

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 87-34

Docket No. 50-219

License No. DPR-15 Priority - Category C

Licensee: GPU Nuclear Corporation
P.O. Box 388
Forked River, New Jersey 08731

Facility Name: Oyster Creek Nuclear Generating Station

Inspection Conducted: October 19-22, 1987

Participating Inspectors: D. J. Florek
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Approved By:

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Dec 21, 1987
date

Inspection Summary:

Inspections were commenced on October 19, at the corporate offices, and completed on October 22 at the site. The inspections were performed to follow-up on corrective actions following an event on September 11, 1987 where in a condition requiring at least two recirculation loops to be in the full open position was not met.

Results:

No violations were identified.

Details

1.0 Overview

On September 11, 1987, maintenance activities in progress at the plant led to the violation of Technical Specification Safety Limit 2.1.E. in that fewer than two set of recirculation loop valves were not fully open for a short period of time as required by the limit. For details of this event see Inspection Report No. 50-219/87-29. The purpose of this inspection was to ascertain that the corrective actions performed by the licensee, in response to this safety limit violation, were adequate.

2.0 Policies and Procedures regarding Integrity and Procedure Adherence.

2.1 Discussion

The inspector reviewed corporate policies, site policies, letters, procedures, human relation publications, and interviewed maintenance personnel, Group Shift Supervisors, and reactor operators to determine that standards for integrity and procedure adherence had existed and the personnel were aware of these standards.

The inspector obtained information of the corporate policies based on an inspection conducted at the corporate offices on October 19 and 20, 1987. Based on information provided at the corporate offices the inspector obtained additional information at the site and conducted interviews with five maintenance personnel (foremen, job coordinator, and supervisors), two on-shift Group Shift Supervisors, three on-shift reactor operators, and one operations staff person with a reactor operators license to ascertain whether these individuals were aware of these policies.

The documents reviewed indicated that GPUN has had policies concerning the integrity of the employees at Oyster Creek. The policies have been reinforced by memos from upper management to the employees. A specific seminar on the legal responsibilities of licensed operators was given to the licensed operators during the 87-1 Re-qualification Cycle which also reinforced the integrity and accountability of the actions of the licensed operators. The licensee also has a vehicle in the Employee Assistance Program wherein if an employee experiences a condition that may impact on his ability to function he may seek help. Based on the discussions with the persons interviewed, the individuals were clearly aware of their responsibilities and the high standards that they must achieve. They acknowledged that they have received reinforcement on these policies periodically in discussions and from receipt of memos from site and corporate management.

A similar conclusion exists for the awareness of the need to adhere to procedures. Oyster Creek has repeatedly reinforced the need for employees to adhere to procedures. Administrative procedures require that operations personnel adhere to procedures and follow-up memos to various plant events reiterated the need for following procedures. Training in administrative procedures adherence was conducted with the operators during the period May to July, 1987. The persons interviewed were aware of the need to follow procedures and knew that procedures could be changed if needed to accomplish a specific task. They also indicated that they did not receive supervisory pressure to ignore the procedure to get a job done in order to meet a schedule. In fact, they indicated the opposite was the case.

2.2 Review of GPUN Attitude Analysis and Balancing of Shift Strengths

2.2.1 GPUN Employee Attitude Survey

In April 1987, the licensee announced to the employees at Oyster Creek that a survey of attitudes of all system employees would be conducted. The survey would identify what the personnel at Oyster Creek felt, what was done right, and what areas could be strengthened. The results of the survey would be provided to the employees along with the assessment of what will be done to improve those conditions that the employees identified as concerns. The survey was broadly based in the areas under investigation with over 150 questions asked. Topics surveyed included safety perspective and organizational performance.

In August 1987, the results of the survey were presented to the licensee management and the Office of the President of GPUN. In September, a brief summary of results were provided to the employees. The licensee is in the process of addressing the concerns of the survey and developing feedback to the employees. This will be in the form of what was identified, what the organization can do, what is still being worked upon, and what can't be done and why. Management support in using the survey results to improve the performance of Oyster Creek was evident. The Director of Oyster Creek was tasked with chairing a group to resolve the concerns that were of a generic nature. Lower level managers were tasked with assuring that the concerns identified at a specific group level were also addressed. Utilization of personnel within the work group was encouraged to address the concerns identified.

2.2.2 Teamwork and Leadership Training

Over the past 18 months the licensee has attempted to improve the teamwork and leadership aspect of the persons involved with Oyster Creek. A major effort recently developed included seminars conducted with nearly 250 Oyster Creek managers and supervisors based on a program developed by an outside consultant. The licensee has used the consultant to develop the necessary skills within the organization to pursue the teamwork and leadership training. As reported in prior inspections an improvement in teamwork was noticed after this training was provided. This program has the support of corporate management with reinforcement aspects included within the program. This includes receiving copies of a newsletter, "Team Talk", plus rescheduling of the program one month and one year after the seminar was conducted. Based on discussions with Senior Site Management, the licensee is continuing to apply the concepts of the teamwork and leadership programs in the organization and assessing new methods to apply the program concepts at Oyster Creek. This is an ongoing activity.

2.2.3 Balancing of Shift Strengths

After the September 11 safety limit violation at Oyster Creek, the licensee instituted an assessment of the operating crews from a teamwork and leadership perspective attempting to balance the shift strengths. Many of the skills developed from the teamwork and leadership training were utilized in this assessment. The licensee utilized corporate staff under corporate vice presidential direction including its staff behavioral scientist in the development of this assessment. The assessment was based on interviews with individuals from a broad spectrum of work groups interfacing with the shift crews. The persons utilized for these inputs for the most part did receive the teamwork and leadership training and thus were quite familiar with the concepts that the interviewers were probing. The licensee systematically analyzed the data obtained and developed conclusions and recommendations. These conclusions and recommendations were forwarded to senior management on site to assess. The recommendations and conclusions are being utilized by senior site management as one of the inputs in the strengthening of the operating team.

2.3 Findings

No unacceptable conditions were identified. The licensee corrective actions regarding Integrity and Procedure Adherence policies and procedures, were found to be adequate.

The inspector reviewed the licensee's methodology, as well as, the conclusions and recommendations. The methodology was able to assess the operating crew strengths and can be effectively utilized as one tool to assist management in the strengthening of the operating team.

3.0 Plant Procedure Review and Revision Efforts

3.1 Discussion

The inspector reviewed the licensee's corrective actions, regarding the recirculation loop availability Safety Limit Violation (SLV), committed to in GPU Nuclear letter from P. Clark, President, GPU Nuclear to Dr. T. Murley, Director, Office of Nuclear Reactor Regulation, dated September 20, 1987.

3.2 Procedure Review and Revision

The inspector discussed the licensee's plant procedure review and revision efforts regarding the SLV with a licensee representative. The representative stated that a review of all plant procedures, to determine if adequate statements are present which warn the operator of the SL, is in progress. He stated that review of operating procedures specifically affecting reactor recirculation pump operation has been completed. Changes have been made to the following procedures:

- Procedure Number 301, Nuclear Steam Supply System, Revision 40, Effective dated 10/8/87.
- Procedure Number 305, Shutdown Cooling System Operation, Revision 32, Effective date 10/8/87.
- Procedure Number 2000-RAP-3024.01, Nuclear Steam Supply System Annunciator Response Procedures, Revision 23, Effective date 10/8/87.

The inspector reviewed these procedures and noted that appropriate changes were instituted regarding placement of cautions which warn of the SL. In addition, the inspector noted that changes were also made to procedure numbers 301 and 305 regarding operation of recirculation loop valves; changing of recirculation flow; and securing of the final two recirculation pumps in off-normal plant conditions.

3.3 Training of Operators on SLV and Procedure Changes

The inspector discussed the supplemental training of shift operators regarding the SLV with a representative of the licensee's training department. He stated that training consisted of both classroom lecture and simulator training on the Basic Principles Trainer (BPT). The inspector reviewed the lesson plans for the SLV training and held discussions with several shift operators who had received the training. The inspector verified that the training included discussion of the May 2, 1979 and September 11, 1987 events at Oyster Creek; discussion of procedural limitations on recirculation loop availability and their basis; discussion of control room indications applicable to the September 11, 1987 SLV; review of changes made to reactor recirculation operating procedures; and discussion of the importance of adherence to procedures. In addition a memorandum from the training department to all licensed operators dated October 19, 1987 identified the significant procedural changes made as a result of the SLV.

The inspector verified that 23 of 29 shift operators had received the required training prior to the completion of the inspection. In a follow-up phone conversation with a licensee representative on October 29, 1987, the inspector verified that one of the remaining six operators received the training on that day.

3.4 Findings

No unacceptable conditions were identified. The licensee corrective actions, regarding procedure and revisions and training of shift operators, were found to be adequate.

4. Training Regarding Limitorque Operation and Backseating and Maintenance Controls

4.1 Limitorque Operation and Backseating Details

The licensee has implemented the following training to satisfy restart commitments and to improve specific skills in the maintenance, operation, and engineering departments.

<u>Subject</u>	<u>Training For</u>
1) Safety Limit Violation Lessons Learned	Operations
2) Basic Principles Trainer Scenario	Operations

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|---|--|
| 3) Detailed Characteristics of Limitorque Operation | Operations,
Maintenance,
Engineering |
| 4) Tagging and Switching Procedure | Operations,
Maintenance,
Engineering |
| 5) Valve Backseating Procedure | Operations,
Maintenance,
Engineering |
| 6) Station Critique of Safety Limit Violation | Operations,
Maintenance,
Engineering |
| 7) Edwin H. Stier Safety Limit Inspection | Operations,
Maintenance,
Engineering |
| 8) Procedure Compliance Requirement | Operations,
Maintenance,
Engineering |

The training on lessons learned from the safety limit violation is being conducted by the manager of plant operation. All other training topics are being conducted by training center instructors with exception of the station critique and Edwin H. Stier investigation which are required reading. An examination to test training effectiveness is administered at the conclusion of each training session. The inspector held discussions with a training instructor and reviewed the training session handout and examination. The training sessions appear to have been both detailed in scope and effectively conducted.

The following is a status of completed training for the operations, maintenance, and engineering departments. The licensee's intentions are to have completed licensed operator training prior to restart or have deficient individuals taken off the watchbill until their training is complete. The maintenance department has sent all 58 area supervisors, group supervisors, job coordinators, and planners to the above specified training. The engineering department has sent 10 of 14 selected spare part engineers, operation engineer, electrical engineers, and mechanical engineers to the above specified training. The remaining four engineers were scheduled to complete training during the week of October 26, 1987.

Several procedure modifications have been or will be implemented to simplify or clarify procedure requirements. The "Generic Repack Procedure for the use of Chesterton Style 5300 and Style One (1) Packing" has been revised to include the necessary precautions and limitations to perform the repacking with the valve on its backseat. This procedure references the appropriate backseating procedures. The station's existing backseating procedure and standing order 33 will be combined into a single plant operations series procedure by the end of December, 1987.

In conclusion, all restart commitments in this area have been satisfied with the exception of the completion of Limitorque operation training by the operation and engineering departments.

4.2 Control of Maintenance Activities

The licensee has implemented several improvements in the maintenance area to meet restart commitments and to enhance control of maintenance activities. The maintenance organization has been reorganized from an area responsibility to a discipline responsibility concept to improve communication and control. Maintenance management is planning to conduct internal training to stress the importance of procedural compliance, shift turnover, and maintenance tagging responsibilities. This training is scheduled to be completed prior to plant restart, however, had not started as of October 23, 1987. The maintenance department has issued a policy statement delineating interim controls to be used to assure adequate communications and transfer of job control between maintenance supervisors during shift turnover. The maintenance department has implemented an interim job turnover document to improve management control of jobs in progress during shift turnover. A detailed turnover procedure and document is being developed and is scheduled for completion by the end of December, 1987. To improve coordination between departments during outages, the station has implemented a shift management meeting between the group shift supervisor, the group radiation control shift supervisor, and the maintenance supervisor.

The station administrative procedures for control of maintenance, conduct of operation, and equipment control have been modified to clarify the operations and maintenance interface responsibilities. Training on these procedure modifications is being conducted during the required training on Limitorque operation and backseating sessions discussed in paragraph 1. This training also discussed an interim revision to the switching and tagging procedure which delineates specific operations and maintenance responsibilities during maintenance. A complete revision to the switching and tagging procedure is in progress with an expected completion date of December, 1987. The station critique of the safety limit violation is required reading for maintenance production personnel, planners, licensed operators, and equipment operators.

In conclusion, all restart commitments in this area have been satisfied with the exception of the internal maintenance training on procedural compliance, shift turnover, and maintenance tagging responsibilities.

4.3 Findings

No unacceptable conditions were identified. The licensee corrective actions, regarding training for limit torque operation and backseating and maintenance controls, were found to be adequate.

5.0 Exit Meeting

The inspectors briefed licensee management at the exit meeting on October 22, 1987 on the findings. No written material was provided to the licensee by the NRC during this inspection. There was no indication by the licensee that any proprietary information was involved in this inspection.

Licensee Corrections Actions were discussed in a licensee letter dated September 20, 1987 and a letter dated September 22, 1987, as well as in Licensee Event Report 87-033.

Enclosure I

Documents on Integrity Assessment

Corporate Policy

- 1000-POL-1000.02 Quality of Work Policy, Revision 0 dated 12/1/86
- 1000-POL-1020.01 Use of Ombudsman Function for Resolving Nuclear or Rad Safety Concerns, Revision 2, dated 5/3/82
- 1000-POL-1740.01 Employee Contact with Regulatory Agencies, Revision 0 dated 11/18/82
- 1000-POL-2002.00 Standards of Conduct, Revision 0 dated 5/15/86
- 1000-POL-2200.01 Human Resources Policy, Revision 0 dated 5/20/86
- GPUN Vision and Value Statements provided to Employees 5-6/87

Corporate Procedure and Plans

- 1000-ADM-1218.01 GPUN Policy, Plan and Procedure System, Revision 2 dated 5/1/86
- 1000-ADM-2002.04 Employee Fitness for Duty Procedure/Drug and Alcohol, Revision 0 dated 5/5/86
- 1000-ADM-2130.01 Disciplinary Guidelines, Revision 0 dated 5/2/86
- 1000-PLN-2504.01 Employee Assistance Program Plan

Letters and Memoranda

- R. Arnold to GPUN Employees, Interim Policy on Assignment of Employees while Questioning Their Performance or Conduct are Being Resolved, dated 9/27/83
- P. Clark to GPUN Employees Assigned to Nuclear Facilities, Meeting Responsibilities, dated 12/8/83
- P. Clark to GPUN Employees Engaged in Nuclear Activities, Some Implications of the Indictment of Metropolitan Edison Company for Pre-accident Activities at TMI-2, dated 2/27/84

P. Clark to P. Fiedler et al, Support of GPUN Corporate Objective 11, dated 7/30/87

P. Fiedler to All Oyster Creek Employees, Retention of Data, dated 7/25/86

J. Sullivan to All Department Managers, Control Room Professional Dress, dated 2/27/87

P. Fiedler and P. Clark to Oyster Creek Group Shift Supervisors, Command Responsibilities, dated 3/5/87

Director R&EC Division to All R&EC Division Employees, Integrity and Discipline, dated 5/15/87

Director MCF and MCF Director Oyster Creek to All Department Employees, Integrity and Discipline dated 6/23/87

Oyster Creek Station Instruction

2000-POL-2000.01 Policy Statements-Personnel, Revision 1 dated 9/1/86
(Compendium of policy statements at Oyster Creek)

Documents Relating To Procedure Adherence

Procedures

106 Conduct of Operations, Revision 45 dated 8/13/87

107 Procedure Control, Revision 37 dated 8/14/87

Letters and Memoranda

J. Sullivan to All Operations Department Personnel, Procedure Compliance dated 11/23/83

J. Sullivan to All Operations Personnel, Outage Completion dated 3/16/84

J. Sullivan and R. McKeon to CROs, EDs, GOSs, GSSs, OSAs, Operations Staff, Procedure Deficiencies During Load Test Surveillance dated 5/16/84

J. Sullivan to All Operations Personnel, Conduct of Activities, dated 8/23/84

P. Fiedler to OC Department Heads, Outage Completion, dated 8/24/84

J. Sullivan to Equipment Operators, Equipment Operator Tours/Turnovers dated 4/17/86

P. Clark to P. Fiedler et al, Support of GPUN Corporate Objective 11, dated 7/30/84

P. Fiedler to All Oyster Creek Employees, Retention of Data, dated 7/25/86

J. Sullivan to All Department Managers, Control Room Professional Dress, dated 2/27/87

Other Documents Related to the Issues of Procedure Adherence and Integrity

General Employee Training Information Revision 3 dated 2/16/87

GPUN Oyster Creek Rules and Regulations Supplement to JCP&L General Rules dated 5/83

Oyster Creek Newsletter "The Power Line" Issues dated 5/1/87, 5/29/87, 8/28/87, 9/17/87 and 9/25/87

Parsippany Newsletter "Parsippany Nuclear Update"³ Issues dated 5/18/87, 5/29/87, 8/21/87, 9/4/87 and 9/14/87

J. Sullivan to All Operations Personnel, Outage Responsibilities dated 6/9/86

J. Sullivan to All Operations Personnel, Oyster Creek Operations dated 5/22/87