

COND G (21) Power > P-6 and < P-10 and 2 intermediate range channels inop

G.1 Suspend positive reactivity additions immediately
AND
G.2 Reduce Power < P-6 in 2 hours

F1 Reduce Power < P-6
OR
F2 Increase Power > P-10 IN 2 hours (21)

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

INTERMEDIATE RANGE INSTRUMENTATION

ACTION 3 - With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:

(22) COND H ONE OR TWO CHANNELS INOP Power < P6
Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and

(21) COND F ONE CHANNEL INOP Power > P-6 and < P-10
Above the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint but below 10% of RATED THERMAL POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 10% of RATED THERMAL POWER.

ACTION 4 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, suspend all operations involving positive reactivity changes.

(23) COND K ACTION 5
With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or open the Reactor Trip System breakers, suspend all operations involving positive reactivity changes, and verify valves 1200 U4 175, 1200 U4 177, 1200 U4 182, and 1200 U4 176 are closed and secured in position within the hour.

(61b) used to isolate unborated water sources

(61) LCO 3.3.8

(24) COND J With no channels OPERABLE, open the Reactor Trip Breakers, suspend all operations involving positive reactivity changes, and verify compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.1 or 3.1.1.2, as applicable, within 4 hour and every 12 hours thereafter. Verify valves 1200 U4 175, 1200 U4 177, 1200 U4 182, and 1200 U4 176 are closed and secured in position every 14 days.

COND L With the required channels inoperable

NOTE: Enter applicable Conditions and Required Actions of LCO 3.3.8 for HFASA channels made inoperable.

(61) LCO 3.3.8

ACTION 6 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:

(18) COND E (SEE INSERT 1)

(25) COND M

(26) COND M

(28) COND O

(27) COND N

a. The inoperable channel is placed in the tripped condition within 6 hours, and

(13) The Minimum Channels OPERABLE requirement is met; however, a channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1

ACTION 7 - With the number of OPERABLE Channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 6 hours or be in at least HOT STANDBY within the next 6 hours; however one channel may be bypassed for up to 4 hours for surveillance testing per Specification 4.3.1.1, provided the other channel is operable.

(30) COND Q one channel inoperable

(13) NOTE IN COND. Q

The following pages should be
inserted behind the
Enclosure 2 tab for Chapter 3.3, Volume 3.

3/4.3.1 RTS INSTRUMENTATION

<u>CHANGE NUMBER</u>	<u>SHE</u>	<u>DISCUSSION</u>
		functions appear on Table 3.3.1-1. This change is administrative and consistent with NUREG-1431.
59	A	An individual annotation for response time testing is made to each instrument function for which a response time is required. The ITS SR number for response time is included in the list of SRs for each function that requires this test. This change is administrative and is consistent with NUREG-1431.
60	A	Notes 1 and 4 of the VTS are incorporated into the individual SRs where appropriate in the ITS. This change is administrative and is consistent with NUREG-1431.
61	LG	In addition to the trip and neutron monitoring function, the source range high flux at shutdown alarm (HFASA) is used to mitigate an inadvertent boron dilution event by providing timely notification to the plant operator. The LCO, actions, and surveillance requirements associated with this function have been moved to a separate VEGP specific LCO 3.3.8, consistent with the intent of NUREG-1431 as expressed in the NUREG-1431 LCO Boron Dilution Protection System. VEGP does not have the Boron Dilution Protection System and relies instead on the alarm provided by the HFASA. The setpoint for the HFASA will be located in the Bases for LCO 3.3.8.
61a	A	The new Condition L for Source Range Instrumentation in Modes 3, 4, and 5 with RTBs open is modified by a VEGP specific Note that refers the user to LCO 3.3.8, High Flux at Shutdown Alarm (HFASA). The addition of this Note is consistent with other NUREG-1431 Notes in the Plant Systems and Electrical Chapters that require entry into other LCOs when inoperable systems or components in the current LCO affect Systems or components of another LCO. In this case, the Source Range Instrument Channels are required operable to support the HFASA channels.
61b	LS8a	The existing VEGP TS contain the requirement that valves 1208-U4-175, 1208-U4-176, 1208-U4-177, and 1208-U4-183 be closed

3/4.3.1 RTS INSTRUMENTATION

CHANGE
NUMBER

SHE

DISCUSSION

and secured in position whenever the RCS is in Mode 5 with the loops not filled, Mode 6, and whenever less than the required source range instrumentation is operable. NUREG-1431 does not specify which valves must be closed, but rather that any valve used to isolate unborated water sources be closed and secure in position. It is implicit that the applicable valves are specified in plant procedures. VEGP proposes to adopt the NUREG-1431 requirements for isolating unborated water sources. This is a less restrictive change because the TS will no longer be specific as to which valves must be used to isolate unborated water sources. However, the change is acceptable because plant procedures will require that at least one valve in each flowpath from the reactor makeup water storage tank (RMWST) (the RMWST is the unborated water source at VEGP) to the suction of each charging pump be closed and secured in position. Administrative controls will ensure that these valves are maintained closed when required. The fact that the TS will continue to require that the isolation valves be secured in position will ensure that the valves are not inadvertently opened. The existing VEGP TS requirements are overly restrictive on two counts:

1. Other valves besides the four specified in the TS can be used to effectively isolate the RMWST.
2. The four valves specified provide double isolation of each flowpath. This double isolation coupled with the requirement that each valve be secured in position would effectively require four operator errors to result in an unisolated flowpath. That is, the means used to secure the valves in position would have to be removed from both valves and both valves would have to be opened.

An acceptable level of safety is provided by requiring at least one valve in each flowpath be closed, coupled with the requirement that the valve(s) be secured in position and the administrative controls associated with securing the valve(s) in position.

3/4.3.1 RTS INSTRUMENTATION

<u>CHANGE NUMBER</u>	<u>SHE</u>	<u>DISCUSSION</u>
62	LS16a	The "Applicable Modes" for the Reactor Trip System Interlocks P-7, P-8, P-9, P-10 and P-13 have been modified by footnotes that specify the applicability for the interlocks as above the respective interlocks.

The following pages should be
inserted behind the
Enclosure 3 tab for Chapter 3.3, Volume 3.

IV. SPECIFIC SIGNIFICANT HAZARDS EVALUATIONS

RTS "LS8a"

The existing VEGP TS contain the requirement that valves 1208-U4-175, 1208-U4-176, 1208-U4-177, and 1208-U4-183 be closed and secured in position whenever the RCS is in Mode 5 with the loops not filled, Mode 6, and whenever less than the required source range instrumentation is operable. NUREG-1431 does not specify which valves must be closed, but rather that any valve used to isolate unborated water sources be closed and secure in position. It is implicit that the applicable valves are specified in plant procedures. VEGP proposes to adopt the NUREG-1431 requirements for isolating unborated water sources. This is a less restrictive change because the TS will no longer be specific as to which (or how many) valves must be used to isolate unborated water sources. However, the change is acceptable because plant procedures will require that at least one valve in each flowpath from the reactor makeup water storage tank (RMWST) (the RMWST is the unborated water source at VEGP) to the suction of each charging pump be closed and secured in position. Administrative controls will ensure that these valves are maintained closed when required. The fact that the TS will continue to require that the isolation valves be secured in position will ensure that the valves are not inadvertently opened. The existing VEGP TS requirements are overly restrictive on two counts:

1. Other valves besides the four specified in the TS can be used to effectively isolate the RMWST.
2. The four valves specified provide double isolation of each flowpath. This double isolation, coupled with the requirement that each valve be secured in position would effectively require four operator errors to result in an unisolated flowpath. That is, the means used to secure the valves in position would have to be removed from both valves, and both valves would have to be opened.

An acceptable level of safety is provided by requiring at least one valve in each flowpath be closed coupled with the requirement that the valve(s) be secured in position and the administrative controls associated with securing the valve(s) in position.

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

The new requirement for isolating unborated water sources will continue to provide an acceptable level of safety. Requiring at least one valve in each flowpath to be closed and secured coupled with appropriate administrative controls will continue to ensure that the RMWST is isolated when required, thereby precluding an unplanned boron dilution event. Therefore, there will not be a significant increase in the probability of an unplanned dilution event, and, since the unplanned dilution is precluded, no increase in the consequences.

IV. SPECIFIC SIGNIFICANT HAZARDS EVALUATIONS

RTS
"LS8a"
(continued)

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

The proposed change does not involve any new equipment or changes in the way the plant is operated. Therefore, the proposed change will 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 proposed change will continue to provide adequate assurance that unborated water sources will be isolated when required. The existing VEGP TS requirements were unnecessarily prescriptive. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The following page replaces the
corresponding page behind the
Enclosure 1 tab for Chapter 3.4, Volume 4.

3.4 REACTOR COOLANT SYSTEM (RCS)

RCS Loops - MODE 5

3.4.8 ~~COLD SHUTDOWN~~ LOOPS NOT FILLED

Each valve used to isolate unborated sources shall be secured in the closed position.

LIMITING CONDITION FOR OPERATION

LCO 3.4.8 ~~3.4.1.4.2~~ Two ^{loop} residual heat removal (RHR) ^{loops} shall be OPERABLE* and at least one RHR ~~train~~ shall be in operation.** ~~Reactor Makeup Water Storage Tank (RMWST) discharge valves (1200 U4 175, 1200 U4 176#, 1200 U4 177# and 1200 U4 183) shall be closed and secured in position.~~

APPLICABILITY: MODE 5 with ~~reactor coolant~~ RCS loops not filled.

ACTION:

a. With ~~less than the above required RHR trains OPERABLE~~, immediately initiate corrective action to return the required RHR ~~trains~~ to OPERABLE status, ~~as soon as possible~~.

b. With ~~no RHR train~~ in operation, suspend all operations involving a reduction in boron concentration of the Reactor Coolant System and immediately initiate corrective action to return the required RHR ~~train~~ to operation.

c. With ~~the Reactor Makeup Water Storage Tank (RMWST) discharge valves (1200 U4 175, 1200 U4 176#, 1200 U4 177#, and 1200 U4 183) not closed and secured in position~~, immediately close and secure in position the ~~RMWST discharge valves~~.

SURVEILLANCE REQUIREMENTS

4.4.1.4.2.1 At least one RHR train shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.

4.4.1.4.2.2 ~~Valves 1200 U4 175, 1200 U4 176#, 1200 U4 177#, and 1200 U4 183 shall be verified closed and secured in position by mechanical stops, at least once per 31 days.~~

Verify each valve that isolates unborated water sources is secured in the closed position

*One RHR train may be inoperable for up to 2 hours for surveillance testing provided the other RHR train is OPERABLE and in operation.

**The RHR pump may be deenergized for ^{≤ 15 minutes} up to 1 hour provided: (1) no operations are permitted that would cause dilution of the ~~Reactor Coolant System~~ boron concentration, and (2) core outlet temperature is maintained at least 10°F below saturation temperature and (3) no draining operations to further reduce the RCS water volume are permitted.

~~RMWST discharge valves 1200 U4 176 and 1200 U4 177 may be open under administrative control provided the Reactor Coolant System is in compliance with the SHUTDOWN MARGIN requirements of Specification 3.1.1.2 and the high flux at shutdown alarm is OPERABLE with a setpoint of 2.30 times background in accordance with Note 9 of Table 4.3.1.~~

Valves in the flowpath from the RMWST through the chemical mixing tank, to the suction of the charging pumps

The following pages replace the
corresponding pages behind the
Enclosure 2 tab for Chapter 3.4, Volume 4.

<u>CHANGE NUMBER</u>	<u>SHE</u>	<u>DISCUSSION</u>
		reformatted to conform to NUREG-1431, LCO 3.4.8.
15a	LS15	Existing VTS SR 4.4.1.4.2.2 would be revised to delete the words "in position by mechanical stops." It is sufficient to require that the valves be closed and secured. It is not necessary to further specify that they be secured by mechanical stops. The method of securing the valves closed is not material so long as they are secured.
15b	LS22	The requirement in existing VEGP TS 3/4.4.1.4.2 to isolate unborated water sources is retained in VEGP ITS LCO 3.4.8. The format of the LCO, actions, and surveillance requirements is being changed to be consistent with the format for the same requirement in VEGP ITS LCO 3.9.2. The applicable valve(s) will be listed in plant procedures. Note # in existing VEGP TS 3/4.4.1.4.2 would be revised to be consistent with the Note modifying VEGP LCO 3.9.2. The requirement is necessary to preclude a boron dilution event in Mode 5 with the RCS loops not filled as described in VEGP FSAR Section 15.4.6, while allowing use of the flowpath through the chemical mixing tank under administrative control. This change was determined to be less restrictive as described in SHE LS22.
16	M	Existing VEGP TS Note ** to LCO 3.4.1.4.2 would be revised to conform to Note 1 of NUREG-1431, LCO 3.4.8.
16a	LG	Reference to the setpoint of the High Flux at Shutdown Alarm (HFASA) is moved into the bases of the new HFASA LCO 3.3.8. The requirement to be operable remains in the TS. The discussion of operability for this alarm is in the Bases of the associated LCO (3.3.8) which is consistent with the conventions of NUREG-1431 for locating the details of a system's operability.
17	A	Existing VEGP TS 3/4.4.3, "Reactor Coolant System - Pressurizer," would be revised and reformatted to conform to NUREG-1431, LCO 3.4.9.
17a	M	Consistent with NUREG-1431 the Pressurizer LCO 3.4.3 requirements for the pressurizer heaters are modified to require that two heater groups are capable of being

<u>CHANGE NUMBER</u>	<u>SHE</u>	<u>DISCUSSION</u>
18	LS16	<p>powered by an emergency bus. This is a more restrictive requirement than currently licensed for VEGP.</p> <p>The surveillance interval for existing VTS SR 4.4.3.2 would be revised from 92 days to 18 months. This is based on the recommendations of Generic Letter 93-05, "Line-Item Technical Specifications Improvements to Reduce Surveillance Requirements for Testing During Power Operation." VEGP does not use dedicated safety related pressurizer heaters to maintain core subcooling during the long term following a loss of offsite power per NUREG-0737. Instead, two of the four groups of pressurizer heaters are powered from non-Class 1E 480 V buses that are in turn directly fed from the Class 1E 4.16 kV buses. The feeder breakers automatically open on a safety injection</p>

The following pages should be
inserted behind the
Enclosure 3 tab for Chapter 3.4, Volume 4.

IV. SPECIFIC SIGNIFICANT HAZARDS EVALUATIONS 'LS22"

The existing VEGP TS contain the requirement that valves 1208-U4-175, 1208-U4-176, 1208-U4-177, and 1208-U4-183 be closed and secured in position whenever the RCS is in Mode 5 with the loops not filled, Mode 6, and whenever less than the required source range instrumentation is operable. NUREG-1431 does not specify which valves must be closed, but rather that any valve used to isolate unborated water sources be closed and secure in position. It is implicit that the applicable valves are specified in plant procedures. VEGP proposes to adopt the NUREG-1431 requirements for isolating unborated water sources. This is a less restrictive change because the TS will no longer be specific as to which (or how many) valves must be used to isolate unborated water sources. However, the change is acceptable because plant procedures will require that at least one valve in each flowpath from the reactor makeup water storage tank (RMWST) (the RMWST is the unborated water source at VEGP) to the suction of each charging pump be closed and secured in position. Administrative controls will ensure that these valves are maintained closed when required. The fact that the TS will continue to require that the isolation valves be secured in position will ensure that the valves are not inadvertently opened. The existing VEGP TS requirements are overly restrictive on two counts:

1. Other valves besides the four specified in the TS can be used to effectively isolate the RMWST.
2. The four valves specified provide double isolation of each flowpath. This double isolation, coupled with the requirement that each valve be secured in position would effectively require four operator errors to result in an unisolated flowpath. That is, the means used to secure the valves in position would have to be removed from both valves, and both valves would have to be opened.

An acceptable level of safety is provided by requiring at least one valve in each flowpath be closed coupled with the requirement that the valve(s) be secured in position and the administrative controls associated with securing the valve(s) in position.

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

The new requirement for isolating unborated water sources will continue to provide an acceptable level of safety. Requiring at least one valve in each flowpath to be closed and secured coupled with appropriate administrative controls will continue to ensure that the RMWST is isolated when required, thereby precluding an unplanned boron dilution event. Therefore, there will not be a significant increase in the probability of an unplanned dilution event, and, since the unplanned dilution is precluded, no increase in the consequences.

IV. SPECIFIC SIGNIFICANT HAZARDS EVALUATIONS

"LS22"

(continued)

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

The proposed change does not involve any new equipment or changes in the way the plant is operated. Therefore, the proposed change will 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 proposed change will continue to provide adequate assurance that unborated water sources will be isolated when required. The existing VEGP TS requirements were unnecessarily prescriptive. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The following pages replace the
corresponding pages behind the
Enclosure 4A tab for Chapter 3.4, Volume 4.

3.4 REACTOR COOLANT SYSTEM (RCS)

3.4.8 RCS Loops — MODE 5, Loops Not Filled

LCO 3.4.8

6

Two residual heat removal (RHR) loops shall be OPERABLE and one RHR loop shall be in operation. *Each valve used to isolate unborated water sources shall be secured in the closed position.*

NOTES

1. All RHR pumps may be de-energized for ≤ 15 minutes when switching from one loop to another provided:
 - a. *The core outlet temperature is maintained $> 10^\circ\text{F}$ below saturation temperature.*
 - b. No operations are permitted that would cause a reduction of the RCS boron concentration; and
 - c. No draining operations to further reduce the RCS water volume are permitted.
2. One RHR loop may be inoperable for ≤ 2 hours for surveillance testing provided that the other RHR loop is OPERABLE and in operation.

6



Valves in the flowpath from the RMWST through the chemical mixing tank, to the suction of the charging pumps may be open under administrative control provided the RCS is in compliance with the SHUTDOWN MARGIN requirements of LCO 3.1.1 and the high flux at shutdown alarm is OPERABLE.

APPLICABILITY:

MODE 5 with RCS loops not filled.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One RHR loop inoperable.	A.1 Initiate action to restore RHR loop to OPERABLE status.	Immediately

(continued)

ACTIONS (continued)

CONDITION	REQUIRED ACTION	COMPLETION TIME
B. Required RHR loops inoperable.	B.1 Suspend all operations involving reduction in RCS boron concentration.	Immediately
<u>OR</u>		
No RHR loop in operation.	<u>AND</u> B.2 Initiate action to restore one RHR loop to OPERABLE status and operation.	Immediately

↳ to 25

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.8.1 Verify one RHR loop is in operation.	12 hours
SR 3.4.8.2 Verify correct breaker alignment and indicated power are available to the required RHR pump that is not in operation.	7 days
SR 3.4.8.3 <i>Verify each valve that isolates unborated water sources is secured in the closed position.</i>	31 days

6

6

C. One or more valves used to isolate unborated water sources not secured in closed position.

C.1 Initiate action to secure valves in closed position.

Immediately

The following pages replace the
corresponding pages behind the
Enclosure 4B tab for Chapter 3.4, Volume 4.

INSERT FOR BASES PAGE B 3.4-37

The specified condition of Applicability "Loops not filled" is defined as the RCS water level below the reactor vessel flange (elevation 194 feet). It is in this specified condition of Applicability, where the smallest active volume for the RCS can occur during midloop operation. Based on the smallest active volume considered for the boron dilution transient, it was determined that each valve used to isolate unborated water sources shall be secured closed in MODE 5 with the RCS loops not filled. At least one valve in each flowpath from the Reactor Makeup Water Storage Tank (RMWST) to the suction of each charging pump shall be closed and secured in position. The applicable valves will be controlled by plant procedures, which will ensure proper valve position. This action effectively isolates the unborated water source of the chemical and volume control system (CVCS) from the RCS, thereby precluding an uncontrolled boron dilution event in MODE 5 with the RCS loops not filled. However, the maximum possible flow rate from the RMWST, through the chemical mixing tank, to the suction of the charging pumps is sufficiently small that the applicable valve(s) can be allowed open under administrative control provided the applicable shutdown margin requirements of LCO 3.1.1 are met and the high flux at shutdown alarm is OPERABLE. Opening the applicable valve(s) is necessary to facilitate chemistry control of the RCS (Ref. 1).

BASES

LCO
(continued)

Note 1 permits all RHR pumps to be de-energized for ^{Core outlet} ≤ 15 minutes when switching from one loop to another. The circumstances for stopping both RHR pumps are to be limited to situations when the outage time is short and temperature is maintained ~~at 160°F~~. The Note prohibits boron dilution or draining operations when RHR forced flow is stopped.

Note 2 allows one RHR loop to be inoperable for a period of ≤ 2 hours, provided that the other loop is OPERABLE and in operation. This permits periodic surveillance tests to be performed on the inoperable loop during the only time when these tests are safe and possible.

An OPERABLE RHR loop is comprised of an OPERABLE RHR pump capable of providing forced flow to an OPERABLE RHR heat exchanger. RHR pumps are OPERABLE if they are capable of being powered and are able to provide flow if required.

In MODE 5 with loops not filled, this LCO requires core heat removal and coolant circulation by the RHR System.

Operation in other MODES is covered by:

- LCO 3.4.4, "RCS Loops — MODES 1 and 2";
- LCO 3.4.5, "RCS Loops — MODE 3";
- LCO 3.4.6, "RCS Loops — MODE 4";
- LCO 3.4.7, "RCS Loops — MODE 5, Loops Filled";
- LCO 3.9.5, "Residual Heat Removal (RHR) and Coolant Circulation — High Water Level" (MODE 6); and
- LCO 3.9.6, "Residual Heat Removal (RHR) and Coolant Circulation — Low Water Level" (MODE 6).

Note 3 allows valves in the flow path from the RMVST through the chemical mixing tank, to the suction of the charging pumps to be open under administrative control provided the SDM requirements of LCO 3.1.1 are met and the high flux at shutdown alarm is OPERABLE. (OPERABILITY of the high flux at shutdown alarm is defined by LCO 3.3.8) This permits the addition of chemicals to the RCS as necessary in this MODE of operation. APPLICABILITY while minimizing the risk of an uncontrolled boron dilution transient.

ACTIONS

A.1

If only one RHR loop is OPERABLE and in operation, redundancy for RHR is lost. Action must be initiated to restore a second loop to OPERABLE status. The immediate Completion Time reflects the importance of maintaining the availability of two paths for heat removal.

(continued)

BASES

ACTIONS
(continued)

B.1 and B.2

restore

must be initiated immediately

If no required RHR loops are OPERABLE or in operation, except during conditions permitted by Note 1, all operations involving a reduction of RCS boron concentration must be suspended and ~~requires initiation of action to immediately start restoration of an RHR loop to OPERABLE status and operation. Boron dilution requires forced circulation for uniform dilution, and the margin to criticality must not be reduced in this type of operation.~~ The immediate Completion Time reflects the importance of maintaining operation for heat removal. The action to restore must continue until one loop is restored to OPERABLE status and operation.

C.1

If the valve(s) required to be closed are discovered to be open (except as provided by Note 3 to the LCO), action must be initiated immediately to secure the open valve(s) in the closed position in order to preclude an uncontrolled boron dilution transient.

SURVEILLANCE REQUIREMENTS

SR 3.4.8.1

This SR requires verification every 12 hours that one loop is in operation. Verification includes flow rate, temperature, or pump status monitoring, which help ensure that forced flow is providing heat removal. The Frequency of 12 hours is sufficient considering other indications and alarms available to the operator in the control room to monitor RHR loop performance.

SR 3.4.8.2

Verification that the required number of pumps are OPERABLE ensures that additional pumps can be placed in operation, if needed, to maintain decay heat removal and reactor coolant circulation. Verification is performed by verifying proper breaker alignment and power available to the required pumps. The Frequency of 7 days is considered reasonable in view of other administrative controls available and has been shown to be acceptable by operating experience.

REFERENCES

None.
1. FSAR Section 15.4.6

SR 3.4.8.3

Verification that the required valve(s) are closed (except as provided in Note 3 to the LCO) will preclude an uncontrolled boron dilution event in MODE 5 with the RCS loops not filled. Since these valves are required to be secured in position, a frequency of 31 days is sufficient to ensure that they remain closed as required.

PSC

max

PSC

PSC

WOG STS
Vogtle Units 1 and 2

The following page replaces the
corresponding page behind the
Enclosure 5 tab for Chapter 3.4, Volume 4.

CHANGE
NUMBER

JUSTIFICATION

range instrumentation as appropriate, and the specific water level can vary over the range of steam generator operating conditions so long as the highest point of the U-tubes remains covered. Plant procedures will provide the minimum indicated levels to ensure the U-tubes are completely submerged.

- 4a Condition C of RCS Loops Mode 4 is revised to clarify that the intent of the Condition is that both required loops are inoperable. The NUREG-1431 wording is not clear. This clarification is consistent with the bases for this Condition.
- 5 Not Used.
- 6 The requirement to isolate unborated water sources would be added to VEGP ITS LCO 3.4.8 to be consistent with existing VEGP TS 3/4.4.1.4.2. This requirement is necessary to preclude a boron dilution event in Mode 5 with the RCS loops not filled as described in VEGP FSAR section 15.4.6. The format of the LCO and surveillance requirements is consistent with the format for the same requirements in NUREG-1431 LCO 3.9.2. Note 3 for VEGP ITS LCO 3.4.8 is the same as the Note for VEGP ITS LCO 3.9.2.
- 7 For VEGP the cold overpressure protection system (COPS) enable temperature is 350 °F, the transition temperature between Modes 3 and 4. The COPS is required to be operable in Modes 4, 5, and 6 with the vessel head on to provide the necessary overpressure protection for low temperature operation. Therefore, Mode 4 should be deleted from the applicability of VEGP ITS LCO 3.4.10.
- 8 The Note to the applicability of VEGP ITS LCO 3.4.10 should be deleted. At VEGP, the pressurizer code safeties are tested in Mode 3 on the way down for a refueling outage. If the valves are tested successfully, they remain in place awaiting startup. If the valves must be removed for maintenance, they are bench tested under conditions simulating actual operating ambient conditions. Therefore, the Note modifying the Applicability of NUREG-1431 LCO 3.4.10 (as it appears in the NUREG) is not applicable to VEGP.
- 9 At VEGP, there are two pressurizer power-operated relief valves (PORVs). These valves are safety-related DC solenoid-operated valves.

CHANGE
NUMBER

JUSTIFICATION

VEGP ITS LCO 3.4.11 has been marked up to reflect the VEGP design.
Since the valves are DC solenoid-operated, SR 3.4.11.3 is not applicable.

The following page replaces the
corresponding page behind the
Enclosure 1 tab for Chapter 3.9, Volume 8.

This LCO is REVISED INTO LCO 3.9.1, Boron Concentration and LCO 3.9.2, Unborated Water Source Isolation valves.

3.9

3/4.9 REFUELING OPERATIONS

3.9.1 ~~3/4.9.1~~ BORON CONCENTRATION

LIMITING CONDITION FOR OPERATION

3.9.1 The boron concentration of all filled portions of the Reactor Coolant System, ~~and the refueling canal~~ shall be maintained uniform and sufficient to ensure that the more restrictive of the following reactivity conditions are met.

- a. ~~A K_{eff} of 0.95 or less, or~~
- b. ~~A boron concentration of greater than or equal to 2000 ppm.~~

Additionally, ~~valves 1200 U4 175, 1200 U4 177#, 1200 U4 185, and 1200 U4 176#~~ shall be closed and secured in position.

APPLICABILITY: MODE 6.

ACTION:

Boron concentration not within limit

- a. With the requirements of a. and b. above not satisfied, immediately suspend all operations involving CORE ALTERATIONS or positive reactivity changes and initiate and continue boration at greater than or equal to 30 gpm of a solution containing greater than or equal to 7000 ppm boron or its equivalent until K_{eff} is reduced to less than or equal to 0.95 or the boron concentration is restored to greater than or equal to 2000 ppm, whichever is the more restrictive.

With valves ~~1200 U4 175, 1200 U4 177#, 1200 U4 185, and 1200 U4 176#~~ not closed and secured in position, immediately close and secure in position.

and A.3 perform SR 3.9.1.1 in 12 hours.

SURVEILLANCE REQUIREMENTS

~~3.9.1.1~~ Verify ~~the boron concentration of the Reactor Coolant System and the refueling canal shall be determined by chemical analysis~~ at least once per 72 hours.

~~3.9.1.2~~ Valves ~~1200 U4 175, 1200 U4 177#, 1200 U4 185, and 1200 U4 176#~~ shall be verified closed and secured in position by mechanical stops at least once per 31 days.

~~RMWST discharge valves 1200 U4 176 and 1200 U4 177~~ may be open under administrative control provided the Reactor Coolant System is in compliance with the requirements of Specification 3.9.1 and the high flux at shutdown alarm is OPERABLE with a setpoint of 2.30 times background. For the purpose of this Specification, the high flux at shutdown alarm will be demonstrated OPERABLE pursuant to Specification 4.9.2.

VOGTLE UNITS - 1 & 2

3/4 9-1

Amendment No. 28 (Unit 1)
Amendment No. 9 (Unit 2)

Valves in the flowpath from the RMWST, through the chemical mixing tank, to the section of the charging pumps

used to isolate unborated water sources

LCO 3.9.2

NOTE - SEPARATE CONDITION entry is allowed for each valve

NOTE - A.3 must be completed whenever A.1 is entered

Unborated water source

NOTE IN LCO 3.9.2

2
BASES

1

and reactor cavity

within the limits specified in the COLR

3

5

3

7

6

9

LCO 3.9.2
9

10

11

SR 3.9.2.1

12a

12

13

13

BASES LCO 3.9.2

The following pages replace the
corresponding pages behind the
Enclosure 2 tab for Chapter 3.9, Volume 8.

DISCUSSION OF CHANGES - CHAPTER 3.9

This enclosure contains a brief discussion/justification for each marked-up change to the existing Vogtle Electric Generating Plant (VEGP) Units 1 and 2 Technical Specifications (VTS). The Change Numbers are referenced directly from enclosure 1 (VTS markup), and the referenced Significant Hazard Evaluations (SHEs) are contained in enclosure 3. Some obvious administrative changes to the VTS (i.e., format, presentation, and editorial changes made to conform to the Improved Technical Specifications (ITS) of NUREG-1431) are not discussed in this enclosure but are covered by the generic administrative SHE contained in enclosure 3.

<u>CHANGE NUMBER</u>	<u>SHE</u>	<u>DISCUSSION</u>
1	M	The requirements of this specification are extended to include the reactor cavity. This change is consistent with NUREG-1431.
2	LG	The LCO is reworded consistent with NUREG-1431 and some words are moved into the bases.
3	LG	The boron concentration required for refueling is moved into the COLR. This change is consistent with NUREG-1431.
4	A	Consistent with NUREG-1431 the last part of the LCO "uniform and sufficient..." is deleted. The term uniform does not belong in this LCO since this LCO does not ensure a uniform boron concentration. The technical specification requirements for the RHR system ensure mixing in the RCS not this specification. The remainder of the deleted LCO deals with meeting the more restrictive of two requirements. The LCO has been rewritten to contain only one requirement that encompasses both the former requirements (see item 5 below).
5	A	Consistent with NUREG-1431, the separate requirement for k_{eff} is deleted. The boron concentration specified in the COLR will ensure this k_{eff} value is met and therefore both concentration and k_{eff} requirements will be satisfied. It is unnecessary to continue to specify the k_{eff} value separately.
6	A	Consistent with NUREG-1431, the section of the LCO regarding unborated water source isolation valves is moved into the new LCO 3.9.2, Unborated Water Source Isolation Valves.
7	LS6	Consistent with NUREG-1431, the list of valves is removed from the LCO. The applicable valve(s) will be listed in plant procedures.

<u>CHANGE NUMBER</u>	<u>SHE</u>	<u>DISCUSSION</u>
8	LG	The current Action statement "a" is revised to be consistent with NUREG-1431. The rate of boration requirements are deleted. The safety analysis does not assume a rate of boration to return to the required concentration. Instead of a specific rate of boration, a statement is placed in the bases that recommends a highly concentrated source of boron be used to restore the RCS to the required concentration as quickly as possible.
9	A	Consistent with NUREG-1431, Action statement "b" is revised and moved into the new LCO for Unborated Water Source Isolation Valves as Condition A. The corresponding Action in the new LCO is modified by a Note that clarifies the technical specification rules regarding entry into the Condition for each valve.
10	M	Consistent with NUREG-1431, the current Action statement b is revised to include additional requirements. The Action to immediately suspend Core Alterations is added. An Action to perform SR 3.9.1.1 (verify boron concentration in 12 hours) has also been added. The 12 hour time, although different from NUREG-1431, is consistent with the current VEGP licensing basis for the performance of this surveillance as required in Action statement b of current VEGP LCO 3.9.2. The addition of these actions provide assurance that if an unborated water source isolation valve is found open (in violation of the LCO) the appropriate action is taken to secure Core Alterations until boron concentration is verified. The new Condition containing these Actions is modified by a Note that requires the Action to perform SR 3.9.1.1 (boron concentration verification) is completed any time the Condition is entered. This requirement ensures boron concentration is verified, regardless of how fast the affected valve is closed, by preventing the Condition from being exited until Action A.3 is complete.
11	LG	Surveillance requirement 4.9.1.1 is revised consistent with NUREG-1431 (SR 3.9.1.1) to verify the boron concentration specified in the COLR. The prescriptive requirement describing procedural detail regarding how the boron concentration is verified (chemical analysis) is moved into the bases also consistent with NUREG-1431.
12	LS6	Surveillance requirement 4.9.1.2 is revised consistent with NUREG-1431 SR 3.9.2.1. The applicable valve(s) will be listed in plant procedures.

<u>CHANGE NUMBER</u>	<u>SHE</u>	<u>DISCUSSION</u>
12a	LS5	Existing VEGP surveillance 4.9.1.2 is revised to delete the words "in position by mechanical stops." It is sufficient to require that the valves be closed and secured. It is not necessary to further specify that they be secured by mechanical stops. The method of securing the valves closed is not material so long as they are secured.
13	LG	With the exception of the specific valve numbers, the VEGP specific footnote "#" is moved into LCO 3.9.2, Unborated Water Source Isolation Valves as a Note to the LCO. This note is consistent with the intent of the existing note in VEGP TS 3/4.9.1. The note allows valves in the flowpath from the RMWST, through the chemical mixing tank, to the suction of the charging pumps to be opened under administrative control if certain conditions are met. This note is the same as Note 3 in VEGP ITS LCO 3.4.8. Applicable valve(s) will be listed in plant procedures. Some details concerning the operability of the high flux at shutdown alarm are moved into the bases description of the LCO Note. The movement of the discussion of equipment operability to the bases is consistent with the treatment of operability discussions in other NUREG-1431 technical specification bases.
14	LG	The Nuclear Instrumentation LCO for MODE 6 is revised consistent with NUREG-1431. Applicable information is moved into the bases to describe instrument operability. Since in this Mode VEGP does not rely on the audible count rate for indication of a boron dilution event (unborated water source isolation valves are secured in closed position or high flux at shutdown alarm is operable) the requirement for the audible count rate is relocated from the technical specifications to plant procedures.
15	M	The Action statement for two inoperable monitors is revised, consistent with NUREG-1431, to include an Action to initiate restoration of one monitor immediately.
16	LG	Surveillance 4.9.2 is revised consistent with NUREG-1431. Instrument tag numbers are moved into the bases as appropriate.
17	LS1	The Analog Channel Operational Test (ACOT) requirements for the source neutron flux monitors are deleted and a Channel Calibration requirement is added. This change is consistent with NUREG-1431. In Mode 6, the source range monitors are required for indication only, there are no precise setpoints associated with these instruments in this Mode. In this capacity,

CHANGE
NUMBER SHE

DISCUSSION

the source range instrumentation is typically used to read a change in counts per second (CPS) relative to previous readings, not precise CPS indication. The source range instrumentation is monitored for significant changes in count rate which are important to evaluate the change in core status. Even the accepted convention defining criticality only requires a slowly

The following pages should be
inserted behind the
Enclosure 3 tab for Chapter 3.9, Volume 8.

IV. SPECIFIC SIGNIFICANT HAZARDS EVALUATIONS "LS6"

The existing VEGP TS contain the requirement that valves 1208-U4-175, 1208-U4-176, 1208-U4-177, and 1208-U4-183 be closed and secured in position whenever the RCS is in Mode 5 with the loops not filled, Mode 6, and whenever less than the required source range instrumentation is operable. NUREG-1431 does not specify which valves must be closed, but rather that any valve used to isolate unborated water sources be closed and secure in position. It is implicit that the applicable valves are specified in plant procedures. VEGP proposes to adopt the NUREG-1431 requirements for isolating unborated water sources. This is a less restrictive change because the TS will no longer be specific as to which (or how many) valves must be used to isolate unborated water sources. However, the change is acceptable because plant procedures will require that at least one valve in each flowpath from the reactor makeup water storage tank (RMWST) (the RMWST is the unborated water source at VEGP) to the suction of each charging pump be closed and secured in position. Administrative controls will ensure that these valves are maintained closed when required. The fact that the TS will continue to require that the isolation valves be secured in position will ensure that the valves are not inadvertently opened. The existing VEGP TS requirements are overly restrictive on two counts:

1. Other valves besides the four specified in the TS can be used to effectively isolate the RMWST.
2. The four valves specified provide double isolation of each flowpath. This double isolation, coupled with the requirement that each valve be secured in position would effectively require four operator errors to result in an unisolated flowpath. That is, the means used to secure the valves in position would have to be removed from both valves, and both valves would have to be opened.

An acceptable level of safety is provided by requiring at least one valve in each flowpath be closed coupled with the requirement that the valve(s) be secured in position and the administrative controls associated with securing the valve(s) in position.

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

The new requirement for isolating unborated water sources will continue to provide an acceptable level of safety. Requiring at least one valve in each flowpath to be closed and secured coupled with appropriate administrative controls will continue to ensure that the RMWST is isolated when required, thereby precluding an unplanned boron dilution event. Therefore, there will not be a significant increase in the probability of an unplanned dilution event, and, since the unplanned dilution is precluded, no increase in the consequences.

IV. SPECIFIC SIGNIFICANT HAZARDS EVALUATIONS

"LS6"

(continued)

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

The proposed change does not involve any new equipment or changes in the way the plant is operated. Therefore, the proposed change will 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 proposed change will continue to provide adequate assurance that unborated water sources will be isolated when required. The existing VEGP TS requirements were unnecessarily prescriptive. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The following page replaces the
corresponding page behind the
Enclosure 4A tab for Chapter 3.9, Volume 8.

Unborated Water Source Isolation Valves
3.9.2

3.9 REFUELING OPERATIONS

3.9.2 Unborated Water Source Isolation Valves

LCO 3.9.2

Each valve used to isolate unborated water sources shall be secured in the closed position. NOTE -----

①

Valves in the flowpath from the RM WST, through the chemical mixing tank, to the suction of the charging pumps may be opened under administrative control provided the reactor coolant system is in compliance with Specification 3.9.1 and the high flux at shutdown alarm is OPERABLE.

APPLICABILITY:

MODE 6.

ACTIONS

-----NOTE-----

Separate Condition entry is allowed for each unborated water source isolation valve.

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. -----<u>NOTE</u>----- Required Action A.3 must be completed whenever Condition A is entered. -----</p> <p>One or more valves not secured in closed position.</p>	<p>A.1 Suspend CORE ALTERATIONS.</p> <p><u>AND</u></p> <p>A.2 Initiate actions to secure valve in closed position.</p> <p><u>AND</u></p> <p>A.3 Perform SR 3.9.1.1. (verify boron concentration)</p>	<p>Immediately</p> <p>Immediately</p> <p>12 hours 1a</p>

The following pages replace the
corresponding pages behind the
Enclosure 4B tab for Chapter 3.9, Volume 8.

3.9 REFUELING OPERATIONS INSERTS

INSERT 2 APPLICABLE SAFETY ANALYSIS SECTION OF 3.9.1 BASES PAGE B 3.9-2

Since the Unborated Water Source Isolation Valves LCO, 3.9.2, requires the valve(s) used to isolate the unborated water sources to be secured in the closed position in MODE 6, the boron dilution events analyzed in this MODE are limited to a very small amount of unborated chemical solution that is allowed to enter the RCS for water chemistry quality control. The dilution flow path is provided by the allowance to open (under administrative control) valves in the flowpath from the RMWST, through the chemical mixing tank, to the suction of the charging pumps. At all other times during Mode 6, at least one valve in each flowpath from the RMWST to the suction of each charging pump will be secured closed and any other chemical makeup solution which is required during refueling will be borated water supplied from the refueling water storage tank by the RHR pumps. A more detailed discussion of of the boron dilution event analyzed in this MODE is provided in the bases for LCO 3.9.2.

B 3.9 REFUELING OPERATIONS

B 3.9.2 Unborated Water Source Isolation Valves

BASES

BACKGROUND

At least one valve in each flowpath from the Reactor Makeup Water Storage Tank (RMWST) to the suction of each charging pump shall be closed and secured in position except as provided for in the Note to the LCO. The applicable valve(s) will be controlled by plant procedures which will ensure proper valve position.

During MODE 6 operations, all ^{flowpaths from} ~~isolation valves for~~ reactor makeup water sources containing unborated water that are connected to the Reactor Coolant System (RCS) must be ~~closed~~ isolated to prevent unplanned boron dilution of the reactor coolant. The isolation valve(s) must be secured in the closed position.

^{Appropriate}
The Chemical and Volume Control System is capable of supplying borated and unborated water to the RCS through various flow paths. Since a positive reactivity addition made by reducing the boron concentration is inappropriate during MODE 6, isolation of all unborated water sources prevents an unplanned boron dilution.

SAFETY ANALYSES

The possibility of an inadvertent boron dilution event (Ref. 1) occurring during MODE 6 refueling operations is precluded by adherence to this LCO, which requires that potential dilution sources be isolated. Closing the required valves during refueling operations prevents the flow of unborated water to the filled portion of the RCS. The valves are used to isolate unborated water sources. These valves have the potential to indirectly allow dilution of the RCS boron concentration in MODE 6. By isolating unborated water sources, a safety analysis for an uncontrolled boron dilution accident in accordance with the Standard Review Plan (Ref. 2) is not required for MODE 6.

(PSC)
INSERT 3
VEGP SPECIFIC
ANALYSIS INFO

The RCS boron concentration satisfies Criterion 2 of the NRC Policy Statement.

LCO

(PSC)
INSERT 1 →
NOTE EXPLANATION

This LCO requires that flow paths to the RCS from unborated water sources be isolated to prevent unplanned boron dilution during MODE 6 and thus avoid a reduction in SDM.

This is accomplished by maintaining at least one valve secured closed in each applicable flowpath.

(continued)

3.9 REFUELING OPERATIONS
INSERTS

INSERT 1
LCO SECTION OF 3.9.2 BASES
PAGE B 3.9-5

The LCO is modified by a Note that allows valves in the flowpath from the RMWST, through the chemical mixing tank, to the suction of the charging pumps to be opened under administrative control provided the reactor coolant system boron concentration is within the limit specified in the COLR and the high flux at shutdown alarm is OPERABLE. The high flux at shutdown alarm is not normally required OPERABLE in MODE 6, however for the purpose of meeting the requirement stated in this Note, the high flux at shutdown alarm is considered OPERABLE if the applicable surveillance requirements of LCO 3.3.8, High Flux at Shutdown Alarm and LCO 3.9.3, Nuclear Instrumentation are met.

3.9 REFUELING OPERATIONS INSERTS

INSERT 3 APPLICABLE SAFETY ANALYSIS SECTION OF 3.9.2 BASES PAGE B 3.9-5

However, since this LCO is modified by a Note that allows a very small amount of unborated chemical solution to enter the RCS for the purpose of water chemistry quality control, a boron dilution event is analyzed in this MODE. The dilution flow path from the RMWST, through the chemical mixing tank, to the suction of the charging pumps is provided by the allowance to open (under administrative control) applicable Chemical and Volume Control System (CVCS) valves. The maximum flow rate possible through this flow path is less than 3.5 gal/min which is approximately 3.0 percent of the limiting flow rate considered in the analysis for other Modes. At all other times during Mode 6, the valve(s) are secured closed and any other chemical makeup solution which is required during refueling will be borated water supplied from the refueling water storage tank by the RHR pumps. Flow paths from the CVCS which could allow unborated chemical makeup water in excess of 3.5 gal/min to reach the RCS are always isolated in MODE 6 by maintaining at least one valve secured closed in each applicable flow path. Since the maximum flow rate associated with the available dilution flow paths in Mode 6 is very small, the total time from initiation of event to the eventual complete loss of shutdown margin is significantly large compared to the minimum required operator action time. Therefore, a considerable amount of time is available for the operator to initiate and terminate procedures for RCS water chemistry adjustments before potential loss of shutdown becomes a concern. Additionally, the high flux at shutdown (HFAS) alarm is required OPERABLE prior to the applicable CVCS valves being opened. The boron dilution event analysis specifically credits the HFAS alarm when these valves are open. The availability of the HFAS alarm ensures that the operator has a 30 minute warning to terminate the dilution before shutdown margin is lost.

BASES (continued)

APPLICABILITY In MODE 6, this LCO is applicable to prevent an inadvertent boron dilution event by ensuring isolation of all sources of unborated water to the RCS.

For all other MODES, the boron dilution accident was analyzed and was found to be capable of being mitigated.

ACTIONS

The ACTIONS table has been modified by a Note that allows separate Condition entry for each unborated water source isolation valve.

The ACTIONS do not apply to valves in the flow path from the RMWST, through the chemical mixing tank, to the suction of the charging pumps, when opened under administrative control in accordance with the Note in the LCO.

PSE

A.1

Continuation of CORE ALTERATIONS is contingent upon maintaining the unit in compliance with this LCO. With any valve used to isolate unborated water sources not secured in the closed position, all operations involving CORE ALTERATIONS must be suspended immediately. The Completion Time of "immediately" for performance of Required Action A.1 shall not preclude completion of movement of a component to a safe position.

Condition A has been modified by a Note to require that Required Action A.3 be completed whenever Condition A is entered.

A.2

Preventing inadvertent dilution of the reactor coolant boron concentration is dependent on maintaining the unborated water isolation valves secured closed. Securing the valves in the closed position ensures that the valves cannot be inadvertently opened. The Completion Time of "immediately" requires an operator to initiate actions to close an open valve and secure the isolation valve in the closed position immediately. Once actions are initiated, they must be continued until the valves are secured in the closed position.

(continued)

The following page replaces the
corresponding page behind the
Enclosure 5 tab for Chapter 3.9, Volume 8.

JUSTIFICATIONS FOR DIFFERENCES FROM NUREG-1431 - CHAPTER 3.9

This enclosure contains a brief discussion/justification for each marked-up technical change to the NUREG-1431 Technical Specifications (TS) to make them Vogtle Electric Generating Plant Units 1 and 2 (VEGP) specific. The Change Numbers are referenced directly from enclosure 4A (NUREG markup). The NUREG-1431 markup also includes the accepted changes to Revision 0 of the NUREG resulting from the Industry/NRC Lead Plant process. The Industry/NRC changes are identified by change package number. The applicable change package includes the discussion/justification for these changes.

CHANGE NUMBER

JUSTIFICATION

- | | |
|----|---|
| 1 | A Note is added to the LCO of Specification 3.9.2, Unborated Water Source Isolation Valves. This Note is consistent with the current licensing basis of VEGP and appears as a footnote in the current technical specification for boron concentration, 3/4.9.1. The Note allows valves in the flow path from the RMWST, through the chemical mixing tank, to the suction of the charging pumps to be opened under administrative control if certain conditions are met. This note is the same as Note 3 in VEGP ITS LCO 3.4.8. |
| 1a | The 4 hour Completion Time for LCO 3.9.2 Action A.3 is revised to 12 hours consistent with the current VEGP licensing basis time for this surveillance to be performed as stated in Action statement b of current VEGP LCO 3.9.2. The 4 hours allowed in the NUREG would not always provide sufficient time for chemistry to verify the results of a sample. In addition, the 12 hour time is acceptable based on the requirement for the source range monitors and the High Flux at Shutdown Alarm to be operable and provide indication/alarm of the core status. In addition, the SR number in the required action is annotated with a reference to explain what the SR is. |
| 2 | The 4 hour Completion Time to verify boron concentration when two source range monitors are inoperable for Required Action B.2 in LCO 3.9.3 is deleted. This change is consistent with the VEGP current licensing basis which only requires verification of boron concentration once per 12 hours under these circumstances. In addition, considering the volume of water involved, and assuming the boron concentration to be within the limit when the two source range channels become inoperable (as can be demonstrated by the previous performance of SR 3.9.1.1) and Core Alterations and positive reactivity additions are suspended (as required by Actions A.1 and A.2) the core reactivity will be stable and any changes in boron concentration will occur very slowly. Therefore, the need to verify boron concentration within 4 hours is unnecessary. Verification of boron concentration within 12 hours and every 12 hours |