



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
SUPPORTING AMENDMENT NO. 53 TO FACILITY OPERATING LICENSE NO. DPR-28

VERMONT YANKEE NUCLEAR POWER CORPORATION

VERMONT YANKEE NUCLEAR POWER STATION

DOCKET NO. 50-271

Introduction

By letter dated April 29, 1977, Vermont Yankee Nuclear Power Corporation (the licensee) requested exemption for Vermont Yankee Nuclear Power Station (VY) from the effective date provision of 10 CFR 50.55a(g). The specific request would extend the date by which the VY Inservice Inspection and Testing Program must be in conformance with the provisions of 10 CFR 50.55a(g) by six months (from July 30, 1979 to January 30, 1980). By letter dated April 11, 1979 we denied the request for delaying inservice testing. By letter dated April 25, 1979, the licensee requested that we reconsider a six month delay for implementing the inservice testing program and provided additional support for their request. This is being separately evaluated as a request for interim relief.

Background

10 CFR 50.55a(g), "Inservice Inspection Requirements", requires VY to update the Inservice Inspection (ISI) program to the latest applicable edition and addenda of the ASME Section XI Code on July 30, 1979 which is the starting date of the third 40-month period of the first inspection interval (10 years). Because of the relatively new ISI requirements at the time of its commercial operation, VY was permitted to have its required first 40-month inspection program completed in the 60-month period (11/30/72 - 11/30/77). This results in a short 20-month second period (11/30/77 - 7/30/79).

Most of the inspections of Class I components require that the plant be down to accomplish the inspections. Consequently, the inservice inspections are scheduled to be performed during refueling outages. Normally there are two or three refueling outages during a 40 month inspection period. The attached sketch shows the Code inspection periods for Vermont Yankee vs the refueling outages. As can be noted, during the present 20 month second period (which is presently scheduled to end July 30, 1979) there was only one refueling outage - the fall 1978 outage. Over 50% of the inservice inspections that should be completed during the second period were accomplished during the fall of 1978 refueling outage. While the refueling outage could have been extended (at considerable cost) to perform all the second period inspections at one time, this would not be in accord with the intent of the Code. While a specific component may

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normally only be inspected once during the ten year period, the intent of the Code is to inspect a representative sample of each type of component periodically (e.g., at each refueling outage). For this reason, the balance of the inspections to be performed during the second period are scheduled to be accomplished during the fall 1979 refueling outage (September 15, 1979 to October 30, 1979). However, as noted above, the second period ends 1 1/2 months prior to the refueling outage.

The licensee requested a six month delay in implementing the updating requirements of 10 CFR 50.55a(g) so that VY will have two refueling outages to complete all the required 2nd 40-month period Class 1 components inspections. The licensee presented as a basis for his request that:

1. Attempting to complete all the ISI requirements of Technical Specifications for the second period during a six-week outage would place an undue burden on the company. A six month extension would allow them to perform all the required inspections during two maintenance refueling outages.
2. If all the required inspections were not completed during the 2nd period, the remainder would have to be completed during the 3rd period. Further, because the required inspections for the 3rd period would have to follow the latest NRC endorsed code edition and addenda which are different in many respects from those for the 2nd period, this would cause tremendous confusion in accounting scope, and examination and calibration techniques.

#### Evaluation

The principal basis for the licensee's request for a six month extension of the effective date of an updated inservice inspection program is hardship or inconvenience. Although we agree that hardship would result, this does not constitute an acceptable basis for the extension request. The proper basis for this request is the consideration of whether a six month extension in updating the ISI program would place the plant in an unsafe condition during that period giving due consideration to the burden on the licensee that could result if the request is denied.

Our review indicated that:

1. Based on the licensee proposed inspection schedule (attached), a six month delay in implementing the updating requirements of 10 CFR 50.55a(g) will not reduce the required Class 1,2 and 3 components inspections during the 3rd period. This occurs because routine inspections are performed only during the scheduled refueling outages and VY will still have 3 refueling outages to complete all the required inspections.

2. There is no major difference in the Class 1 component inspection requirements between the present VY Technical Specifications and the 1974 Edition up to the Summer 1975 Addenda of the Section XI Code. A six month extension will permit the licensee to complete all the required Class 1 component inspections for the 2nd period and thus maintain continuity for a 10-year inspection program.
3. The major differences in ISI requirements between the Technical Specifications and the applicable 1974 Edition of Section XI Code are the inspection provisions for Class 2 and 3 components. There are no Class 2 and 3 component inspection requirements in the VY Technical Specifications. In addition, the Section XI Code specifies that only a certain percentage of the total required inspections over the 10-year interval need be completed during each 40-month period, and does not require inspection to be carried out during each refueling outage. In fact, the staff understands that the licensee is not planning to perform any Class 2 and 3 component inspections during the 1979 Fall refueling outage. Therefore, a six month delay will not reduce the confidence in the structural integrity of Class 2 and 3 components.

Accordingly, we conclude that granting an exemption from the provisions of 10 CFR 55a(g) as it relates to inservice inspection pursuant to 10 CFR 50.12, to permit extension of the effective date for compliance with 10 CFR 50.55a(g) from July 30, 1979 to January 30, 1980, will not endanger life or property or the common defense and, insofar as the extension would permit an orderly implementation of the upgraded program, the exemption is in the public interest.

#### Environmental Consideration

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

#### Conclusion

We have concluded based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered

by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: July 9, 1979

INSERVICE INSPECTION

Proposed  
Schedule

Date

Event

November 30, 1972

Commercial Operation; Start Period 1

Period 1

\* — Fall 1977

Refueling/Maintenance Outage

— November 30, 1977

End of Period 1/Beginning of Period 2

\* — Fall 1978

Refueling/Maintenance Outage

Period 2

— January 30, 1979

VY will submit new Tech. Spec. with exceptions  
Scheduled update as required by 10CFR50

— July 30, 1979

\* — Fall 1979

Refueling/Maintenance Outage

— January 30, 1980

Proposed implementation of update required by  
10CFR50. Also end of period 2/Start of  
period 3.

\* — Fall 1980

Refueling/Maintenance Outage

Period 3

\* — Fall 1981

Refueling/Maintenance Outage

\* — Fall 1982

Refueling/Maintenance Outage

— November 30, 1982

End of first 10 year period

\*: Refueling/Maintenance Outages