



50-309

**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

April 14, 1997

Mr. Henry R. Myers  
Post Office Box 88  
Peaks Island, ME 04108

Dear Mr. Myers:

Your letter of February 21, 1997, to Chairman Jackson of the U.S. Nuclear Regulatory Commission (NRC) regarding the Maine Yankee facility has been referred to me for reply. As noted in the Chairman's letter to you of January 31, 1997, Chairman Jackson will continue to monitor the staff's actions related to Maine Yankee, including your correspondence. Therefore, my assignment for responding to you on these matters should not be misinterpreted to mean that your concerns will not receive proper attention and consideration.

In my letter of February 3, 1997, I responded to your letter of January 22, 1997, regarding the availability of information about noncomplying conditions and associated violations for the Commission meeting on February 4, 1997. My response of February 3 remains valid; however, you appear to be under the impression that the staff deprived the Commission of information not relating to restart issues at the February 4, 1997, Commission briefing and that such information is necessary to assess the situation at Maine Yankee. To the contrary, the staff has apprised the Commission of the significant noncomplying conditions the staff has determined to exist at Maine Yankee. While these conditions have not been compiled into lists in the manner you requested, they have been identified to the Commission through staff briefings and in the Integrated Safety Assessment Team report, memoranda from the staff to the Commission and staff Commission papers. In addition, the NRC staff is in the process of implementing the procedures outlined in NRC Inspection Manual Chapter 0350, "Staff Guidelines for Restart Approval," under which a list of restart issues will be compiled.

As a part of the near-term NRC Inspection Manual 0350 activities, the staff met with the public on April 3, 1997, to receive comments on the licensee's restart readiness plan. Comments received from the public will be considered by the staff prior to finalizing the NRC's restart plan which will be developed in accordance with the guidance in NRC Inspection Manual Chapter 0350.

You also raise an issue that relates to the appropriate standard for permitting operation of the plant. First, you state that you "assume that the staff is prepared to allow Maine Yankee to operate on the basis of a lesser standard than a finding of compliance with regulations." In addition, you asked if the Commission believed that "the public should reach conclusions as to the adequacy (or inadequacy) of plant safety on the basis of statements made by senior NRC staff that such staff would (or would not) be willing to

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live in the plant's vicinity." The appropriate standard for allowing plant operation to continue is set forth in my letter to you of February 14, 1997. The NRC's approach to compliance, as set forth in that letter, is best understood in light of the fact that protecting public health and safety is based on the philosophy of defense in depth. This philosophy was recently summarized in a letter to David A. Lochbaum of the Union of Concerned Scientists dated February 27, 1997, which is enclosed for your information.

With respect to the appropriate standard for allowing Maine Yankee to restart, the NRC Inspection Manual Chapter 0350 mentioned previously provides an effective process to ensure that issues that led to concerns at Maine Yankee are effectively addressed. I believe this letter addresses your concern regarding the standards the staff considers for allowing continued operation of nuclear power plants.

Your concerns regarding outstanding maintenance items and incomplete corrective actions, compliance with TMI Action Items II.K.3.30 and II.K.3.31, and the Entergy Corporation were answered in my letter of February 3, 1997.

I trust that this information is responsive to your concerns about the Maine Yankee plant.

Sincerely,

(Original Signed By)

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John A. Zwolinski, Deputy Director  
Division of Reactor Projects  
Office of Nuclear Reactor Regulation

Enclosure: Letter to D. Lochbaum  
from S. Collins

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 27, 1997

Mr. David A. Lochbaum  
Nuclear Safety Engineer  
Union of Concerned Scientists  
1616 P Street, NW., Suite 310  
Washington, DC 20036

Dear Mr. Lochbaum:

I am responding to your letter of January 6, 1997, to Hubert J. Miller, Regional Administrator, Region I, U.S. Nuclear Regulatory Commission (NRC), regarding the Millstone, Salem, and Maine Yankee nuclear power plants.

In your letter, you appear to imply that any failure on the part of a nuclear power plant to meet any aspect of the NRC's regulations, license requirements, or technical specifications automatically translates to a finding that the plant was unsafe during the period of nonconformance. While compliance with the Commission's regulations, as a general matter, provides reasonable assurance that public health and safety will be adequately protected, the agency must exercise its judgment regarding thresholds for determining the safety of plant operation.

The NRC's approach to protecting public health and safety is based on the philosophy of defense-in-depth. Briefly stated, this philosophy (1) requires the application of conservative codes and standards, which create substantial safety margins in the design of nuclear plants (2) requires high quality in the design, construction, and operation of nuclear plants to reduce the likelihood of malfunctions, including the use of automatic safety system actuation features; (3) recognizes that equipment can fail and operators can make mistakes, thus requiring redundancy in safety systems and components to reduce the chances that malfunctions or mistakes will lead to accidents that release fission products from the fuel; and (4) recognizes that, in spite of these precautions, serious fuel damage accidents can happen, thus requiring containment structures and other safety features to prevent the release of fission products off site. Additionally, emergency planning is considered another layer of defense-in-depth. Therefore, even in the unlikely event of an offsite fission product release, there is reasonable assurance that emergency protective actions can be taken to protect the population around nuclear power plants.

It is a given that the agency regards compliance with regulations, license conditions, and technical specifications as mandatory. But the agency also recognizes that plants will not operate trouble-free. This is clearly articulated in Criterion XVI of Appendix B to Part 50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants." Criterion XVI states 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." The NRC does not contend that all reactors are in full compliance with their respective licensing basis on a continuous basis.

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The appropriate regulatory response to an identified deficiency can and should vary, depending on the importance of the element in which the deficiency is found. For example, during rapidly developing situations where prompt action is required to assure plants are not in an unsafe condition, automatic safety systems are in place to shut down the reactor. In other, less time-critical situations, technical specifications, which cover the structures, systems and components (SSC) most vital to the safe operation of a nuclear plant, require specific actions within predetermined time periods when an SSC is determined to be inoperable. Even a pattern of lesser deficiencies such as degraded or nonconforming conditions emerging over a discrete time period may be enough to warrant a decision to shut down an operating plant. NRC Generic Letter 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability," provides guidance for licensees when they identify degraded or nonconforming conditions. However, once a plant has been shut down, for whatever reason, it is often more prudent to permit restart only after significant nonconformances have been corrected. Thus, it is possible that a particular deficiency that would have been insufficient by itself to warrant shutdown of a plant might be sufficient to warrant repair prior to restart. Such decisions are typically reached following discussions between the NRC and the licensee and may result in the issuance of a confirmatory action letter. You appear to conclude that if a nuclear plant shuts down on any given day for reasons other than planned outages, it can be presumed to have been operating unsafely the previous day. For the reasons discussed above, this conclusion is invalid.

In your letter, you asked three specific questions, the first being "Does the NRC consider the three Millstone units, the two Salem units, and Maine Yankee safe enough to allow these plants to restart today?" As you noted, these plants remain shut down because of plant-specific safety concerns. Although the specific circumstances for the extended shutdown of these facilities vary, the respective licensee, for each of the sites identified, has begun to identify and address root causes for problems and to implement corrective actions for the specific problems identified. These units will remain shut down until the identified restart issues have been appropriately addressed.

Your second question was "If these plants are not safe enough to operate today, does the NRC think that these plants were operating safely in the days and weeks prior to their being shut down?" Although the causes of the extended shutdowns for each of the Millstone, Salem, and Maine Yankee units existed before the shutdown of the facilities, the NRC considers that the plants were operating safely before they were shut down because of the protection afforded by the defense-in-depth philosophy. Stated otherwise, although there are safety equipment deficiencies at each of these facilities, the conservatism provided by the multiple levels of design and operating requirements reasonably assured that there was no undue risk to public health and safety and the NRC did not find it necessary to require the shutdown of the plants to protect public health and safety. However, the resulting reductions of the margin of safety led the staff to conclude that correction of the problems is called for before the restart of the plants. Additionally, for Maine Yankee, and to an even greater extent, for the Millstone and Salem plants, it was determined that there were significant programmatic weaknesses that warranted correction before plant restart in order to prevent recurrence



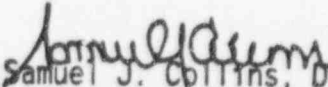
of similar nonconformance problems. In this regard, Millstone has been designated as a Category 3 Watch List plant requiring Commission approval prior to restart. A confirmatory action letter (CAL) was issued on the Salem facility documenting broad programmatic and technical issues which need to be addressed prior to restart. Regarding Maine Yankee, NRC recently issued a CAL documenting actions required by the licensee to resolve several specific technical issues before restart of that facility.

Your third question was "If these plants are safe enough to operate today, does the NRC have the right to conduct additional inspections and impose additional requirements for these troubled plants that prolong the duration, and significantly increase the costs, of their outages?" You stated that your third question only applied if the staff believed the plants were safe enough to operate today. As noted previously, the staff concluded the plants have problems that should be corrected before they restart in order to prevent recurrence of similar nonconformance problems in future operation. However, you can be assured that when the NRC becomes aware of information which demonstrates that an undue risk to public health and safety exists, the NRC will take prompt remedial action, including shutdown of operating facilities. In taking any remedial measures, the NRC must choose actions sufficient to deal with the risk involved.

In your letter, you noted that "economics played a significant role in the poor safety performance at these troubled nuclear plants." Although you did not request that the staff address this comment, the NRC is concerned about potential safety impacts on NRC power reactor licensees from the economic deregulation and restructuring of the electric utility industry. The NRC staff is currently carrying out an action plan to determine the appropriate NRC response to deregulation and restructuring. Thus far, instead of economic indicators, the NRC has relied primarily on its inspection process to indicate when safety performance has begun to show adverse trends. On the basis of the results of the inspection program, the NRC can take appropriate action to adequately protect public health and safety.

I trust this discussion provides you with a better understanding of the NRC's process for assessing the appropriate regulatory response to identified nonconformances.

Sincerely,

  
Samuel J. Collins, Director  
Office of Nuclear Reactor Regulation