES 1, 2, and 3, the CST is required to be OPERABLE.

Due to the reduced heat removal requirements and short period of time in MODE 4 and the availability of RHR in MODE 4, the LCO does not require a CST to be OPERABLE in this MODE.

In MODE 5 or 6, the CST is not required because the AFW System is not required.

BASES (continued)

ACTIONS <u>A.1 and A.2</u>

If one or both of the CST volumes are not within limits, the volume(s) must be restored to within limits within 2 hours. This Completion Time is acceptable based on : 1) The ACTIONS being entered as soon as the CST level(s) decreased below limit(s), which would provide reasonable assurance of at least sufficient capacity to support AFW operation for at least the 2 hour Completion Time; and 2) The low probability of an event occurring during this interval that would require the CSTs to be fully OPERABLE.

B.1 and B.2

If the AFW pumps cannot be aligned to an OPERABLE CST within the required Completion Time, the unit must be placed in a MODE in which the LCO does not apply. To achieve this status, the unit must be placed in at least MODE 3 within 6 hours, and in MODE 4 within 12 hours. The allowed Completion Times are reasonable, based on operating experience, to reach the required unit conditions from full power conditions in an orderly manner and without challenging unit systems.

SURVEILLANCE	
REQUIREMENTS	

<u>SR_3.7.6.1</u>

CST V4001 (LI-5101 and LI-5111A) CST V4002 (LI-5104 and LI-5116A)

This SR verifies that the CSTs contain the required volumes of cooling water. The 12 hour Frequency is based on operating experience and the need for operator awareness of unit evolutions that may affect the CST inventory between checks. Also, the 12 hour Frequency is considered adequate in view of other indications in the control room, including alarms, to alert the operator to abnormal deviations in the CST level.