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Docket No.: 50-213
B10544

Director of Nuclear Reactor Regulation
Attn: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
U. S. Nuclear Regulatory Commission
Washington, DC 20555

References: (1) W. G. Counsil letter to D. G. Eisenhut, dated
December 31, 1980.

Gentlemen:

Haddam Neck Plant
NUREG-0737 Item II.E.1.2; Automatic Initiation of
Auxiliary Feedwater

In Reference (1), Connecticut Yankee Atomic Power Company (CYAPCO) provided a description of the system used to automatically initiate auxiliary feedwater at the Haddam Neck Plant, as required by NUREG-0737 Item II.E.1.2. In a recent telephone conversation between the NRC Staff and CYAPCO, the Staff expressed concern related to the bypass feature of the system. The purpose of this submittal is to document CYAPCO's response to the Staff's concern.

The auxiliary feedwater automatic initiation scheme at Haddam Neck contains an automatic - non automatic mode switch so that the automatic initiation logic can be bypassed under certain conditions. The system is bypassed under the following conditions by placing the mode switch in the non-auto position:

- 1) during startup, until power level is $>10\%$ full power
- 2) during shutdown to hot standby when power level is $<10\%$ full power
- 3) following automatic initiation, to enable the operator to control auxiliary feedwater flow.

It is desirable to bypass the automatic initiation feature during startup or shutdown since inadvertent initiation during these conditons could result in thermal shock to the steam generators and feedwater lines. Since the operator cannot throttle auxiliary feedwater flow when the system is in automatic, inadvertent initiation of auxiliary feedwater at lower power levels also increases the potential for overfilling the steam generators. At low power levels, the main feedwater system is in manual control and thus the operator would be immediately aware of any problems in the main feedwater system which would require the use of auxiliary feedwater. Also, at low power levels, the steam generator dry out time is sufficient (approximately 45 minutes) to allow for operator action before all secondary side inventory is lost.

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Haddam Neck Normal Operating Procedures NOP 2.1-6 and 2.3-1 control the use of the bypass feature during startup and shutdown, respectively. Additionally, Technical Specifications require that the system be in the automatic mode during operation at 10% of full power or greater and allow use of the bypass feature only for surveillance testing on one logic train at a time. During surveillance testing, the other logic train is left in automatic and is thus capable of automatic initiation. When the mode switch is moved to the non-automatic position, the operator is alerted by an audible alarm and a continuously lit annunciator. The operator is required by procedure and Technical Specifications to remove the bypass condition when reaching 10% of full power.

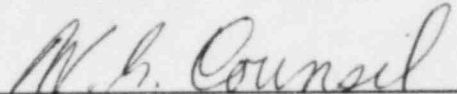
This system was designed and implemented as an automatic initiation scheme, not a regulating system. The Technical Specifications, administrative controls, and system design features provide adequate assurance of auxiliary feedwater system automatic initiation when required and maintain the manual control capabilities described above.

CYAPCO concludes that the above information is sufficient to justify the deviation from the guidance of Section 4.12 of IEEE 279 that the bypass be removed automatically when permissive conditions are met. Control and utilization of the bypass feature as described above is adequate to ensure that the system is available to perform its protective function when required and also allows for manual operator control of the system when needed.

We trust that Staff will find this information sufficient to resolve their concern.

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY



W. G. Council
Senior Vice President