Directors Decision DD-99-04

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
OFFICE OF NUCLEAR REACTOR REGULATION

Samuel J. Collins, Director

In the Matter of	)	Docket No.	50-271
	)		
VERMONT YANKEE NUCLEAR POWER CORPORATION	)	License No.	DPR-28
(Vermont Yankee Nuclear Power Station)	)		
	)		
	)		(10 CFR 2.206)

DIRECTOR'S DECISION PURSUANT TO 10 CFR 2.206

I. INTRODUCTION

By a Petition submitted pursuant to 10 CFR 2.206 on April 9, 1998, Michael J. Daley, on behalf of the New England Coalition on Nuclear Pollution, Inc., (Petitioner), requested that the U.S. Nuclear Regulatory Commission (NRC) take immediate action with regard to the Vermont Yankee Nuclear Power Station (VYNPS) operated by the Vermont Yankee Nuclear Power Corporation (licensee or Vermont Yankee).

The Petitioner requested that the NRC issue an order requiring that the licensee's administrative limits, which were in effect at the time and precluded VYNPS from operating with a torus water temperature above 80°F or with a service water injection temperature greater than 50°F, shall remain in force until certain conditions are met. The conditions listed include a complete reconstitution of the licensing basis for the maximum torus water temperature, submittal to the NRC of a technical specifications (TSs) amendment request establishing the correct maximum torus water temperature, and completion of NRC's review of the amendment request.

On May 13, 1998, the Director of the Office of Nuclear Reactor Regulation informed the Petitioner that he was denying the request for immediate action at VNYPS, that the Petition was being evaluated under 10 CFR 2.206 of the Commission's regulations, and that action would be taken in a reasonable time.

The NRC staff's review of the Petition is now complete. For the reasons set forth below, the Petitioner's remaining requests have been appropriately addressed. The conditions associated with the Petitioner's request have been completed, including establishment of the correct licensing basis for the maximum torus temperature, submittal of a TS amendment request establishing the correct maximum torus water temperature limit, and completion of the NRC's review of the amendment request.

II. BACKGROUND

In support of these requests, the Petitioner raised concerns about the licensee being unable to demonstrate an ability to either justify the operational limits for the maximum torus water temperature or to maintain operations within existing administrative limits (torus water temperature is critical to the proper functioning of the containment). The Petitioner asserted that since 1994, events have caused the licensee to question VYNPS's maximum torus water temperature limits four times, leading to the self-imposed administrative limits previously noted. The Petitioner stated that the NRC must move from a "wait and see" posture to active intervention, with immediate imposition of the order recommended by the Petitioner as a first step.

The staff notes that the limits proposed by the Petitioner were in effect at VYNPS on an interim basis while the licensee determined the correct maximum torus water temperature limits since it was determined that the TS limit of 100°F was incorrect. The licensee subsequently completed the analysis and determined that the correct limit for the maximum torus water temperature is 90°F. This administrative limit was then established at 90°F and a TS amendment request was submitted to establish this as the maximum torus water temperature.

III. DISCUSSION

As indicated in the May 13 letter, Petitioner's request for immediate action was denied. Although the NRC identified concerns regarding the licensee's handling of the torus water temperature issue in the past, as evidenced by the NRC's enforcement action (Notice of Violation and Proposed Imposition of Civil Penalty of $55,000 dated April 14, 1998), there was insufficient basis for concluding that the limits proposed by the Petitioner must be imposed on the licensee while the NRC reviewed the associated TS amendment request. The NRC took several actions in this area, including performing a design inspection and conducting several meetings with the licensee on this issue. The NRC concluded that the licensee's actions to resolve this issue were acceptable.

In May and June 1997, the NRC performed a design inspection to evaluate the capability of selected systems to perform their intended safety function as described in design- basis documentation. Also, the NRC assessed the licensee's adherence to its design and licensing basis for selected systems, and the consistency of the as-built configuration and system operations with the final safety analysis report. The team concluded that although some concerns were identified, the systems evaluated were capable of performing their intended functions and the design engineers had excellent knowledge and capabilities. The report findings were documented in NRC Inspection Report Number 50-271/97-201, which was provided with our May 13 letter to the Petitioner.

One of the concerns identified during the design inspection was associated with the licensee's previous handling of the torus water temperature issue and resulted in enforcement action being taken on April 14, 1998, because of a failure to (1) properly translate the design basis of the plant into specifications, procedures, and instructions and (2) promptly correct design deficiencies once they were identified. However, credit was warranted for corrective actions because NRC considered the licensee's actions, once the violations were identified, to be prompt and comprehensive.

At the NRC's request, several public meetings were conducted to discuss issues, including the licensee's analysis to determine the appropriate torus water temperature limit. As a result of discussions with the licensee during public meetings on March 5, March 24, and April 7, 1998, the NRC concluded that the licensee was taking the appropriate actions to resolve this issue and to ensure that the appropriate maximum torus water temperature was specified in the TS and administratively controlled while the TS amendment was being reviewed by the NRC. During the April 7 meeting, the licensee committed to submit the TS amendment request to limit the torus water temperature to 90°F, which is an input value to the containment analysis calculations, before restart. The calculations supporting the amendment request were subjected to the licensee's formal quality process for assuring accuracy and completeness and provided additional assurance that the 90°F limit is correct. The more restrictive administrative limits (80°F torus water temperature and 50°F service water injection water temperature) were put in place by the licensee, while the detailed analysis was performed to verify that 90°F was

the correct limit.

The licensee proposed a TS amendment to establish a maximum torus water temperature limit of 90°F by letter dated May 8, 1998, as supplemented on July 10 and October 2, 1998. The NRC reviewed the licensee's analysis and concluded, for the reasons specified in the safety evaluation, that the appropriate maximum torus water temperature is 90°F. Therefore, imposition of the more restrictive administrative limits specified in the Petition are not necessary.

IV. CONCLUSION

The NRC staff has evaluated the information provided by the Petitioner as its basis for the actions requested. As indicated in the May 13 letter to the Petitioner, the NRC has concluded that issuing an immediate order, as requested, was unnecessary since the licensee took appropriate actions to determine the proper limit on torus water temperature, sought a TS amendment to impose the correct torus water temperature, and administratively implemented the limit while the NRC reviewed the analysis in support of the TS amendment. Although the NRC denied Petitioner's request to take immediate action to issue an order imposing certain limits on VYNPS, the conditions associated with the request have been completed, including establishment of the correct licensing basis for the maximum torus temperature, submittal of a TS amendment request establishing the correct maximum torus water temperature limit, and completion of the NRC's review of the amendment request.

Since the conditions listed in the Petition have been met and the NRC had previously addressed Petitioner's immediate request for imposition of an order, all actions associated with the request are complete. For the reasons contained in the safety evaluation, we have concluded that the appropriate limit for maximum torus water temperature is 90°F, making the limits requested in the Petition unnecessary. Accordingly, the staff has addressed the issues raised by the Petitioner and has completed its actions relating to the Petition.

As provided in 10 CFR 2.206(c), a copy of this Decision will be filed with the Secretary of the Commission for the Commission's review. This Decision will constitute the final action of the Commission 25 days after issuance unless the Commission, on its own motion, institutes review of the Decision within that time.

Dated at Rockville, Maryland, this 10th day of February 1999.

FOR THE NUCLEAR REGULATORY COMMISSION

original signed by

Samuel J. Collins, Director
Office of Nuclear Reactor Regulation