



UNITED STATES
NUCLEAR REGULATORY COMMISSION
 REGION I
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EA 95-70

July 5, 1995

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Mr. Donald A. Reid
 Vice President, Operations
 Vermont Yankee Nuclear Power Corporation
 RD 5, Box 169
 Ferry Road
 Brattleboro, Vermont 05301

7/5/95 - MJC

**SUBJECT: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY
 - \$50,000 (NRC Inspection Report No. 95-03)**

Dear Mr. Reid:

This letter refers to the NRC inspection conducted on February 21 through March 10, 1995, at the Vermont Yankee Nuclear Power Station, in Vernon, Vermont, and continued in the Region I office until April 25, 1995. The inspection was conducted to perform an evaluation of your motor-operated valve (MOV) program, procedures, and test results. On April 25, 1995, the NRC notified you of apparent violations involving the potential pressure locking of Core Spray System injection MOVs. The inspection report was sent to you on May 4, 1995. A predecisional enforcement conference was conducted in the Region I office on May 26, 1995.

Based on the information developed during the inspection and the information that you provided during the conference, the NRC has determined that a violation of NRC requirements occurred. The violation is cited in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty and the circumstances surrounding it are described in detail in the subject inspection report. The violation involves the failure to identify promptly and correct a significant condition adverse to quality that existed at the facility as required by 10 CFR Part 50, Appendix B, Criterion XVI.

This violation is of concern because degradation of the Core Spray System valves could have rendered them unable to fulfill their safety function of creating a flow path for the core spray pumps to inject water into the reactor vessel following a loss of coolant accident (LOCA). As noted in the inspection report, and at the enforcement conference, you contended that your subsequent calculations demonstrated that the MOVs had adequate margin to overcome the pressure locking forces. However, your subsequent testing demonstrated that the required thrust values were higher than those predicted by your previous calculations. Further, your operability conclusion relied on the supposition that voltage would be degraded, but would remain above the minimum value in the Vermont Yankee licensing basis under accident conditions. The NRC believes the use of that higher voltage value for operability determinations to be non-conservative and therefore, not appropriate.

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You had opportunities to identify and correct this condition in March 1994, when, during the review of then draft Supplement 6 to Generic Letter 89-10, you identified that the core spray injection valves were susceptible to pressure locking due to the rapid depressurization of the reactor vessel during a LOCA. Although you issued memoranda on March 7, 1994, and March 11, 1994, stating that an analysis should be performed to determine whether the motor operators were capable of opening the valves against pressure locking forces, subsequently you did not perform an engineering analysis of motor/actuator capability until after the NRC identified the omission during the 1995 inspection.

The NRC also is concerned that your failure to identify promptly and correct adverse conditions at your facility has been a recurring problem at Vermont Yankee. In fact, in the two months prior to your March 1994 memoranda noting the need for the analysis, the NRC had expressed concern on at least two occasions, regarding Vermont Yankee's failure to identify promptly and correct conditions adverse to quality at the facility. For example, on January 21, 1994, the NRC issued a \$187,500 civil penalty to you for numerous violations at the facility (EAs 93-243 and 93-279), including a violation of Appendix B, Criterion XVI. The letter transmitting that action noted that the penalty was being issued to ensure timely identification and correction of conditions adverse to quality at the facility, as well as to direct your attention to the NRC concern that these prior violations reflected a lack of appreciation of the need to maintain high levels of margin to safety in plant operation. Furthermore, in a letter, dated February 28, 1994, transmitting the latest SALP report, the NRC noted that "continued management attention is needed to resolve concerns over the effectiveness of the Vermont Yankee corrective action processes and resolution of longstanding deficiencies."

At the enforcement conference on May 26, 1995, you acknowledged that you did not assess operability quantitatively in this matter when the valves were first noted to be susceptible; did not address the pressure locking concern appropriately; and provided insufficient management oversight to this matter. Since the safety consequences of a LOCA could be increased if the Core Spray System does not function as intended, this violation has been categorized in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy) (60 FR 34381, June 30, 1995) at Severity Level III.

In accordance with the Enforcement Policy, a base civil penalty in the amount of \$50,000 is considered for a Severity Level III violation. Because your facility has been the subject of escalated enforcement within the last 2 years (In addition to the enforcement action discussed above, a \$50,000 civil penalty was issued on August 2, 1993 (EA 93-112)), the NRC considered whether credit was merited for *Identification* and *Corrective Action* in accordance with Section VI.B.2 of the Enforcement Policy. With regard to *Identification*, although you identified in March 1994 the need for an analysis, NRC identified that the analysis had not been performed; therefore, credit for this factor is not warranted. Credit was warranted for your prompt and comprehensive *Corrective Action* following NRC notification. Corrective actions included (1) modification of the actual valves by drilling the hole through one side of the disc to provide for pressure locking relief; (2) formation of a Program Oversight Group for the

Generic Letter 89-10 program; (3) initiation of monthly meetings between plant and engineering management, along with key project managers, to stay abreast of key issues and assure appropriate action is being taken; (4) planned revision to the Basis for Maintaining Operability (BMO) process to reinforce the need for sound justification when using engineering judgement to justify operability, using margins when evaluating operability, and utilizing industry information; and (5) planned evaluation of methods of using "in-house" technical expertise to enhance the review process.

Therefore, to emphasize the importance of prompt identification and correction of conditions adverse to quality, and in recognition of your previous escalated enforcement actions, I have been authorized, after consultation with the Director, Office of Enforcement, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the base amount of \$50,000 for the Severity Level III violation.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when 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 and the results of future inspections, the NRC will determine whether further NRC enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response will be placed in the NRC Public Document Room (PDR). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

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, Pub. L. No. 96.511.

Sincerely,



Thomas T. Martin
Regional Administrator

Docket No. 50-271
License No. DPR-28

Enclosure: Notice of Violation and Proposed Imposition of Civil Penalty

Vermont Yankee Nuclear Power
Corporation

4

cc w/encl:

R. Wanczyk, Plant Manager

J. Thayer, Vice President, Yankee Atomic Electric Company

L. Tremblay, Senior Licensing Engineer, Yankee Atomic Electric Company

J. Gilroy, Director, Vermont Public Interest Research Group, Inc.

D. Tefft, Administrator, Bureau of Radiological Health, State of New Hampshire
Chief, Safety Unit, Office of the Attorney General, Commonwealth of
Massachusetts

R. Gad, Esquire

G. Bisbee, Esquire

R. Sedano, Vermont Department of Public Service

T. Rapone, Massachusetts Executive Office of Public Safety

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NRC Senior Resident Inspector - Vermont Yankee

Nuclear Safety Information Center (NSIC)

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RI:RC KSmith 1/1/95	RI:DA W... 6/18/95	RI:RA T... 6/18/95	OE JLieberman 7/13/95	DEOR JMilhoan 1/1/95

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ENCLOSURE

NOTICE OF VIOLATION
AND
PROPOSED IMPOSITION OF CIVIL PENALTY

Vermont Yankee Nuclear Power Corporation
Vermont Yankee

Docket No. 50-271
License No. DPR-28
EA 95-070

During an NRC inspection conducted on February 21 through April 25, 1995, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 60 FR 34381, June 30, 1995, the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1954, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violation and associated civil penalty are set forth below:

10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and nonconformances are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action is taken to preclude repetition.

Contrary to the above,

1. From March 1994 until March 6, 1995, a significant condition adverse to quality existed at the facility but was not promptly corrected, namely, a lack of an analysis as to whether the Core Spray injection valves (motor operated valves V14-11A, V14-11B, V14-12A, and V14-12B) were susceptible to pressure locking such that the valves would not open if called upon to open in the event of a loss of coolant accident. Specifically, although in memoranda, dated March 7 and March 11, 1994, the licensee identified the susceptibility of the injection valves to pressure locking due to leakage past the check valve, and stated that analysis should be performed to determine the capability of the valves to open against pressure locking forces, analytical calculations to verify operability of the injection valves were not performed until March 6, 1995.
2. A significant condition adverse to quality was identified at the facility in April and May 1994 but was not promptly corrected, namely, operability determinations performed to support switching the normal positions of the injection valves by shutting valve V14-11A and opening valve V14-12A identified the susceptibility of valve V14-11A to pressure locking, but no analytical calculations to verify the operability of valve V14-11A were performed until March 6, 1995. (01013)

This is a Severity Level III violation (Supplement 1).
Civil Penalty - \$50,000

Pursuant to the provisions of 10 CFR 2.201, Vermont Yankee Nuclear Power Corporation (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice of Violation and Proposed Imposition of Civil Penalty (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, and if denied, the reasons why, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order or a demand for information may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, money order, or electronic transfer payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or may protest imposition of the civil penalty in whole or in part, by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice, in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty in whole or in part, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the factors addressed in Section VI.B.2 of the Enforcement Policy should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g., citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282(c).

Enclosure

3

The response noted above (Reply to Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: James Lieberman, Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406 and a copy to the Senior Resident Inspector, Vermont Yankee Station.

Because your response will be placed in the NRC Public Document Room (PDR), to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction. However, if you find it necessary to include such information, you should clearly indicate the specific information that you desire not to be placed in the PDR, and provide the legal basis to support your request for withholding the information from the public.

Dated at King of Prussia, Pennsylvania
this 5th day of July 1995