

# YANKEE ATOMIC ELECTRIC COMPANY

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BYR 2003-047

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

References: 1. License No. DPR-3 (Docket No. 50-29)  
2. Exemption from the Requirements of 10 CFR 140.11(a)(4) for the  
Yankee Nuclear Power Station (TAC No. M84578), dated June 20, 1994  
3. SECY-00-145 "Integrated Rulemaking Plan for Nuclear Power Plant  
Decommissioning", dated June 28, 2000

Subject: Request for Revised Exemption from the Requirements of 10 CFR  
140.11(a)(4) for the Yankee Nuclear Power Station (YNPS)

The Yankee Atomic Electric Company (YAEC) herewith requests further amendment to the YAEC Indemnity Agreement B-17, together with a supporting revised exemption to the requirements of 10 CFR 140.11(a)(4) for the YNPS.

## Background

On the basis of the permanently shutdown status of YNPS, the defueled condition of the reactor, and its possession only license amendment, YAEC previously was granted an exemption to the financial protection requirements of 10 CFR 140.11(a)(4) (Reference 2). This exemption allowed YAEC to reduce its primary level of offsite financial protection from \$200 million, as was then in force and is currently required by 10 CFR 140.11(a)(4), to \$100 million. In addition, the referenced exemption allowed YAEC to withdraw from participation in the industry retrospective rating plan (secondary level of financial protection). Indemnity Agreement No. B-17 was amended to reflect the change in offsite financial protection.

Currently, YAEC has advanced to the stage of decommissioning at YNPS whereby it has removed the spent fuel from the spent fuel pool and transferred it to dry cask storage at an onsite Independent Spent Fuel Storage Installation (ISFSI). Also, most of the buildings have been remediated for radioactive material, and all of the reactor components have been removed from the site. This configuration significantly reduces the radiological risk due to the isolation and enhanced containment of the spent fuel and the elimination of the other radiation sources. Accordingly, YAEC herein proposes to reduce the level of offsite insurance coverage commensurate with the radiological risk reduction.

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## **Exemption Request**

Pursuant to 10 CFR 140.8, YAEC requests an exemption from the requirements of 10 CFR 140.11(a)(4) to allow the primary level of offsite financial protection maintained at the YNPS to be further reduced from \$100 million, as allowed by the current exemption (Reference 2) to 10 CFR 140.11(a)(4), to \$25 million. In addition, YAEC requests that the portion of its current exemption (Reference 2) that obviates participation in the industry retroactive rating plan (secondary level financial protection) remain in effect. This reduced amount would continue to conservatively account for the potential for claims based on asserted offsite consequences by members of the public, while minimizing the likelihood that Federal Government indemnity would be exercised for satisfaction of claims or damages. This amount is also consistent with the requirements of Section 170 of the Atomic Energy Act (Price-Anderson Act), which states that power reactor licensees maintain some level of public liability financial protection.

## **Discussion**

The completion of the transfer of spent fuel to the YNPS ISFSI eliminates the available radiological source term remaining on the site for reasonably conceivable radiological accident scenarios that could have significant offsite consequences. Specifically, the YNPS site inventory of radioactive material contained in outdoor tanks does not exceed 10 CFR 20, Appendix B, Table II, Column 2 limits at the nearest surface water or potable water supply in an adjoining unrestricted area in the event of an uncontrolled release of the tank contents. This plant configuration, along with the completion of the majority of the building radiological remediation, minimizes the possibility that Federal Government indemnification would be required.

YAEC's request for an exemption is consistent with the NRC's proposed rulemaking documented in SECY-97-186, "Financial Protection Requirements for Permanently Shutdown Nuclear Power Plants, Part 50, 140," which was approved by the Commission in its Staff Requirements Memorandum (SRM) on October 6, 1997. In the proposed rulemaking, the NRC recommended levels of offsite financial protection that correlate with specific reactor configurations. In the case of Reactor Configuration 4 (cf. SECY-97-186), in which all the spent fuel has been removed from the spent fuel pool and transferred to an offsite or onsite dry storage ISFSI (which is representative of the YNPS) and there are no offsite consequences from a tank rupture, the NRC proposed a level of \$25 million for offsite financial protection. Accordingly, the reduced level of offsite financial protection proposed in YAEC's exemption request reflects the NRC's recommended level of coverage.

Prior to issuance of final rulemaking, however, the NRC Staff postponed rulemaking efforts when it was realized that no Staff approved technical basis existed for generic

decay times after which a zirconium fire concern could be eliminated. The proposed changes to insurance requirements were subsequently included in the risk-informed, integrated rulemaking for decommissioning nuclear power plants. This rulemaking initiative, as discussed in SECY-00-145, "Integrated Rulemaking Plan for Nuclear Power Plant Decommissioning," dated June 28, 2000 (Reference 3), included offsite financial protection requirements based on the aforementioned proposed rule. The modified rulemaking as incorporated into SECY-00-145 would allow the minimum offsite financial protection requirement to be reduced to \$25 million once the spent fuel has been transferred from the spent fuel pool to an ISFSI, provided the remaining radioactive materials stored onsite satisfied specific criteria. The radioactive materials criteria is satisfied if offsite doses in the event of a reasonably conceivable radiological accident would not exceed a TEDE of 1 rem or a CDE to the thyroid of 5 rem.

These criteria reflect the original legal and technical basis in SECY-93-127 that the NRC has used to exercise its discretionary authority to establish a level of offsite financial protection appropriate to the presence or absence of potential risks at permanently shutdown nuclear power plants. The YNPS now satisfies these criteria to allow a reduction in offsite financial protection to \$25 million.

### **Bases for Exemption Request**

10 CFR 140.8 states that exemptions from the requirements of the regulations in this part may be granted if such are authorized by law and are otherwise in the public interest. These two criteria are met by the requested exemption as follows:

#### **Authorized by Law**

The requested exemption is plainly authorized by law. The Commission has routinely granted insurance exemptions for commercial nuclear power plants that are permanently shutdown and located on single sites such as the YNPS. Those plants granted insurance exemptions include: Humboldt Bay Power Plant Unit No. 3, La Crosse Boiling Water Reactor, Shoreham Nuclear Power Station, Fort St. Vrain Nuclear Generating Station, Trojan Nuclear Plant, Maine Yankee, and the Haddam Neck Plant. In addition, the requested exemption is consistent with the NRC rulemaking proposed in SECY-00-145.

With consideration for the elimination of risk from the site that would have any significant offsite radiological consequences, NRC policy supports the reflection of this reduction in risk in the indemnification requirements to which the co-owners are subject. The reduction in offsite financial protection from \$100 million to \$25 million represents a conservative level of financial protection commensurate with the absence of significant offsite radiological risk remaining at the site. This reduced amount would continue to conservatively account for the continuing potential for claims based on asserted offsite consequences by members of the public, while minimizing the likelihood that Federal Government indemnity would be exercised for satisfaction of claims or damages. This amount is also consistent with the requirements of the Price-Anderson Act, which states that power reactor licensees maintain some level of public liability financial protection.

Therefore, the exemption to 10 CFR 140.11(a)(4) requested herein for the YNPS is authorized by law and provided for by existing NRC policy.

#### Otherwise in the Public Interest

The requested exemption presents no undue risk to the public health and safety. The YNPS has permanently ceased operations and the spent fuel has been removed from the spent fuel pool and placed in an ISFSI. As discussed in SECY-00-145, the potential risks associated with the YNPS current plant configuration are substantially reduced from those of when the fuel was stored in the spent fuel pool. Implementing the further reduction in primary financial protection as proposed in this exemption request is otherwise in the public interest. Continued compliance with 10 CFR 140.11(a)(4) as previously exempted would result in the continuing potential for unnecessary and unwarranted financial burden to YAEC ratepayers. This burden results from the payment of insurance premiums for coverage no longer commensurate with the plant condition wherein no spent nuclear fuel remains in the spent fuel pool and there is an insufficient remaining radioactive source term to represent a potential offsite radiological hazard. A reduction in offsite financial protection from \$100 million to \$25 million would represent a conservative level of financial protection commensurate with the absence of significant offsite radiological risk remaining at the site and would eliminate any unnecessary and unwarranted financial burden to the YAEC ratepayers. Thus, the exemption requested herein from the requirements of 10 CFR 140.11(a)(4) as currently applied is otherwise in the public interest.

#### **Conclusion**

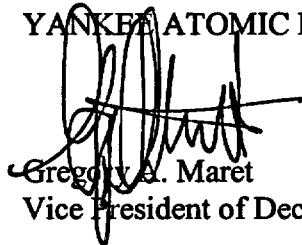
Maintaining offsite financial protection in the amount specified in the current exemption (Reference 2) to 10 CFR 140.11(a)(4) is no longer applicable to the YNPS. Now that the spent fuel has been transferred from the Spent Fuel Pool to the onsite ISFSI, the YNPS configuration results in a significantly lower radiological risk, thereby warranting an exemption from current offsite financial protection requirements and an adjustment to a lower level of insurance coverage. This approach to balancing the level of insurance coverage with the level of risk is totally consistent with the NRC's earlier proposed rulemaking as it pertains to offsite financial protection.

YAEC requests that the NRC approve this exemption request at your earliest convenience.

If you have any questions regarding this exemption request, please contact Mr. Gerry van Noordennen, Manager of Regulatory Affairs, at (860)-267-3938.

Sincerely,

YANKEE ATOMIC ELECTRIC COMPANY

A handwritten signature in black ink, appearing to read 'Gregory A. Maret', is written over the company name.

Gregory A. Maret  
Vice President of Decommissioning

cc: Director of Nuclear Material Safety and Safeguards  
R. R. Bellamy, Chief, Decommissioning and Laboratory Branch, Region I  
J. B. Hickman, Project Manager