TVA

Tennessee Valley Authority, Sequoyah Nuclear Plant, P.O. Box 2000, Soddy Daisy, Tennessee 37384

November 28, 2017

10 CFR 50.4
10 CFR 50.71(e)

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

Sequoyah Nuclear Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-77 and DPR-79
NRC Docket Nos. 50-327 and 50-328

Subject: **Revisions to the Sequoyah Nuclear Plant Units 1 and 2 Technical Requirements Manual**

References:

1. NRC Letter to TVA, "Issuance of Exemption to 10 CFR [50.] 71(e)(4) for the Sequoyah Nuclear Plant, Units 1 and 2 (TAC Nos. MA0646 and MA0647)," dated March 9, 1998
2. TVA Letter to NRC, "Revisions to the Sequoyah Nuclear Plant Technical Requirements Manual," dated June 10, 2016

Pursuant to 10 CFR 50.71(e) and the Reference 1 letter, updates to the Sequoyah Nuclear Plant (SQN) Updated Final Safety Analysis Report (UFSAR) for both Units 1 and 2 are to be submitted within 180 days following each Unit 2 refueling outage, but not to exceed 24 months between successive revisions. The SQN Technical Requirements Manual (TRM) is incorporated by reference into the SQN UFSAR. This letter provides NRC updates to the TRM since the update provided in the Reference 2 letter. The last Unit 2 refueling outage ended on June 2, 2017, and as such these updates are required by November 29, 2017. The enclosure to this letter provides a description of the TRM revisions with attachments of the updated pages.

There are no new regulatory commitments contained in this letter. If you have any questions, please contact Michael McBrearty at (423) 843-7170.

I certify that I am duly authorized by TVA, and that, to the best of my knowledge and belief, the information contained herein accurately presents changes made since the previous submittal, necessary to reflect information and analyses submitted to the Commission or prepared pursuant to Commission requirements.

Respectfully,

Anthony L. Williams
Site Vice President
Sequoyah Nuclear Plant

Enclosure:
Description of Revisions for the Sequoyah Nuclear Plant (SQN) Units 1 and 2, Technical Requirements Manual (TRM)

cc (Enclosure):
NRC Regional Administrator – Region II
NRC Senior Resident Inspector – Sequoyah Nuclear Plant

ENCLOSURE

DESCRIPTION OF REVISIONS FOR THE SEQUOYAH NUCLEAR PLANT (SQN) UNITS 1 AND 2, TECHNICAL REQUIREMENTS MANUAL (TRM)

Technical Requirements Manual (TRM) Revisions

TRM Revision 51 was approved on July 1, 2016, and implemented on October 21, 2016. The change was a clarification to Technical Requirement (TR), 8.1.1, “Boration Systems - Operating Bases.” It was identified in corrective action program condition report number (CR#) 1147814 that a clarification was needed to describe that two centrifugal charging pumps (CCPs) are needed, among other requirements, for full Functionality of the TR. The conversion of the Technical Requirement Manual (TRM) in 2015 to an improved standard format, resulted in combining boration system requirements into one TR, TR 8.1.1. The conversion resulted in the unintended ability to declare all boration systems’ two of the three flow paths Functional with only one available CCP.

TRM Revision 52 was approved on August 29, 2016 and implemented on September 9, 2016. Changes were made to TR 8.1.1, “Boration System - Operating,” and TR 8.1.2, “Boration System Shutdown,” to credit either offsite power or emergency power supply from Operable diesel generators as part of the functional requirements. This revision was driven from CR# 1172836, where it was identified that the conversion of the TRM in 2015 to an improved standard format, removed the allowance of TR 3.0.5 that permitted system, subsystem, train, component, or device to be considered Operable provided (1) its corresponding normal or emergency power source is Operable; and (2) all of its redundant system(s), subsystem(s), train(s), component(s) and device(s) are Operable.

TRM Revision 53 was approved on August 31, 2016, and implemented on September 9, 2016. This change eliminated TR 8.3.6 “Reactor Coolant System (RCS) Total Rate Indicators,” from the TRM as a corrective action of CR# 1118912. Through the condition report it was determined that TR 8.3.6 was a duplicate means to track and conduct a channel calibration of the indicators. These indicators support performance of Technical Specification 3.4.1, “RCS Pressure, Temperature, and Flow DNB Limits,” Surveillance Requirement 3.4.1.4 that requires a measured reactor coolant system total flow rate every 18 months. SQN Technical Instruction, TI-54, "Compliance Instruments" defines process instruments (i.e., compliance instrument) to be used to comply with TS requirements or obtain data to calculate values used to comply with TS requirements. The TI requires that each compliance instrument be included in a written program which delineates the calibration interval and how the instrument is to be calibrated. The TI provides a reliable and orderly method to inform organizations that instrumentation used to collect acceptance criteria during a surveillance instruction was found to be out of tolerance. Both the TI and TRM 8.3.6 were performing the same function and therefore TRM 8.3.6 was eliminated.

TRM Revision 54 was approved on September 27, 2016, and implemented on October 21, 2016. Condition Report no. 1169667 identified the Bases for TR 8.3.2, “Seismic Monitoring Instrumentation,” included a operational time period of 36 hours for seismic recorders on battery power. This time value was inconsistent with other plant documents and the Updated Final Safety Analysis Report which report the value to be 24 hours of operation after loss of normal power supply. This revision corrected the stated operational time to at least 24 hours for the seismic recorders when supplied power by batteries.

TRM Revision 55 was approved on October 7, 2016 and implemented on October 21, 2016. TR 8.4.3, “Reactor Coolant System Head Vents,” was revised to ensure that if any RCS head vent path was non-functional, then the appropriate contingency measure of isolating the non-functional path and removing power from the associated isolation valve’s actuator would be applied. The reason for this change was identified in CR# 1169668, wherein the conversion of the TRM in 2015 to an improved standard format, did not adequately incorporate a footnote describing an action to take if any flow path were non-functional. Also, the abbreviation of Reactor Coolant System Head Vents was made plural.

TRM Revision 56 was approved on April 4, 2016, and implemented on May 22, 2017 for Unit 1 and December 30, 2016 for Unit 2. A plant design change, documented in Design Change Notice 23577, modified the flow rate instrumentation associated with TR 8.1.1, “Boration Systems - Operating,” by replacement of obsolete equipment. To ensure a minimum borated water flow rate of 35 gallons per minute (gpm) in the system, the design change included instrument inaccuracies. As a result, an increase in flow rate, 5 gpm, was captured in Technical Requirement Verification (TRV) 8.1.1.6. The new required flow rate for TRV 8.1.1.6 is 40 gpm.

TRM Revision 57 was approved on January 27, 2017, and implemented on March 15, 2017. TR 8.8.4, “Emergency Diesel Generator (EDG) Fuel Oil Storage Tanks,” was created as part of Technical Specification Amendments #334 for Unit 1 and #327 for Unit 2, which relocated the requirement to drain, remove sediment, and clean the fuel oil supply tanks at 10 year intervals. This revision added a Bases to TR 8.8.4 where none previously existed.

TRM Revision 58 was approved on April 24, 2017, and implemented on May 11, 2017. This revision of the TRM effected TR 8.8.1, “Containment Penetration conductor Overcurrent Protective Devices,” and 8.8.3, “Isolation Devices.” The revision to these TRs replaced the specific frequencies at which inspection, preventative maintenance, and functional testing was performed for molded-case circuit breakers and metal-clad circuit breakers. The frequencies are replaced with a program that establishes a fixed frequency for these breaker TRVs per breaker type. The basis for the frequencies maintained in the program is founded on breaker maintenance historical data, manufacturer guidance, and industry guidance. The prior specific frequencies were based on manufacturer and industry guidelines that were available at the time the frequency requirements were accepted by the NRC during issuance of SQN's original operating license. The percentage sample size for functional testing of molded-case circuit breakers and metal-clad circuit breakers is eliminated and coordinated with the program that establishes the fixed frequencies. The revision also eliminates the requirement to perform a verification of a sample of fuses each cycle to ensure proper fuse size and type, if deterioration exists, and if the fuse connections are tight and clean. The verification of fuses was determined to be duplicating the same requirements in TVA Nuclear Power Group, Operations Department Procedure OPDP-7, “Fuse Control,” and therefore was eliminated.

TRM Revision 59 was approved on August 23, 2017, and implemented on November 17, 2017. The Bases of TR 8.3.4, “Plant Calorimetric Measurement,” calls out the current manufacturer’s name of the leading edge flow meter, which is used in secondary plant calorimetric measurements. This revision, a part of design engineering change 23805, removes the manufacturer’s name from the Bases.

Attachment:

Sequoyah Nuclear Plant, Technical Requirements Manual - Changed Pages

ATTACHMENT

SEQUOYAH NUCLEAR PLANT
TECHNICAL REQUIREMENTS MANUAL
CHANGED PAGES

TRM Affected Pages

EPL-1
EPL-2
EPL-3
EPL-4
EPL-6
EPL-9
TOC-i
8.1.1-3
8.1.1-5
8.1.2-5
8.3.2-4
8.3.4-3
8.3.4-4
8.3.6-1 (delete)
8.3.6-2 (delete)
8.4.3-1
8.4.3-3
8.8.1-3
8.8.1-4
8.8.1-5
8.8.3-2
8.8.3-3
8.8.4-2
8.8.4-3

EFFECTIVE PAGE LISTING

EFFECTIVE PAGE LISTING

EFFECTIVE PAGE LISTING

EFFECTIVE PAGE LISTING

Page	Revision
8.4.2-2	10/23/15
8.4.2-3	10/23/15
8.4.2-4	10/23/15
8.4.2-5	10/23/15
8.4.3-1	10/07/16
8.4.3-2	10/23/15
8.4.3-3	10/07/16
8.6.1-1	10/23/15
8.6.1-2	10/23/15
8.6.1-3	10/23/15
8.6.2-1	10/23/15
8.6.2-2	10/23/15
8.6.2-3	10/23/15
8.6.3-1	10/23/15
8.6.3-2	10/23/15
8.6.3-3	10/23/15
8.6.4-1	10/23/15
8.6.4-2	10/23/15
8.6.4-3	10/23/15
8.7.1-1	10/23/15
8.7.1-2	10/23/15
8.7.1-3	10/23/15
8.7.2-1	10/23/15
8.7.2-2	10/23/15

EFFECTIVE PAGE LISTING

REVISION LISTING

Revision	Date
Revision 50	11/25/15
Revision 51	07/01/16
Revision 52	08/29/16
Revision 53	08/31/16
Revision 54	09/27/16
Revision 55	10/07/16
Revision 56	04/04/16
Revision 57	01/27/17
Revision 58	04/24/17
Revision 59	08/23/17

Table of Contents

TECHNICAL REQUIREMENTS VERIFICATION (continued)

TRV	VERIFICATION	FREQUENCY
8.1.1.4	Verify each manual, power operated, or automatic valve in the boron injection flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.	31 days
8.1.1.5	Verify each automatic valve in the boron injection flow path actuates to its correct position on a safety injection test signal.	18 months
8.1.1.6	Verify the flow path from the boric acid tanks via a boric acid transfer pump and a charging pump to the RCS delivers greater than or equal to 40 gpm.	18 months
8.1.1.7	Verify each charging pump develops a discharge pressure of greater than or equal to 2400 psig during recirculation flow.	In accordance with the Inservice Testing Program

BASES

8.1.1 Boration Systems – Operating

The boron injection system ensures that negative reactivity control is available during each mode of facility operation. The components required to perform this function include 1) borated water sources, 2) charging pumps, 3) separate flow paths, 4) boric acid transfer pumps, and 5) offsite power supply or an emergency power supply from OPERABLE diesel generators.

With the RCS average temperature above 350°F, a minimum of two boron injection systems (involving two charging pumps,) are required to ensure single functional capability in the event an assumed failure renders one of the flow paths nonfunctional. The boration capability of either flow path is sufficient to provide a SHUTDOWN MARGIN (SDM) from expected operating conditions of 1.6% $\Delta k/k$ after xenon decay and cooldown to 200°F. The maximum expected boration capability requirement occurs at near EOL from full power peak xenon conditions and requires borated water from a boric acid tank in accordance with Figure 8.1.1-1 and additional makeup water from either: (1) the common boric acid tank and/or batching, or (2) a minimum of 26,000 gallons of 2500 ppm borated water from the refueling water storage tank. With the refueling water storage tank as the only borated water source, a minimum of 57,000 gallons of 2500 ppm borated water is required.

TR 8.1.1 is modified by a Note. Operation in MODE 3 with one charging pump made incapable of injecting, in order to facilitate entry into or exit from the Applicability of Technical Specification LCO 3.4.12, “Low Temperature Overpressure Protection (LTOP) System, “ is necessary for plants with an LTOP arming temperature at or near the MODE 3 boundary temperature of 350°F. Technical Specifications LCO 3.4.12 requires that certain pumps be rendered incapable of injecting at and below the LTOP arming temperature. When this temperature is at or near the MODE 3 boundary temperature, time is needed to make a pump incapable of injecting prior to entering the LTOP Applicability, and provide time to restore the nonfunctional pump to FUNCTIONAL status on exiting the LTOP Applicability.

The boric acid tanks, pumps, valves, and piping contain a boric acid solution concentration of between 3.5% and 4.0% by weight. To ensure that the boric acid remains in solution, the air temperature is monitored in strategic locations. By ensuring the air temperature remains at 63°F or above, a 5°F margin is provided to ensure the boron will not precipitate out. To provide operational flexibility, if the area temperature should fall below the required value, the solution temperature (as determined by the pipe or tank wall temperature) will be monitored at an increased frequency to compensate for the lack of solution temperature alarm in the main control room.

8.1 REACTIVITY CONTROL SYSTEMS

8.1.2 Boration Systems - Shutdown

BASES

The boron injection system ensures that negative reactivity control is available during each mode of facility operation. The components required to perform this function include 1) borated water sources, 2) charging pumps, 3) separate flow paths, 4) boric acid transfer pumps, and 5) offsite power supply or an emergency power supply from OPERABLE diesel generators.

The boric acid tanks, pumps, valves, and piping contain a boric acid solution concentration of between 3.5% and 4.0% by weight. To ensure that the boric acid remains in solution, the air temperature is monitored in strategic locations. By ensuring the air temperature remains at 63°F or above, a 5°F margin is provided to ensure the boron will not precipitate out. To provide operational flexibility, if the area temperature should fall below the required value, the solution temperature (as determined by the pipe or tank wall temperature) will be monitored at an increased frequency to compensate for the lack of solution temperature alarm in the main control room.

With the RCS temperature below 350°F, one injection system is acceptable without single failure consideration on the basis of the stable reactivity condition of the reactor and the additional restrictions prohibiting CORE ALTERATIONS and operations involving positive reactivity additions that could result in loss of required shutdown margin (SDM) (MODE 4 or 5) or boron concentration (MODE 6) in the event the single injection system becomes nonfunctional. Suspending positive reactivity additions that could result in failure to meet minimum SDM or boron concentration limit is required to assure continued safe operation. Introduction of coolant inventory must be from sources that have a boron concentration greater than or equal to that required in the RCS for minimum SDM or refueling boron concentration. This may result in an overall reduction in RCS boron concentration but provides acceptable margin to maintaining subcritical operation. Introduction of temperature changes including temperature increases when operating with positive MTC must be evaluated to ensure they do not result in a loss of required SDM.

The boron capability required below 350°F is sufficient to provide a SDM of 1.6% $\Delta k/k$ after xenon decay and cooldown from 350°F to 200°F, and a SDM of 1% $\Delta k/k$ after xenon decay and cooldown from 200°F to 140°F. This condition requires either 6400 gallons of 6120 ppm borated water from the boric acid storage tanks or 13,400 gallons of 2500 ppm borated water from the refueling water storage tank (RWST).

The contained water volume limits include allowance for water not available because of discharge line location and other physical characteristics. The 6400 gallon limit in the boric acid tank for Modes 4, 5, and 6 is based on 4,431 gallons required for SDM, 1,140 gallons for the unusable volume in the heel of the tank, 800 gallons for instrument error, and an additional 29 gallons due to rounding up. The 55,000 gallon limit in the refueling water storage tank for modes 4, 5, and 6 is based upon 22,182 gallons that is undetectable due to lower tap location, 19,197 gallons for instrument error, 13,400 gallons required for SDM, and an additional 221 gallons due to rounding up.

8.3 INSTRUMENTATION

8.3.2 Seismic Monitoring Instrumentation

BASES

BACKGROUND

The seismic instrumentation is made up of several instruments such as accelerometers, accelerographs, recorders, etc. These instruments are placed in several appropriate locations throughout the plant in order to provide 1) data on the seismic input to containment, 2) data on the frequency, amplitude and phase relationship of the seismic response of the containment structure, and 3) data on the seismic input to and response of other Seismic Category I structures (Ref 1).

This instrumentation is consistent with the intent of Regulatory Guide 1.12, Revision 1.

The original seismic instrumentation was replaced with state of the art digital instrumentation in order to facilitate application of EPRI OBE (i.e., 1/2 safe shutdown earthquake (SSE) for Sequoyah) Exceedance Criteria, as delineated in References 2 and 5. The replacement instrumentation is capable of recording a seismic event and performing appropriate analyses of the recorded data to provide a timely basis for determining whether a potentially damaging operating basis earthquake (OBE) exceedance has occurred. This information must be evaluated within 4 hours after an event and a walkdown of accessible plant features must be accomplished within 8 hours after an event.

The determination as to whether an 1/2 SSE Exceedance has occurred is made by comparing the calculated spectra for the event with the applicable site design basis spectra, which is defined at top of rock for Sequoyah (Ref. 4). Therefore, the exceedance determination for SQN will be made using uncorrected event data from accelerometer 0-XT-52-75B in the containment annulus. The use of uncorrected event data is known to be conservative because of the inherent response characteristics of the accelerometer. Data from this instrument is recorded at the top of the containment foundation, which is rock-supported. The recorder for this accelerometer is located in panel 0-R-113. As noted above, this accelerometer and recorder are the key components used to detect and record the event in order to make a shutdown decision. The recorder can function for minimum 24 hours from internal rechargeable batteries, which are constantly recharged from 120 VAC Instrument Power. Panel 0-R-113 also contains the computer, LCD display, and printer used to calculate and display the spectral content of the event, and the alarm panel used to annunciate in the control room. These devices are also powered by 120 VAC Instrument Power, but have no backup battery power. Power to these devices may be manually restored in the unlikely event of loss of AC power.

8.3 INSTRUMENTATION

8.3.4 Plant Calorimetric Measurement

BASES

BACKGROUND

The predominant contribution to the secondary plant calorimetric measurement uncertainty is the uncertainty associated with the feedwater flow measurement. Traditionally, a differential pressure (∆P) transmitter across a venturi in each main feedwater line has been used to provide the feedwater flow. However, the venturis are subject to fouling and the uncertainty associated with the flow derived from the ∆P indication can be large and increase as the flow deviates from the "optimum" conditions for which the ∆P transmitter was calibrated.

More recently, Leading Edge Flow Meters (LEFM) have been used to provide the feedwater flow input to the secondary plant calorimetric measurement. The uncertainty associated with the LEFM is relatively small and is independent of the actual feedwater flow.

Most of the original safety analyses supporting plant operation (including loss of coolant accident analyses required by 10 CFR 50 Appendix K) were performed at a maximum power level of 3411 MWt plus an allowance for the secondary plant calorimetric uncertainty assumed to be 2% above RATED THERMAL POWER. Hence, it is possible to support operation at a higher power level while remaining within the original analyses.

The RATED THERMAL POWER (RTP) for Units 1 and 2 is 3455 MWt which represents the increase of 1.3% RTP from the originally licensed value of 3411 MWt. This uprate is based on reduced uncertainties associated with the secondary plant calorimetric measurement that is attained through the use of the LEFM Check. Many of the accident analyses are performed at 102% of 3411 MWt, or 3479 MWt, where the 2% RTP is an allowance for the uncertainty associated with the power calorimetric measurement. With the LEFM Check, the power calorimetric measurement uncertainty is less than 0.7% RTP. Without performing new Appendix K accident analyses, the LEFM Check can be used to allow the plant to be operated at a redefined 100% RTP of 3455 MWt.

However, this allowance is predicated on the availability of the LEFM Check for performance of the calorimetric measurement. When the LEFM Check is unavailable, the uncertainties associated with the feedwater venturi-based measurement (2% RTP) must be used to ensure compliance with the safety analyses value of the core power of 3479 MWt.

Technical Specification (TS) Surveillance Requirement (SR) 3.3.1.2 for Power Range Neutron Flux Channel calibration by heat balance

8.4 REACTOR COOLANT SYSTEM (RCS)

8.4.3 Reactor Coolant System Head Vents (RCSHVs)

TECHNICAL REQUIREMENT (TR)

TR 8.4.3 Two RCSHV paths shall be FUNCTIONAL.

APPLICABILITY: MODES 1, 2, and 3.

CONTINGENCY MEASURES

CONDITION	CONTINGENCY MEASURES	RESTORATION TIME
A. One RCSHV path Nonfunctional.	A.1 Verify Nonfunctional RCSHV path isolated with power removed from the associated RCSHV valve actuators.	1 hour
B. With no RCSHV path FUNCTIONAL.	B.1 Verify RCSHV paths isolated with power removed from the associated RCSHV valve actuators.	1 hour
	<u>AND</u>	
	B.2 Restore at least one RCSHV path to FUNCTIONAL status.	30 days
C. Required Contingency Measures and associated Restoration Time of Condition A or B not met.	C.1 Evaluate in accordance with TR 7.5.3.	Immediately

8.4 REACTOR COOLANT SYSTEM (RCS)

8.4.3 Reactor Coolant System Head Vents (RCSHVs)

BASES

BACKGROUND	The function of the RCSHVs is to remove non-condensables or steam from the reactor vessel head. This system is designed to mitigate a possible condition of inadequate core cooling, inadequate natural circulation, or inability to depressurize the RHR System initiated conditions resulting from the accumulation of non-condensable gases in the RCS. The RCSHV is designed with redundant safety grade vent paths.

TRV	VERIFICATION	FREQUENCY
8.8.1.3	----------------------------NOTE----------------------------------- Testing shall consist of injecting a current input at the specified setpoint to each selected circuit breaker and verifying that each circuit breaker functions as designed. Circuit breakers found Nonfunctional during functional testing shall be restored to FUNCTIONAL status prior to resuming operation. -- Perform functional test of each low voltage circuit breaker in accordance with procedures prepared in conjunction with manufacturer's recommendations.	In accordance with 0-TI-SBR-000-001.0
8.8.1.4	Deleted	

TRV	VERIFICATION	FREQUENCY
8.8.1.5	Perform an inspection and preventive maintenance on each non-molded case circuit breaker in accordance with procedures prepared in conjunction with manufacturer's recommendations.	In accordance with 0-TI-SBR-000-001.0
8.8.1.6	Perform an inspection and preventive maintenance on each molded case circuit breaker in accordance with procedures prepared in conjunction with manufacturer's recommendations.	In accordance with 0-TI-SBR-000-001.0

8.8 ELECTRICAL POWER SYSTEMS

8.8.1 Containment Penetration Conductor Overcurrent Protective Devices

BASES

BACKGROUND

Containment electrical penetrations and penetration conductors are protected by either de-energizing circuits not required during reactor operation or by demonstrating the FUNCTIONALITY of primary and backup overcurrent protection circuit breakers during periodic performance of Technical Requirements Verification (TRV).

The TRVs applicable to lower voltage circuit breakers and fuses provide assurance of breaker and fuse reliability by testing circuit breakers and inspecting fuses. Each molded case and non-molded case circuit breaker will be tested at a frequency established by considering applicable maintenance history as well as manufacturer and industry guidelines.

Inspection of fuses and their holders will be performed in accordance with TVA's fuse control procedure each time fuses are manipulated to ensure: (1) that the proper size fuse is installed, (2) that the fuse shows no sign of deteriorations, (3) that the fuse connections are tight and clean (See IEEE Std 242-1975, Recommended Practice for Protection and coordination of Industrial and Commercial Power Systems). Should a problem be identified during inspection or should a problem arise with a specific brand or model of fuse, necessary corrective actions should be initiated through the plant's Corrective Action Program.

TECHNICAL REQUIREMENT

The Primary and backup containment penetration conductor overcurrent protective devices excludes those circuits for which credible fault current would not exceed the electrical penetration design rating.

TECHNICAL REQUIREMENTS VERIFICATION

TRV	VERIFICATION	FREQUENCY
8.8.3.1	----------------------------NOTES---------------------------------- 1. Functional testing shall consists of injecting a current input at the specified setpoint to each selected circuit breaker or relay and verifying it functions as designed. --- Perform functional test of each low voltage circuit breaker in accordance with procedures prepared in conjunction with manufacturer's recommendations.	In accordance with 0-TI-SBR-000-001.0
8.8.3.2	Perform inspection and preventive maintenance on each non-molded case circuit breaker in accordance with procedures prepared in conjunction with manufacturer's recommendations.	In accordance with 0-TI-SBR-000-001.0
8.8.3.3	Perform inspection and preventive maintenance on each molded case circuit breaker in accordance with procedures prepared in conjunction with manufacturer's recommendations.	In accordance with 0-TI-SBR-000-001.0

8.8 ELECTRICAL POWER SYSTEMS

8.8.3 Isolation Devices

BASES

BACKGROUND

Circuit breakers actuated by faulted currents are used as isolation devices in this plant. The FUNCTIONALITY of these circuit breakers ensures that the IE busses will be protected in the event of faults in nonqualified loads powered by the busses.

The testing requirements applicable to lower voltage circuit breakers provides assurance of breaker reliability by testing circuit breakers. Each molded case and non-molded case circuit breaker will be tested at a frequency established by considering applicable maintenance history as well as manufacturer and industry guidelines.

8.8 ELECTRICAL POWER SYSTEMS

8.8.4 Emergency Diesel Generator Fuel Oil Storage Tanks

BASES

BACKGROUND	A description of the diesel generator fuel oil 7-day storage tank is provided in the Bases for Technical Specification (TS) LCO 3.8.3, “Diesel Fuel Oil, Lube Oil, and Starting Air.”
APPLICABLE SAFETY ANALYSES	The Applicable Safety Analyses section for the Bases of TS LCO 3.8.3 also applies to this TR.
TECHNICAL REQUIREMENT	TR 8.8.4 specifies preventive maintenance to ensure proper quality of the fuel oil.
APPLICABILITY	TR 8.8.4 is consistent with TS LCO 3.8.3.
CONTINGENCY MEASURES	A.1 This Contingency Measure is entered to evaluate a failure to perform tank cleaning. A.2 Failure to perform tank cleaning could challenge the assurance of adequate fuel oil quality for proper operation of the diesel generators.
TECHNICAL REQUIREMENTS VERIFICATION	TRV 8.8.4.1 Draining of the fuel oil stored in the supply tanks (i.e., 7-Day Tanks), removal of accumulated sediment, and tank cleaning are required at 10-year intervals by Regulatory Guide 1.137 (Reference 2), paragraph 2.f. This TRV is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this TRV, provided that accumulated sediment is removed during the performance of the verification.

BASES

REFERENCES

1. UFSAR, Section 9.5.4

2. Regulatory Guide 1.137 Fuel-Oil Systems for Standby Diesel Generators, Revision 1, October 1979.