

TKRA



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

October 7, 1980

Docket No. 50-213

REGULATORY DISTRIBUTION  
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U.S. NRC  
DISTRIBUTION SERVICES  
BRANCH

Mr. W. G. Council, Vice President  
Nuclear Engineering and Operations  
Connecticut Yankee Atomic Power Company  
Post Office Box 270  
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Dear Mr. Council:

SUBJECT: FIRE PROTECTION PROGRAM FOR HADDAM NECK

As you are aware, on May 29, 1980 the Commission published for comment a proposed Section 50.48 and Appendix R to 10 CFR Part 50, concerning fire protection, which would set forth the minimum acceptable fire protection requirements necessary to resolve contested areas of concern for nuclear power plants operating prior to January 1, 1979.

We have reviewed all the information you have provided to date regarding your fire protection program. Several of the open items indicated in our Fire Protection Safety Evaluation (FPSE) issued October 3, 1978 (License Amendment No. 53) remain unresolved. Our position on modifications that would have to be made at your facility to resolve these open items, in a manner that would meet the requirements of the proposed Appendix R, is contained in the enclosure to this letter.

As indicated in Section 3.2.1 of the FPSE and the enclosure to this letter, our evaluation concludes that alternative shutdown capability for certain areas of your plant would provide an acceptable resolution for safe shutdown concerns in the event of a fire in those areas. This determination is based solely upon our fire protection review. However, other aspects of your facility currently under review in the SEP may impose additional requirements for shutdown capability of

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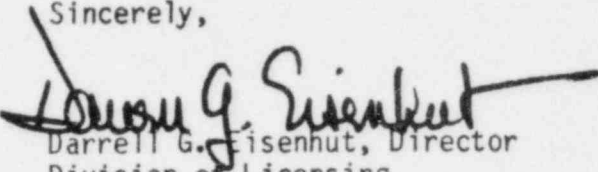
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your facility. You also should be aware that the proposed rule on fire protection would require you to submit your plans and schedules for implementing the installation of the dedicated shutdown system or alternate shutdown capability by November 1, 1980. Although there is no effective rule in place at the present time, we believe it is prudent to anticipate a short deadline and, therefore, request that you provide your proposed plans and schedules for the alternate shutdown capability by November 1, 1980.

Sincerely,

  
Darrell G. Eisenhut, Director  
Division of Licensing

Enclosure:  
As stated

cc: w/enclosure  
See next page

October 7, 1980

cc

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HADDAM NECK NUCLEAR STATION -  
SUMMARY OF STAFF REQUIREMENTS TO RESOLVE OPEN ITEMS

3.1.18 Reactor Coolant Pump Oil Collection System

In the Safety Evaluation Report, it was our concern that the proposed reactor coolant pump oil collection system may not provide an adequate level of protection during an SSE.

By letters dated April 11, 1979, October 9, 1979, and May 29, 1980 the licensee provided the design description of their proposed oil collection system.

The licensee's proposed oil collection system is not seismically qualified and, therefore, may not provide the oil collection capability in the event of an SSE.

The licensee should provide protection from RCP lube oil fires as required by that section of the new Appendix R to 10 CFR 50 which deals with RCP lube oil collection systems and RCP lube fires.

3.2.1 Alternate Shutdown Capability

The Haddam Neck Fire Protection Safety Evaluation Report, states that the licensee has proposed to provide an alternate means to safely shutdown the plant, which is independent of areas where redundant systems could be damaged by the fire. These areas include the control room, switchgear room, cable spreading room, primary auxiliary building, cable vaults and containment.

The SER also states that the licensee's alternate shutdown system evaluation and design has been incorporated into the Systematic Evaluation Program (SEP) and that a submittal schedule is presently under development. However, no information regarding this modification or schedule has been received. Subsequently, the NRC has issued a proposed change to 10 CFR Part 50 that would require such modifications to be completed by a specific date.

To meet our fire protection guidelines, alternative shutdown capability should be provided when safe shutdown cannot be ensured by fire barriers and detection and suppression systems because of the exposure of redundant safe shutdown equipment, cabling or components in a single fire area to an exposure fire, fire suppression activities, rupture or inadvertent

operation of fire suppression systems. To meet Section III Paragraph G of proposed Appendix R to 10 CFR Part 50, the licensee should provide alternative shutdown capability for the following areas of the plant:

- (1) Control room
- (2) Switchgear room
- (3) Calbe spreading area
- (4) Primary auxiliary building
- (5) Cable vault
- (6) Containment

The alternative shutdown system should meet the requirements of Section III, Paragraph L of proposed Appendix R to 10 CFR Part 50. A complete description of modifications providing alternative shutdown capability should be received by the NRC by November 1, 1980. The modifications should be installed by December 1, 1981.

#### 6.0 Administrative Controls - Fire Brigade

In the Haddam Neck Fire Protection Safety Evaluation Report, it was our concern that the licensee's fire brigade was not sized, drilled, and trained sufficiently to provide assurance that the manual fire suppression capability would be adequate.

By letter dated September 27, 1979, the licensee provided a document entitled "Justification For Three-Man Fire Brigade." The licensee concludes that a three-man fire brigade can adequately extinguish or control any fire to assure safe plant operation, achieve safe shutdown, and minimize radioactive release to the environment. Further, by letter dated July 11, 1979, the licensee proposed to provide annual classroom training and quarterly drills. However, the licensee concludes that ensuring all brigade members participate in one drill per quarter is not necessary to ensure an effective fire brigade response.

In our letter dated September 7, 1979, we provided the licensee our report entitled "Evaluation of Minimum Fire Brigade Shift Size" (dated June 8, 1978) in which we conclude all operating plant sites should have an onsite fire brigade shift complement of at least five trained persons. In addition, we provided our position regarding fire brigade training and drills which conclude that classroom training and drills should be held every 3 months for all fire brigade members.

The fire brigade size and training program should meet the requirements of Section III, Paragraphs H and I of the proposed Appendix R to 10 CFR Part 50.