

UNITED STATES NUCLEAR REGULATORY COMMISSIONTHE CONNECTICUT YANKEE ATOMIC POWER COMPANYDOCKET NO. 50-213

NOTICE OF CONSIDERATION OF ISSUANCE OF AMENDMENT TO
FACILITY OPERATING LICENSE AND PROPOSED NO SIGNIFICANT HAZARDS
CONSIDERATION DETERMINATION AND OPPORTUNITY FOR HEARING

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of an amendment to Facility Operating License No. DPR-61 issued to The Connecticut Yankee Atomic Power Company, (the licensee), for operation of the Haddam Neck Plant, located in Middlesex County, Connecticut.

The amendment would revise the technical specifications to update the pressure/temperature limit curves for hydrostatic and leak rate testing and for heatup and cooldown rates. All of these curves are being updated to show the required limitations out to 22.0 effective full power years (EFPY). This amendment was requested in the licensee's application dated June 11, 1985.

Before issuance of the proposed license amendment, the Commission will have made findings required by the Atomic Energy Act of 1954, as amended (the Act) and the Commission's regulations.

The Commission has made a proposed determination that the amendment request involves no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The proposed amendment would change the technical specifications to update the pressure/temperature limit curves for hydrostatic and leak rate testing and for heatup and cooldown rates to show the required limitations out to 22.0 effective full power years. The current heatup and cooldown curves in the technical specifications will be outdated when the Haddam Neck Plant reaches 14.0 EFY which is expected to occur no earlier than July 19, 1985.

The heatup and cooldown limit curves are calculated using the most limiting value of RT_{NDT} (reference nil-ductility temperature), the temperature where material exhibits ductile behavior. During the service life of the reactor vessel the RT_{NDT} increases above the initial value because of neutron irradiation. The change, ΔRT_{NDT} , is determined from fluence measurements, calculations, and trend curves based on tests of irradiated specimens that predict the effects of neutron irradiation.

Transition temperature shifts in the reactor vessel materials due to radiation exposure have been obtained directly from a reactor vessel surveillance capsule program. Once the RT_{NDT} value has been established, a stress intensity factor, K_{IP} , can be determined. At any time during the heatup or cooldown transient, K_{IP} is determined by the metal temperature at the tip of the postulated flaw, the appropriate value for RT_{NDT} , and the reference fracture toughness curve. The thermal stresses resulting from temperature gradients through the vessel wall are calculated and then the corresponding thermal stress intensity factor, K_{IT} , for the reference flaw is computed. From Appendix G of the ASME Code, the pressure stress intensity factors are obtained, and, from these, the allowable pressures are calculated.

The temperature and pressure changes during the heatup and cooldown are limited in accordance with the above-mentioned curves which are consistent with the requirements given in the ASME Boiler and Pressure Vessel Code, Section III, Appendix G, and 10 CFR Part 50, Appendix G. Allowable combinations of pressure and temperature for specific temperature change rates are below and to the right of the limit lines. These curves define limits to assure prevention of nonductile failure only. For normal operation, other inherent plant characteristics, e.g., pump heat addition and pressurizer heater capacity, may limit the heatup and cooldown rates that can be achieved over certain pressure-temperature ranges.

The licensee has evaluated the proposed technical specification changes and has determined that they do not represent a significant hazards consideration. The licensee concluded that neither the probability of occurrence nor the consequences of an accident or malfunction of equipment important to safety (either previously evaluated or not) would be increased, nor would the margin of safety as defined in the basis of Technical Specification be reduced.

The Commission has provided guidance concerning the application of the standards in 10 CFR 50.92 by providing certain examples (April 6, 1983, 48 FR 14870). One of the examples of actions not likely to involve significant hazards considerations is example (ii) which is a change that constitutes an additional limitation, restriction or control not presently included in the technical specifications. The staff has reviewed the licensee's

proposed amendment and concluded that it falls within the envelope of example (ii) because the proposed heatup and cooldown curves are more restrictive than the existing curves. For the same reactor pressure, the proposed curves require a higher reactor coolant temperature than the existing curves. The additional restrictions are necessary to assure conformance with 10 CFR Part 50, Appendix G, and to ensure continued reactor pressure vessel integrity. Additionally, this change has no effect on the assumptions or consequences of any previously evaluated accident; it does not affect the operability of any control system, protection system, safeguards system, or support system and the basis of the new curves is the same as the basis of the current curves, merely updated to reflect an interval of time later in the service life of the reactor pressure vessel.

Based on the above, the staff therefore proposes that the amendment request involves no significant hazards consideration.

The Commission is seeking public comments on this proposed determination. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determination. The Commission will not normally make a final determination unless it receives a request for a hearing.

Comments should be addressed to the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attn: Docketing and Service Branch.

By July 18, 1985, the licensee may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written petition for leave to intervene. Request for a hearing and petitions for leave to intervene shall be filed in accordance with the Commission's "Rules

of Practice for Domestic Licensing Proceedings" in 10 CFR Part 2. If a request for a hearing or petition for leave to intervene is filed by the above date, the Commission or an Atomic Safety and Licensing Board, designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition and the Secretary or the designated Atomic Safety and Licensing Board will issue a notice of hearing or an appropriate order.

As required by 10 CFR §2.714, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following factors: (1) the nature of the petitioner's right under the Act to be made a party to the proceeding; (2) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (3) the possible effect of any order which may be entered in the proceeding on the petitioner's interest. The petition should also identify the specific aspect(s) of the subject matter of the proceeding as to which petitioner wishes to intervene. Any person who has filed a petition for leave to intervene or who has been admitted as a party may amend the petition without requesting leave of the Board up to fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, but such an amended petition must satisfy the specificity requirements described above.

Not later than fifteen (15) days prior to the first prehearing conference scheduled in the proceeding, a petitioner shall file a supplement to the petition to intervene which must include a list of the contentions which are sought to be litigated in the matter, and the bases for

each contention set forth with reasonable specificity. Contentions shall be limited to matters within the scope of the amendment under consideration. A petitioner who fails to file such a supplement which satisfies these requirements with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene, and have the opportunity to participate fully in the conduct of the hearing, including the opportunity to present evidence and cross-examine witnesses.

If a hearing is requested, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held.

If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment.

If the final determination is that the amendment involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

Normally, the Commission will not issue the amendment until the expiration of the 30-day notice period. However, should circumstances change during the notice period such that failure to act in a timely way would result in derating or shutdown of the facility, the Commission may issue the license amendment before the expiration of the 30-day notice period, provided that its final determination is that the amendment involves no significant hazards

consideration. The final determination will consider all public and State comments received. Should the Commission take this action, it will publish a notice of issuance and provide for opportunity for a hearing after issuance. The Commission expects that the need to take this action will occur very infrequently.

A request for a hearing or a petition for leave to intervene must be filed with the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Att: Docketing and Service Branch, or may be delivered to the Commission's Public Document Room, 1717 H Street, N.W. Washington, D.C., by the above date. Where petitions are filed during the last ten (10) days of the notice period, it is requested that the petitioner promptly so inform the Commission by a toll-free telephone call to Western Union operator at (800) 325-6000 (in Missouri (800) 342-6700). The Western Union operator should be given Datagram Identification Number 3737 and the following message addressed to John A. Zwolinski, Branch Chief, Operating Reactors Branch No. 5, Division of Licensing: petitioner's name and telephone number; date petition was mailed; plant name; and publication date and page number of the FEDERAL REGISTER notice. A copy of the petition should also be sent to the Executive Legal Director, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to Gerald Garfield, Esquire, Day, Berry and Howard, Counselors at Law, City Place, Hartford, Connecticut 06103-3499, attorney for the licensee.

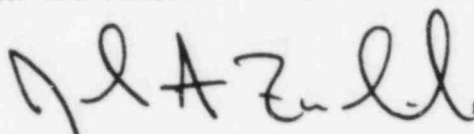
Nontimely filings of petitions for leave to intervene, amended petitions, supplemental petitions and/or requests for hearing will not be entertained absent a determination by the Commission, the presiding officer or the Atomic

Safety and Licensing Board designated to rule on the petition and/or request, that the petitioner has made a substantial showing of good cause for the granting of a late petition and/or request. That determination will be based upon a balancing of the factors specified in 10 CFR 2.714(a)(1)(i)-(v) and 2.714(d).

For further details with respect to this action, see the application for amendment which is available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C., and at the Russell Library, 123 Broad Street, Middletown, Connecticut 06457.

Dated at Bethesda, Maryland, this 14th day of June 1985.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in dark ink, appearing to read 'J. A. Zwolinski', with a stylized, cursive script.

John A. Zwolinski, Chief
Operating Reactors Branch No. 5
Division of Licensing