

DCS

OCT 29 1985

Docket No. 50-309
License No. DPR-36
EA 85-108

Maine Yankee Atomic Power Company
ATTN: Mr. J. B. Randazza
Vice President
Nuclear Operations
83 Edison Drive
Augusta, Maine 04336

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY
(NRC Inspection Report Nos. 50-309/85-19 and 50-309/85-27)

On August 8-16, 1985 and September 3-4, 1985, NRC special safety inspections were conducted at the Maine Yankee Atomic Power Plant to review the circumstances associated with two unrelated events involving separate common-mode failure mechanisms which resulted in the inoperability of all four Reactor Protective System channels for the low steam generator pressure trip function for each of the three steam generators and in the inoperability of three of the four channels of the Feedwater Trip System for low steam generator pressure for each of the three steam generators.

These conditions, which resulted in two violations of the plant's technical specifications, were identified by members of your staff and promptly reported to the NRC. The details are provided in the respective inspection reports which were issued on August 28, 1985 and September 4, 1985. On September 9, 1985, an enforcement conference was conducted with you and members of your staff to discuss the two events, the related violations of the technical specifications, the causes, and your corrective actions.

Three of the four channels for the Reactor Protective System and the Feedwater Trip System were inoperable because root valves in nine of the twelve pressure sensing lines were closed for the performance of a test of the auxiliary feedwater system in May, 1984 and, due to inadequate procedural guidelines for valve repositioning, were not reopened upon completion of the test. The temporary procedure written for performance of the test was deficient in that it did not explicitly state that the root valves should be reopened. Further, these root valves were not included on any valve checklist which was to be completed prior to restart of the reactor in June 1984.

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The fourth channel of the Reactor Protective System also became inoperable as the result of a design error introduced during a modification to install a sub-cooling margin monitor. The design change modification was not adequately reviewed prior to installation in that the review did not adequately consider the overall effect of the modification on the operability of the Reactor Protective System. Further, a test of the affected RPS channels to verify proper operability was not performed after the modification was completed.

Although your recent analyses indicate that in this particular case, later trip inputs would have resulted in a trip of the Reactor Protective System, no such redundant protection existed for the Feedwater Trip System. If the feedwater pumps were not tripped in a steam line break accident, the overcooling transient on the reactor pressure vessel could be quite severe. These events constituted a major degradation of principal safety-related protective systems and demonstrate the need for a complete understanding of the underlying causes as well as the broader implications of the events. Corrective actions needed include improved administrative control of valves, control of design changes, preparation and implementation of temporary procedures, and control of the post maintenance or modification testing process including test design, procedures, and their review.

To emphasize the need for significant improvement in this area, I have been authorized, after consultation with the Director, Office of Inspection and Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalties in the amount of \$80,000 for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions", 10 CFR Part 2, Appendix C (1985) the violations have been categorized as a Severity Level II problem because they led to the complete loss of a primary trip function.

The base civil penalty for a Severity Level II violation or problem is \$80,000. Mitigation of the civil penalty was considered on the basis of the prompt reporting of these events once identified and the prompt corrective actions taken by Maine Yankee in response to these particular events. However, mitigation was deemed inappropriate because the violation involved a significant degradation of plant protection systems, the duration of the violation was over a year, and the violation was caused by two separate common-mode failures resulting from a breakdown in your procedural controls for post-maintenance and modification testing. Therefore, the proposed civil penalty is \$80,000.

You are required to respond to the enclosed Notice and you should follow the instructions specified therein in preparing your response. In your response, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to this Notice, including your proposed corrective actions, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and its enclosure will be placed in the NRC Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

Original signed by
Thomas E. Murley

Thomas E. Murley
Regional Administrator

Enclosure:
Notice of Violation and Proposed
Imposition of Civil Penalty

cc w/encl:

C. E. Monty, President
C. D. Frizzle, Assistant Vice President/Manager of Operations
J. H. Garrity, Plant Manager
P. L. Anderson, Project Manager
G. D. Whittier, Licensing Section Head
J. A. Ritsher, Attorney (Ropes and Gray)
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of Maine

bcc w/encl:

Region I Docket Room (with concurrences)

Senior Operations Officer (w/o encls)

DPRP Section Chief

SECY

CA

J. Taylor, IE

R. Vollmer, IE

J. A. Axelrad, IE

J. Collins, IE

T. Poindexter, IE

T. Murley, RI

J. Lieberman, ELD

V. Stello, DED/ROGR

Enforcement Coordinators

RI, RII, RIII, RIV, RV

F. Ingram, PA

J. Crooks, AEOD

B. Hayes, OI

S. Connelly, OIA

H. Denton, NRR

R. Stark, NRR

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