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November 27, 1990

Docket No. 50-213
B13669
Re: 10CFR50.90

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

Gentlemen:

Haddam Neck Plant
Definitions--Containment Integrity
Proposed Changes to Technical Specifications

Pursuant to 10CFR50.90, Connecticut Yankee Atomic Power Company (CYAPCO) hereby proposes to amend Operating License DPR-61 by incorporating the attached changes into the Technical Specifications for the Haddam Neck Plant. The revised pages are provided in Attachment No. 1. These proposed changes reflect the addition of a new containment isolation valve and the removal of another at the Haddam Neck Plant.

Background

During the Cycle 15 (1989-1990) refueling outage, Appendix J Type C testing of a particular solenoid-operated containment isolation boundary valve revealed excessive leakage. Several attempts to repair the valve were unsuccessful. This valve, NG-SOV-470, "Nitrogen supply to the Pressurizer Relief Tank" (Penetration P-20), closes automatically on high containment pressure.

During the refueling outage, CYAPCO installed a locked closed manual valve between NG-SOV-470 and the containment boundary. The new valve (NG-V-473) was placed so that air pressure can be applied on the containment side of this valve to facilitate local leak rate testing (LLRT-Appendix J Type C). Successful Type C testing of this valve was performed.

Another valve, CC-V-884, is no longer a containment boundary valve. The associated penetration, P-63, has been deactivated. This penetration is now designated a spare penetration which is open ended inside containment and capped outside containment.

Description of Proposed Changes

The Technical Specification changes proposed herein consist of adding valve "NG-V-473" to and deleting valve "CC-V-884" from Note 2 in Specification 1.6.a.2, "Definitions-Containment Integrity." Note 2 lists certain

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normally-closed manual containment isolation valves that may be opened for periodic surveillance and diagnostic checks as long as there is a locally stationed operator in direct communication with the main control room to be certain these valves are closed manually within 60 seconds of a containment isolation actuation signal (CIAS).

Valve NG-V-473 is being added to this list to allow periodic operation of this valve to pressurize the pressurizer relief tank (PRT) with nitrogen. As currently configured, the Technical Specifications preclude opening of normally-closed manual containment isolation valves except as provided in Note 2. Since valve NG-V-473 will need to be periodically opened to support continued plant operation, CYAPCO is proposing to add this valve to Note 2. The need to operate this valve during the operating cycle to repressurize the PRT is highly variable based on plant conditions and related equipment operation.

Valve CC-V-884 is being deleted from the list in Note 2 since this valve no longer provides a containment isolation function nor needs to be opened during the operating cycle.

Significant Hazards Consideration

In accordance with 10CFR50.92, CYAPCO has reviewed the attached proposed changes and has concluded that they do not involve a significant hazards consideration. The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not compromised. The proposed changes do not involve a significant hazards consideration because the changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated

   In a LOCA, it is important that containment isolation occurs before fuel failure can occur. Fuel failure is generally assumed not to occur within the first 60 seconds of a LOCA. Containment isolation valve (CIV) closure times of $\leq$ 60 seconds are specified for this reason in the Haddam Neck Plant Updated Final Safety Analysis Report (UFSAR), Table 7.3-1, "Containment Penetrations". Off-site dose consequences will remain within analyzed limits if containment isolation can be assured within 60 seconds. The new manual valve being added as a CIV can be quickly and easily closed within the required time. Therefore, the subject valve provides a reasonable means of isolating penetration P-20 within 60 seconds.

   The only failure modes that can be associated with the subject change is the inability to communicate with the operator stationed by CIV NG-V-473 if a LOCA occurs while it is open, and the failure of the operator to close the subject CIV after he is notified to do so. In addition, there is a valve in series, NG-CV-557, that would be available to stop or restrict post LOCA leakage from penetration P-20,

even if NG-V-473 is not closed as prescribed. Therefore, the probability of failure of the containment system is not significantly altered by this change.

As mentioned, containment penetration P-63 has been inactivated and is now designated as a spare penetration, open-ended inside containment and capped outside containment. The substitution of the primary water system for component cooling water as the makeup water source for the neutron shield tank has made penetration P-63 an unused penetration. As a result, valve CC-V-884 is no longer a containment boundary. Thus, deletion of CC-V-884 from the listing has no impact on the consequences of the design basis accidents.

Based on the discussion above, it is concluded that the changes have no adverse impact on the consequences of any design basis accidents. In addition, these changes have no impact on the probability of occurrence of any design basis accidents.

2. Create the possibility of a new or different kind of accident from any previously evaluated

Since there are no changes in the way the plant is operated, the potential for an unanalyzed accident is not considered. There is no impact on plant response to the point where it can be considered a new accident, and no new failure modes are introduced.

The change will not alter containment isolation system response since an operator at the CIV NG-V-473 will be in direct communication with the control room and is capable of closing the opened CIV within 60 seconds of a LOCA.

3. Involve a significant reduction in a margin of safety

These proposed changes will not decrease the margin of safety. The Technical Specifications already acknowledge that certain manual CIVs can be opened if an operator is stationed at the valve and maintains direct contact with the control room. In the unlikely event that a LOCA occurs during the brief periods when one of these manual valves is open (including NG-V-473), containment isolation can be easily provided manually. Therefore, it is reasonable to assume the operator could close the valve within 60 seconds and, as such, the containment isolation function of penetration P-20 is maintained.

There are no adverse impacts on the protective boundaries, safety limits, or margins to safety.

The Commission has provided guidance concerning the application of the standards in 10CFR50.92 by providing certain examples (51 FR 7751, March 6, 1986) of amendments that are considered not likely to involve a significant

hazards consideration. The changes proposed herein are not enveloped by a specific example. As described above, the proposed changes do not constitute a significant hazards consideration since the proposed changes provide an equivalent level of protection with respect to the containment isolation function. One valve is being removed from Note 2 and one valve is being added. If a LOCA were to occur during the periods in which valve NG-V-473 is open, if the valve is closed within 60 seconds of the event, adequate containment isolation is ensured. Valve closure can easily be performed within 60 seconds. There is no impact on the probability or consequences of any design basis events nor are any new accidents created. There is also no reduction in any margin of safety.

Based upon the information contained in this submittal and the environmental assessment for the Haddam Neck Plant, there are no significant radiological or nonradiological impacts associated with the proposed change, and the proposed license amendment will not have a significant effect on the quality of the human environment.

The Haddam Neck Plant Nuclear Review Board has reviewed and approved the attached proposed revisions and concurs with the above determinations.

In accordance with 10CFR50.91(b), CYAPCO is providing the State of Connecticut with a copy of this amendment.

CYAPCO respectfully requests that this license amendment request be reviewed and issued at your earliest convenience. Note that plant operation or equipment conditions may change such that there is a need to operate valve NG-V-473 and repressurize the PRT. Accordingly, CYAPCO wishes to point out that such a change in plant conditions might necessitate a request to expedite this proposed license amendment. CYAPCO will keep the Staff apprised of the status of this issue. CYAPCO requests the license amendment be effective within 30 days of issuance.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY

E. J. Mroczka
Senior Vice President

cc: T. T. Martin, Region I Administrator
A. B. Wang, NRC Project Manager, Haddam Neck Plant
J. T. Shedlosky, Senior Resident Inspector, Haddam Neck Plant

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Then personally appeared before me, E. J. Mroczka, who being duly sworn, did state that he is Senior Vice President of Connecticut Yankee Atomic Power Company, a Licensee herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Licensee herein, and that the statements contained in said information are true and correct to the best of his knowledge and belief.

Lorraine F. D'Amico
Notary Public

My Commission Expires March 31, 1993