Docket No. 50-29

Yankee Atomic Electric Company ATTN: Mr. Jay K. Thayer Vice President and

Manager of Operations

580 Main Street

Bolton, Massachusetts 01740-1398

Gentlemen:

Subject: Inspection 50-29/90-20

This refers to your letter dated January 22, 1991, in response to our letter dated December 11, 1990.

Thank you for informing us of the corrective and preventive actions documented in your letter. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By: Ebe C. McCabe

> Jon R. Johnson, Chief Projects Branch No. 3 Division of Reactor Projects

cc:

N. St. Laurent, Plant Superintendent

G. Papanic, Jr., Senior Project Engineer - Licensing

R. Hallisey, Department of Public Health, Commonwealth of Massachusetts (w/cy of Licensee's Response)

Yankee Rowe Hearing Service List (w/cy of Licensee's Response)

Public Document Room (LPDR) (w/cy of Licensee's Response)

Local Public Document Room (LPDR) (w/cy of Licensee's Response)

Nuclear Safety Information Center (NSIC) (w/cy of Licensee's Response)

NRC Resident Inspector (w/cy of Licensee's Response)

Commonwealth of Massachusetts, SLO Designee

State of Vermont, SLO Designee

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9102120164 910131 PDR ADDCK 05000029 bcc w/cy of Licensee's Response:

Region I Docket Room (with concurrences)

J. Rogge, DRP

T. Koshy, SRI - Yankee (with concurrences)

M. Markley, NRR

J. Johnson, DRP

H. Eichenholz, SRI, Vermont Yankee

J. Macdonald, SRI, Pilgrim

P. Sears, NRR

Koshy/meo

1/30/91

RI:DRP

Rogge

RI:DRP

Johnson 1131

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Regional Administrator, Region I U.S. Nuclear Regulatory Commission 475 Allendale Road King of Prussia, Pennsylvania 19406

Mr. N. St. Laurent
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YANKEE ATOMIC ELECTRIC COMPANY



580 Main Street, Bolton, Massachusetts 01740-1398

January 22, 1991 BYR 91-007

United States Nuclear Regulatory Com ission Document Control Desk Washington, DC 20555

References:

(a) License No. DPR-3 (Docket No. 50-29)

(b) Letter, EA No. 90-151, USYRC to YAEC, "NRC Region I Special Inspection Report No. 50-29/90-14," dated September 10, 1990

(c) Letter, EA No. 90-151, USNRC to YAEC, "Notice of Violation (NRC Inspection Report No. 50-29/90-14)," dated October 19, 1990

(d) Letter, BYR 90-152, YAEC to USNRC, "Reply to Notice of Violation EA No. 90-151," dated November 19, 1990

(e) Letter, NYR 90-259, USNRC to YAEC, "Inspection Report No. 50-29/90-20," dated December 11, 1990

(f) Letter, BYR 90-157, YAEC to USNRC, "Licensee Event Report No. 50-29/90-008, Inoperable Vapor Container Atmosphere Recirculation Fan," dated December 3, 1990

Subject:

Supplemental Response to Notice of Violation EA NO. 90-151

Dear Sir:

Reference (e) documents a routine safety inspection conducted by Messrs. T. Koshy and M. Markley, Yankee Nuclear Power Station (YNPS) resident inspectors, on October 2, 1990 to November 13, 1990 at YNPS, Rowe, Massachusetts. Reference (e) requests a supplemental response to the corrective actions stated in Reference (d) as a result of References (b) and (c) for the following:

"In an NRC letter dated October 19, 1990, a Notice of Violation relating to post-maintenance testing was transmitted to you. The enclosed report discusses your prompt identification of a vapor container recirculation fan inoperability which is indicative of programmatic weakness in post-maintenance testing. This item was identified within the response time frame allowed in the October 19, 1990 Notice of Violation, and we have classified it as an additional example of that apparent violation. Therefore, please provide a supplemental response to address your corrective actions to prevent recurrence of such post-maintenance testing inadequacies. Your supplemental response should follow the instructions specified in the previous Notice of Violation."

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In accordance with 10CFR2.201, we hereby submit the following information:

1. Admission or Denial of the Alleged Violation

We concur with the Notice of Violation as described in Reference (c) as documented in our reply, Reference (d). With regard to the supplemental response requested by Reference (e), we offer the following information.

2. The Reason for the Violation if Admitted

The reason for the violation as documented in Reference (c) is stated in YNPS response, Reference (d). With regard to the supplemental response requested by Reference (e), the following is provided, as stated in our letter to the USNRC, Reference (f).

The Vapor Container (VC) Atmosphere Recirculation System provides mixing of the VC atmosphere to reduce hydrogen pocketing following a LOCA.

The Recirculation System consists of three 6,000 cfm fans and ducting. Gravity-operating dampers are used to prevent backflow through stopped fans. Their discharges are connected to the Ventilation System ring duct which directs air flow through ducting to all areas of the VC, thus eliminating potential hydrogen pockets in the event of LOCA.

On September 15, 1990, Fan FN 18-3 was removed from service for replacement of a failed contactor. When the motor leads were reconnected to the new contactor, they were inadvertently reversed, causing the motor/fan assembly to rotate in reverse.

The contactor replacement was conducted using an approved plant procedure. The procedure required a rotation check of the motor prior to sign-off by the electrician.

On November 4, 1990 at 1115 hours with the plant in Mode 5, a surveillance flow check of the VC Atmosphere Recirculation System showed that Fan FN 18-3 was not providing the minimum flow requirement of 6,000 cfm. Investigation found that the fan was rotating in reverse. Further investigation found that the leads at the contactor were reversed.

The root cause has been attributed to personnel error in that a facility employee, an electrician, incorrectly fastened the motor leads to the contactor on completion of contactor replacement. The electrician failed to implement a temporary change for the lifting of leads associated with the motor contactor replacement. He also failed to adequately perform the retest specified in the maintenance procedure for the contactor replacement despite the fact that he signed-off indicating satisfactory performance of the retest requirements.

January 22, 1991 Page 3

United States Nuclear Regulatory Commission Document Control Desk

3. The Corrective Steps That Have Been Taken and the Results Achieved

As documented in Reference (f), YNPS has taken the following corrective steps:

- The incorrectly fastened leads were correctly fastened on November 4, 1990. The surveillance flow check, which originally identified the error, was successfully repeated.
- The electrician involved in this event was the subject of formal disciplinary action including suspension for failure to correctly follow an approved plant procedure.
- An independent review of electrical maintenance performed from the beginning of the refueling outage until the time of the discovery of the incident has been performed. No other discrepancies were identified.
- 4. The Corrective Steps That Will be Taken to Avoid Further Violations

The corrective steps for the violation identified in Reference (c) are stated in Reference (d). With regard to the event described in References (e) and (f) and the corrective steps stated in Reference (f), YNPS has reviewed the corrective steps stated in Reference (d) and offer the following in response to Reference (e):

As stated in Section 4 of Reference (d), "...specific training will be given to all Maintenance and Operations personnel stressing the importance of establishing post-maintenance testing that demonstrates equipment operability." Additionally, this training has been emphasizing the importance of reviewing the completed maintenance request documentation to ensure that all post-maintenance testing has been completed and reviewed prior to returning equipment to service.

5. The Date When Full Compliance Will be Achieved

The training will be completed for all Maintenance and Operating personnel by February 15, 1991. This is consistent with the commitments of Section 5 of Reference (d).

If you have any questions or desire additional information, please contact us.

Very truly yours,

YANKEE ATOMIC ELECTRIC COMPANY

K. Thayer

Tice President and Manager of Operations

cc: USNRC Resident Inspector USNRC - Region I