NUCLEAR REGULATORY COMMISSION

[Docket No. 50–271]

Vermont Yankee Nuclear Power Corporation; Vermont Yankee Nuclear Power Station; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption from certain requirements of Title 10 of the Code of Federal Regulations (10 CFR) Part 50, Appendix G for Facility Operating License No. DPR–28, issued to Vermont Yankee Nuclear Power Corporation (VYNPC, or the licensee) for operation of the Vermont Yankee Nuclear Power Station (Vermont Yankee), located in Windham County, Vermont.

Environmental Assessment

Identification of the Proposed Action

Title 10 of the Code of Federal Regulations, Part 50, Appendix G, requires that pressure-temperature (P–T) limits be established for reactor pressure vessels (RPVs) during normal operating and hydrostatic or leak rate testing conditions. Specifically, 10 CFR Part 50, Appendix G, states, ''The appropriate requirements on both the pressure-temperature limits and the minimum permissible temperature must be met for all conditions.'' Appendix G of 10 CFR Part 50 specifies that the requirements for these limits are the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code), Section XI, Appendix G Limits.

The proposed action would exempt Vermont Yankee from application of specific requirements of 10 CFR part 50, Appendix G, and substitute use of ASME Code Case N–640. Code Case N–640 permits the use of an alternate reference fracture toughness (K_{IC} fracture toughness curve instead of K_{Ia} fracture toughness curve) for reactor vessel materials in determining the P–T limits. Since the K_{IC} fracture toughness curve shown in ASME Section XI, Appendix A, Figure A–2200–1 (the K_{IC} fracture toughness curve) provides greater allowable fracture toughness than the corresponding K_{Ia} fracture toughness curve of ASME Section XI, Appendix G, Figure G–2210–1 (the K_{Ia} fracture toughness curve), using Code Case N–640 for establishing the P–T limits would be less conservative than the methodology currently endorsed by 10 CFR Part 50, Appendix G, and an exemption to apply the Code Case would be required by 10 CFR 50.60.

The proposed action is in accordance with the licensee's application for exemption dated December 19, 2000.

The Need for the Proposed Action

ASME Code Case N–640 is needed to revise the method used to determine the reactor coolant system (RCS) P–T limits, since continued use of the present curves unnecessarily restricts the P–T operating window. Since the RCS P–T operating window is defined by the P–T operating and test limit curves developed in accordance with the ASME Section XI, Appendix G procedure, continued operation of Vermont Yankee with these P–T curves without the relief provided by ASME Code Case N–640 would unnecessarily require the RPV to maintain a high temperature during the pressure tests. Consequently, steam leak hazards would continue to be one of the safety concerns for personnel conducting inspections in the primary containment. Implementation of the proposed P–T curves, as allowed by ASME Code Case N–640, does not significantly reduce the margin of safety and would eliminate steam vapor hazards by allowing inspections in primary containment to be conducted at lower coolant temperature.

In the associated exemption, the staff has determined that, pursuant to 10 CFR 50.12(a)(2)(ii), the underlying purpose of the regulation will continue to be served by the implementation of this Code Case.

Environmental Impacts of the Proposed Action

The NRC has completed its evaluation of the proposed action and concludes that the exemption described above would provide an adequate margin of safety against brittle failure of the Vermont Yankee reactor vessel.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential nonradiological environmental impacts, the proposed action does not involve any historic sites. It does not affect nonradiological plant effluents and has no other environmental impacts. Therefore, there are no significant nonradiological impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the ''no-action'' alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources

This action does not involve the use of any resources not previously considered in the Final Environmental Statement for the Vermont Yankee Nuclear Power Station dated December 1974.

Agencies and Persons Consulted

In accordance with its stated policy, on March 3, 2001, the staff consulted with the Vermont State official, William K. Sherman of the Department of Public Service, regarding the environmental impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated December 19, 2000. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, *http://www.nrc.gov* (the Electronic Reading Room).

Dated at Rockville, Maryland, this 2nd day of April 2001.

For the Nuclear Regulatory Commission.

Robert Pulsifer,

Project Manager, Section 2, Project Directorate I, Division of Licensing Project Management, Office of Nuclear Reactor Regulation.

[FR Doc. 01–8630 Filed 4–6–01; 8:45 am]

BILLING CODE 7590–01–P