



Public Service Electric and Gas Company P.O. Box 236 Hancocks Bridge, New Jersey 08038

Nuclear Department

August 3, 1984

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20014

Attention: Mr. Steven Varga, Chief
Operating Reactors Branch 1
Division of Licensing

Gentlemen:

NUCLEAR OVERSIGHT COMMITTEE
QUARTERLY REPORT
SALEM GENERATING STATION
DOCKET NOS. 50-272 AND 50-311

PSE&G hereby submits the quarterly report of its Nuclear Oversight Committee, dated July 31, 1984.

Our response to this report will be provided within 30 days.

Sincerely,

E. A. Liden
Manager - Nuclear
Licensing and Regulation

Attachment

C Mr. H. R. Kister, Chief
Projects Branch No. 2, DPRP
Region 1

Mr. James Linville
Senior Resident Inspector

Mr. Donald C. Fischer
Licensing Project Manager

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NUCLEAR OVERSIGHT COMMITTEE

QUARTERLY REPORT

JULY 31, 1984

Membership:

Dr. M. B. Gottlieb, Chairman
Dr. S. Levy
Dr. K. C. Rogers
Dr. W. F. Witzig

NUCLEAR OVERSIGHT COMMITTEE
QUARTERLY REPORT

The third meeting of the Nuclear Oversight Committee (NOC) of Public Service Electric & Gas Company (PSE&G) was held on June 11 and 12, 1984.

The Nuclear Oversight Committee commends the PSE&G management for the great initiative and energy it has shown to improve its nuclear power plant safety and performance. The consolidation of support activities at Artificial Island and the Action Plans are among the examples of these initiatives. However, portions of management do not appear to the NOC to be fully informed or sufficiently responsive to the tough choices required to achieve a premier position in plant safety. The NOC is concerned that management give adequate attention to these choices. Organizational changes, now under active study and discussed further in this report, may help to alleviate these problems.

Action Plans

There has been substantial progress in Action Plan implementation during the last quarter. A total of 55 milestones were achieved as compared with the 61 scheduled. Five of these were ahead of schedule, 11 behind. Only one plan is more than three months behind schedule, i.e., Action Plan 2.1.4, Nuclear Department and Corporate Communication. Further work on this plan is on hold pending decisions on restructuring the Nuclear Department organization.

In the light of experience to date, the manpower requirements have been reestimated, without changing the dates for completion. According to these estimates, by the end of May 1984, 99,000 manhours were required as compared with 106,000 actually expended.

Five Action Plans have been completed. The NOC was impressed by the progress in breaking the log-jam on maintenance work and in the organization and planning of such work to avoid future problems.

As one component of the Action Plan, the Nuclear Department is taking an aggressive posture with respect to recruiting and hiring personnel. Contract personnel have helped to make up the manpower needs and further help will become available as approximately 175 persons are transferred from the Engineering and Construction Department to the Nuclear Department as Hope Creek makes the transition from construction to operation.

However, the NOC is concerned about two hiring indicators. The number of offers is essentially equal to the number of interviews, and the offer acceptance rate is only about one in six. This raises the question whether the new additions to staff are of the requisite quality.

It should be noted that some of the Action Plans involve substantial work after they are closed out. NOC expects to follow the progress of that work.

Nuclear Support - Engineering

The Nuclear Engineering Department is performing well in its responses to the immediate operational problems of Salem 1 and 2. However, these responses overload the Department. For example, the large backlog of design change requests and design change packages is evidence of an overloaded system. As a result, generic problems of the plants, and the determination of root causes and the development of permanent solutions to the causes of these problems cannot be satisfactorily carried out. This leads to conditions which result in more LERs, possible plant trips, and to the deterioration of performance indicators. It is strongly urged that more engineering resources and more management attention be directed to improving the capability of the Nuclear Engineering Department. As an interim solution, management should consider the infusion of engineers from Newark or the engagement of contract engineers to reduce the engineering work backlog. The device of using carefully targeted outside contractors has been very successful in dramatically reducing the non-outage maintenance work order backlog at Salem.

Plant Operations

NOC is concerned about the number and type of plant problems that continue to occur at Salem. NOC recommends that PSE&G management insist that:

- o The root cause be identified and corrective programs be implemented for all LERs, e.g., air-lock failures and the inoperability of control rod position indicators.
- o Broader investigation of plant problems be carried out. For instance, once the occurrence of a water hammer in the feedwater system was observed, all components in the system including the flow nozzle should have been inspected, or once a line freeze-up problem was discovered, all other lines and components susceptible to freezing should have been identified and inspected.

- o Safety assessments should err on the overconservative side. For instance, review of the steam generator water level trip revealed that feedwater flow might have been abnormally low, it should have been thoroughly investigated before restart.

Steam generator level control has caused a number of plant trips and shutdowns. In addition to improving operating procedures and implementing planned short-term design changes, a longer-term program should be carried out to improve the control and instrumentation of steam generators especially at low power levels.

A deliberate and careful higher management approach to plant problems is essential at this time because of the recurring, unusual and simultaneous number of plant and equipment problems and because of the other various factors which draw attention away from permanent solutions to plant problems such as: 1) the additional load imposed by the Action Plan implementation, 2) the implications of the proposed organizational changes on the Nuclear Department staff, and 3) the normal strenuous activities that are required to keep the plant in operation.

Management of the Safety Review Process

The NOC has reviewed the proposed management organizational changes from the standpoint of Nuclear Safety. The NOC strongly supports the general objectives of streamlining the management organization reporting to the Vice President - Nuclear. However, the NOC is concerned that the attention and resources necessary to place PSE&G in a strong position regarding safe nuclear operations require that Nuclear Safety Assurance be a separate line function headed by a senior manager who reports directly to the Vice President - Nuclear.

The individual selected to manage Nuclear Safety Assurance must have unusual personal and professional qualifications which will guarantee a high degree of success in the natural competition against station operation activities for attention and resources within the Artificial Island organization. The NOC strongly urges that PSE&G top management give personal attention to the selection of the individual to manage Nuclear Safety Assurance, and that no accommodations or compromises be made in arriving at that choice. Leadership, unusual interpersonal skills, independence of thought, intellectual scope, and personal courage are all vital qualities that the individual should possess in addition to a solid technical background.

Quality Assurance is another key function that the NOC recommends be placed under a manager who also reports to the Vice President - Nuclear. The choice of individual to head that function, while critical, may be an easier one to make because strong possible candidates on site are more obvious.

With regard to a new advisory board for nuclear safety, the NOC agrees that such a board be created immediately, but advises that it report to the Senior Vice President - Energy Supply and Engineering, and that it be headed by an individual not on the Island who reports to the Senior Vice President - Energy Supply and Engineering (e.g., the General Manager - Nuclear Assurance and Regulation). The new Nuclear Safety Assurance Board (NSAB) should have a functional relationship to the NOC and thereby act as a resource for it. The NOC should stay in place until the Action Plan has been implemented and closed out. This relationship between the NOC and the new NSAB would allow the NOC to have the assistance of the staff of the Chairman of the Nuclear Safety Advisory Board (NSAB). The new NSAB membership could well be as suggested in the reorganization recommendations.

By providing for the simultaneous existence of the NOC and a new NSAB over the next year, a transition period will be created that will allow for an orderly move to the possible coalescence of the NOC and the NSAB into a single board in the future. That coalesced board should report to the President of PSE&G and continue a liaison relationship with the Board of Directors.