



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

CONNECTICUT YANKEE ATOMIC POWER COMPANY

DOCKET NO. 50-213

HADDAM NECK PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 49  
License No. DPR-61

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Connecticut Yankee Atomic Power Company (the licensee) dated June 27, 1977 and September 21, 1979 comply 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 applications, 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.

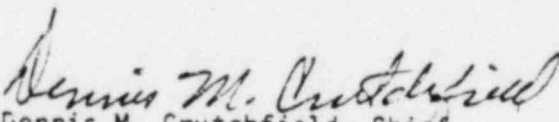
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment and Paragraph 2.C(2) of Facility Operating License No. DPR-61 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices and B as revised through Amendment No. 49, 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: May 7, 1982

ATTACHMENT TO LICENSE AMENDMENT NO. 49

FACILITY OPERATING LICENSE NO. DPR-61

DOCKET NO. 50-213

Replace the following pages of Appendix A Technical Specifications with the enclosed pages. The revised pages are identified by the captioned amendment number and contain vertical lines indicating the area of change.

REMOVE

4-7

4-10

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INSERT

4-7

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4-10a

be performed locally at a pressure of not less than 40 psig, using halogen gas detection, soap bubbles, pressure decay, or other methods of equivalent sensitivity. Isolation valves shall also be tested for operability.

1. Containment penetrations with resilient seal gaskets, or sealant compounds,
2. Air lock assembly and equipment door seals.
3. Fuel transfer tube.
4. Isolation valves on lines penetrating containment.
5. Other containment components, beside II-A.1, 2, 3, which required leak repair following any integrated leakage rate test to meet maximum allowable leakage limit.

B. Acceptance Criterion

The sum of the leakage from all penetrations and isolation valves shall not exceed 0.6la.

C. Corrective Action

If at any time it is determined that II-B is exceeded, the reactor shall be shut down and depressurized until repairs are effected and leakage is within specified limits.

D. Test Frequency

Individual penetrations shall be tested at a frequency of at least every 12 months wherever practical with the following exceptions:

1. The containment equipment hatch and the fuel transfer tube shall be tested at each refueling shutdown or, after each time they are used if that be sooner.
2. Isolation valves, essential for plant operation shall be tested during shutdowns when the reactor is depressurized if the test has not been performed within the previous 12 months.
3. The personnel air-lock assembly shall be leak tested at not less than 40 psig at least once every 6 months. If the airlock is opened during the interval between these tests, and containment integrity is required, the air-lock door seals shall be tested at not less than 10 psig within 72 hours of the first of a series of openings. The 10 psig test results shall be conservatively extrapolated to a leakage rate at 40 psig.

A continuous monitoring system will be used to monitor containment air leakage whenever the reactor is critical. Experience with this system (3) indicates that low leakage rates (0.01%/day) can be detected within one month. The use of the continuous monitoring system is the basis for not including the one year interval, as suggested in (4), in the integrated leakage test frequency of Specification I-D. The two and three year intervals between successive tests were selected from a guideline established by the AEC staff (4).

The objectives of the airlock leak testing requirements are (1) that the six month test will provide an integrated leakage rate for the entire airlock assembly, including electrical and mechanical penetrations, hinge assemblies, welded connections, and other potential leakage paths; and (2) that the 72 hour test will provide a means of assuring that the door seals have not been damaged or seated improperly during airlock use. The six-month air-lock leakage test complies fully with the surveillance requirements of section III.D.2 of 10 CFR 50, Appendix J. The interim 72-hour reduced pressure test is an approved exemption from these requirements based on the recommendations of reference (6).

The recirculation system includes high pressure charging system and a low pressure residual heat removal system. The high pressure portion will not be used except for small breaks in the main coolant system (less than 4" diameter). For such small breaks there would be no fuel damage and leakage of radioactivity from the recirculation system would be negligible (0.25 R maximum dose at site boundary for 2 gpm leakage). However, for larger breaks where only the low pressure portion of the recirculation system would be used, some fuel damage could occur and a limit on such leakage is necessary. For six liters per hour leakage the calculated doses are less than 2% of the 10 CFR 100 limits. In addition, leakage up to six liters per hour is not indicative of seal failure unless this leakage is increasing. Therefore, the leak rate from the residual heat removal pump seals will be monitored for at least 36 hours whenever it exceeds 2 liters/hours. If the leak rate does not decrease or stabilize before it reaches 6 liters/hr the provisions of Technical Specification 3.14 will apply.

The air filtration portion of the air recirculation system is a passive engineered safeguard, to be used only in the event of an incident involving a rupture of the reactor coolant system. Hence, the charcoal should have a long useful lifetime.

The filter frames that house the charcoal are stainless steel and should also last indefinitely. However, the tests specified in Section IV of this specification will be performed to verify that this is in fact the case.

References:

- (1) FDSA - Section 3.6
- (2) FDSA - Section 10.4
- (3) YAEC-1005-An Evaluation of the Yankee Vapor Container Leakage Monitoring System.
- (4) Technical Safety Guide - Reactor Containment Leakage Testing and Surveillance Requirement.
- (5) Amendment 12 to CY License Application.
- (6) Attachment A to USNRC letter to D. C. Switzer, dated March 11, 1977.