

7590-01

UNITED STATES NUCLEAR REGULATORY COMMISSION

YANKEE ATOMIC ELECTRIC COMPANY

YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-029

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-3 issued to Yankee Atomic Electric Company (the licensee) for operation of the Yankee Nuclear Power Station (YNPS) located in Franklin County, Massachusetts.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action:

The proposed amendment would revise the Technical Specifications (TS) to allow YNPS to operate with fewer detector thimbles while maintaining sufficient data collection capability to ensure that operation of the YNPS core remains within licensed limits. The current Technical Specification governing operability of the Incore Instrumentation System requires that a minimum of 12 neutron detector thimbles be operable with at least two per core quadrant whenever the system is used for core power distribution measurements. This change reduces the minimum number of thimbles to nine and reduces the minimum number of thimbles per quadrant to one.

The proposed action is in accordance with the licensee's application for amendment dated January 28, 1991, as supplemented February 28, 1991.

The Need for the Proposed Action:

At the end of Yankee Cycle 18, 13 movable detector thimbles were operable. During the Cycle 18/19 refueling outage, fixed detector strings were installed in six thimbles, increasing the total number of detector locations to 18. The performance of the fixed detectors was verified during Cycle 19 operation and licensed by the Commission for use in Cycle 20. At that time, Yankee's goal was to transition to increased use of the Fixed Detector System, with the ultimate goal of full conversion to fixed incore detectors. Plans for the Fixed Detector System have been delayed for two reasons: (1) suspected leakage in the primary seal of the fixed detectors; and (2) questions on the viability of installing detectors into the present instrumentation spire which may have a remaining useful life, which is considerably shorter than the expected life of the fixed detectors. Yankee is continuing to work in these areas and is progressing towards a goal of a full Fixed Incore Detector System.

During the recent Cycle 20/21 outage, four movable incore detector thimbles were isolated, and two fixed detectors were required to be removed from service during spire repairs resulting in 12 detector thimbles available for meeting surveillance requirements. This corresponds to the minimum Technical Specification requirement for operability of that system.

Environmental Impacts of the Proposed Action:

The Commission has completed its evaluation of the proposed revisions to the TS. The proposed changes do not increase the probability or consequences

of any accidents, no changes are being made in the types of any effluents that may be released offsite, and there is no significant increase in the allowable individual or cumulative occupational radiation exposure.

Accordingly, the Commission concludes that this proposed action would result in no significant radiological environmental impact.

With regard to potential non-radiological impacts, the proposed change to the TS involves systems located within the restricted area as defined in 10 CFR Part 20. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, the Commission concludes that there are no significant non-radiological environmental impacts associated with the proposed amendment.

The Notice of Consideration of Issuance of Amendment and Opportunity for Hearing in connection with this action was published in the Federal Register on February 19, 1991 (56 FR 6692). No request for hearing or petition for leave to intervene was filed following this notice.

Alternative to the Proposed Action:

Since the Commission concluded that there are no significant environmental effects that would result from the proposed action, any alternatives with equal or greater environmental impacts need not be evaluated.

The principal alternative would be to deny the requested amendment. This would not reduce environmental impacts of plant operation and would result in not meeting NRC requirements.

Alternative Use of Resources:

This action does not involve the use of any resources not previously considered in previous reviews for the Yankee Nuclear Power Station. The plant was licensed prior to the requirement for issuance of a Final Environmental Statement.

Agencies and Persons Consulted:

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

FINDING OF NO SIGNIFICANT IMPACT

The Commission has determined not to prepare an environmental impact statement for the proposed license amendment.

Based upon the foregoing environmental assessment, we conclude that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this action, see the application for amendment dated January 28, 1991, as supplemented February 28, 1991, which is available for public inspection at the Commission's Public Document Room, 2120 L Street, N.W., Washington, D.C. 20555, and at the Greenfield Community College, 1 College Drive, Greenfield, Massachusetts 01301.

Dated at Rockville, Maryland, this 11th day of April 1991.

FOR THE NUCLEAR REGULATORY COMMISSION

151
Richard H. Wessman, Director
Project Directorate 1-3
Division of Reactor Projects 1/11
Office of Nuclear Reactor Regulation

PBT-6/LA*
MRB:skbrook
04/01/91

PDI-3/PM*
PSears:rtw
04/01/91

OGC*
R. BACHMAN
04/08/91

*See previous concurrence
PDI-3/DIR
RWessman
4/10/91

DOCUMENT NAME: ENVIRONMENT ASSESSMENTYR 79680