

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

YANKEE ATOMIC ELECTRIC COMPANY

DOCKET NO. 50-29

YANKEE NUCLEAR POWER STATION (YANKEE-ROWE)

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 68
License No. DPR-3

1. The Nuclear Regulatory Commission (the Commission) has found that:

- A. The application for amendment by Yankee Atomic Electric Company (the licensee) dated October 22, 1980, (Proposed Change No. 172) 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 the 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.

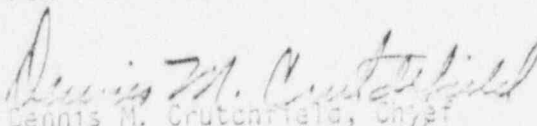
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2. Accordingly, Facility Operating License No. DPR-3 is hereby amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, paragraph 2.C.(2), to read as follows:

Technical Specifications

- (2) The Technical Specifications contained in Appendix A, as revised through Amendment No. 68, 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


Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: June 8, 1981

ATTACHMENT TO LICENSE AMENDMENT NO. 68

FACILITY OPERATING LICENSE NO. DPR-3

DOCKET NO. 50-29

Revise Appendix A Technical Specifications by removing the following pages* and inserting the enclosed pages. The revised pages contain the captioned amendment number and vertical lines indicating the area of change.

Remove and Insert

3/4 4-28

3/4 4-32

3/4 4-34

3/4 5-8

*Overleaf pages 3/4 4-27, 3/4 4-31, 3/4 4-33 and 3/4 5-7 are included for document completeness.

MAIN COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

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An initial report of any abnormal degradation of the structural integrity of the Safety Class 1 components detected during the above required inspections shall be made within 10 days after detection and the detailed report shall be submitted pursuant to Specification 6.9.4 within 90 days after completion of the surveillance requirements of this specification.

The Inservice Inspection Program shall be reviewed every 5 years to assure that the equipment, techniques and procedures being utilized are current and applicable. The results of these reviews shall be reported in Special Reports to the Commission pursuant to Specification 6.9.6 within 90 days of completion.

- b. Inspections Following Repairs or Replacements The structural integrity of the Main Coolant System shall be demonstrated after completion of all repairs and/or replacements to the system by verifying the repairs and/or replacements meet the requirements of Section XI of the ASME Boiler and Pressure Vessel Code, 1970 Edition, and Addenda through Winter 1970, except for all Class 1 piping the ultrasonic calibration shall be per:

1. Article III-2000 of Appendix III - ASME Sec XI - Summer 1976 except that III-2410 shall be deleted, III-2430 shall be used except 50% Reference level recording shall be performed. Ten percent overlap shall be retained.
2. Article III-3000 shall be used entirely.
3. Article III-4000 shall be used entirely.
4. Supplement 7 shall be used for austenitic welds.

When repairs and/or replacements are made which involve new strength welds on components greater than 2 inch diameter, the new welds shall receive a surface and 100 percent volumetric examination and meet applicable code requirements. When repairs and/or replacements are made which involve new strength welds on components 2 inch diameter or smaller, the new welds shall receive a surface examination and meet applicable code requirements.

MAIN COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- c. Inspections Following System Opening The structural integrity of the Main Coolant System shall be demonstrated after each closing by performing a leak test, with the system pressurized to at least 2200 psig, in accordance with Section XI of the ASME Boiler and Pressure Vessel Code, 1970 Edition, and Addenda through Winter 1970, and the Pressure/Temperature limits of Specification 3.4.8.1.

4.4.9.2* The following inspection program shall be performed at least once per 18 months during shutdown on at least one shroud tube per quadrant.

- a. Inspect the integrity of the bolts and locking devices in the lower flange at the bottom of the shroud tubes.
- b. Inspect the interface between the shroud tube lower flange and the tie plate for separation.
- c. Inspect the interface between the shroud tube upper flange and the top shroud tube support plate for separation.
- d. Inspect the interface between the top shroud tube support plate and the lower core support plate for separation.
- e. Inspect for abnormalities one of each of the types of bolts per quadrant.

4.4.9.3* The pressurizer interior shall be inspected at least once per 18 months during shutdown using the best available techniques to determine if any change has occurred in the cladding cracks that exist and whether any further cracking of the cladding has taken place.

4.4.9.4 The 2" charging line between CH-MOV-524 and CH-611A shall be dye penetrant tested at least once per 18 months during shutdown.

*The intent of the 18 month surveillance requirements for Sections 4.4.9.2 and 4.4.9.3 is that these surveillances would be performed on a refueling basis. For this reason, as well as ALARA considerations, the surveillance requirements of sections 4.4.9.2 and 4.4.9.3 may be deferred past the 18 month limit until the end of the 1981 refueling outage, but no later than July 31, 1981.

TABLE 4.4-3 (Continued)
INSERVICE INSPECTION PROGRAM - CLASS I COMPONENTS

Section XI Examination Category (1)	Components and Parts to be Examined	Methods	Percent of Welds or Components to be Examined for Each 10 Year Interval
	<u>Pump Pressure Boundary</u>		
G-2	Pressure retaining bolting	Visual	100%
K-2	Supports and hangers	Visual	100%
L-2	Pump casing	Visual	One pump of each class (if opened for maintenance)
	<u>Valve Pressure Boundary</u>		
G-2	Pressure retaining bolting	Visual	100%
K-2	Supports and hangers	Visual	100%
M-2	Valve bodies	Visual	100% of one valve of each class (if opened for maintenance)

(1) Those examination categories not applicable or accessible are not listed.

MAIN COOLANT SYSTEM

STEAM GENERATORS

LIMITING CONDITION FOR OPERATION

3.4.10 Each steam generator in a non-isolated main coolant loop shall be OPERABLE.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With one or more steam generators in non-isolated main coolant loops inoperable, restore the inoperable generator(s) to OPERABLE status prior to increasing T_{avg} about 200°F.

SURVEILLANCE REQUIREMENTS

4.4.10.1* Steam Generator Sample Selection and Inspection - Each steam generator shall be determined OPERABLE during shutdown by selecting and inspecting at least the minimum number of steam generators specified in Table 4.4-4.

4.4.10.2 Steam Generator Sample Selection and Inspection - The steam generator tube minimum sample size, inspection result classification and the corresponding action required shall be as specified in Table 4.4-5. The inservice inspection of steam generator tubes shall be performed at the frequencies specified in Specification 4.4.10.3 and the inspected tubes shall be verified acceptable per the acceptance criteria of Specification 4.4.10.4. The tubes selected for each inservice inspection shall include at least 3% of the total number of tubes in all steam generators; the tubes selected for these inspections shall be selected on a random basis except:

- a. Where experience in similar plants with similar water chemistry indicates critical areas to be inspected, then at least 50% of the tubes inspected shall be from these critical areas.
- b. The first sample of tubes selected for each inservice inspection of each steam generator shall include:
 1. All nonplugged tubes that previously had detectable wall penetrations (20%).
 2. Tubes in those areas where experience has indicated potential problems.

*The intent of the 18 month surveillance requirement for Section 4.4.10.1 is that this surveillance would be performed on a refueling basis. For this reason, as well as ALARA considerations, the surveillance requirement of sections 4.4.10.1 may be deferred past the 18 month limit until the end of the 1981 refueling outage, but no later than July 31, 1981.

MAIN COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

3. A tube inspection (pursuant to Specification 4.4.10.4.a.8) shall be performed on each selected tube. If any selected tube does not permit the passage of the eddy current probe for a tube inspection, this shall be recorded and an adjacent tube shall be selected and subjected to a tube inspection.
- c. The tubes selected as the second and third samples (if required by Table 4.4-5) during each inservice inspection may be subjected to a partial tube inspection provided:
 1. The tubes selected for these samples include the tubes from those areas of the tube sheet array where tubes with imperfections were previously found.
 2. The inspections include those portions of the tubes where imperfections were previously found.

The results of each sample inspection shall be classified into one of the following three categories:

<u>Category</u>	<u>Inspection Results</u>
C-1	Less than 5% of the total tubes inspected are degraded tubes and none of the inspected tubes are defective.
C-2	One or more tubes, but not more than 1% of the total tubes inspected are defective, or between 5% and 10% of the total tubes inspected are degraded tubes.
C-3	More than 10% of the total tubes inspected are degraded tubes or more than 1% of the inspected tubes are defective.

Note: In all inspections, previously degraded tubes must exhibit significant (>10%) further wall penetrations to be included in the above percentage calculations.

MAIN COOLANT SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4.4.10.3* Inspection Frequencies - The above required inservice inspections of steam generator tubes shall be performed at the following frequencies:

- a. Inservice inspections shall be performed at intervals of not less than 12 nor more than 24 calendar months after the previous inspection. If two consecutive inspections result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degraded has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.
- b. If the results of the inservice inspection of a steam generator conducted in accordance with Table 4.4-5 at 40 month intervals fall in Category C-3, the inspection frequency shall be increased to at least once per 20 months. The increase in inspection frequency shall apply until the subsequent inspections satisfy the criteria of Specification 4.4.10.3.a; the interval may then be extended to a maximum of once per 40 months.
- c. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.4-5 during the shutdown subsequent to any of the following conditions:
 1. Primary-to-secondary tubes leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.4.5.2.
 2. A loss-of-coolant accident requiring actuation of the engineered safeguards.
 3. A main steam line or feedwater line break.

*The intent of the surveillance requirement for Section 4.4.10.3 is that this surveillance would be performed on a refueling basis. For this reason, as well as ALARA considerations, the surveillance requirement of sections 4.4.10.3 may be deferred past the 18 month limit until the end of the 1981 refueling outage, but no later than July 31, 1981.

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

9. Verifying that the charging header flow metering instrument is OPERABLE by observing charging flow rate at least once per 12 hours.
- c. By a visual inspection which verifies that no loose debris (rags, trash, clothing, etc.) is present in the containment which could be transported to the containment sump and cause restriction of the pump suction during LOCA conditions. This visual inspection shall be performed:
 1. For all accessible areas of the containment prior to establishing containment integrity, and
 2. Of the areas affected within containment at the completion of each containment entry when containment integrity is established.
- d. At least once per 18 months by visual inspection of the containment sump and verifying that the subsystem suction inlets are not restricted by debris and that the sump components (trash racks, screens, etc.) show no evidence of structural distress or corrosion.
- e. At least once per 18 months, during shutdown, by:
 1. Cycling each power operated (excluding automatic) valve in the flow path through at least one complete cycle of full travel.
 2. Verifying that valve CS-MOV-532 actuates to its correct position on a safety injection signal.
 3. Verifying that each of the following pumps start automatically upon receipt of a safety injection signal:
 - (a) High pressure safety injection (HPSI) pump
 - (b) Low pressure safety injection (LPSI) pump

EMERGENCY CORE COOLING SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 4.* Verifying that two low pressure safety injection pumps develop a combined flow 2180 gpm. Test every LPSI pump at least once per 36 months.
5. Verifying that each charging pump stops automatically upon receipt of a safety injection signal.
6. Verifying that the charging header flow metering instrument is OPERABLE by performing a CHANNEL CALIBRATION.
7. Verifying that each valve listed in Specification 4.5.2.b.3 is in its normally open position.
8. Verifying the proper positioning of the HPSI throttle valves SI-V-671, 672, 673, and 674 by performing an inspection to insure that:
 - a) Each valve locking device is in place and securely welded to the valve handle and to the valve yoke.
 - b) The scribe mark on each valve body aligns with the scribe mark on the valve yoke.
9. Verifying the proper positioning of hot leg injection throttle valve SI-V-645 at least once per 36 months by flow testing.
- f. At least every 36 months, and/or any time either test under 4.5.a.8 is failed, by developing a backpressure of 375 psig in the high pressure safety injection header with two HPSI pumps operating as follows:
 1. Pressure to the suction of the HPSI pumps to be 170 ± 10 psi.
 2. LPSI flow is isolated.
 3. Injection flow is to one loop with the other loops isolated by closing the appropriate injection gate valves CS-MOV-536, CS-MOV-537, CS-MOV-538, and CS-MOV-539.
 4. The flow to the injection loops shall not be less than 200 gpm.
 5. The above test shall be repeated to include the operation of all HPSI pumps.

*The intent of the surveillance requirement for Section 4.5.2.c.4 is that this surveillance would be performed on a refueling basis. For this reason, as well as ALARA considerations, the surveillance requirement of section 4.5.2.c.4 may be deferred past the 18 month limit until the end of the 1981 refueling outage, but no later than July 31, 1981.