

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION
Dr. Thomas E. Murley, Director

In the Matter of)	
)	Docket No. 50-293
BOSTON EDISON COMPANY)	
(Pilgrim Nuclear Power Station))	(10 C.F.R. §2.206)

FINAL DIRECTOR'S DECISION UNDER 10 C.F.R. § 2.206

INTRODUCTION

On July 15, 1986, William R. Golden and others (Petitioners) filed with the Nuclear Regulatory Commission (NRC) a Petition requesting that the Director require Boston Edison Company (BECO, the licensee) to show cause why the Pilgrim Nuclear Power Station should not remain closed or have its operating license suspended by NRC until the licensee demonstrates that the issues raised by the Petitioners have been resolved. The Petitioners also requested that NRC require the licensee to submit a feasibility study related to certain structural modifications and that the NRC schedule a public hearing to address the issues raised by the Petitioners.

The Petitioners asserted as grounds for their request (1) numerous deficiencies in the licensee's management, (2) inadequacies in the existing radiological emergency response plan, and (3) inherent deficiencies in the facility's containment structure. The Petitioners asserted that "the deficiencies cut a broad swath across the spectrum of safety requirements" and that, in the aggregate, these deficiencies compromise the reliability of the most important safety systems in the plant. Further, the Petitioners asserted that the licensee and the NRC have failed to resolve these safety issues.

On August 21, 1987, I issued an Interim Director's Decision in response to the Petition. I concluded that the Petition, with the exception of the licensee management issue, should be denied. I further stated that the management portion of the Petition would be addressed in a subsequent response.

BACKGROUND

As noted in my Interim Decision, the Petitioners allege numerous deficiencies in the licensee's management. The Petition essentially states that (1) competent management is critical to ensure the safe operation of any nuclear power facility, (2) the licensee's management of the Pilgrim station is deficient, and (3) long-standing management deficiencies at Pilgrim station have not been corrected.

As a basis for their Petition, with respect to this matter, the Petitioners provided an extensive list of management deficiencies that have been documented in NRC inspection reports and in systematic assessment of licensee performance (SALP) reports. The areas of concern included management effectiveness in plant operations, radiological controls, onsite emergency preparedness, maintenance and modifications, surveillance testing, security and safeguards, refueling and outage management, licensing activities, and fire protection. The basic documents relied on by the Petitioners were SALP Report No. 85-99, issued February 18, 1986, and the Special NRC Diagnostic Team Inspection Report issued April 2, 1986. In addition, the Petitioners referred to the 1982 civil penalty and Order modifying the Pilgrim license and to news accounts of statements by former Commissioner James Asselstine to the effect that Pilgrim is one of the worst-run and least-safe plants in the nation.

At the time the Petition was filed, the NRC felt that the licensee had not successfully dealt with the problems that were identified in (1) the enforcement actions taken in 1982, as evidenced by SALP Report No. 85-99, and (2) the Diagnostic Team inspection findings. Although the licensee had instituted programs intended to improve management and had made progress at certain times and in specific areas (such as engineering and technical support), the letter transmitting SALP Report No. 85-99 expressed NRC's concern about the licensee's apparent "irability to improve performance, or sustain improved performance once achieved."

The NRC has monitored management issues at Pilgrim station since the writing of SALP Report No. 85-99 and performance of the Diagnostic Team inspection. The results of the SALP report and the Diagnostic Team inspection indicated that the management problems were evidenced by (1) the lack of a clear organizational structure, (2) recurring management changes, (3) chronic staffing vacancies, (4) the lack of a stable management team at the plant, and (5) the inhibiting of progress in the functional areas assessed during the SALP period.

The Interim Decision discussed several management changes that had taken place in the licensee's organization since early 1986. The station manager was replaced on May 1, 1986, and was replaced again on February 1, 1987. On July 1, 1986, the Senior Vice President-Nuclear was transferred. At that time, the Chief Operating Officer assumed the responsibilities of the Senior Vice President-Nuclear, which he performed until February 20, 1987, when the current Senior Vice President-Nuclear (Ralph G. Bird) assumed the responsibilities of this position. On March 26, 1987, the Chief Operating Officer and the Executive Vice President/Chief Financial Officer announced their intent to retire within the next year.

Starting with the Confirmatory Action Letter (CAL 86-10) issued April 12, 1986, the NRC has taken steps to ensure that the Pilgrim station will not restart until adequate corrective actions have been taken. At a meeting with the licensee on July 30, 1986, I informed the licensee that, even when the technical issues set forth in CAL 86-10 were resolved, I would not approve restart of the plant until the management issues discussed in SALP Report No. 85-99 also were resolved. In addition, on August 27, 1986, in a letter to the licensee, I stated that restart of the Pilgrim station would not be approved until the licensee formally documented and NRC reviewed (1) an assessment of the licensee's readiness for plant restart and (2) a restart program and schedule including well-defined hold-points at discrete milestones.

In the Interim Decision I noted that the NRC staff agreed with the Petitioners that significant management deficiencies have existed at Pilgrim station. In fact as evident from the foregoing, the staff's concerns with respect to management not only encompassed but went beyond the specific items raised by the Petitioners. It is in this broader context that the staff has evaluated actions taken by BECo to resolve management deficiencies. I stated that (1) the NRC would continue to observe and evaluate the licensee's performance through ongoing inspections, bimonthly management meetings with the licensee, and the SALP process; (2) the NRC would conduct an independent team review of the licensee's actions in response to the SALP findings and the findings of the Diagnostic Team inspection of February-March 1986; and (3) the NRC would also evaluate the Pilgrim Restart Plan and other information to determine whether the issues raised by the Petitioners, including management issues, have been adequately resolved.

The NRC staff's conclusions on the adequacy of management at the Pilgrim facility arise principally from the inspection efforts reflected in two documents: (1) SALP Report No. 87-99, which covers the period of February 1, 1987, through May 15, 1988, and (2) the report on the Integrated Assessment Team Inspection (IATI) performed in August 1988.

For the reasons discussed below, Petitioners' request to initiate a proceeding with respect to alleged deficiencies in the licensee's management is denied.

DISCUSSION

I. Management

A. SALP Report No. 87-99 Results

On July 27, 1988, the staff issued its most recent SALP report, SALP Report No. 87-99 (Enclosure A), which covers the period of February 1, 1987, through May 15, 1988. The staff indicated that the licensee had made extensive efforts, including corporate and site reorganizations, and had installed a new management team. The new management team undertook numerous projects and programs to improve the physical condition of the plant and to enhance programmatic performance. These management initiatives were generally successful in correcting deficiencies in organization, staffing, and upgrading of the physical condition of the plant. The staff also indicated that the new management team was effective in improving programmatic performance in areas previously identified as having significant weaknesses. The staff further stated that the licensee's self-assessment process was effective in identifying other areas needing further management attention.

The Regional Administrator, Mr. William Russell, acknowledged in the letter transmitting the SALP report that BECo had made extensive efforts to upgrade performance in functional areas that were previously assigned Category 3 ratings. These areas were Radiological Controls, Surveillance, Fire Protection, Security and Safeguards, and Assurance of Quality. Only one area remained with a rating lower than Category 2; a Category 3-Improving rating was assigned to the Radiological Controls functional area. The use of "Improving" in the rating indicated improvement in the organization, programs, and performance in the functional area. (The definitions of the category ratings and detailed findings in all the SALP functional areas are provided in Enclosure A.)

Although the necessary positive results were becoming apparent at the close of the assessment period, the ability to sustain the improved performance had not yet been demonstrated. The NRC staff determined that continued close monitoring of the licensee's activities was necessary to ensure continued improvement of performance. This close monitoring required an assessment team inspection, discussed below, to further measure the effectiveness and readiness of the BECo management controls, programs, and personnel to support safe restart and operation of the Pilgrim Nuclear Power Station.

B. Integrated Assessment Team Inspection Results

The IATI was conducted during the period of August 8 through August 24, 1988, and the inspection report, dated September 7, 1988, is provided as Enclosure B. The team inspection included an assessment of (1) the organizational structure currently in place at the Pilgrim Nuclear Power Station, (2) the administrative processes in place to control and coordinate

the activities and actions affecting safe and reliable operation of the Pilgrim facility, and (3) the adequacy of staffing, qualifications of personnel, and mechanisms to enhance and promote stability in the organization's technical and managerial staff.

The inspection team concluded that the current organization is well structured and provides for an appropriate distribution of responsibilities and accountabilities for the activities being performed by the functional units within the organization. This appraisal was not true for the former organization. The depth of managers in functional areas should contribute to stability in the organization by providing for the development of technical and managerial skills previously lacking. The current organizational structure provides a framework for career growth that should help reduce chronic staffing vacancies that existed in the past. Redistribution of functional responsibilities and depth in management throughout the organization provides the framework necessary to enhance stability and to support safe and reliable operation of Pilgrim.

The authorized staffing level is ample, in contrast to previous staffing levels, and has been filled to a degree acceptable to perform all the necessary activities and functions of the organization for all plant conditions, including operation.

The resumes and position descriptions of key managers and selected personnel throughout the organization were audited by NRC inspectors during the IATI. The educational and experience backgrounds of personnel were compared to the requirements of the positions held, as delineated in American National Standards Institute (ANSI) N18.1-1971, "Selection and Training of Personnel for Nuclear Power Plants," with a focus on the management experience of key personnel. No

deficiencies were identified relating to the qualification requirements of the ANSI standard. More significantly, there has been an increase of talented management personnel with extensive and successful management experience in key positions. The enhanced mixture of qualified management and technical personnel on the plant staff should result in a stable management team that was previously lacking.

Management has updated a variety of procedures to provide policy for and control and coordination of the activities and actions of the organization. The corporate policy relating to the Nuclear Organization contained in the Mission, Organization and Policy Manual includes, among other goals, striving to achieve rising standards of performance, dedication to protecting the environment and public, and rigorous adherence to procedures. The other procedures adequately identify corporate policy, organization, interfaces, functional requirements, responsibilities, accountabilities, and qualifications necessary for the control of activities and the coordination of actions within the organization. This improved control and coordination has resulted in progress in the functional SALP areas that was previously inhibited.

Several management meetings were observed during the IATI to assess the interactions of managers and the effectiveness of the policies and procedures being implemented. Close observation of the functional areas was made to augment findings and conclusions on the effectiveness of the organization, management controls, and communications. These observations and interviews also provided the team with insight into the worker's perception of management policies, involvement, effectiveness, and the resulting effect on safety.

The team members, through the observations and interviews, noted a positive change in the attitude toward nuclear safety throughout the Pilgrim organization.

This change in attitude is evidence of corporate management's ability to communicate policy and has resulted in improved performance of safety-related activities. These improvements were acknowledged in the most recent SALP report and the IATI report. The IATI observations support the conclusion that BECo management is effective in communicating corporate goals and that management oversight is ensuring that the goals are being supported and pursued.

The IATI report concluded that the licensee has an acceptable organization that is adequately staffed with qualified personnel, has mechanisms in place to enhance stability, and has controls and programs to support safe startup and operation of the Pilgrim Nuclear Power Station. These conclusions are based on the above discussion and supported by the details in the enclosures to this Decision.

II. Combined Effects of Management, Containment and Emergency Planning Issues

The Petitioners claim that even if the alleged deficiencies taken separately do not pose an intolerable risk, taken in the aggregate they do.

I concluded in my Interim Decision that the Petitioners had not established evidence of design flaws or high risk in connection with containment performance for the Pilgrim Mark I containment. I also noted that the licensee announced a voluntary program to enhance the Pilgrim containment capabilities. Since that time the licensee has continued its efforts to improve containment performance. For example, the Pilgrim containment now has enhanced safety features including a fire water inter-tie to the residual heat removal system, redesigned drywell spray nozzles, and an improved long term nitrogen supply.

As discussed above, there have been a number of changes in the organization which have provided strengthened management capable of adequately managing the safe startup and operation of the Pilgrim facility.

I indicated in the Interim Decision that the emergency planning issues raised by the Petitioners were not sustained by FEMA's review of the Petition and I denied that portion of the Petition addressed to emergency planning issues. I noted, nevertheless, that other emergency planning issues raised by FEMA's "Self-Initiated Review and Interim Finding for the Pilgrim Nuclear Power Station, Plymouth, Ma.," were a matter of serious concern. The Commission still has under consideration the emergency planning issues raised by FEMA. However, containment performance is not grounds for the relief requested and the improved management organization has removed the need for any further enforcement action on this basis.

CONCLUSION

For the reasons discussed above, the information identified by the Petition does not warrant the initiation of the requested proceedings in regard to the management issues. Accordingly, the Petitioners' request for action pursuant to 10 CFR 2.206 on this issue is denied.

As provided in 10 CFR 2.206(c), a copy of this Decision will be filed with the Secretary for the Commission's review.

Dated at Rockville, Maryland, this ^{6th} day of *October* 1988.

FOR THE NUCLEAR REGULATORY COMMISSION

Thomas E. Murley
Thomas E. Murley, Director
Office of Nuclear Reactor Regulation

Attachments:

- A. SALP Report No. 50-293/87-99
- B. IATI Report No. 50-293/88-21