



**PSEG**

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

Nuclear Department

August 30, 1984

U. S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Division of Licensing  
Washington, D. C. 20555

Attention: Mr. Steven A. Varga, Chief  
Operating Reactors Branch, No. 1

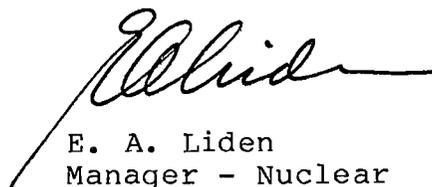
NUCLEAR OVERSIGHT COMMITTEE  
RESPONSE TO QUARTERLY REPORT  
SALEM GENERATING STATION  
DOCKET NOS. 50-272 AND 50-311

Gentlemen:

Enclosed for your information is a copy of our response to the July Quarterly Report of our Nuclear Oversight Committee.

Should you have any questions, do not hesitate to contact us.

Sincerely,



E. A. Liden  
Manager - Nuclear  
Licensing and Regulation

Enclosure

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The Energy People

Mr. Steven A. Varga

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

Mr. Donald C. Fischer  
Licensing Project Manager

Mr. James Linville  
Senior Resident Inspector

August 30, 1984

RESPONSE TO QUARTERLY REPORT  
NUCLEAR OVERSIGHT COMMITTEE  
JULY 31, 1984

HIRING INDICATORS

The two hiring indicators referred to in the NOC report were misleading in that they presented a snapshot picture of recruitment activities. The offers indicated by month did not necessarily correlate with the interviews that month in that the offers indicated were a result of previous recruitment activities.

We are encouraged with our hiring program and the degree of screening being done to assure we are obtaining the high quality personnel necessary to support our Nuclear Operations. For the first six months of 1984, we received 11,412 resumes which were screened carefully by our Employment and Placement staff so that only 29% were referred to the hiring departments for consideration. As a result of the technical screening performed in this program, 19% of these candidates were granted interviews. Because of our screening process, the candidates interviewed are of a high caliber and normally match our personnel requirements. Of the 624 candidates interviewed this year, 422 (or 68%) were offered employment, and again, as a result of our aggressive recruitment plan, 327 (or 77%) accepted our offer. We consider our program to be well planned and producing the necessary results for us to achieve our stated staffing goals.

ENGINEERING BACKLOG

The NOC expressed a concern with the number of backlogged engineering design change packages, and the fact that these backlogs are not decreasing dramatically at the present time. The unplanned and extended outages of both the Salem units has kept the site's workforce, both at the station and in the support areas, in an outage mode since October of 1982. There have been only a few weeks since that time that both units have been simultaneously operational, thereby allowing less than normal time to perform regular work. In addition, the programs to improve our Nuclear Operations (Action Plan) following the February 1983 reactor trip breaker event have required a significant amount of time by many employees in all departments.

We have supplemented our station and engineering work force with contract employees in order to improve this situation. Priorities have been established to ensure that plant changes related to nuclear safety, NRC requirements, and those which, if not incorporated, would result in plant shutdown or personnel safety hazard, are accomplished first. We are also examining our total workload over the next several years in order to better manage the workload and levelize resources through an integrated schedule.

As DCRs are initiated, they are prioritized and type coded into a computer database, to identify the plant conditions necessary to install the modification (refueling outage, forced outage or non-outage).

The number of DCRs awaiting evaluation, funding or design development as of August 1, 1984 is 697. Engineering work lists are developed from this data file annually for scheduled refueling outages and for non-outage work projects. This is accomplished by sorting important and significant DCRs out of the computer database by type code and priority to generate three engineering work lists, Unit 1 outage, Unit 2 outage and non-outage DCRs. These lists are then reviewed for need, ability to support manpower requirements and budgetary constraints. DCRs are then ranked within each priority to further identify an order of importance within each priority.

The remaining open DCRs, which are not included in these work lists, and appear to be an Engineering backlog, can be classified as low priority DCRs which are being intentionally deferred or projects which are not yet funded.

In conjunction with the recommendations of Action Plan 2.3.2, we will be establishing a Change Control Board to control the initiation of new projects. As new DCRs are generated they will be reviewed for need, feasibility, cost and scope and then presented to the Board.

The Change Control Board will consider the present need for the new project, manpower limitations and budget constraints before deciding whether the project is coded into an active working status or is made part of the deferred job list which will be reviewed in the future for continued need.

Another mechanism which will improve the backlog condition is the establishment of a process for implementing minor changes. This process would provide improved effectiveness in handling minor changes. A draft procedure is under review and should be implemented within the next several months.

The number of DCRs which have been issued for implementation is approximately 400; 25% of these have been completed and are in the process of closeout in the field. About 20% are scheduled for future outages and the remainder (55%) are non-outage projects, which are currently being scheduled for implementation now that the unit outages are coming to a close. Some of this work will be assigned to contractor support for implementation.

Another area where there appears to be a backlog is in the final engineering close-out of DCRs. Approximately 400 DCRs are in this category, however, drawing updates have been completed on all but about 80 as of August 1, 1984. Currently, about 60% of the affected drawings have been updated. To resolve the paperwork backlog, contractor support will be utilized to ensure that all documents affected by a DCR have been updated and issued, and that closeout documentation is prepared and processed.

#### PLANT OPERATIONS

The NOC recommended that PSE&G insist that, (1) root causes be identified and corrective programs be implemented for all LER's; (2) broader investigation of plant problems be carried out; and (3) safety assessment should err on the overconservative side. The NOC also emphasized that a deliberate and careful higher management approach to plant problems is essential at this time due to various factors which impact on department individuals and groups.

We believe we have become more sensitive and responsive to these important safety concerns and that our investigations of recent plant problems; such as the disc/stem failures of certain valves, Reactor vessel flange leakage, and PORV block valve operability; have been comprehensive, sound, and technically accurate. Most importantly, we believe that these investigations properly identify root causes and provide appropriate corrective actions. Nuclear Department management senses an increased awareness of nuclear safety implications of plant problems by department personnel and recent events and resultant evaluations do indicate broader investigations and more conservative safety assessments.

Additionally, recent modifications to our post-trip review program require even more rigorous evaluation of the cause of the trips prior to restart, including involvement of engineering personnel. A station task force is investigating the on-the-spot change review process within the plant and recommendations for improvement are expected by October 1984. Those LERs identifying air-lock failures and inoperability of control rod position indicators will be reviewed to insure appropriate corrective action has been planned and/or implemented. An annual report has historically been prepared which reviews LERs, describes corrective actions for recurring problems and establishes goals for the upcoming year.

The NOC also recommended carrying out a longer-term program to improve the control and instrumentation of steam generators especially at low power levels. Detailed investigations of the steam generator level initiated trips have been conducted and changes made to the level setpoints and the controls available for low power operation. Recent startups have resulted in minimal level control problems, however, additional changes are planned in the steam control portion of the system to optimize overall performance during startup.

#### MANAGEMENT OF THE SAFETY REVIEW PROCESS

The NOC recommended that Nuclear Safety Assurance be a separate line function headed by a senior manager who reports directly to the Vice President - Nuclear. NOC also recommended that Quality Assurance be placed under a manager who reports to the Vice President - Nuclear. PSE&G has adopted these recommendations in its revised organization which began implementation on August 27, 1984.

The NOC also recommended that the new advisory board for nuclear safety report to the Senior Vice President - Energy Supply and Engineering (now Nuclear and Engineering), and that it be headed by an individual not at Artificial Island.

The purpose of the new Nuclear Safety Advisory Board (NSAB) is to provide for senior management oversight of nuclear activities and to independently consider potentially significant nuclear safety and environmental matters, including management aspects, and to advise the Vice President - Nuclear so that, if necessary, concerns are promptly investigated and corrected. We believe it is essential that this group continue to report to the Vice President - Nuclear as the officer responsible for nuclear operations. The Senior Vice President - Nuclear and Engineering presently has a full time group (Nuclear Assurance and Regulation) reporting to him which independently reviews the safety and quality aspects of nuclear activities. The new NSAB's written reports will also be forwarded to the Senior Vice President to keep senior executive management informed and involved to be sure that NSAB items are adequately reviewed and appropriate corrective action is taken.