

September 17, 2001

Mr. Merrill Atkins  
Regulatory Affairs Manager  
Yankee Atomic Electric Company  
Midstate Office Park Suite 200/210  
Auburn, MA 01501

SUBJECT: YANKEE NUCLEAR POWER STATION - ENVIRONMENTAL ASSESSMENT  
AND FINDING OF NO SIGNIFICANT IMPACT (TAC NO. MB0209)

Dear Mr. Atkins:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated September 28, 2000, as supplemented by letters dated October 12, 2000, April 18, 2001, May 29, 2001, and June 28, 2001. The proposed exemption would exempt the Yankee Atomic Electric Company (YAEC) from requirements of 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage." Specifically, YAEC would be granted an exemption from 10 CFR 73.55(d)(5) related to access requirements.

The assessment is being forwarded to the Office of the Federal Register for publication.

Sincerely,

**/RA/**

John B. Hickman, Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-29

Enclosure: Environmental Assessment

cc w/encl: See next page

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Yankee Atomic Electric Company

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UNITED STATES NUCLEAR REGULATORY COMMISSION

YANKEE ATOMIC ELECTRIC COMPANY

DOCKET NO. 50-29

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 10 CFR Part 73.55(d)(5) for Facility Operating License No. DPR-3, issued to Yankee Atomic Electric Company (YAEC, or the licensee), for operation of the Yankee Nuclear Power Station (YNPS), located in Franklin County, Massachusetts. As required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would exempt the YNPS Independent Spent Fuel Storage Installation (ISFSI) from some requirements of 10 CFR 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage." Specifically, YAEC would be granted an exemption from 10 CFR 73.55(d)(5) related to access requirements. The proposed action is in accordance with the licensee's application dated September 28, 2000, as supplemented by letters dated October 12, 2000, April 18, 2001, May 29, 2001, and June 28, 2001.

The Need for the Proposed Action:

YNPS was shut down in October 1991. On February 27, 1992, the licensee informed the Commission that it had decided to permanently cease operations at YNPS and that all fuel

had been permanently removed from the reactor. The NRC, in a license amendment dated August 5, 1992, modified License No. DPR-3 to a Possession Only License (POL). The license is conditioned so that YAEC is not authorized to operate the reactor and fuel may not be placed in the reactor vessel, thus formalizing the YAEC commitment to permanently cease power operations. The YNPS spent nuclear fuel is currently being stored in the spent fuel pool, which is protected by a physical protection system meeting the requirements of 10 CFR 73.55, with exemptions as previously issued by the NRC. To complete the plant site decommissioning process, the spent fuel will be removed from the spent fuel pool and transferred to an onsite ISFSI for interim storage. Under the provisions of 10 CFR Part 72, Subpart K, General License for Storage of Spent Fuel at Power Reactor Sites, YAEC is required to meet the physical protection requirements of 10 CFR 73.55 for an ISFSI at a reactor site. YAEC proposed alternative approaches to meet the provisions of portions of 10 CFR 73.55 related to the security organization, physical barriers, access requirements, detection aids, communications, and response requirements. However, the staff determined that, with regard to the requirements of 10 CFR 73.55(d)(5), the measures proposed by YAEC did not meet the criteria of 10 CFR 73.55(a) to be authorized as alternative measures. However, the staff also concluded that pursuant to 10 CFR 72.7 and 10 CFR 73.5, the proposed alternatives to the requirements of 10 CFR 73.55(d)(5) that YAEC requested could be granted as an exemption.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes that granting an exemption from the requirements of 10 CFR 73.55 would not have a significant impact on the environment.

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

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

Environmental Impacts of the 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:

The action does not involve the use of any different resource than those 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:

On August 21, 2001, the staff consulted with the Massachusetts State official, Jim Muckerheide of the Massachusetts Emergency Management Agency, 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.

Further details with respect to the proposed action may be found in the licensee's letter dated September 28, 2000, as supplemented by letters dated October 12, 2000, April 18, 2001, May 29, 2001, and June 28, 2001. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), 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 Public Electronic Reading Room). Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail at [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 17th day of September 2001.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

Stephen Dembek, Chief, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation