



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

MAINE YANKEE ATOMIC POWER COMPANY

DOCKET NO. 50-309

MAINE YANKEE ATOMIC POWER STATION

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 84
License No. DPR-36

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. -- The application for amendment by Maine Yankee Atomic Power Company, (the licensee) dated March 5, 1985, supplemented June 11, 1985 and modified June 20, 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.

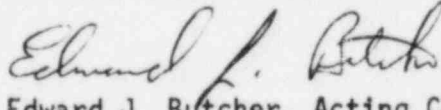
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.B(6)(b) of Facility Operating License No. DPR-36 is hereby amended to read as follows:

(b) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 84, 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



Edward J. Butcher, Acting Chief
Operating Reactors Branch #3
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: August 20, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 84

FACILITY OPERATING LICENSE NO. DPR-36

DOCKET NO. 50-309

Revise Appendix A as follows:

Remove Pages

4.10-2
4.10-3
4.10-4a
4.10-5
4.10-6

Insert Pages

4.10-2
4.10-3
4.10-4a
4.10-5
4.10-6

Category

Inspection Results

- | | |
|-----|--|
| 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.

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

1. 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 following service under AVT conditions, not including the preservice inspection, result in all inspection results falling into the C-1 category or if two consecutive inspections demonstrate that previously observed degradation has not continued and no additional degradation has occurred, the inspection interval may be extended to a maximum of once per 40 months.
2. If the results of the inservice inspection of a steam generator conducted in accordance with Table 4.10-2 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 meet the conditions specified in C.1 and the interval can be extended to a 40 month period.
3. Additional, unscheduled inservice inspections shall be performed on each steam generator in accordance with the first sample inspection specified in Table 4.10-2 during the shutdown subsequent to any of the following conditions:
 - (a) Primary-to-secondary tube leaks (not including leaks originating from tube-to-tube sheet welds) in excess of the limits of Specification 3.14.C.5,
 - (b) A main steam line break or feedwater line break,
 - (c) A seismic occurrence greater than the Operating Basis Earthquake, or
 - (d) A loss-of-coolant accident requiring actuation of the engineered safeguards.

D. Acceptance Criteria

1. As used in this Specification.
 - (a) Imperfection means an exception to the dimensions, finish or contour of a tube from that required by fabrication drawings

or specifications. Eddy-current testing indications below 20% of the nominal tube wall thickness may be considered as imperfections.

- (b) Degradation means a service-induced cracking, wastage, wear or general corrosion occurring on either inside or outside of a tube.
 - (c) Degraded Tube means a tube containing imperfections greater than or equal to 20% of the nominal wall thickness caused by degradation.
 - (d) % Degradation means the percentage of the tube wall thickness affected or removed by degradation.
 - (e) Defect means an imperfection of such severity that it exceeds the plugging limit. A tube containing a defect is defective.
 - (f) Plugging Limit means the imperfection depth at or beyond which the tube shall be removed from service because it may become unserviceable prior to the next inspection and is equal to 40% of the nominal tube wall thickness.
 - (g) Unserviceable describes the condition of a tube if it leaks or contains a defect large enough to affect its structural integrity in the event of a steam line break, feedwater line break, Operating Basis Earthquake, or a loss-of-coolant accident as specified in 4.10.C.3 above.
 - (h) Tube Inspection means an inspection of the steam generator tube from the point of entry (hot leg side) completely around the U-bend to the top support of the cold leg.
 - (i) Critical Area means an area of the steam generator where degraded and/or defective tubes exist due to a steam generator physical and/or operating characteristic which would promote tube degradation in that identified area.
2. The steam generator shall be determined OPERABLE after completing the corresponding actions (plug all tubes exceeding the plugging limit and all tubes containing through-wall cracks) required by Table 4.10-2.

EXCEPTION

The steam generator shall be determined OPERABLE without performing 100% tube inspection required by Table 4.10-2 when first or subsequent sample inspection results are at the C-3 level due to defects in a critical area, provided:

- (a) The critical area(s) are identified and bounded.
- (b) A 100% inspection of the critical area is conducted.
- (c) A steam generator tube inspection is conducted for the sample size required by Specification 4.10.B excluding those tubes and results from the inspection of the critical area(s).

E. Reports

1. Following each inservice inspection of steam generator tubes, the number of tubes plugged in each steam generator shall be reported to the Commission within 15 days.
2. The complete results of the steam generator tube inservice inspection shall be included in the "NIS-1 Owners Data Report for Inservice Inspections" for the period in which this inspection was completed. This report shall include:
 - (a) Number and extent of tubes inspected.
 - (b) Location and percent of wall-thickness penetration for each indication of an imperfection.
 - (c) Identification of tubes plugged.

TABLE 4.10-2

STEAM GENERATOR TUBE INSPECTION

1st SAMPLE INSPECTION			2nd SAMPLE INSPECTION		3rd SAMPLE INSPECTION	
Sample Size	Result	Action Required	Result	Action Required	Result	Action Required
A minimum of 15% Tubes per S. G.	C-1	None	N/A	N/A	N/A	N/A
	C-2	Plug defective tubes and inspect additional 25% tubes in this S. G.	C-1	None	N/A	N/A
			C-2	Plug defective tubes and inspect additional 45% tubes in this S. G.	C-1	None
			C-3	Perform action for C-3 result of first sample	C-2	Plug defective tubes
	C-3	Inspect all tubes in this S.G., plug de- fective tubes and inspect 25% tubes each S.G. Report to NRC pursuant to 10 CFR 50.72(b)(2)	All other S.G.s are C-1	None	C-3	Perform action for C-3 result of first sample
				Perform action for C-2 result of second sample	N/A	N/A
			Some S.G.s C-2 but no additional S.G. are C-3		N/A	N/A
			Additional	Inspect all tubes in each S.G. and plug defective tubes. Report to NRC pursuant to 10 CFR 50.72(b)(2)	N/A	N/A

S = 3 N/n Percent where N is the number of steam generators in the unit, and n is the number of steam generators inspected during an inspection

Basis: The Surveillance Requirements for inspection of the steam generator tubes ensure that the structural integrity of this portion of the RCS will be maintained. The program for inservice inspection of steam generator tubes is based on a modification of Regulatory Guide 1.83, Revision 1. Inservice inspection of steam generator tubing is essential in order to maintain surveillance of the conditions of the tubes in the event that there is evidence of mechanical damage or progressive degradation due to design, manufacturing errors, or inservice conditions that lead to corrosion. Inservice inspection of steam generator tubing also provides a means of characterizing the nature and cause of any tube degradation so that corrective measures can be taken.

The plant is expected to be operated in a manner such that the secondary coolant will be maintained within those chemistry limits found to result in negligible corrosion of the steam generator tubes. If the secondary coolant chemistry is not maintained within these limits, localized corrosion may likely result in stress corrosion cracking.

Wastage-type defects are unlikely with proper chemistry treatment of the secondary coolant. However, even if a defect should develop in service, it will be found during scheduled inservice steam generator tube examinations. Plugging will be required for all tubes with imperfections exceeding the plugging limit of 40% of the tube nominal wall thickness. Steam generator tube inspections of operating plants have demonstrated the capability to reliably detect degradation that has penetrated 20% of the original tube wall thickness.

In the past, Maine Yankee as well as other licensees has experienced steam generator tube degradation in specific localized areas. The exception permits inspecting 100% of the localized area and a representative sample of remaining tubes, when degradation of tubes in the localized area would otherwise cause the inspection results to be classified C-3.