

PDR



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

July 15, 1986

The Honorable Gerry E. Studds
United States House of Representatives
Washington, D. C. 20515

Dear Congressman Studds:

In your letter of June 13, 1986 you asked a number of questions about the safety of operations at the Pilgrim Station in your district. These questions were raised in light of the accident at the Chernobyl facility in the Soviet Union.

First, I want you to know that the Pilgrim Station operations have been and are being conducted in a safe manner. The Nuclear Regulatory Commission's Region I and Headquarters staff have raised concerns that the management at Boston Edison Company may not have been as aggressive in pursuing excellence in plant maintenance and operations as they could have been.

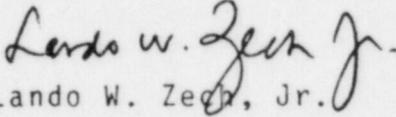
The NRC has done a good job of identifying and following up on problems at the Pilgrim Station. The SALP report, special diagnostic team inspection, augmented inspection team and Confirmatory Action Letter 86-10, in addition to the high priority given to routine NRC inspections at Pilgrim, demonstrate that the NRC staff has aggressively pursued its responsibilities in protecting the health and safety of the public.

The NRC identified these concerns and brought them to the attention of government officials and the public. In that regard I would like to point out that the NRC has historically taken the initiative in keeping local government officials and the public informed as to the status of NRC activities at Pilgrim. Recent events have necessitated an expanded effort which has been accomplished through numerous meetings with state legislators, with organizations such as the Plymouth Board of Selectmen and Plymouth Chamber of Commerce, and through public meetings.

8608070081 860715
PDR COMMS NRCC
CORRESPONDENCE PDR

I assure you that the NRC will continue to perform its job with vigilance and will not hesitate to take those actions required to ensure the public health and safety.

Sincerely,


Lando W. Zech, Jr.

Enclosure:
Questions and Answers

QUESTION 1.

What actions had the Commission taken since 1982 to assure that identified deficiencies are corrected? What specific changes in management or equipment have been made by Boston Edison as a result of Commission actions?

ANSWER.

As indicated in your letter, the NRC fined Boston Edison Company (BECO) \$550,000 in January of 1982 as a result of identified violations of NRC requirements that were attributed to management control deficiencies. Specifically, the problems were identified in the summer of 1981 and related to specific safety systems, changes to them, and failure to maintain the systems operable. Our review at the time attributed these problems to various deficiencies associated with poor communication among several organizational elements, and a lack of management oversight. The enforcement letter highlighted a number of such issues. However, it is of significance that there were clear examples of hardware deficiencies and the licensee had incorrectly informed the NRC as to changes made in the plant.

In addition to the civil penalty, the NRC also issued at that time an order that required BECO to submit to the NRC a comprehensive plan of action to address identified concerns. The order required that the plan include a) an independent appraisal of site and corporate management organization and function, b) recommendation for improvements in management controls and oversight, and c) a review of previous safety related activities to evaluate compliance with NRC requirements.

BECO took several actions in response to the NRC issued order. These included a reorganization of corporate management, initiation of a Performance Improvement Program (PIP), and implementation of physical equipment upgrades. The corporate reorganization created a new Senior Vice President position specifically for nuclear operations that reported directly to the Chief Executive Officer. Furthermore, two vice-president positions were created, one for engineering and the other for operations. This was in contrast to the prior situation where all elements of Pilgrim activities reported to a corporate officer who was responsible for all electric generation (fossil and nuclear) facilities. In addition, BECO established a nuclear oversight committee that reported directly to the Board of Directors. The PIP program addressed the issues identified in the NRC order including upgrading procedures for management control of plant configurations. The equipment upgrade program implemented by BECO was extensive and included items such as modifications to strengthen the containment, implementation of TMI Action Plan equipment upgrades, improvements in containment insulation and cooling, and other hardware improvements. NRC held management meetings with BECO approximately every six weeks until September 1984 to review progress of the PIP program. Monitoring of its implementation was accomplished through the resident and the region-based inspectors.

In addition to those activities related to the order issued in January 1982, NRC has taken other actions with regard to Pilgrim. Since January 1982 the NRC has had eight management meetings with Pilgrim excluding those related to the

PIP program; seven enforcement conferences have been held; three confirmatory action letters have been issued; three SALP evaluations have been performed; and over 192 inspections have been conducted. These efforts have been directed at monitoring the progress and effectiveness of BECo corrective actions, correcting identified problems and assessing performance in other areas. In essence, this level of activity is about fifty percent greater than the effort devoted by NRC Region I to similar plants in the Northeast United States. Thus, NRC has been closely monitoring activities at Pilgrim and has taken various actions to address problems.

QUESTION 2.

Did the Commission assign special priority to monitoring the management at Pilgrim following the precedent-setting fine in 1982? If not, why not?

ANSWER.

Yes. As indicated in the response to question 1, subsequent to issuing the Civil Penalty and Order in January 1982, NRC senior management met with BECo management approximately every six weeks until September 1984 to monitor the progress of BECo's corrective actions. The location for these meetings was rotated between the NRC Region I Office in King of Prussia, Pennsylvania, the Pilgrim plant site, and BECo Engineering Offices in Braintree, Massachusetts. In addition, Pilgrim has received high priority in the allocation of inspection resources. For the majority of time since April 1980 the NRC has had two resident inspectors at the Pilgrim site even though it has been the NRC policy to have two resident inspectors at each reactor site only for approximately the last two years.

Pilgrim has also been given high priority in the allocation of regional based specialist inspectors. Over 16,000 hours of inspection time have been expended at Pilgrim since the beginning of 1982.

NRC management continues to give high priority to Pilgrim. A third resident inspector has been temporarily assigned to the facility and based on the most recent SALP results senior NRC management has reestablished periodic management meetings with BECo.

QUESTION 3.

Does the Commission view it as particularly disturbing that the plant's management, three years after paying a \$550,000 fine, would be found below average in three out of eight areas reviewed in a SALP?

ANSWER.

Yes, as noted in the SALP transmittal letter dated February 18, 1986 Pilgrim's "inability to improve performance, or sustain improved performance once achieved, is of concern" to the NRC. The NRC's concern in this area is demonstrated by the high priority given to the problems at Pilgrim and by special efforts taken to evaluate the causes of these problems and determine appropriate action. An example of the special efforts taken by the NRC is the three week round-the-clock diagnostic team inspection that was conducted at Pilgrim during February and March of this year. However, it must be noted that most of 1984 at Pilgrim was devoted to the replacement of the recirculation piping in response to a Commission order; the plant was shutdown for major hardware replacement and modification.

QUESTION 4. Does the Commission consider a finding of below average in three out of eight areas reviewed in the 1986 SALP to constitute a serious safety concern? How much time lapsed between completion of the SALP and the assignment of the special inspection team? In light of the findings of the SALP review, was consideration given to ordering the plant shutdown, pending the report of the inspection team? If not, why not?

ANSWER.

The 1985 SALP did not identify any specific concern that warranted NRC action to shut down the Pilgrim plant. It is important to note that there is a significant difference between cited safety deficiencies and SALP findings. Deficiencies that demonstratively affect safe plant operation are dealt with by NRC enforcement actions that can range from notices of violation to civil penalties or orders to amend or revoke a license. When enforcement action is taken a critical element in the enforcement process is NRC review of the licensee's corrective action to ensure that the corrective action will effectively correct the identified deficiency. The SALP process, on the other hand, is a diagnostic tool that is intended to identify problems in licensee performance before they result in serious safety concerns. A Category 3 rating in SALP does not mean unacceptable performance. A Category 3 rating is defined in each SALP report as follows:

Category 3. Both NRC and licensee attention should be increased. Licensee management attention or involvement is acceptable and considers nuclear safety, but weaknesses are evident; licensee resources appear to be strained or not effectively used so that minimally satisfactory performance with respect to operational safety is being achieved.

Thus, Category 3 ratings do not in themselves constitute immediate safety problems; however, they do identify problem areas that, if left unchecked, could develop into serious safety problems. The margin of safety that separates management problems from safety problems with plant hardware or operations is the defense in-depth philosophy that is incorporated in plant design, operation, and testing. This defense in-depth philosophy requires that numerous checks and balances be defeated before a condition exists that threatens safe operation of a plant.

Planning for the special three week diagnostic team inspection that began at Pilgrim on February 18 started immediately after the SALP Board meeting held on December 18, 1985. It was recognized at that time that special efforts were required to better understand the problems at Pilgrim. This was a unique inspection based on a relatively new approach that was used during the restart of Three Mile Island Unit 1. The inspection required significant planning and coordination of inspection resources to accomplish effectively.

Ordering plant shutdown is an option that is always available to the NRC and that the NRC has demonstrated its willingness to exercise. However, as noted above, no specific safety concern was identified during the SALP that justified ordering Pilgrim shut down. In this regard the SALP findings are based on

operations during a defined time interval, normally one year, whereas enforcement actions are taken in response to identified problems where they occur. Consequently, the SALP process is not an enforcement tool. However, SALP does allow for preventive or precautionary measures to be taken before more serious deficiencies warranting plant shutdown occur.

QUESTION *6.

Will the Commission specifically use the findings of the SALP when it reviews the operation of the plant before the anticipated resumption of plant operations next month?

ANSWER.

No. It is not appropriate to associate the current plant shutdown with the SALP results. The plant is shutdown due to three specific hardware problems. Since the SALP is a historical perspective upon which we attempt to predict future performance, findings of the SALP process are factored into the allocation of NRC; inspection resources. Problem areas identified in SALP reports receive higher priority in inspections and consequently more inspections are conducted at problem plants. Due to recent management changes it is appropriate that more inspections occur at Pilgrim but it is not necessarily correct to assume that the 1985 SALP findings be used as the basis for either startup or continued shutdown of the plant.

*Note: No question 5 was identified in your letter.

QUESTION 7.

Will the Commission insist on change in the organizational structure by Boston Edison that demonstrate an enhanced commitment to correcting cited safety deficiencies?

ANSWER.

BECO has on their own initiative, without the insistence of the NRC, made organizational changes intended to help resolve the problems that have been identified at Pilgrim. Specifically, a new plant manager and operations manager were hired in May of this year. In addition, in June the Senior Vice President-Nuclear was removed and the Vice President for Nuclear Operations and Vice President for Engineering and Quality Assurance now report to an Executive Vice President who also holds the title of Chief Operating Officer, who in turn reports directly to the Chief Executive Officer. We view the organizational changes as a positive indication of BECO's commitment to correct their problems and we don't foresee a need for further action at this time.

QUESTION 8.

Will the Commission insist upon substantial improvement in the area of operator staffing levels?

ANSWER.

The licensed operator staffing problem has been affected by two factors; the workload and the low number of licensed reactor operators. The staffing of senior reactor operators has not been an issue.

As in the past, NRC will continue to monitor the operator staffing levels and on shift complements of licensed operators to ensure that the number of operators on shift and the number of hours of overtime worked by operators satisfy NRC requirements.

Six new operators (two senior operators and four reactor operators) passed the NRC administered operator licensing examinations at Pilgrim given in May, 1986.

In addition, BECo management has new initiatives underway in recruiting and training future operators. The excessive overtime problem noted in the last SALP was the result of a low staffing level and numerous hardware modifications at the plant that required excessive operator resources to perform post modification testing. The problem of work load and resource scheduling has been acknowledged by BECo and they currently have initiatives underway to address this problem. Thus, a positive trend appears to be developing in the area of licensed operator staffing. NRC will continue to monitor this area very closely.

QUESTION 9.

What other factors does the Commission view as essential to the safe startup of the facility?

ANSWER.

BECO currently requires, per Confirmatory Action Letter (CAL) 86-10, approval of the NRC Region I Administrator prior to restarting the plant. The CAL was issued in April when an Augmented Inspection Team was dispatched to the site to investigate three technical problems: leaking RHR valves, unanticipated primary containment isolations, and inability to promptly reopen the outboard main steam isolation valves following the unanticipated containment isolations. BECO proposed resolution to these problems is currently under review by the NRC and will have to be found acceptable prior to the NRC approving restart.

BECO has decided that regardless of the CAL issues, the plant will not be restarted until they have completed an action plan that will last a minimum of six weeks. The plan is directed at certain hardware improvements and at assessing and strengthening areas related to problems identified in the NRC SALP report.

During implementation of this action plan BECO has recently identified additional problems with overdue surveillance tests. A principal factor that will go into NRC evaluation of a restart of the Pilgrim reactor will be our monitoring and evaluation of the process by which the new management organization resolves problems such as the overdue surveillances and verifies the readiness of the plant for safe operation.