

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

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 FACIL: 50-213 Haddam Neck Plant, Connecticut Yankee Atomic Power Co 05000213
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 COUNCIL, W.G. Northeast Utilities
 RECIPIENT NAME RECIPIENT AFFILIATION
 DENTON, H.R. Office of Nuclear Reactor Regulation

SUBJECT: Provides info re compliance w/TMI Lessons Learned Task Force short-term item re auxiliary feedwater sys flow indication, in response to NRC 791211 request, Util installing single control grade flow indication channel per feedline.

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 TITLE: Resp to Lesson Learn Task Force - Westinghouse

NOTES: ICY: C. HOFMAYER, J. SHAPIRO

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WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
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December 18, 1979

Docket Nos. 50-213
50-336

Office of Nuclear Reactor Regulation
Attn: Mr. H. R. Denton, Director
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

- References:
- (1) W. G. Council letter to H. R. Denton dated November 21, 1979.
 - (2) H. R. Denton letter to All Operating Nuclear Power Plants, dated October 30, 1979.
 - (3) D. L. Ziemann letter to W. G. Council dated December 12, 1979.

Gentlemen:

Haddam Neck Plant
Millstone Nuclear Power Station, Unit No. 2
Auxiliary Feedwater System Flow Indication to Steam Generators

In Reference (1), Connecticut Yankee Atomic Power Company (CYAPCO) and Northeast Nuclear Energy Company (NNECO) responded to the NRC Staff request of Reference (2) regarding TMI - Short-Term Lessons-Learned Item 2.1.7.b, Auxiliary Feedwater System Flow Indication to Steam Generators. Reference (1) indicated that for both facilities, it was intended that full compliance would be achieved by January 1, 1980. In Reference (3), the Staff amended the schedule for which additional information was requested, changing the requested date from January 1, 1980, to December 14, 1979. This request was telecopied to CYAPCO on December 11, 1979, and officially received on December 17, 1979. In response to this request, and in anticipation of a similar one for Millstone Unit No. 2, the following information is provided.

CYAPCO is proceeding with the design and installation of a single control grade flow indication channel per steam generator feedline.

Auxiliary feedwater flow indication will be provided by using a differential pressure sensing device. This sensing device is designed to produce a differential pressure within the fluid flow stream that is proportional to fluid flow. Each of the four devices will be located in the three-inch feedwater control valve bypass line, which is the normal flow path for auxiliary feedwater at the Haddam Neck Plant. The differential pressure is next fed into a pressure transmitter which produces a 4-20 ma analog signal proportional to the differential pressure. The signal is next linearized by a square-root transmitter for direct indication on the main control board.

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Conformance to the clarification items of Reference (2) is addressed below:

- (1) In order to satisfy the single failure criterion, the Haddam Neck Plant will rely on the existing Steam Generator Level Indication System as a backup. This alternative is in accordance with Clarification C.1 of Reference (2).
- (2) Surveillance procedures for calibration and testing of the instrument loops are being prepared. All equipment is readily accessible to facilitate calibration and testing as required.
- (3) D.C. power to the four instrument loops is provided from an AC/DC power supply which, in turn, is supplied from the semi-vital distribution panel in the Control Room. This distribution panel has the capability of being fed from either of the two emergency power sources. The enclosed drawing, No. 16103-32150, Sheet. 11A, depicts the above scheme.
- (4) As stated previously, this system is designed as a control grade system and meets the single failure criterion by taking credit for the existing Steam Generator Level Indication System as a backup. The control grade components will be either upgraded, with proper Q/A documentation, or replaced to meet the long-term "safety-grade" requirements. Although not presently properly qualified from an operational standpoint, the pressure boundary components are seismically qualified such that auxiliary feedwater system integrity or containment boundary integrity is not compromised.
- (5) The auxiliary feedwater flow channels provide an indication of feed flow with an accuracy on the order of $\pm 10\%$.

For Millstone Unit No. 2, the existing auxiliary feedwater flow indication system is adequate to fulfill the short-term requirements. Conformance to the clarification items of Reference (2) is addressed below:

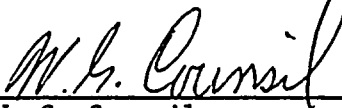
- (1) In order to satisfy the single failure criterion, Millstone Unit No. 2 will rely on the existing Steam Generator Level Indication System as a backup. This alternative is in accordance with Clarification C.1 of Reference (2).
- (2) Testability of the auxiliary feedwater flow indication channels has been demonstrated since initial plant operation.
- (3) Auxiliary feedwater flow instrument channels are powered from the vital instrument buses.
- (4) The existing system will be upgraded in the long term to satisfy safety-grade requirements.
- (5) The auxiliary feedwater flow channels provide an indication of feed flow with an accuracy within $\pm 10\%$.

This system was described in the Millstone Unit No. 2 FSAR.

We trust you find the above information responsive to the requests of Reference (3).

Very truly yours,

CONNECTICUT YANKEE ATOMIC POWER COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Vice President

Attachment