ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---|---|
| D. Required Action and associated Completion Time of Condition A, B or C not met. | D.1 Be in MODE 3. | 12 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|---|---|---|
| SR 3.2.1.1 | Verify regulating rod groups are within the sequence and overlap limits as specified in the COLR. | 12 hours |
| SR 3.2.1.2 | Verify regulating rod groups meet the position limits as specified in the COLR. | 12 hours |
| 1A \| SR 3.2.1.3 | Verify SDM to be within the limit as specified in the COLR. | Within 4 hours prior to achieving criticality |

# 4.0 DESIGN FEATURES

## 4.1 Site Location

The Oconee Nuclear Station is approximately eight miles northeast of Seneca, South Carolina. The minimum distance from the reactor center line to the boundary of the exclusion area and to the outer boundary of the low population zone, as defined in 10 CFR 100.3, shall be one mile and six miles respectively.

## 4.2 Reactor Core

### 4.2.1 Fuel Assemblies

The reactor shall contain 177 fuel assemblies. Each assembly shall consist of a matrix of zirconium alloy clad fuel rods with an initial composition of natural or slightly enriched uranium dioxide ($UO_2$) as fuel material. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff approved codes and methods and shown by tests or analyses to comply with all fuel safety design bases. A limited number of lead test assemblies that have not completed representative testing may be placed in nonlimiting core regions.

### 4.2.2 Control Assemblies

1A The reactor core shall contain 61 full-length CONTROL ROD Assemblies (CRAs) and 8 APSR assemblies. The full-length CRAs and APSR assemblies shall conform to the design described in the UFSAR or reload report.

## 4.3 Fuel Storage

### 4.3.1 Criticality

The spent fuel storage racks are designed and shall be maintained with:

a. Fuel assemblies having a maximum nominal U-235 enrichment of 5.0 weight percent;

(continued)

5.5 Programs and Manuals (continued)

5.5.11 Secondary Water Chemistry

This program provides controls for monitoring secondary water chemistry to inhibit SG tube degradation. The program shall include:

a. Identification of a sampling schedule for the critical variables and control points for these variables;

b. Identification of the procedures used to measure the values of the critical variables;

c. Identification of process sampling points;

d. Procedures for the recording and management of data;

e. Procedures defining corrective actions for all off control point chemistry conditions; and

f. A procedure identifying the authority responsible for the interpretation of the data and the sequence and timing of administrative events, which is required to initiate corrective action.

5.5.12 Ventilation Filter Testing Program (VFTP)

/A
/A

A program shall be established to implement the following required testing of filter ventilation systems at the frequencies specified in Regulatory Guide 1.52, Revision 2.

The VFTP is applicable to the Penetration Room Ventilation System (PRVS) and the Control Room Ventilation System (CRVS) Booster Fan Trains.

a. Demonstrate, for the PRVS, that a dioctyl phthalate (DOP) test of the high efficiency particulate air (HEPA) filters shows $\geq$ 99% removal when tested in accordance with ANSI N510-1975 at the system design flow rate $\pm$ 10%.

b. Demonstrate, for the CRVS Booster Fan Trains, that a DOP test of the HEPA filters shows $\geq$ 99.5% removal when tested at in accordance with ANSI N510-1975 at the system design flow rate $\pm$ 10%.

(continued)

5.5 Programs and Manuals

5.5.12 Ventilation Filter Testing Program (VFTP) (continued)

c. Demonstrate, for the PRVS, that a halogenated hydrocarbon test of the carbon adsorber shows ≥ 99% removal when tested in accordance with ANSI N510-1975 at the system design flow rate ± 10%.

d. Demonstrate, for the CRVS Booster Fan Trains, that a halogenated hydrocarbon test of the carbon adsorber shows ≥ 99% removal when tested at in accordance with ANSI N510-1975 at the system design flow rate ± 10%.

e. Demonstrate, for the CRVS Booster Fan Trains and PRVS, that a laboratory test of a sample of the carbon adsorber shows ≥ 90% radioactive methyl iodide removal when tested in accordance with ASTM D3803-1989 (30°C, 95% RH).

f. Demonstrate, for the PRVS, that the pressure drop across the combined HEPA filters and carbon adsorber banks is less than 6 in. of water at the system design flow rate ± 10%.

1A

g. Demonstrate, for the CRVS Booster Fan Trains, that the pressure drop across the pre-filter is ≤ 1 in. of water and the pressure drop across the HEPA filters is ≤ 2 in. of water at the system design flow rate ± 10%.

The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the VFTP test frequencies.

5.5.13 Explosive Gas and Storage Tank Radioactivity Monitoring Program

This program provides controls for potentially explosive gas mixtures, the quantity of radioactivity contained in gas storage tanks, and the quantity of radioactivity contained in unprotected outdoor liquid storage tanks. The gaseous radioactivity quantities shall be determined. The liquid radwaste quantities shall be determined by analyzing a representative sample of the tank's contents at least once per 7 days when radioactive materials are being added to the tank.

(continued)

## ENCLOSURE 2

## OMITTED SUPPLEMENT 1 PAGES

| | |
|---|---|
| Section 1.0 | Attachment 4, No Significant Hazards Consideration, Page 6 |
| Section 3.2 | Attachment 3, Discussion of Changes, Page 12 |
| Section 3.3 | Attachment 3, Discussion of Changes, Pages 29 through 33 |
| Section 3.3 | Attachment 6, NUREG Bases Markup pages B 3.3-27 through B 3.3-29 |
| Section 3.4 | Attachment 5, Justification for Deviations, Pages 3 and 7 |
| Section 3.5 | Attachment 1, ITS pages 3.5-7 through 3.5-13 |
| Section 3.5 | Attachment 2, ITS page B 3.5-19 |
| Section 5.0 | Attachment 6, NUREG Markup page 5.0-6 |

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

   The proposed change does not necessitate a physical alteration of the plant (no new or different type of equipment will be installed) or changes in parameters governing normal plant operation. The proposed change will still ensure proper availability for the required instrument functions. Thus, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. **Does this change involve a significant reduction in a margin of safety?**

   This change to permit the use of an actual signal in addition to a test signal does not involve a change in setpoints and cannot affect any margin of safety associated with the response to a design basis accident. The instrumentation channel functions the same regardless of the source of the initiation signal. Therefore, this change to permit use of an actual signal is not considered to involve a significant reduction in the margin of safety.

**RELOCATED SPECIFICATIONS**

R1 The CTS 3.5.2.7 requirements associated with the control rod drive patch panels are relocated to UFSAR Chapter 16. This Limiting Conditions for Operation, is not retained in the ITS because it has been reviewed against, and determined not to satisfy, the selection criteria for Technical Specifications provided in 10 CFR 50.36. The selection criteria were established to ensure that the Technical Specifications are reserved for those conditions or limitations on plant operation considered necessary to limit the possibility of an abnormal situation or event that could result in an immediate threat to the health and safety of the public. The rationale for relocation of each of these Specifications is provided in the report, "Application of Selection Criteria to the Oconee Nuclear Station Unit 1, 2, and 3 Technical Specifications."

R2 The CTS 3.5.4 and Table 4.1-1, Item 34 requirements associated with the incore instrumentation are relocated to UFSAR Chapter 16. This Limiting Conditions for Operation and associated SR, is not retained in the ITS because it has been reviewed against, and determined not to satisfy, the selection criteria for Technical Specifications provided in 10 CFR 50.36. The selection criteria were established to ensure that the Technical Specifications are reserved for those conditions or limitations on plant operation considered necessary to limit the possibility of an abnormal situation or event that could result in an immediate threat to the health and safety of the public. The rationale for relocation of each of these Specifications is provided in the report, "Application of Selection Criteria to the Oconee Nuclear Station Unit 1, 2, and 3 Technical Specifications."

ACTION C allows 7 days for restoration of one of two inoperable instrument channels. ITS ACTIONs B and I then require a Special Report. Therefore, the proposed Required Action I.1 is less restrictive since a unit shutdown is not required. Required Action I.1 is appropriate in lieu of a shutdown requirement since both the RCS Hot Leg Level and the Reactor Vessel Level are methods of monitoring for inadequate core cooling capability and both the subcooling monitoring monitors and core exit thermocouples provide an alternate means of monitoring for this purpose. This change is consistent with the NUREG.

L22 The CTS Actions (Table 3.5.6-1, Action 1) for the Containment Pressure - High Range (PAM #7) Function allow 7 days for restoration of an inoperable instrument channel and 48 hours for restoration of an inoperable channel when both are inoperable. When either required action is not met, the unit must be placed in hot shutdown within the next 12 hours. ITS 3.3.8, ACTION A allows 30 days for restoration of a single channel. If not restored, then a Special Report is required by Required Action B.1. This is less restrictive since a unit shutdown is not required. ITS Required Action B.1 is appropriate in lieu of a shutdown requirement since alternative actions are identified before loss of functional capability and given the likelihood of unit conditions that would require information provided by this instrumentation. ITS ACTION C allows an additional 5 days for restoration of a single channel when both channels are inoperable. The additional time allowed to restore at least one channel allowed by Action C is considered appropriate based on the relatively low probability of an event requiring PAM instrumentation and the availability of alternate means to obtain required information. These less restrictive changes are consistent with the NUREG.

L23 The CTS Actions (Table 3.5.1-1, Action 2) for Containment Water Level (PAM #6), Containment High-Range Radiation (PAM #9), Containment Hydrogen (PAM #10), and the Core Exit Thermocouple (PAM #16) Functions allow 30 days for restoration of an inoperable instrument channel and 48 hours for restoration of an inoperable channel when both are inoperable. When either required action is not met, the unit must be placed in hot shutdown within the next 12 hours. ITS 3.3.8, ACTION A allows 30 days for restoration of a single channel and then a Special Report is required by Required Action B.1. ITS Required Action B.1 is appropriate in lieu of a shutdown requirement since alternative actions are identified before loss of functional capability and given the likelihood of unit conditions that would require information provided by this instrumentation. This is less restrictive since a unit shutdown is not required. ITS ACTION C for the Containment Water Level, Containment High-Range Radiation, and the Core Exit Thermocouple Functions allows an additional 5 days for restoration of a single channel when both channels are inoperable. ITS ACTION D for the Containment Hydrogen Concentration Function allows an additional 24 hours. The additional time allowed to restore at least one channel allowed by ITS Actions C and D are considered appropriate based on the relatively low probability of an event requiring PAM instrumentation and the availability of alternate

means to obtain required information. ITS 3.3.8, Action I is added for ITS Table 3.3.8-1, Function 9 (Containment High-Range Radiation), to allow a Special Report in place of the CTS requirement for shutdown. This is acceptable since alternate means are available to monitor this variable. These changes are consistent with the NUREG.

L24 The CTS Actions (Table 3.5.1-1, Action 4) for the Subcooling Monitor function (PAM #17) Function allows 30 days for restoration of an inoperable instrument channel and 48 hours for restoration of an inoperable channel when both are inoperable. When either required action is not met, the unit must be placed in hot shutdown within the next 12 hours. ITS 3.3.8, ACTION A allows 30 days for restoration of a single channel and then a Special Report is required by ITS Required Action B.1. ITS Required Action B.1 is appropriate in lieu of a shutdown requirement since alternative actions are identified before loss of functional capability and given the likelihood of unit conditions that would require information provided by this instrumentation. This is less restrictive since a unit shutdown is not required. ITS ACTION C allows an additional 5 days for restoration of a single channel when both channels are inoperable. The additional time allowed to restore at least one channel allowed by ITS Action C is considered appropriate based on the relatively low probability of an event requiring PAM instrumentation and the availability of alternate means to obtain required information. These changes are consistent with the NUREG.

L25 Not used.

L26 CTS Table 4.1-1 requires a CHANNEL CHECK of items 5, 26, 30, and 39 either shiftly or weekly. ITS SR 3.3.8.1 requires a CHANNEL CHECK of PAM instrument channels for each required channel that is normally energized every 31 days. The Frequency is based on operating experience that demonstrates channel failure is rare, and on the use of less formal but more frequent checks of channels during normal operational use of the displays associated with the required channels. This less restrictive change is consistent with the NUREG.

L27 CTS Table 4.1-1, items 54 and 57, requires a monthly functional test of the containment high range radiation monitor and containment hydrogen monitor instrument channels. This monthly functional test is not included in ITS. Such a test is typically required when the instrumentation provides a safety related automatic actuation function. This instrument channel provides information only, and as such, a CHANNEL FUNCTIONAL TEST is not appropriate, nor required. This change is also consistent with the NUREG.

L28 CTS Table 3.5.1-1, Column D requires the unit be placed in hot shutdown within 12 hours when less than two source range channels are OPERABLE and rated power is $\leq$ 10% as shown on the power range channels and $\leq 4 \times 10^{-4}$ % rated power as shown on the wide range channels. Comparable ITS Required Actions do not require the unit be placed in hot

shutdown. Therefore, the proposed ITS Required Actions are less restrictive in this aspect. However, other more appropriate required actions are added to replace the CTS required action (Refer to DOC M13). This change is also consistent with the NUREG.

L29 Not used.

1 L30 Not used.

L31 CTS Table 3.5.1-1, Column D requires the unit be placed in hot shutdown within 12 hours when less than two wide range channels are OPERABLE. ITS 3.3.10, Required Action A.1 only requires that power be reduced to $< 4 \times 10^{-4}\%$ RTP when one channel is inoperable. The proposed change is less restrictive since the CTS defines Hot Shutdown as the reactor having a $K_{eff}$ of $\leq 0.99$ and the reactor could have a $K_{eff}$ of $> 0.99$ with power reduced below $4 \times 10^{-4}\%$ RTP as allowed by Required Action A.1. The proposed change is consistent with the NUREG.

L32 CTS Table 4.1-1, Column "Test," Items 5 and 6 require a functional test be performed on the source range and wide range channels prior to startup. This requirement is not retained in the ITS. Consistent with the NUREG, a CHANNEL CALIBRATION of the source range and wide range instruments is added (Refer to DOC M14). Because the calibration by definition encompasses the functional test, performance of the calibrations will ensure that testing is consistent with CTS requirements. The frequency of this testing is now based strictly on the time since its last performance and not dependent upon whether or not the unit is in startup. This change is acceptable, based on operating experience which demonstrates the source and wide range instruments are highly reliable.

L33 CTS 3.7.5.1 requires performance of SR 3.7.1.11 (Keowee emergency start) and SR 3.7.1.14 (EPSL automatic transfer). SR 3.7.1.11 verifies that each Keowee Hydro Unit (KHU) can emergency start from each control room, attain rated speed and voltage within 23 seconds of an emergency start initiate, and be synchronized to the grid and loaded. The test is performed by manually starting one KHU from the Unit 1 and 2 Control Room and the other KHU from the Unit 3 Control Room. The accident analyses do not take credit for a manual Keowee start during operation above Cold Shutdown. Therefore, the requirement to test this function during operation above Cold Shutdown is not retained. This function is required to be OPERABLE during MODES 5 and 6 and during movement of irradiated fuel assemblies by ITS 3.3.22, "EPSL Manual Keowee Emergency Start Function."

L34 CTS 3.5.1.1 Applicability for the TSV Closure instrumentation channels is while in the startup mode or when the reactor is in a critical state. This is considered encompassed by ITS MODES 1 and 2. ITS 3.3.15 Applicability is in MODES 1, 2, and 3 except when all TSVs are closed. The exception of "when all TSVs are closed" is a less restrictive change and is consistent with comparable NUREG requirements (Table 3.3.11-1,

Note c). The exception is appropriate since the TSVs are already performing their safety function when they are closed.

L35 CTS 3.8.10 requires the radiation monitor associated with the purge system valve isolation to be tested and verified OPERABLE immediately prior to refueling operations. CTS Table 4.1-2, Item 4, requires this functional test be performed "Prior to Refueling." ITS 3.3.16 Applicability is during CORE ALTERATIONS and during movement of irradiated fuel assemblies within containment. ITS SR 3.3.16.2 requires the testing be performed once each refueling outage prior to CORE ALTERATIONS or beginning movement of irradiated fuel assemblies within containment. Permitting the specified testing to be conducted prior to beginning movement of irradiated fuel assemblies within containment in lieu of immediately prior to refueling operations is a less restrictive requirement upon unit operation (and is more stringent than the NUREG). Requiring performance of SR 3.3.16.2 once each refueling outage prior to CORE ALTERATIONS or prior to beginning movement of irradiated fuel assemblies within containment represents a reasonable relaxation of the CTS surveillance frequency. This continues to ensure that this function is verified prior to irradiated fuel assembly handling within containment.

L36 CTS Table 3.5.1-1, Column D requires the unit to be in hot shutdown within 24 hours when one or more TSV Closure Instrumentation channels is inoperable and Note (e) to the Table requires the unit be placed in Cold Shutdown within the following 72 hours if the minimum conditions are not met. ITS 3.3.15 ACTION A is added to require the TSVs to be declared inoperable within 1 hour (also, see DOC L19). ITS 3.7.2, Turbine Stop Valves, then dictates the required action for inoperable TSVs. With one or more TSVs inoperable in MODE 1, Required Action A.1 requires the TSVs be restored to OPERABLE status within 8 hours or Required Action B.1 requires the unit be in MODE 2 in 6 hours. Therefore, this portion of ITS is more restrictive since the unit must be in MODE 2 within 15 hours of an inoperable TSV Closure instrumentation channel where CTS required the unit be in hot shutdown (equivalent to ITS MODE 3) within 24 hours. ITS 3.7.2 Action C allows 8 additional hours to close an inoperable TSV when in MODE 2 or 3 (total of 23 hours). In addition, if it were not closed, then an additional 12 hours (on top of the eight hours) is allowed to place the unit in MODE 3 and 18 hours to place the unit in MODE 4. This results in allowing a total of 35 hours to be in MODE 3 and 41 hours to be in MODE 4 from initial discovery of it being inoperable in MODE 1. This compares to the CTS time allowed to place the unit in Hot Shutdown (MODE 3) of 24 hours. Therefore, an additional 11 hours is allowed to place the unit in MODE 3. The additional time is reasonable considering the low probability of an accident occurring during this time period that would require closure of the TSVs. The more restrictive aspects of this change are addressed in DOC M22. The proposed less restrictive ITS Shutdown Times requirements are consistent with ITS 3.7.2, which is consistent with the NUREG.

L37 CTS 3.4.3.b requires a flow path with no OPERABLE emergency feedwater flow indicators to be restored to OPERABLE status within 72 hours. ITS 3.3.8 Required Action C.1 allows 7 days to restore an inoperable flow indicator when both are inoperable. Required Action C.1 allows an additional 4 days for restoration of a single channel when no channels are OPERABLE. The additional time to restore at least one channel allowed by Required Action C.1 is considered appropriate based on the relatively low probability of an event requiring PAM instrumentation and the availability of alternate means to obtain required information. This less restrictive change is consistent with the NUREG.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.3.1.2 (continued)

a small fraction of ~~12%~~ 9% in any 24 hour period. (1)
Furthermore, the control room operators monitor redundant indications and alarms to detect deviations in channel outputs.

SR 3.3.1.3

A comparison of power range nuclear instrumentation channels against incore detectors shall be performed at a 31 day Frequency when reactor power is > 15% RTP. A Note clarifies that 24 hours is allowed for performing the first Surveillance after reaching 15% RTP. If the absolute difference between the power range and incore measurements is ≥ ~~12%~~ 9% RTP, the power range channel is not inoperable, but a CHANNEL CALIBRATION that adjusts the measured imbalance to agree with the incore measurements is necessary. If the power range channel cannot be properly recalibrated, the channel is declared inoperable. The calculation of the Allowable Value envelope assumes a difference in out of core to incore measurements of 2.5%. Additional inaccuracies beyond those that are measured are also included in the setpoint envelope calculation. The 31 day Frequency is adequate, considering that long term drift of the excore linear amplifiers is small and burnup of the detectors is slow. Also, the excore readings are a strong function of the power produced in the peripheral fuel bundles, and do not represent an integrated reading across the core. The slow changes in neutron flux during the fuel cycle can also be detected at this interval.

Supp. 1 | an adjustment of (1) TSTF 259

Supp. 1 |

SR 3.3.1.4

A CHANNEL FUNCTIONAL TEST is performed on each required RPS channel to ensure that the entire channel will perform the intended function. Setpoints must be found within the Allowable Values specified in Table 3.3.1-1. Any setpoint adjustment shall be consistent with the assumptions of the current ~~unit specific~~ setpoint analysis. (2)

The as found and as left values must also be recorded and reviewed for consistency with the assumptions of the

(continued)

BASES

Supp. 1 | SURVEILLANCE REQUIREMENTS

SR 3.3.1.4 (continued)

surveillance interval extension analysis. The requirements for this review are outlined in BAW-10167 (Ref. 8, 7, 2).

The Frequency of ~~[45]~~ 92 days on a STAGGERED TEST BASIS is consistent with the calculations of Reference 7 that indicate the RPS retains a high level of reliability for this test interval. (1)

Supp. 1

SR 3.3.1.5

This SR is the performance of a CHANNEL CALIBRATION every [92] days. This CHANNEL CALIBRATION normalizes the power range channel output to the calorimetric coincident with the imbalance output being normalized to the imbalance condition predicted by the incore neutron detector system.

The calibration for both imbalance and total power is integrated in the power imbalance detector calibration procedure. The [92] day Frequency specified for the Nuclear Overpower trip string is consistent with the drift assumptions made in the "[Unit Specific Setpoint Methodology]" (Ref. 4). Furthermore, operating experience shows the reliability of the trip string is acceptable when calibrated on this interval. A Note clarifies that the neutron detectors are not required to be tested as part of the CHANNEL CALIBRATION. There is no adjustment that can be made to the detectors. Furthermore, adjustment of the detectors is unnecessary because they are passive devices with minimal drift. Slow changes in detector sensitivity are compensated for by performing the daily calorimetric calibration and the monthly axial channel calibration.

TSTF-259

SR 3.3.1.~~6~~5

A Note to the Surveillance indicates that neutron detectors are excluded from CHANNEL CALIBRATION. This Note is necessary because of the difficulty in generating an appropriate detector input signal. Excluding the detectors is acceptable because the principles of detector operation ensure a virtually instantaneous response.

(continued)

BASES

Supp. 1

SURVEILLANCE REQUIREMENTS

SR 3.3.1.~~6~~ 5 (continued)

A CHANNEL CALIBRATION is a complete check of the instrument channel, including the sensor. The test verifies that the channel responds to the measured parameter within the necessary range and accuracy. CHANNEL CALIBRATION leaves the channel adjusted to account for instrument drift to ensure that the instrument channel remains operational between successive tests. CHANNEL CALIBRATION shall find that measurement errors and bistable setpoint errors are within the assumptions of the unit specific setpoint analysis. CHANNEL CALIBRATIONS must be performed consistent with the assumptions of the ~~unit specific~~ setpoint analysis. (2)

TSTF-019, R1

INSERT B3.3-29A

The Frequency is justified by the assumption of an ~~[18]~~ month calibration interval in the determination of the magnitude of equipment drift in the setpoint analysis. (1)

SR 3.3.1.7 (5)

This SR verifies individual channel actuation response times are less than or equal to the maximum values assumed in the accident analysis. Individual component response times are not modeled in the analyses. The analyses model the overall, or total, elapsed time from the point at which the parameter exceeds the analytical limit at the sensor to the point of rod insertion. Response time testing acceptance criteria for this unit are included in Reference 1.

A Note to the Surveillance indicates that neutron detectors are excluded from RPS RESPONSE TIME testing. This Note is necessary because of the difficulty in generating an appropriate detector input signal. Excluding the detectors is acceptable because the principles of detector operation ensure a virtually instantaneous response.

Response time tests are conducted on an [18] month STAGGERED TEST BASIS. Testing of the final actuation devices, which make up the bulk of the response time, is included in the testing of each channel. Therefore, staggered testing results in response time verification of these devices every [18] months. The [18] month Frequency is based on unit operating experience, which shows that random failures of

(continued)

elimination of the reference to emergency power supply eliminates potential confusion which could result since each pressurizer heater can be supplied from emergency power. Retaining the reference to emergency power supplies would imply that some pressurizer heaters are not capable of being supplied from an emergency power source.

23 Not used.

24 When RCS cold leg temperature is $\leq$ 325°F, Low Temperature Overpressure Protection (LTOP) is applicable (ITS LCO 3.4.12) and provides appropriate requirements for pressure control. The NUREG LCO 3.4.10 Applicability and associated Note are modified to eliminate MODE 4 and eliminate Applicability in MODE 3 when LCO 3.4.12 is applicable. NUREG 3.4.10 RA B.2 is modified to require placing the unit in a condition outside the modified Applicability.

25 Not used.

26 Consistent with the current licensing basis (CLB), NUREG Specification 3.4.11, Pressurizer PORV is not adopted. Generic Letter 90-06 recommended adoption of similar Technical Specification requirements. Duke Power Company (DPC) in its responses to GL 90-06 dated December 20, 1990, and March 27, 1991 concluded the PORV did not satisfy the criteria of the Interim Policy Statement on Technical Specification Improvements. By its letter dated June 9, 1994, the NRC found the DPC response to the recommendation to be acceptable based on plant specific arguments.

27 LCO 3.4.12 is modified to retain consistency with the CLB. LCO 3.4.12 is modified to include CTS allowed flexibility regarding limits on pressurizer level and makeup flow. The LCO terminology "core flood tank deactivated" is used in lieu of "core flood tank isolated" to maintain consistency with CTS terminology. Current requirements for the PORV and administrative controls are retained.

The portion of NUREG LCO 3.4.12 regarding the RCS vent is not adopted. The Applicability for LCO 3.4.12 is modified to reflect the ONS LTOP enable temperature is 325°F and occurs in ITS MODE 3. Additionally, the Applicability for LCO 3.4.12 is modified to reflect the CLB regarding a vent path capable of mitigating the most limiting event. With a vent path capable of mitigating the most limiting LTOP event, no other LTOP requirements are necessary since the vent path precludes an LTOP event from causing RCS pressure to exceed the P/T limits. NUREG SR 3.4.12.1 is not adopted since the number of makeup pumps is not limited. NUREG SR 3.4.12.6 is not adopted since the RCS vent path is not a part of the associated LCO.

NUREG 3.4.12 Action A, which provide Required Actions when more than the specified number of makeup pumps are capable of injecting into the RCS; and NUREG Actions E and F which provide Required Actions when pressurizer level is greater than the specified limit are not adopted.

power to the DHR pumps. The inclusion of the provision to permit testing as a reason for DHR pumps to not be in operation is acceptable since the same restrictions regarding time limits, restrictions on maximum RCS temperature, restrictions on reductions in boron concentration, and restrictions on further reductions in RCS volume also apply. Additionally, there is no comparable restriction in CTS. Permitting DHR pumps to not be in operation is acceptable based on the short duration and the other specified limitations.

50 NUREG specification 3.4.16 is renumbered to be ITS 3.4.11. This renumbering permits filling the gap left by the non-adoption of NUREG 3.4.11 (see JFD 26) and reduces renumbering the subsequent specifications.

51 NUREG LCO 3.4.12 is modified to reflect the CLB regarding LTOP requirements. The limit upon the number of makeup pumps capable of providing makeup in not adopted. The ONS LTOP design places restrictions upon RCS makeup flow by installation of a device which limits the opening of the makeup valve. Limiting the opening of the makeup valve limits RCS makeup flow rate.

52 NUREG LCO 3.4.15 part a, Condition A and SR 3.4.15.3 are modified to state sump level indication instead of sump level monitor. The change reflects plant specific terminology since the term sump level monitor is not routinely used. The containment normal sump level indications "monitor" the water level in the containment normal sump but are not referred to as a monitor."

A conforming change is made to NUREG LCO 3.4.15 Condition D. The entry Condition is modified to refer to instrumentation functions instead monitors. Although the radiation monitoring instrumentation monitor is considered a monitor, the sump level indication is not. This change is necessary to reflect plant specific terminology.

53 NUREG LCO 3.4.15 A is modified to state containment normal sump instead of containment sump. The ONS design includes two sumps in the containment, each with sump level indication. The containment normal sump is smaller and provides greater leak detection capability. This change is necessary to discriminate between the containment normal sump level indication and the containment emergency sump level indication.

54 The NUREG 3.4.4 bracketed value of 79.9% RTP for three RCP operation is removed and the plant specific value of 75% RTP is inserted. The value of 75% RTP is the power level assumed in the accident and transient analsyis for three RCP operation.

SURVEILLANCE REQUIREMENTS

| | SURVEILLANCE | FREQUENCY |
|---|---|---|
| SR 3.5.2.1 | Verify each HPI manual and non-automatic power operated valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position. | 31 days |
| SR 3.5.2.1 | ----------NOTE----------<br>Not applicable to operating HPI pump(s).<br>----------<br>Vent each HPI pump casing. | 31 days |
| SR 3.5.2.3 | Verify each HPI pump's developed head at the test flow point is greater than or equal to the required developed head. | In accordance with the Inservice Testing Program |
| SR 3.5.2.4 | Verify each HPI automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal. | 18 months |
| SR 3.5.2.5 | Verify each HPI pump starts automatically on an actual or simulated actuation signal. | 18 months |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| | SURVEILLANCE | | FREQUENCY |
|---|---|---|---|
| | SR 3.5.2.6 | Verify, by visual inspection, each HPI train reactor building sump suction inlet is not restricted by debris and suction inlet trash racks and screens show no evidence of structural distress or abnormal corrosion. | 18 months |
| 1 1 | SR 3.5.2.7 | Cycle each LPI discharge valve to the LPI-HPI flow path open manually. | 18 months |

## 3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

### 3.5.3 Low Pressure Injection (LPI)

LCO 3.5.3 Two LPI trains shall be OPERABLE.

----------NOTES----------

1. Only one LPI train is required to be OPERABLE in MODE 4.
2. In MODE 4, an LPI train may be considered OPERABLE during alignment, when aligned or when operating for decay heat removal (DHR) if capable of being manually realigned to the LPI mode of operation.
3. In MODES 1, 2, and 3, the LPI discharge header crossover valves shall be manually OPERABLE to open.

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APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

| CONDITION | REQUIRED ACTION | | COMPLETION TIME |
|---|---|---|---|
| A. One LPI train inoperable in MODE 1, 2, or 3. | A.1 | Restore LPI train to OPERABLE status. | 72 hours |
| B. One or more LPI discharge header crossover valve(s) manually inoperable to open in MODE 1, 2, or 3. | B.1 | Restore LPI discharge header crossover valve(s) to OPERABLE status. | 72 hours |
| C. Required Action and associated Completion Time of Condition A not met. | C.1<br>AND<br>C.2 | Be in MODE 3.<br><br>Be in MODE 4. | 12 hours<br><br>60 hours |

(continued)

ACTIONS (continued)

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---|---|
| D. One LPI train inoperable in MODE 1, 2, or 3.<br><br>AND<br><br>One or more LPI discharge header crossover valve(s) manually inoperable to open in MODE 1, 2, or 3. | D.1 Enter LCO 3.0.3. | Immediately |
| E. One required LPI train inoperable in MODE 4. | E.1 Initiate action to restore required LPI train to OPERABLE status.<br><br>AND<br><br>E.2 --------NOTE--------<br>Only required if DHR loop is OPERABLE.<br>----------<br><br>Be in MODE 5. | Immediately<br><br><br><br><br><br>24 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|---|---|---|
| SR 3.5.3.1 | Verify each LPI manual and non-automatic power operated valve in the flow path, that is not locked, sealed, or otherwise secured in position, is in the correct position. | 31 days |

(continued)

SURVEILLANCE REQUIREMENTS (continued)

| | SURVEILLANCE | FREQUENCY |
|---|---|---|
| SR 3.5.3.2 | ----------NOTE----------<br>Not applicable to operating LPI pump(s).<br>----------<br>Vent each LPI pump casing. | 31 days |
| SR 3.5.3.3 | Verify each LPI pump's developed head at the test flow point is greater than or equal to the required developed head. | In accordance with the Inservice Testing Program |
| SR 3.5.3.4 | Verify each LPI automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal. | 18 months |
| SR 3.5.3.5 | Verify each LPI pump starts automatically on an actual or simulated actuation signal. | 18 months |
| SR 3.5.3.6 | Verify, by visual inspection, each LPI train reactor building sump suction inlet is not restricted by debris and suction inlet trash racks and screens show no evidence of structural distress or abnormal corrosion. | 18 months |
| 1 SR 3.5.3.7 | Cycle each LPI discharge header crossover valve, LPI cooler outlet throttle valve, and LPI header isolation valve open manually. | 18 months |

## 3.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

### 3.5.4 Borated Water Storage Tank (BWST)

LCO 3.5.4 The BWST shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTIONS

| CONDITION | REQUIRED ACTION | COMPLETION TIME |
|---|---|---|
| A. BWST boron concentration not within limits.<br><br>OR<br><br>BWST water temperature not within limits. | A.1 Restore BWST to OPERABLE status. | 8 hours |
| B. BWST inoperable for reasons other than Condition A. | B.1 Restore BWST to OPERABLE status. | 1 hour |
| C. Required Action and associated Completion Time not met. | C.1 Be in MODE 3.<br><br>AND<br><br>C.2 Be in MODE 5. | 12 hours<br><br><br><br>36 hours |

SURVEILLANCE REQUIREMENTS

| SURVEILLANCE | | FREQUENCY |
|---|---|---|
| SR 3.5.4.1 | Verify BWST borated water temperature is $\geq$ 45°F and $\leq$ 115°F. | 24 hours |
| SR 3.5.4.2 | Verify BWST borated water volume is $\geq$ 350,000 gallons. | 7 days |
| SR 3.5.4.3 | Verify BWST boron concentration is within the limit specified in the COLR. | 7 days |

BASES

SURVEILLANCE REQUIREMENTS

SR 3.5.2.3 (continued)

the ASME Code (Ref. 5). SRs are specified in the Inservice Testing Program, which encompasses Section XI of the ASME Code.

SR 3.5.2.4 and SR 3.5.2.5

These SRs demonstrate that each automatic HPI valve actuates to the required position on an actual or simulated ESPS signal and that each HPI pump starts on receipt of an actual or simulated ESPS signal. This SR is not required for valves that are locked, sealed, or otherwise secured in position under administrative controls. The test will be considered satisfactory if control board indication verifies that all components have responded to the ESPS actuation signal properly (all appropriate ESPS actuated pump breakers have opened or closed and all ESPS actuated valves have completed their travel). The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage and the potential for an unplanned transient if the Surveillance were performed with he reactor at power. The 18 month Frequency is also acceptable based on consideration of the design reliability (and confirming operating experience) of the equipment. The actuation logic is tested as part of the ESPS testing, and equipment performance is monitored as part of the Inservice Testing Program.

SR 3.5.2.6

Periodic inspections of the reactor building sump suction inlet (for LPI-HPI flow path) ensure that it is unrestricted and stays in proper operating condition. The 18 month Frequency is based on the need to perform this Surveillance under the conditions that apply during a unit outage, on the need to preserve access to the location, and on the potential for an unplanned transient if the Surveillance were performed with the reactor at power. This Frequency has been found to be sufficient to detect abnormal degradation and has been confirmed by operating experience.

1 (continued)

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5.0 ADMINISTRATIVE CONTROLS

5.4 Procedures

5.4.1 Written procedures shall be established, implemented, and maintained covering the following activities:

a. The applicable procedures recommended in Regulatory Guide 1.33, Revision 2, Appendix A, February 1978; 6.4.1a,b,c,e, g,h,i,j,k,l

b. The emergency operating procedures required to implement the requirements of NUREG-0737 and NUREG-0737, Supplement 1, as stated in [Generic Letter 82-33]; 6.4.1.d

Supp. 1

c. Quality assurance for effluent and environmental monitoring; Doc M4

d. Fire Protection Program implementation; and

e. All programs specified in Specification 5.5. Doc M11

involving potential or actual release of radioactivity (14)