

**NORTHEAST UTILITIES**

THE CONNECTICUT LIGHT AND POWER COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
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October 1, 1990

Docket No. 50-213

B13644

Re: 10CFR50.90

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

Gentlemen:

Haddam Neck Plant  
Movable Control Assemblies  
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 address the situation where there is a failure in the rod control system causing more than one control rod to be inoperable, but all the control rods remain trippable.

Background

The following conditions are already addressed in the Haddam Neck Plant Technical Specifications, specifically Section 3.1.3.1:

- a. One or more rods inoperable due to being immovable as a result of excessive friction or mechanical interference or known to be untrippable.
- b. One rod trippable but inoperable due to causes other than stated above or misaligned from its group position.
- c. More than one rod misaligned from its group position.

The proposed changes address the situation where more than one control rod is inoperable due to causes other than excessive friction or mechanical interferences (i.e., a control rod system problem such as a master cyclor failure), but the rods remain trippable. This ensures there is specific direction in the Technical Specifications to deal with these circumstances.

Description of Changes

The changes proposed herein add an additional action statement to Technical Specification 3.1.3.1, "Movable Control Assemblies, Bank Height." This new

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action statement allows power operation to continue, given more than one rod trippable but inoperable due to causes other than in action statement "a", if two conditions are met. These two conditions involve (1) maintaining rod alignment, sequence, insertion limits and reactor power level and (2) restoring the inoperable rods to operable status within 72 hours.

#### 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 the current Technical Specifications, there is no action statement covering a situation when more than one control rod is trippable but inoperable due to causes other than excessive friction or mechanical failure. The proposed change will restrict continued power operation if such a situation were to occur.

The change requires that within 1 hour, the remainder of the rods in the bank(s) with the inoperable rods are aligned to within  $\pm 24$  steps of the inoperable rods while maintaining the rod sequence and insertion limits provided in the Technical Report Supporting Cycle Operation. The thermal power level is restricted pursuant to Specification 3.1.3.6.1 during subsequent 4 loop operation or Specification 3.1.3.6.2 during subsequent 3 loop operation. The proposed change also requires restoration of the inoperable rods to operable status within 72 hours. As such, the new action statements which permit limited variations from the basic requirements will still ensure that the original design criteria are met. The added restrictions will provide further assurance of fuel rod integrity during continued power operation. Essentially, the change is more restrictive in operational requirements than the current Technical Specifications and will provide an increased level of reliability of the movable control assemblies to fulfill their primary design function. It is concluded that there is no adverse impact on the design basis analysis due to these changes.

No design basis accidents are affected by these changes. Therefore, there is no impact on the consequences of any design basis accidents nor the probability of occurrence of any design basis accidents. The performance of safety systems is not impacted.

The proposed changes do not involve a significant increase in the



probability of occurrence or the consequences of an accident previously analyzed since the new action statements are more restrictive in operational requirements for power operation than the current Technical Specifications and will provide an increase in reliability of the control rods to fulfill their primary design function. There are no design basis accidents adversely affected due to these changes.

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 created. 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 proposed changes are more prescriptive and will provide an increased level of reliability of the control rods. Therefore, these proposed changes do not create the possibility of a new or different kind of accident from any previously analyzed.

3. Involve a significant reduction in a margin of safety

These changes have no impact on the consequences of any design basis events. Therefore, these changes do not impact the protective boundaries, safety limits or margins to safety. There are no failure modes associated with these changes. Since there is no impact on the consequences of any accident previously analyzed, there is no reduction in a margin of 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 additional operating restrictions on the control rods. These changes do not impact the design basis accidents nor the performance of any of the safety systems. CYAPCO believes these changes will provide an increased level of reliability of the movable control assemblies to fulfill their design functions.

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.

