2.1.6 Pressurizer and Steam System Safety Valves

Applicability

Applies to the status of the pressurizer and steam system safety valves.

Objective

To specify minimum requirements pertaining to the pressurizer and steam system safety valves.

Specifications

To provide adequate overpressure protection for the reactor coolant system and steam system, the following safety valve requirements shall be met:

(1) The reactor shall not be made critical unless the two pressurizer safety valves are operable with their lift settings adjusted to ensure valve opening between 2500 psia and 2545 psia ±1%.(1)

(2) Whenever there is fuel in the reactor, and the reactor vessel head is installed, a minimum of one operable safety valve shall be installed on the pressurizer. However, when in at least the cold shutdown condition, safety valve nozzles may be open to containment atmosphere during performance of safety valve tests or maintenance to satisfy this specification.

(3) Whenever the reactor is in power operation, eight of the ten steam safety valves shall be operable with their lift settings between 1000 psia and 1050 psia with a tolerance of ±1% of the nominal nameplate set point values.(1)

(4) Both pressurizer power-operated relief valves (PORV's) shall be operable during scheduled heatup and cooldown to prevent violation of the pressure-temperature limits designated by Figures 2-1A and 2-1B. One PORV may be inoperable for up to 7 days, provided the remaining PORV is operable. If the above conditions of this paragraph cannot be met, the primary system must be depressurized and vented.

(5) Two power-operated relief valves (PORV's) and their associated block valves shall be operable in Modes 1, 2, and 3.

2.0 LIMITING CONDITIONS FOR OPERATION

2.1 Reactor Coolant System (Continued)

2.1.6 Pressurizer and Steam System Safety Valves (Continued)

a. With one or more PORV(s) inoperable, within 1 hour either restore the PORV(s) to operable status or close the associated block valve(s); otherwise, be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

b. With one or more block valve(s) inoperable, within 1 hour either restore the block valve(s) to operable status or close the block valve(s). Otherwise, be in at least HOT STANDBY within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.

Basis

The highest reactor coolant system pressure reached in any of the accidents analyzed was 2480 psia and resulted from a complete loss of turbine generator load without simultaneous reactor trip while operating at 1500 MWt.(2) The reactor is assumed to trip on a "High Pressurizer Pressure" trip signal.

The power-operated relief valves (PORV's) operate to relieve RCS pressure below the setting of the pressurizer code safety valves. These relief valves have remotely operated block valves to provide a positive shutoff capability should a relief valve become inoperable. The electrical power for both the relief valves and the block valves is capable of being supplied from an emergency power source to ensure the ability to seal this possible RCS leakage path.

To determine the maximum steam flow, the only other pressure relieving system assumed operational is the steam system safety valves. Conservative values for all systems parameters, delay times and core moderator, coefficients are assumed. Overpressure protection is provided to portions of the reactor coolant system which are at the highest pressure considering pump head, flow pressure drops and elevation heads.

If no residual heat were removed by any of the means available, the amount of steam which could be generated at safety valve lift pressure would be less than half of the capacity of one safety valve. This specification, therefore, provides adequate defense against overpressurization when the reactor is subcritical.

Performance of certain calibration and maintenance procedures on safety valves requires removal from the pressurizer. Should a safety valve be removed, either operability of the other safety valve or maintenance of at least one nozzle open to atmosphere will assure that sufficient relief capacity is available. Use of plastic or other similar material to prevent the entry of foreign material into the open nozzle will not be construed to violate the "open to atmosphere" provision, since the presence of this material would not significantly restrict the discharge of reactor coolant.

The total relief capacity of the ten steam system safety valves is 6.54×10^6 lb/hr. At the power of 1500 MWt, sufficient relief valve capacity is available to prevent overpressurization of the steam system on loss-of-load conditions.

The power-operated relief valve low setpoint will be adjusted to provide sufficient margin, when used in conjunction with Technical Specification Sections 2.1.1 and 2.3, to prevent the design basis pressure transients from causing an overpressurization incident. Limitation of this requirement to scheduled cooldown ensures that, should emergency conditions dictate rapid cooldown of the reactor coolant system, inoperability of the low temperature overpressure protection system would not prove to be an inhibiting factor.

Removal of the reactor vessel head provides sufficient expansion volume to limit any of the design basis pressure transients. Thus, no additional relief capacity is required.

References

(1) Article 9 of the 1968 ASME Boiler and Pressure Vessel Code, Section III

(2) FSAR, Section 14.9

(3) FSAR, Sections 4.3.4, 4.3.9.5

2.1.7 Pressurizer Operability

Applicability

Applies to the status of the pressurizer and pressurizer heaters.

Objective

To specify minimum requirements pertaining to the pressurizer water volume and availability of heaters for accident conditions.

Specifications

(1) The pressurizer shall be operable with at least 150 KW of pressurizer heaters, and pressurizer inventory shall be maintained in a range of level 40.5% to 69.2%.

a. With the pressurizer inoperable due to an inoperable emergency power supply to the pressurizer heaters either restore the inoperable emergency power supply within 72 hours or be in HOT SHUTDOWN within the following 12 hours. With the pressurizer otherwise inoperable, be in HOT SHUTDOWN within the following 12 hours. This is applicable for Modes 1 and 2.

b. With the pressurizer level outside the above range, either restore the level within the specified limits within 2 hours or be in HOT SHUTDOWN within the following 12 hours. This is applicable for Modes 1 and 2, except during monthly testing of the pressurizer level control circuit.

Basis

The requirement that 150 KW of pressurizer heaters and their associated controls be capable of being supplied electrical power from an emergency bus provides assurance that these heaters can be energized during a loss of offsite power condition to maintain natural circulation at HOT STANDBY. Either diesel generator is equipped with 225 KW of heater capacity. Either diesel will fulfill the minimum requirements of this specification. The level should be maintained above the lower limit to prevent heater cutoff and the upper limit should not be exceeded to prevent going solid or reducing the effectiveness of the pressurizer sprays by immersion during an RCS swell transient.

2.0 LIMITING CONDITIONS FOR OPERATION

2.15 Instrumentation and Control Systems

Applicability

Applies to plant instrumentation systems.

Objective

To delineate the conditions of the plant instrumentation and control systems necessary to assure reactor safety.

Specifications

The operability of the plant instrument and control systems shall be in accordance with Tables 2-2 through 2-6.

In the event the number of channels of a particular system in service falls below the limits given in the columns entitled "Minimum Operable Channels" or "Minimum Degree of Redundancy", except as conditioned by the column entitled "Permissible Bypass Conditions", the reactor shall be placed in a hot shutdown condition within 12 hours; however, operation can continue without containment isolation signals available if the ventilation isolation valves are closed. If minimum conditions are not met within 24 hours, the reactor shall be placed in a cold shutdown condition within 24 hours.

If, during power operation, the rod block function of the secondary CEA position indication system and rod block circuit are inoperable for more than 24 hours, or the plant computer PDIL alarm, CEA group deviation alarm and the CEA sequencing function are inoperable for more than 48 hours, the CEA's shall be withdrawn and maintained at fully withdrawn and the control rod drive system mode switch shall be maintained in the off position except when manual motion of CEA Group 4 is required to control axial power distribution.

Basis

During plant operation, the complete instrumentation systems will normally be in service. Reactor safety is provided by the reactor protection system, which automatically initiates appropriate action to prevent exceeding established limits. Safety is not compromised, however, by continuing operation with certain instrumentation channels out of service provisions were made for this in the plant design. This specification outlines limiting conditions for operation necessary to preserve the effectiveness of the reactor control and protection system when any one or more of the channels are out of service.

All reactor protection and almost all engineered safety feature channels are supplied with sufficient redundancy to provide the capability for channel test at power, except for backup channels such as derived circuits in engineered safeguards control system.

TABLE 2-5

Instrumentation Operating Requirements for Other Safety Feature Functions

No.	Functional Unit	Minimum Operable Channels	Minimum Degree of Redundancy	Permissible Bypass Conditions
1	CEA Position Indication Systems	1	None	None
2	Pressurizer Level	1	None	Not Applicable
3	Auxiliary Feedwater Flow/Steam Generator Level	1[a]	None	Not Applicable
4	Subcooling Margin Monitor	1	None	Not Applicable
5	PORV Acoustic Position Indication-Direct	1[bd]	None	Not Applicable
6	Safety Valve Acoustic Position Indication	1[bd]	None	Not Applicable
7	PORV/Safety Valve Tail Pipe Temperature	1[ec]	None	Not Applicable

NOTES:

[a]Auxiliary feedwater flow monitoring requirement of this specification is satisfied by one flow channel per pump or one of four level channels on each steam generator. Flow indication has one channel per pump and four level channels on each steam generator.

[b]One channel per valve.

[c]One RTD for both PORV's; two RTD's, one for each code safety.

[d]If item 7 is operable, requirements of specification 2.15 are modified for items 5 and 6 to "Restore inoperable channels to operability within 7 days or be in hot shutdown within 12 hours."

[e]If items 5 and 6 are operable, requirements of specification 2.15 are modified for item 7 to "Restore inoperable channels to operability within 7 days or be in hot shutdown within 12 hours."

TABLE 2-6

Instrument Operating Condition for Auxiliary Feedwater

No.	Functional Unit	Minimum Operable Channels	Minimum Degree of Redundancy	Permissible Bypass Conditions
1.	Auxiliary Feedwater			
A	Steam Generator Water Level Low	1	0	Reactor coolant less than 300°F.

TABLE 3-2

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF ENGINEERED SAFETY FEATURES, INSTRUMENTATION AND CONTROLS

	Channel Description	Surveillance Function	Frequency	Operating Mode Required for Testing	Surveillance Method
1.	Pressurizer Pressure Low	a. Check	S	1, 2, or 3	a. Comparison of four separate pressure indications.
		b. Calibrate	R	4 or 5	b. Known pressure applied to sensors and PPLS actuation and blocking logic verified.
		c. Test	$M^{(1)}P$	1, 2, or 3	c. Signal to meter relay adjusted with test device to trip one channel at a time.
2.	Pressurizer Low Pressure Blocking Circuit	a. Calibrate	R	4 or 5	a. Part of 1(b) above.
3.	Safety Injection Actuation	a. Test	M	1, 2, or 3	a. Simulation of PPLS or CPHS 2/4 logic using built-in testing system. Both "standby power" and "no standby power" circuits will be tested for A and B channels. Test will verify functioning of initiation circuits of all equipment normally operated by safety feature actuation signals.
		b. Test	R	5	b. Complete automatic test initiated sensor operation (Item 1(b) or 4(b) and including all normal operation.

TABLE 3-2 (continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF ENGINEERED SAFETY FEATURES, INSTRUMENTATION AND CONTROLS

	Channel Description	Surveillance Function	Frequency	Operating Mode Required for Testing	Surveillance Method
6.	(continued)	b. Calibrate	R	1, 2, 3, 4, or 5	b. Exposure to known external radiation source.
		c. Test	M	1, 2, 3, 4, or 5	c. Remote operated integral radiation check source used to verify instrumentation, one channel at a time, and isolation lockout relay functional check.
7.	Manual Safety Injection Initiation	a. Test	R	5	a. Manual initiation.
8.	Manual Containment Isolation Initiation	a. Test	R	5	a. Manual initiation.
		b. Check	R	5	b. Observe isolation valves closure.
9.	Manual Initiation Containment Spray	a. Test	R	5	a. Manual switch operation; pumps and valves tested separately.
10.	Automatic Load Sequencers	a. Test	Q	1, 2, or 3	a. Proper operation will be verified during safety feature actuation test of Item 3(a) above.
11.	Diesel Start	a. Test	M	1, 2, 3, or 4	a. Manual initiation followed by synchronizing and loading.

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TABLE 3-2 (continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF ENGINEERED SAFETY FEATURES, INSTRUMENTATION AND CONTROLS

	Channel Description	Surveillance Function	Frequency	Operating Mode Required for Testing	Surveillance Method
22.	Auxiliary Feedwater				
	a. Steam Generator Water Level Low	a. Check	S	1, 2, or 3	a. Compare independent level readings.
		b. Test	MP	1, 2, or 3	b. Functional check of initiation circuits.
		c. Test	R	4 or 5	c. System functional test of AFW initiation circuits.
		d. Calibration	R	4 or 5	d. Known signal applied to sensor.

S - Each Shift
D - Daily
M - Monthly
Q - Quarterly
R - 18 Months
P - Prior to Each Start-Up if Not Done Previous Week
MP - Monthly during designated modes and prior to taking the reactor critical if not completed within the previous 31 days (not applicable to a fast trip recovery)

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TABLE 3-3 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING OF MISCELLANEOUS INSTRUMENTATION AND CONTROLS

	Channel Description	Surveillance Function	Frequency	Operating Mode Required for Testing	Surveillance Method
19.	Auxiliary Feedwater Flow	Check	M	1, 2, or 3 (>300°F)	Channel check.
		Calibrate	R	4 or 5	Known pressure inputs.
20.	Subcooling Margin Meter	Check	M	1, 2, or 3	Channel check.
		Calibrate	R	4 or 5	Known pressure inputs and known resistance substituted for RTD inputs.
21.	PORV Operation and Acoustic Position Indication	Check	M	1, 2, or 3	Channel check.
		Calibrate	R	4 or 5	Apply acoustic input.
		Verify	R	4 or 5	Operation on emergency power supply.
22.	PORV Block Valve Position Indication	Check	Q	1, 2, or 3	Cycle valve.
		Calibrate	R	4 or 5	Check valve stroke against limit switch position.
		Verify	R	4 or 5	Operability on emergency power supply.
23.	Safety Valve Acoustic Position Indication	Check	M	1, 2, or 3	Circuit check.
		Calibrate	R	4 or 5	Apply acoustic input.
24.	PORV/Safety Valve Tail Pipe Temperature	Check	M	1, 2, or 3	Circuit check.
		Calibrate	R	4 or 5	Apply known input.

TABLE 3-3 (Continued)

MINIMUM FREQUENCIES FOR CHECKS, CALIBRATIONS AND TESTING
OF MISCELLANEOUS INSTRUMENTATION AND CONTROLS

Channel Description	Surveillance Function	Frequency	Operating Mode Required for Testing	Surveillance Method

Q - Quarterly
S - Each Shift
D - Daily
M - Monthly
A - Annually
R - 18 Months
P - Prior to each startup if not performed within previous week.
PM - Prior to scheduled cold leg cooldown below 300°F; monthly whenever temperature remains below 300°F and reactor vessel head is installed.

TABLE 3-5
(Continued)

		Test	Frequency	Operating Mode Required for Testing	FSAR Section Reference
10c.	(Continued)	4. Automatic and/or Manual initiation of the system shall be demonstrated.	At least once per plant operating cycle.	4 or 5	
11.	Containment Cooling and Iodine Removal Fuseable Linked Dampers	1. Demonstrate damper action.	1 year, 2 years, 5 years, and every 5 years thereafter.	4 or 5	9.10
12.	Fuel Elements	Visually inspect fuel elements removed from the reactor.	During each refueling outage.	1, 2, 3, 4, or 5	3
13.	Diesel Generator Under-Voltage Relays	Calibrate	During each refueling outage.	4 or 5	8.4.3
14.	Motor Operated Safety Injection Loop Valve Motor Starters (HCV-311, 314, 317, 320, 327, 329, 331, 333, 372, 315, 318, 321)	Verify the contactor pick-up value at $\leq$85% of 460 V.	During each refueling outage.	4 or 5	
15.	Pressurizer Heaters	Verify control circuits operation for post-accident heater use.	During each refueling outage.	4 or 5	

3.0 SURVEILLANCE REQUIREMENTS

3.9 Auxiliary Feedwater System

Applicability

Applies to periodic testing requirements of the turbine-driven and motor-driven auxiliary feedwater pumps.

Objective

To verify the operability of the auxiliary feedwater (AFW) system and its ability to respond properly when required.

Specifications

(1) The position of valves necessary to ensure auxiliary feedwater flow to the steam generators shall be verified by a monthly inspection. Anytime maintenance is performed on the auxiliary feedwater system which alters valve alignments, an operator shall check that the AFW system valves are properly aligned, to ensure AFW flow to the steam generators, and a second operator shall independently verify proper valve alignment. Operating Mode Required for Testing: 1, 2, 3, or 4.

(2) The operability of the motor-driven auxiliary feedwater pump, the steam turbine-driven auxiliary feedwater pump, and the auxiliary feedwater pumps' steam generator level regulating valves HCV-1107A, HCV-1107B, HCV-1108A, HCV-1108B, and auxiliary feedwater cross-tie valve HCV-1384 shall be confirmed at least every three months. Operating Mode Required for Testing: 1, 2, or 3.

(3) The capabilities of the motor-driven and turbine-driven auxiliary feedwater pumps shall be verified by using local pressure indicators and flow indicators in the control room. The discharge pressure will be verified to be 40 psig above the steam generator pressure at rated steam flow. Operating Mode Required for Testing: 1, 2, or 3.

(4) Following cold shutdown and prior to raising the reactor coolant temperature above 300°F, the motor-driven auxiliary feedwater pump shall be tested to verify the normal flow path for auxiliary feedwater to the steam generators.

(5) At least once per 18 months during shutdown by:

a. Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of each auxiliary feedwater actuation test signal.

b. Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of each auxiliary feedwater actuation test signal. Operating Mode Required for Testing: 4 or 5.

3.0 SURVEILLANCE REQUIREMENTS

3.9 Auxiliary Feedwater System

Applicability

Applies to periodic testing requirements of the turbine-driven and motor-driven auxiliary feedwater pumps.

Objective

To verify the operability of the auxiliary feedwater (AFW) system and its ability to respond properly when required.

Specifications

(1) The position of valves necessary to ensure auxiliary feedwater flow to the steam generators shall be verified by a monthly inspection. Anytime maintenance is performed on the auxiliary feedwater system which alters valve alignments, an operator shall check that the AFW system valves are properly aligned, to ensure AFW flow to the steam generators, and a second operator shall independently verify proper valve alignment.

(2) The operability of the motor-driven auxiliary feedwater pump, the steam turbine-driven auxiliary feedwater pump, and the auxiliary feedwater pumps' steam generator level regulating valves HCV-1107A, HCV-1107B, HCV-1108A, HCV-1108B, and auxiliary feedwater cross-tie valve HCV-1384 shall be confirmed at least every three months.

(3) The capabilities of the motor-driven and turbine-driven auxiliary feedwater pumps shall be verified by using local pressure indicators and flow indicators in the control room. The discharge pressure will be verified to be 40 psig above the steam generator pressure at rated steam flow.

(4) Following cold shutdown and prior to raising the reactor coolant temperature above 300°F, the motor-driven auxiliary feedwater pump shall be tested to verify the normal flow path for auxiliary feedwater to the steam generators.

(5) At least once per 18 months during shutdown by:

a. Verifying that each automatic valve in the flow path actuates to its correct position upon receipt of each auxiliary feedwater actuation test signal.

b. Verifying that each auxiliary feedwater pump starts as designed automatically upon receipt of each auxiliary feedwater actuation test signal.

Basis

The valve position verifications performed monthly and following auxiliary feedwater system maintenance will confirm the availability of an auxiliary feedwater flow path to the steam generators.

The testing every three months and after cold shutdowns of the auxiliary feedwater pumps will verify their operability by recirculating water to the emergency feedwater storage tank and operating, one at a time, the regulating valves (HCV-1107B and HCV-1108B) to confirm a flow path to the steam generators and operability of the valves.

Proper functioning of the steam turbine admission valve and starting of the feedwater pump will demonstrate the integrity of the steam driven pump. Verification of correct operation will be made both from instrumentation within the main control room and direct visual observation of the pumps.

The operability of the auxiliary feedwater system ensures that the reactor coolant system can be cooled down to less than 350°F from normal operating conditions in the event of a total loss of off-site power.

References

(1) FSAR, Section 9.4
(2) Technical Specification 2.5

5.0 ADMINISTRATIVE CONTROLS

5.3 Facility Staff Qualification

5.3.1 Each member of the plant staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, with the exception of the Supervisor - Chemical and Radiation Protection (SCRP) and the Shift Technical Advisor (STA). The SCRP shall meet the requirements set forth in Regulatory Guide 1.8 dated September, 1975, entitled "Personnel Selection and Training". The SCRP is considered to meet the educational and experience qualifications set forth in Regulatory Guide 1.8 with at least five years of experience in applied radiation protection and extensive formal training in radiation protection. The Shift Technical Advisor shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design and response and analysis of the plant for transients and accidents.

TABLE 5.2-1

MINIMUM SHIFT CREW COMPOSITION

License Category	Core Alteration	Cold Shutdown or Refueling Shutdown	Operating or Hot Shutdown Modes
Senior Operator License	1*	1	1
Operator License	2	1	2
Non-Licensed	(As required)	1	2
Shift Technical Advisor	None	None	1

*Does not include individual with Senior Operator License supervising Refueling Operations.

6.0 INTERIM SPECIAL TECHNICAL SPECIFICATIONS
6.5 Auxiliary Feedwater Automatic Initiation Setpoint

Applicability

This specification applies to category A Lessons Learned Control Grade Auxiliary Feedwater Automatic Initiation System.

Objective

To define the steam generator level range and time delay band in which automatic initiation of auxiliary feedwater must occur.

Specification

Functional Unit	Channel	Setting Limits
Steam Generator Level (Downcomer level) and Time Delay	Auto Initiation of Auxiliary Feedwater	0% to 31.2% level with time delay greater than or equal to 180 sec.

Basis

The level setpoint is to ensure automatic initiation of AFW in case of loss of the main feedwater (MFW) system. The range is provided to minimize initiation during operational occurrences with MFW available. The time delay is provided to ensure that the RCS is not overcooled during a main steam line break (MSLB) event.

DISCUSSION

The Omaha Public Power District received a letter from the Commission, dated July 2, 1980, requesting Technical Specification (T.S.) changes. The T.S. changes are required to assure that plant operations are maintained within acceptable limits following the implementation of TMI-2 Lessons Learned Category "A" items. The specification proposals requested in the Commission's July 2, 1980, letter are listed below with the Commission's specific requests.

(1) Emergency Power Supply Requirements

The pressurizer water level indicators, pressurizer relief and block valves, and pressurizer heaters are important in a post-accident situation. Adequate emergency power supplies insure post-accident functioning of these components. The enclosed specifications will satisfy our requirements. Removal of the PORV block valve power supplies is not necessary. No automatic opening signals are installed in the control circuit.

(2) Valve Position Indication

The installed system for indication of valve position is a diagnostic aid to the operator. Although the indicating system provides no automatic action, we believe that this system should be operable and that periodic surveillance should be performed.

(3) Instrumentation for Inadequate Core Cooling

(4) Containment Isolation

We believe your specifications should include a Table of Containment Isolation Valves which reflect the diverse isolation signals which your design currently provides. Sample specifications and associated surveillance are included.

(5) Auxiliary Feedwater Systems

Setpoint range is consistent with the limits assumed in the safety analysis response to IE Bulletin 80-04.

(6) Shift Technical Advisor

The specification related to minimum shift manning should be revised to reflect the augmentation of a Shift Technical Advisor.

Each specific proposal is discussed separately.

(1) Emergency Power Supply Requirements

The pressurizer water level indicators, pressurizer power operated relief and block valves, and 450 KW (225 KW per diesel) of pressurizer heaters are not powered from emergency buses. Operability requirements for the level indicators are adequately provided for in proposed changes to T.S. 2.1.5, Table 2-5, and T.S. 2.0.1 in the Application for Amendment filed with the Commission on August 5, 1980. Surveillance requirements

(1) Emergency Power Supply Requirements (Continued)

for the pressurizer level indicator are provided for in existing T.S. 3.1 and Table 3-3. PORV and block valve operability is provided for in the proposed T.S. 2.1.6 and surveillance is provided for in the proposed Table 3-5. Pressurizer heater and inventory operability requirements are detailed in the proposed new Limiting Conditions for Operation (LCO's), T.S. 2.1.7, and surveillance requirements in Table 3-5. Since the reactor is subcritical, the pressurizer heaters and inventory are not required for Mode 3. The proposed inventories are those ranges assumed in the safety analysis.

In all cases, the proposed T.S. changes are consistent with the standard T.S. provided by the Commission as modified to conform in scope and content with Fort Calhoun's existing specifications.

(2) Valve Position Indication

LCO's and surveillance requirements for the safety and power operated relief and block valve position indicators are proposed to assure accurate status tracking of these valves. Revised T.S. 2.15, Table 2-5, and Table 3-3 assure the operability of the position indicators. Since the block valves have no automatic closure, a quarterly check of the limit switch position indication along with valve operability is adequate. This also minimizes the time in which the valves are closed during power operation. It is felt that the 7 day LCO for valve indication by either of the systems of PORV/safety valve is adequate due to the short 7 day position indication exposure.

(3) Instrumentation for Inadequate Core Cooling

The subcooling margin system provides an indication of the reactor's approach to saturation conditions. In an accident situation, this indication will provide an important source of information to the operator in making his decisions. Accordingly, the accuracy and operability of the subcooling margin system is assured through the proposed LCO's and surveillance requirements in T.S. 2.15, Table 2-5, and Table 3-3.

(4) Containment Isolation

TMI-2 related requirements required no changes to the existing containment isolation actuation system or existing hardware. The CIAS is initiated by two diverse signals: low pressurizer pressure or high containment pressure. All containment isolation valves assume their accident position on actuation and in all cases can only be manually reset. Some valves have an override function such that the valve position can be changed while the actuation signal is present; however, this is a manual function. Existing T.S. assure operability and accuracy of the CIAS and the containment isolation valves, and no changes to these T.S. are proposed.

(5) Auxiliary Feedwater Systems

As a result of the TMI-2 Lessons Learned requirements, the auxiliary feedwater (AFW) system was modified to actuate automatically. As a result of the AFW changes, changes to T.S. 2.15, 3.9, Table 3-2, and addition of Table 2-6 are proposed to assure the operability of the AFW system. The operability of the automated AFW system is critical to assuring an adequate heat sink during the initial stages of an accident similar to the TMI-2 event. For the purpose of testing, it is considered adequate to test the steam admission valves to the steam driven feed pump during the auto initiation of auxiliary feedwater circuit testing. The pump operability will be demonstrated prior to a return to power operation following refueling.

(6) Shift Technical Advisor

T.S. 5.3 and Table 5.2-1 have been revised to include the requirement for a Shift Technical Advisor (STA) on the operating shifts. The proposed T.S. comply with the standard T.S. provided with the Commission's letter of July 2, 1980.

In addition to the T.S. changes required, the Commission in their July 2, 1980, letter recommended that conditions be added to the Facility License for leak monitoring and upgraded iodine monitoring. The Facility License has been amended to add license conditions requiring programs to reduce leakage of radioactive systems outside containment and to upgrade iodine monitoring during accident conditions. The proposed conditions comply with the suggested format provided with the Commission's letter.

All proposed Facility License and Technical Specification revisions do not constitute an unreviewed safety question nor do they represent a possible threat to the public. The changes provide procedures to assure operability of systems used in mitigation of transients and possible accidents, thereby improving the safety of the Fort Calhoun Station. The proposed T.S. revisions are also consistent with the Combustion Engineering Standard Technical Specifications as modified to conform with the scope and content of existing T.S.

JUSTIFICATION FOR FEE CLASSIFICATION

The proposed amendments are deemed to be Class III within the meaning of 10 CFR 170.22 because they have been identified acceptable by Commission positions. The Commission has identified the need and format for the proposed amendments by a letter dated July 2, 1980.

ATTACHMENT C