



CONNECTICUT YANKEE ATOMIC POWER COMPANY

BERLIN, CONNECTICUT

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TELEPHONE  
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June 1, 1987

Docket No. 50-213

B12543

Re: 10CFR50.90

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Haddam Neck Plant  
Proposed Revision to Technical Specifications  
Snubber Testing and Surveillance

Pursuant to 10CFR50.90, Connecticut Yankee Atomic Power Company (CYAPCO) hereby proposes to amend its Operating License, DPR-61, for the Haddam Neck Plant, by incorporating the changes identified in Attachment I into the plant Technical Specifications.

The proposed change will revise Technical Specifications (TS) 3.19 and 4.13 pertaining to snubbers by replacing them in their entirety with TS which are largely consistent with the NRC model Standard Technical Specifications (STS). The proposed STS for the Haddam Neck Plant and the snubber TS for Millstone Unit No. 2, are more consistent with industry guidelines (e.g., NRC Generic Letter dated November 20, 1980; NRC Generic Letter 84-13; and ASME OM-4). The proposed TS are set forth in Attachment I and are being proposed in response to an NRC request.<sup>(1)</sup> These specification revisions are also intended to be submitted to the NRC as part of CYAPCO's commitment to convert the Haddam Neck Plant TS to the model STS.<sup>(2)</sup> All deviations from the model STS are required by the NRC to be justified.<sup>(3)</sup>

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- (1) See the F. M. Akstulewicz letter to J. F. Opeka, dated November 13, 1986, "Outstanding Technical Specification Issues."
  - (2) At a meeting on June 23, 1983 between representatives of the NRC, the Connecticut Yankee Atomic Power Company (CYAPCO), and the Northeast Nuclear Energy Company (NNECO), it was agreed that revised snubber TS for both Haddam Neck and Millstone Unit No. 2 would be submitted. This commitment to the NRC to revise the snubber TS for Haddam Neck to the model STS was further verified in a letter dated February 28, 1984, from W. G. Council to D. M. Crutchfield.
  - (3) D. M. Crutchfield letter to W. G. Council, "Request for Additional Information Regarding Revised Technical Specifications for Snubbers - Haddam Neck Plant," dated September 1, 1983.

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Specifically, the proposed changes and the intent of these changes are briefly summarized below:

- o TS 3.19 (Specification A, B and C) would require that all snubbers which are safety-related or whose failure would have an adverse effect on safety-related systems must be maintained in an operable condition. If inoperable snubbers are found, they must be replaced or restored within 72 hours in order to declare the affected system operable. However, the system may be declared operable if an engineering evaluation shows that the LCO for that system is not violated by the inoperable snubbers.

The action required has been changed from the STS to allow more flexibility for dispositioning inoperable snubbers. An engineering evaluation may be performed to declare the affected system operable if the LCO for the affected system is not violated and the system integrity is proven through analysis assuming an inoperable snubber.

- o TS 4.13, Visual inspection acceptance criteria, states that a visual inspection must verify that there are no problems with either the snubber, its attachment or foundation. If a snubber appears inoperable by visual inspection, it may be determined to be operable by remedying the cause of rejection and by establishing operability through functional testing.

The STS require a verification that freedom of movement exists in those locations where snubber movement can be manually induced without disconnecting the snubber.

This provision is not proposed as part of the Haddam Neck visual inspection acceptance criteria. During snubber inspections performed in accordance with NRC I&E Bulletin 81-01 for Millstone Unit No. 2, NNECO utilized such in-place freedom of movement testing in an attempt to establish mechanical snubber operability. Subsequent stroke testing of the snubbers did not confirm the conclusions reached through the manual in-place testing. As such, CYAPCO does not consider this provision in the STS to be indicative and representative of snubber operability.

- o Functional tests must be performed at least every 18 months with a representative sample of at least 10% of the total of each type of snubber.

The STS require, for every snubber found which does not meet functional test acceptance criteria, an additional 10 percent of that type of snubber be tested until no more failures are found or until all snubbers are functionally tested. Failed snubbers will be tested to determine the cause of failure and components supported by the failed snubbers will be evaluated to ensure that they remain capable of meeting their designed service requirements. Retesting must also occur on failed snubbers during the next test period.

ASME OM-4 has developed a sample plan which requires only 50 percent of the original sample size be tested for each failed snubber. In following the guidelines of OM-4, CYAPCO will test a sample equal to 50 percent of the original sample, or 5 percent, for each snubber that fails.

- o Hydraulic Snubbers Functional Test Acceptance Criteria. The functional test for hydraulic snubbers must verify that both activation and release of the snubber are within the specified ranges for compression and tension.
- o Mechanical Snubbers Functional Test Acceptance Criteria. The functional test for mechanical snubbers must also verify that both activation and release are within the specified ranges. In addition, the test must show that the force which initiates free movement of the snubber bar is less than the specified maximum drag force.

The requirement from the STS which states that drag force shall not have increased more than 50 percent from the last functional test has been deleted. This deletion is justifiable for two reasons: (a) on smaller snubber sizes, the sensitivity of our test machine is such that the breakaway drag force (at low drag) may not be measurable with good accuracy and reliability, and, (b) a 50 percent increase in drag between functional tests may not be a good indication of continued snubber operability (e.g., a snubber which initially was measured at 1 percent breakaway drag and then measured at 1.5 percent breakaway drag is within the manufacturer-accepted range in the case of Pacific Scientific components).

Although the aforementioned changes do deviate, in part, from the STS, the proposed Haddam Neck TS on snubbers does conform to the intent of the standards. The specification does provide a level of protection equivalent to that of the STS and in excess of the original plant TS.

Adherence to this technical requirement will ensure a high probability of snubber operability during service loadings (seismic, water hammer, relief valve discharge) that the snubbers are designed to resist. Additionally, these requirements will yield high levels of assurance that snubbers are not in a condition (locked or frozen) which induces loadings on components (piping, equipment, supports) in excess of design limits. As such, neither the probability of occurrence or consequences of an accident or malfunction of equipment has been increased, nor has the possibility of an accident or malfunction of a different type been created. Finally, the margin of safety has not been reduced and, therefore, the change to the TS poses no danger to the health and safety of the general public.

CYAPCO has reviewed the attached proposed changes pursuant to 10 CFR 50.59 and has determined that they do not constitute an unreviewed safety question. The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety (i.e., safety-related) previously evaluated in the Final Safety Analysis Report have not been increased. The possibility for an accident or malfunction of a different type than any evaluated previously in the Final Safety Analysis Report has not been created. There has not been a reduction in the margin of safety as defined in the basis for any TS. These proposed changes will not result in any physical changes to the plant or changes in the way the plant is operated. Hence, there is no effect on the design basis accident analyses.

CYAPCO has also reviewed the attached proposed change in accordance with 10 CFR 50.92, and has concluded that they do not involve a significant hazards consideration in that these changes would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed. There are no physical changes to the plant as a result of the proposed changes; therefore, previously analyzed accidents are not affected.
2. Create the possibility of a new or different kind of accident from any previously analyzed. These TS changes only address surveillance and operability requirements. As such, there are no hardware modifications associated with this change and consequently no failure modes associated with this change.
3. Involve a significant reduction in a margin of safety. The more restrictive requirement for surveillance and operability of the snubbers will reduce the possibility of a loss of safety system with snubbers due to an induced loading.

The Commission has provided guidance concerning the application of standards set in 10 CFR 50.92 by providing certain examples (March 6, 1986, 51FR 7751). The proposed TS changes are enveloped by example (ii), a change that constitutes an additional limitation, restriction, or control not presently included in the TS, e.g., a more stringent surveillance requirement. Adherence to these TS will ensure a high probability of snubber operability during service loadings that the snubbers are designed to resist. Additionally, these requirements will yield high levels of assurance that snubbers are not in a condition which induces loading on components (piping, equipment, supports) in excess of design limits. As such, there is no impact of the change on the probability of occurrence of the design basis accidents.

The more restrictive operability requirements of the snubbers due to the change will provide assurance that the system will be available to mitigate an event if a dynamic loading were to occur. This will increase the reliability of the safety systems with snubbers by reducing the potential damage done due to the event. Thus, there is no impact of the change on the probability of failure of these safety systems.

As indicated in the Bases of the revised TS, the LCO and surveillance requirements are provided to ensure that the structural integrity of the reactor coolant system and all other safety-related systems are maintained during and following a seismic or other event initiating dynamic loads. These provisions revise the snubber surveillance and verification program required by the current Haddam Neck TS set forth in Sections 3.19 and 4.13 and, as noted earlier, are largely consistent with the Generic Letter 84-13 guidance.

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

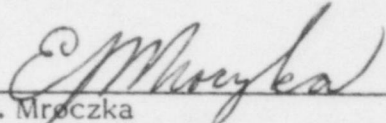
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In accordance with 10 CFR 50.91(b), we are providing the State of Connecticut with a copy of this proposed amendment.

Pursuant to the requirements of 10 CFR 170.12(c), enclosed with this amendment request is the application fee of \$150.00.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY

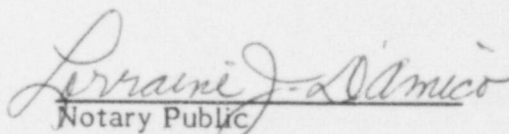
  
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E. J. Mroczka  
Senior Vice President

cc: Kevin McCarthy  
Director, Radiation Control Unit  
Department of Environmental Protection  
Hartford, Connecticut 06116

W. T. Russell, Region I Administrator  
F. M. Akstulewicz, NRC Project Manager, Haddam Neck Plant  
P. D. Swetland, 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 Licensees herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.

  
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Notary Public

My Commission Expires March 31, 1988