



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

YANKEE ATOMIC POWER COMPANY

YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-29

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 84
License No. DPR-3

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Yankee Atomic Power Company (the licensee) dated April 17, 1984, as supplemented August 7, 1984, and revised April 5, 1985 complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public; and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

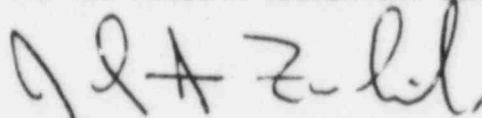
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C(2) of Facility Operating License No. DPR-3 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A as revised through Amendment No. , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John A. Zwolinski, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 1, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 84

FACILITY OPERATING LICENSE NO. DPR-3

DOCKET NO. 50-29

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the enclosed pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE

3/4 3-12A
3/4 3-13
--
3/4 3-15A
3/4 3-16
--
3/4 7-29b
B 3/4 4-1
B 3/4 4-13

INSERT

3/4 3-12A
3/4 3-13
3/4 3-14A
3/4 3-15A
3/4 3-16
3/4 4-39
3/4 7-29b
B 3/4 4-1
B 3/4 4-13

TABLE 3.3-2 (Continued)

ENGINEERING SAFEGUARDS SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT		TOTAL NO. OF CHANNELS AND SENSORS	CHANNELS AND SENSORS TO TRIP	MINIMUM CHANNELS AND SENSORS OPERABLE	APPLICABLE MODES	ACTION
2.	CONTAINMENT ISOLATION (Continued)					
c.	Actuation Channel B	1	1	1	1, 2, 3, 4, 5(1)	10
	1) High Containment Pressure Sensor	1	1	1	1, 2, 3, 4, 5(1)	10
	2) Safety Injection	(All Safety Injection Initiating Functions and Requirements)				
3.	MAIN STEAM ISOLATION					
a.	Low Steam Line Pressure	3/Steam Line	2/Steam Line	3/Steam Line	1, 2, 3 ⁽²⁾	6**
b.	Automatic Trip Logic	2	1	2	1, 2, 3 ⁽²⁾	8
c.	Manual Initiation	2	1	2	1, 2	8
d.	High Containment Pressure Trip Containment Isolation	2	1	2	1, 2	8
4.	LOSS OF POWER					
	480 Volt Emergency Bus Degraded Voltage	2/Bus	2/Bus	2/Bus	1, 2, 3	22**

TABLE 3.3-2 (Continued)

TABLE NOTATION

** The provisions of Specification 3.0.4 are not applicable.

- (1) Trip function may be bypassed in this MODE with main coolant pressure <300 psig.
- (2) Trip function may be bypassed in this MODE with main coolant pressure <1800 psig and main coolant temperature <490°F.
- (3) Automatic initiation of Actuation Channel #1 may be bypassed in this MODE during functional test of the Main Coolant System Loop 1 pressure channel.
Automatic initiation of Actuation Channel #2 may be bypassed in this MODE during functional test of the Main Coolant System Loop 2 pressure channel.

ACTION STATEMENTS

- ACTION 10 - With the number of OPERABLE channels or sensors one less than the total number of channels or sensors, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours; however, one safety injection channel high containment pressure sensor may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.2.1.
- ACTION 6 - With the number of OPERABLE channels one less than the total number of channels, STARTUP and POWER OPERATION may proceed provided both of the following conditions are satisfied:
1. The inoperable channel is placed in the tripped condition within 1 hour.
 2. The minimum channels OPERABLE requirement is met; however, one additional channel may be bypassed for up to 2 hours for surveillance testing per Specification 4.3.1.1.
- ACTION 8 - With the number of channels OPERABLE less than required by the minimum channels OPERABLE requirement, be in at least HOT STANDBY within 6 hours.
- ACTION 22 - With the number of OPERABLE channels one less than the total number of channels, STARTUP and/or POWER OPERATION may proceed until performance of the next required CHANNEL FUNCTIONAL TEST provided the inoperable channel is placed in the tripped condition within one hour.

TABLE 3.3-3 (Continued)

ENGINEERED SAFEGUARDS SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>
4. DEGRADED VOLTAGE	
a. 480 V Bus 4-1, Bus 5-2, Bus 6-3 Time Delay	429 \pm 4.5 Volts 10 \pm 1 Second
b. 480 V Emergency Bus No. 1, Emergency Bus No. 2, Emergency Bus No. 3 Time Delay	421 \pm 4.5 Volts 10 \pm 1 Second

TABLE 4.3-2 (Continued)

ENGINEERED SAFEGUARDS SYSTEM INSTRUMENTATION
SURVEILLANCE REQUIREMENTS

<u>FUNCTIONAL UNIT</u>	<u>CHANNEL CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
2. CONTAINMENT ISOLATION (Continued)				
c. Actuation Channel B	S	NA	M(4)	1, 2, 3, 4, 5*
1) High Containment Pressure Sensor	S	R(3)	M(3)	1, 2, 3, 4, 5*
2) Safety Injection	(All Safety Injection Surveillance Requirements)			
3. MAIN STEAM ISOLATION				
a. Low Steam Line Pressure	S	R(3)	M(3)	1, 2
b. Automatic Trip Logic	NA	NA	Q	1, 2
c. Manual Initiation	NA	NA	R	1, 2
d. High Containment Pressure Trip	NA	NA	R	1, 2
4. LOSS OF POWER				
480 Volt Emergency Bus Degraded Voltage	NA	R	R(5)	1, 2, 3

TABLE 4.3-2 (Continued)

TABLE NOTATION

- (1) When shutdown with main coolant pressure < 1000 psig, if not performed within the previous 31 days.
 - (2) When shutdown longer than 24 hours, if not performed in the previous 31 days.
 - (3) The test shall include exercising the sensor by applying either a vacuum or pressure to the appropriate side of the sensor.
 - (4) When in COLD SHUTDOWN with main coolant pressure < 300 psig, if not performed within the previous 31 days.
 - (5) 480V Emergency Bus Degraded Voltage surveillance frequency of once per 18 months applies only up to the end of the 1985 refueling outage. The surveillance frequency shall be modified prior to startup from the 1985 refueling outage.
- * Not required in this MODE with main coolant pressure < 300 psig.
- # Not required in this MODE with main coolant pressure < 1700 psig.

MAIN COOLANT SYSTEM

MAIN COOLANT SYSTEM VENTS

LIMITING CONDITION FOR OPERATION

3.4.11 At least one main coolant system vent path consisting of at least two valves in series powered from emergency buses or capable of being powered from an emergency bus, shall be OPERABLE and closed at each of the following locations:

- a. Reactor vessel head (VD-MOV-559 and 561)
- b. Pressurizer steam space (PR-MOV-558 and 560)

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

ACTION:

- a. With one of the above main coolant system vent valves inoperable, STARTUP and/or POWER OPERATION may continue provided the inoperable valve is maintained closed with power removed from the valve actuator of the inoperable valve; restore the inoperable vent valve to OPERABLE status within 30 days, or, be in HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With both main coolant system vent paths inoperable; maintain the inoperable vent paths closed with power removed from the valve actuators of the inoperable valves, and restore at least one of the vent paths to OPERABLE status within 72 hours or be in HOT STANDBY within six hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.4.11 Each main coolant system vent path shall be demonstrated OPERABLE at least once per 18 months by:

- a. Verifying all manual isolation valves in each vent path are locked in the open position.
- b. Cycling each motor-operated valve in the vent path through at least one complete cycle at full travel from the Control Room during COLD SHUTDOWN or REFUELING.
- c. Verifying flow through the main coolant vent system vent paths during venting during COLD SHUTDOWN or REFUELING.

TABLE 3.7-4

SAFETY-RELATED MECHANICAL SNUBBERS*

<u>Snubber No.</u>	<u>System Snubber Installed On Location</u>	<u>Accessible or Inaccessible (A or I)</u>	<u>High Radiation Zone During Shutdown** (Yes or No)</u>	<u>Especially Difficult to Remove (Yes or No)</u>
SG-SNB-1R	S/G No. 1, Right Side	I	Yes	Yes
SG-SNB-1L	S/G No. 1, Left Side	I	Yes	Yes
SG-SNB-2R	S/G No. 2, Right Side	I	Yes	Yes
SG-SNB-2L	S/G No. 2, Left Side	I	Yes	Yes
SG-SNB-3R	S/G No. 3, Right Side	I	Yes	Yes
SG-SNB-3L	S/G No. 3, Left Side	I	Yes	Yes
SG-SNB-4R	S/G No. 4, Right Side	I	Yes	Yes
SG-SNB-4L	S/G No. 4, Left Side	I	Yes	Yes
PKSH-SNB-1	Safety Injection in VC - Loop 3	A	Yes	No
PKSH-SNB-2	Safety Injection in VC - Loop 3	A	Yes	No

3/4.4 MAIN COOLANT SYSTEM

BASES

3/4.4.1 Main Coolant Loops

The plant is designed to operate with all main coolant loops in operation, and maintain DNBR above 1.30 during all normal operations and anticipated transients.

In MODE 3, a single main coolant loop provides sufficient heat removal capability for removing decay heat; however, single failure considerations require that two loops be OPERABLE. Safety Injection System considerations require four loops to be OPERABLE.

In MODES 4 and 5, a single main coolant loop or RHR loop provides sufficient heat removal capability for removing decay heat; but single failure considerations require that at least two loops be OPERABLE. Thus, if the main coolant loops are not OPERABLE, this specification requires two RHR loops to be OPERABLE. Safety Injection System considerations require four loops to be OPERABLE in Mode 4.

The operation of one main coolant pump or one RHR pump provides adequate flow to ensure mixing, prevent stratification, and produce gradual reactivity changes during boron concentration reduction in the Main Coolant System. The reactivity change rate associated with boron reduction will, therefore, be within the capability of operator recognition and control.

The requirement to maintain the boron concentration of an isolated loop greater than or equal to the boron concentration of the operating loops ensures that no reactivity addition to the core could occur during startup of an isolated loop. Verification of the boron concentration in an isolated loop prior to opening the stop valves provides a reassurance of the adequacy of the boron concentration in the isolated loop. Startup of an isolated loop will inject cool water from the loop into the core. The reactivity transient resulting from this cool water injection is minimized by delaying isolated loop startup until its temperature is within 30°F of the operating loops. Making the reactor subcritical prior to loop startup prevents any power spike which could result from this cool water induced reactivity transient.

The prohibition on starting a main coolant pump without a bubble in the pressurizer or with a SG/MCS temperature difference of 100°F requirement is necessary to prevent exceeding the isothermal Appendix G curve limits under the most restrictive MC flow initiation transient if the PORV or SV relief valves fail.

3/4.4.2 and 3/4.4.3 SAFETY VALVES

The pressurizer code safety valves operate to prevent the Main Coolant System from being pressurized above its safety limits of 2735 psig. The valves have steam relieving capacities of 125,000 and 130,000 lb per hour of saturated steam at the valve setpoint. The relief capacity of a single safety valve is adequate to relieve any overpressure condition which could occur during shutdown. In the event that no safety valves are OPERABLE, an operating Shutdown Cooling System connected to the Main Coolant System provides overpressure relief capability and will prevent Main Coolant System overpressurization during shutdown.

MAIN COOLANT SYSTEM

BASES

Whenever the results of any steam generator tubing inservice inspection fall into Category C-3, these results will be promptly reported to the Commission pursuant to Specification 6.9.4 prior to resumption of plant operation. Such cases will be considered by the Commission on a case-by-case basis and may result in a requirement for analysis, laboratory examinations, tests, additional eddy-current inspection, and revision of the Technical Specifications, if necessary.

3/4.4.11 Main Coolant System Vents

Main coolant system vents are provided to exhaust noncondensable gases and/or steam from the primary system that could inhibit natural circulation core cooling. The OPERABILITY of at least one main coolant system vent path from the reactor vessel head or the pressurizer steam space ensures the capability exists to perform this function.

The valve redundancy of the main coolant system vent paths serves to minimize the probability of inadvertent irreversible actuation while ensuring that a single failure of a vent valve, power supply, or control system does not prevent isolation of the vent path.

The function, capabilities, and testing requirements of the main coolant system vent systems are consistent with the requirements of Item II.B.1 of NUREG-0737, "Clarification of TMI Action Plan Requirements", November 1980.