March 3, 2000

Mr. Sander Levin, Acting Director
GPU Nuclear, Inc.
Oyster Creek Nuclear Generating Station
Post Office Box 388
Forked River, New Jersey 08731

SUBJECT: NRC INSPECTION REPORT NO. 05000219/1999012

Dear Mr. Levin:

This letter transmits the results of the NRC team inspection conducted at the Oyster Creek Nuclear Generating Station during the period December 13 - 17, 1999. The purpose of the inspection was to review the effectiveness of the corrective action program using NRC Inspection Procedure 40500, “Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems.” The inspection was completed on December 30, 1999, and the inspection results were communicated to you and your staff during a telephone exit meeting held on January 19, 2000.

Based on the results of this inspection, the inspection team determined that, overall, the Oyster Creek program for identifying, resolving and preventing problems was acceptable and properly implemented. Nonetheless, we observed some equipment deficiencies that were not entered in the corrective action process; most notably, several failures of the combustion turbine to start. Because only one of the two CTs is required for station blackout, the reliability of the alternate ac system remained high. However, the review of these failures under the corrective action process would have ensured a more effective evaluation of the issues and might have prevented some of the repeat failures. We also observed several examples of initial operability and reportability determination made by operations without the involvement of engineering personnel indicating potentially insufficient communications between the two departments.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be placed in the NRC Public Document Room (PDR). Your cooperation with us was appreciated.

Sincerely,

/RA/

Wayne D. Lanning, Director
Division of Reactor Safety

Docket No: 05000219
License No: DPR-16

Enclosure: NRC Inspection Report No. 05000219/199012

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REGION I

Docket No.	05000219
Report No.	05000219/1999012
License No.	DPR-16
Licensee:	GPU Nuclear Incorporated 1 Upper Pond Road Parsippany, New Jersey 07054
Facility Name:	Oyster Creek Nuclear Generating Station
Location:	Forked River, New Jersey
Inspection Dates:	December 13, 1999 - December 30, 1999
Inspectors:	A. L. Della Greca, Team Leader, Senior Reactor Inspector T. F. Burns, Reactor Inspector G. T. Dentel, Resident Inspector Beaver Valley M. S. Ferdas, Reactor Inspector T. A. Moslak, Health Physicist A. Lohmeier, Senior Reactor Inspector
Approved By:	Lawrence T. Doerflein, Chief Systems Branch Division of Reactor Safety

EXECUTIVE SUMMARY

Oyster Creek Nuclear Generating Station
Inspection Report No. 05000219/1999012

During the period December 13 - 30, 1999, the NRC conducted a Corrective Action Program (CAP) inspection at the Oyster Creek Nuclear Generating Station. The objective of the inspection was to evaluate the effectiveness of the Oyster Creek program for identifying, evaluating, and correcting problems that could degrade the safe operation of the plant. The guidance used by the team was that of NRC Inspection Procedure 40500. The results of this inspection are described below:

1.0 Problem Identification

The problem identification program was generally acceptable. Deficiencies identified by the licensee were usually entered in the corrective action program in a timely manner and the threshold for initiating problem reports was low. The team found some examples where a deficiency was identified by the licensee, but not placed into the CAP process. One example was the licensee's failure to document and evaluate through the CAP process several combustion turbine start failures. In another instance, a higher than anticipated control rod drive pump discharge pressure was not entered into the CAP more than two years later.

2.0 Operability and Reportability Determinations

Overall, operability and reportability determinations were acceptable. However, several examples were identified where there was only minimal or no documentation to support the operability conclusion. Also, the support of engineering personnel was not always obtained for the operability determinations. Insufficient documentation and/or engagement of engineering personnel in the review process were observed and documented previously by both the NRC and the licensee.

3.0 Root Cause Determination

The review level selected for root cause evaluations was commensurate with the safety significance of the identified problem and the evaluations were timely. The documentation of the root cause process, however, was somewhat limited, such that use of the licensee's recommended guidance was not always evident. In certain cases, a more formalized approach to the root cause determination would have provided more focused results.

4.0 Problem Resolution

The existing Oyster Creek corrective action program provided for an effective means to identify operational, system, or equipment problems and to monitor the resolution of the problems until completion. Resolution of the problems was reasonable and, for the most part, timely.

The corrective actions to address the start reliability of the station blackout combustion turbines (CTs) were not always effective, causing the placement of CT No. 2 in the (A)(1) Maintenance Rule status. However, partly because only one of two CTs is needed for station blackout, the overall reliability of the alternate ac system remained high. The reliability of CT No. 2 improved steadily during the last year.

5.0 Corrective Actions for Non-Cited Violations (NCVs)

The team identified no concerns with the processing of NCVs. The NCVs examined had been assigned for resolution, reviewed, and entered in the CAP to track resolution and completion of corrective actions. The issue evaluation and root cause determination were commensurate with the significance of the finding. Corrective actions were timely.

6.0 Self-Assessment Activities

The schedule, type, and depth of self-assessments varied among departments. Generally, the self-assessments resulted in meaningful findings and recommendations. For areas identified as requiring improvement and specific action, entries had been made in the corrective action program for tracking. The management observation program was effective in providing feedback regarding work performance and in reinforcing management expectations.

7.0 Oversight/Safety Review Committees

Through programmatic audits and monitoring, the Nuclear Safety Assessment (NSA) Group provided effective oversight across all GPU departments. NSA findings resulted in various recommendations and the identification of issues needing management attention. Significant issues were tracked through the CAP .

The independent onsite and offsite review organizations demonstrated a questioning attitude and provided additional insights and recommendations regarding the issues.

8.0 Operating Experience (OE) Review Program

The program for addressing operating experience was effectively implemented. The program coordinator ensured that OE items were distributed to appropriate technical and supervisory personnel and that the review of the issues was conducted in a timely manner. Items determined to be applicable to Oyster Creek were entered into the corrective action program for resolution of the issue and tracking of corrective action.

9.0 Use of Risk Insight

Risk evaluation results were used at Oyster Creek to provide comprehensive, technically sound, and timely identification of the significance of component and system issues, and to select the optimal resources for corrective action implementation. The use of risk insights for online maintenance was also acceptable.

10.0 Employee Concern

Site management has taken appropriate measures to encourage the identification and reporting of safety issues by workers. Personnel raised issues freely through the corrective action program and the ombudsman program. Employee concerns were being appropriately addressed on matters regarding plant safety.

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Report Details

Summary of Plant Status

During the period between December 13 and December 17, 1999, the NRC conducted a Corrective Action Program inspection at the Oyster Creek Nuclear Generating Station. The objective of the inspection was to evaluate the effectiveness of the Oyster Creek program for identifying, evaluating, and correcting problems that could degrade the safe operation of the plant. The plant remained at or near full power throughout the inspection period.

1.0 Problem Identification

a. Scope of Inspection

The team evaluated the adequacy of the problem identification process through a review of the corrective action program (CAP) procedure requirements; a sampling of a variety of documents and plant activities from which problem reports were generated, such as the results of the maintenance rule monitoring programs, operator logs, operator work-arounds, and temporary modifications; discussions with responsible engineering and operation personnel; and plant walkdowns. The review also addressed tracking of identified issues and timeliness of the problem reports.

b. Observations and Findings

The guidance in the corrective action program procedure for the initiation of corrective action program reports was clear and sufficiently detailed for its correct implementation. The procedural requirements had been disseminated to the staff through appropriate training sessions.

The team noted good use of CAP. Matters regarding design deficiencies, human performance errors, work control related problems, equipment failures, adverse performance trends, unanticipated radiological conditions in plant areas or systems, and security and emergency preparedness deficiencies were generally placed in the CAP for evaluation, resolution, and tracking. Issues resulting from quarterly trending of identified deficiencies were also entered into the CAP. For example, in engineering, adverse trends regarding power cable and valve failures were properly identified, captured in CAP reports and monitored through the trending program.

The threshold for generating CAP reports was low and was being further refined in some areas to incorporate quantitative criteria, where applicable. The low threshold resulted in some of the issued reports being addressed and assigned for immediate closure by the Management Review Team (MRT) during their daily review of the identified issues. The MRT was responsible for assigning the CAP report closure responsibility.

The team found the problem identification descriptions to contain sufficient technical and administrative information for the proper evaluation of the issue, including component operability, event reportability, risk significance, and assignment of priority level by the MRT.

Although the problem identification program was generally acceptable, the team identified the following instances where deficiencies were identified, but not placed into the CAP: (1) multiple failures to start of station blackout combustion turbine (CT) #2; (2) repeated spurious alarms of the station blackout lockout circuitry; and (3) recurring spurious alarms for low recirculation pump differential pressure.

The multiple failures to start of the CT #2 were notable since the CTs are relied upon during a station blackout and are considered risk significant in the maintenance rule program. As a result of the NRC observations, the licensee initiated a CAP to evaluate the impact of the CT start failures on the overall availability and reliability of the CTs, although preliminary evaluations by the NRC team indicated minimal impact.

In another example, an unexpected high discharge pressure from a new control rod drive (CRD) pump was identified in April of 1997, but a CAP was not issued until October 1999. Engineering evaluations conducted in 1999 determined that the CRD system was operable and could withstand the higher pump discharge pressure. The CT start failures and the higher CRD pump discharge pressure are further addressed in Sections 4.0 and 3.0 of this report, respectively.

c. Conclusions

The problem identification program was generally acceptable. Deficiencies identified by the licensee were usually entered in the corrective action program in a timely manner and the threshold for initiating problem reports was low. The team found some examples where a deficiency was identified by the licensee, but not placed into the CAP process. One examples was the licensee's failure to document and evaluate through the CAP process several combustion turbine start failures. In another instance, a higher than anticipated control rod drive pump discharge pressure was not entered into the CAP more than two years later.

2.0 Operability and Reportability Determinations

a. Scope of Inspection

The team evaluated the adequacy and timeliness of the licensee's review of identified issues to determine the operability of deficient equipment and systems and the reportability of such issues. The evaluation was conducted through a detailed review of a variety of CAP reports, both open and closed, that were generated by engineering and other plant organizations.

b. Observations and Findings

The team's detailed review of selected problem reports determined that the licensee had, in general, addressed the issues contained in the report in a timely manner and had correctly evaluated the operability of the equipment or system and the reportability of the issues. The team found, nonetheless, that the documentation of such evaluations was limited and was, sometimes, done by the Operations Department without the involvement of the engineering disciplines. The lack of details in the documentation of

the operability determinations was also recognized by the licensee during a 1998 self-assessment. As a result of the self-assessment, some improvements were noted by the team in later operability evaluations. Examples of issues in the CAP with deficient documentation included:

- CAP 01999-1015 was issued to report that a rigid strut on the containment spray system had been found rotated and rubbing on a weld. The documented operability assessment only concluded that the system engineer was contacted and no operability concern was present. Actually, the licensee's evaluation had included a walkdown of the system, previous in-service visual inspections, and a documented previous evaluation of the issue.

- CAP 01998-1731 pertained to a test instrument (a pressure indicator) that was inadvertently left on the isolation condenser after the refueling outage. The CAP concluded that the system was operable, but included no documentation of how that conclusion was reached. In this case, there was also no evidence that the system engineer had been contacted regarding the issue.

- CAP 01998-1267 was issued to report that a procedural limit for reactor building component cooling water flow rate to the shutdown cooling heat exchangers had been exceeded. As in the previous example, only the conclusion of the operability assessment was documented, but no basis for such conclusion was included. Also, as in the case of CAP 01998-1731, there was no indication that the system engineer had been engaged in the process.

The team's review of these and other similar issues did not identify any instances of inoperable equipment. Only the documentation of the licensee's conclusions was either limited or nonexistent. Concerns regarding the adequacy of the documentation and the involvement of engineering in the evaluation process were also expressed in NRC Inspection Report 50-219/99-08.

- Conclusions

Overall, operability and reportability determinations were acceptable. However, several examples were identified where there was only minimal or no documentation to support the operability conclusion. Also, the support of engineering personnel was not always obtained for the operability determinations. Insufficient documentation and/or engagement of engineering personnel in the review process were observed and documented previously by both the NRC and the licensee.

3.0 Root Cause Determination

a. Scope of Inspection

The team evaluated the adequacy of the root cause evaluation program by conducting detailed reviews of selected CAP reports. The selected samples included both "significant" and "non-significant" reports. The team's review addressed the licensee's initial evaluation of the identified problem, the technique for determining the root cause

of the problem, the adequacy of the results, and the licensee's extent of condition evaluation. The team also conducted interviews with cognizant engineering and plant personnel.

b. Observations and Findings

The safety significance of the identified issues was established by the Management Review Team (MRT) during daily meetings. For CAP reports determined to be "significant," the MRT further established the level of root cause analysis needed to evaluate the problem; for "non-significant" CAP reports, the Oyster Creek procedure, 1000-ADM-7216.02, required only an apparent cause. The MRT selected the root cause level from a matrix that considered risk and uncertainty.

No recent problems occurred that necessitated a Category A root cause evaluation and the use of a rigorous, team approach. The list of recently generated CAP reports included, however, many significant issues for which Category B and Category C root cause evaluations had been prescribed by the MRT and prepared by the responsible evaluator. The team found that the level selected for the root cause evaluations was commensurate with the significance of the identified issues and that the evaluations had been generally performed in a timely manner.

As required by the above plant procedure, Category B and C root cause evaluations were performed by "Subject Matter Experts" and "Trained Evaluators," respectively. In each case, the identified root cause or causes were codified and entered in the CAP tracking system. The team's review of selected CAP reports in B and C categories determined that, codes had been assigned to the root cause of the issues; when warranted, multi-disciplinary reviews of the incident and interviews of personnel involved had been conducted; and the extent of condition had been addressed. However, the supporting documentation was somewhat limited. Therefore, it was not evident that formalized, systematic analyses or the guidance of the "GPU Nuclear Root Cause Handbook" had been rigorously used. Regarding the assigned codes, the team found them to be generally reasonable and in line with the identified issues. The team also found the following instances where a more rigorous application of the root cause process would have provided more focused results.

- The apparent cause of the issue described in CAP 1999-1456 (An unanticipated elevated dose rate observed by workers tasked to repair a leak in the condenser bay), was identified as [ineffective] written communication contained in an inadequate radiation work permit. This description failed to recognize the inadequate communication by the person observing the leak of the exact work location and the insufficient work plan.

- CAP 1999-1393 was issued to document a higher than anticipated discharge pressure (1730 psig) when the "B" Control Rod Drive (CRD) pump was first installed in 1997. The design specification for this portion of the CRD system specified a design pressure of 1610 psig. When the CAP was issued in 1999, the licensee addressed the operability of the system with the elevated discharge pressure, but failed to address the cause for the unexpected performance of the "B" CRD pump. In this case, the team believed that a more systematic analysis

of the finding would have caused the evaluator to address the reason for the higher than anticipated pump discharge pressure. See also Section 2.0 of this report.

c. Conclusions

The review level selected for root cause evaluations was commensurate with the safety significance of the identified problem and the evaluations were timely. The documentation of the root cause process, however, was somewhat limited, such that use of the licensee's recommended guidance was not always evident. In certain cases, a more formalized approach to the root cause determination would have provided more focused results.

4.0 Problem Resolution

a. Scope of Inspection

The team evaluated the adequacy of the problem resolution program by conducting detailed reviews of selected issues or problems. The review addressed issues in various functional areas, including operations, maintenance, engineering, and plant support organizations. In particular, the review addressed timeliness and effectiveness of the corrective action. Responsible personnel were interviewed, as applicable.

b. Observations and Findings

GPU Nuclear initiated a comprehensive corrective action (problem resolution) program at Oyster Creek Generating Station that is now used to identify operation, system, or equipment issues and to monitor resolution of such issues until completion. The CAP report provides for the description of the problem, the determination of operability, reportability and root cause, the evaluation of significance, priority, and risk by management, and the identification of actions that are necessary to resolve the problem.

The team's review of the selected CAP reports found the implementation of the CAP process to be generally in conformance with the current procedure and the resolution of the issues appropriate and consistent with their significance. Tracking of the actions required to resolve the identified concerns was performed through the CAP process, with CAP reports being maintained open until each corrective action had been completed. When applicable, the extent of condition had been addressed and the needed actions included in the applicable CAP report.

Although the team noted examples where there were some delays both in the resolution of the problem and in the completion of the corrective actions, such delays were few and not excessive and had undergone the approval process. Regular evaluations by the coordinator of the CAP database resulted in the occasional identification of negative trends that were properly evaluated and resolved. For instance, the licensee observed negative trends in power cable and valve failures. The licensee issued two CAP reports, Nos. 98-0819 and 98-0888, that were used to evaluate the root cause of the trends and

develop appropriate corrective actions. The team's review of the licensee's efforts in this area found them to be comprehensive.

The team also found that the corrective actions to address reliability of the station blackout combustion turbines (CTs) were not always effective. For instance, a failure to start on December 5, 1999, of CT No. 2 was not properly corrected until the licensee experienced two more start failures on December 6, and December 7, 1999. As a result of the NRC observations, the licensee reviewed all the CT start failures and found that approximately 50 hours should be added to the unavailability time of CT1 as well as CT2.

Because only one CT is required to mitigate the consequences of a station blackout, the additional unavailability time did not impact the overall reliability of the alternate ac system that remained close to 99%. Except for early in 1999, when the reliability of CT No. 2 dropped below 85% and resulted in it being placed in the (A)(1) Maintenance Rule status, the reliability of both CTs during the past five years was well above 90%. Also, despite the ineffective immediate repairs of the CTs, the long term corrective actions were effective in increasing their overall availability and reliability. This issue was also discussed in Section 2.0 of this report.

As stated previously, the CAP reports are maintained open until all of the corrective actions that are required to address the issue are completed. The team's review of this area identified only one CAP report, No. 99-0675, that was closed without completing the prescribed corrective actions. The CAP report had been issued to develop operator guidance for the minimum number of operable radiation monitors required for refuel bridge operation. This finding was brought to the attention of the licensee who reopened the CAP and initiate a directed action to revise the procedure.

c. Conclusions

The Oyster Creek corrective action program provided for an effective means to identify operational, system, or equipment problems and to monitor the resolution of the problems until completion. Resolution of the problems was reasonable and, for the most part, timely.

The corrective actions to address the start reliability of the station blackout combustion turbines (CTs) were not always effective, causing the placement of CT No. 2 in the (A)(1) Maintenance Rule status. However, partly because only one of two CTs is needed for station blackout, the overall reliability of the alternate ac system remained high. The reliability of CT No. 2 improved steadily during the last year.

5.0 Corrective Actions for Non-Cited Violations

a. Scope of Inspection

The team reviewed the GPUN response to NRC issued non-cited violations (NCVs) to assess how items of similar concern were treated in the Oyster Creek corrective action program.

b. Observations and Findings

The team reviewed the activities regarding the disposition of several non-cited violations selected from the list of NCVs under the closure responsibility of engineering, maintenance, and operations. The team found that all NCVs had been entered into the corrective action program and that a CAP report had been initiated for each item. The team also noted that: additional CAP reports had been initiated, when necessary to secure the review and input from associated groups; the NCVs had been thoroughly evaluated and dispositioned by responsible departments; and the corrective actions were timely, comprehensive, and addressed the root and contributing cause or causes of the event.

c. Conclusions

The team identified no concerns with the processing of NCVs. The NCVs examined had been assigned for resolution, reviewed, and entered in the CAP to track resolution and completion of corrective actions. The issue evaluation and root cause determination were commensurate with the significance of the finding. Corrective actions were timely.

6.0 Self-Assessment Activities

a. Scope of Inspection

The team reviewed the results of selected self-assessments conducted by various plant organizations, including operations, maintenance, engineering, radiation protection, chemistry and security, to assess GPUN's resolution of findings and recommendations contained within the self-assessment reports.

b. Observations and Findings

The Oyster Creek self-assessment procedure recommended that each department conduct planned process assessments and that management perform observations of activities and practices within each department. The team's review of selected self-assessment reports found that the assessments were appropriately focused on routine worker practices, procedural compliance, verification and completion of corrective actions, and worker understanding of management expectations. The self-assessments typically included recommendations for improvement and, when appropriate, resulted in CAP reports being initiated to address the adverse findings. The team also found that the management observation reports provided good feedback of worker performance while reinforcing management expectations.

The team's review of the scope, depth, and schedule of the self-assessments noted that they varied within each department. For example, operations conducted only a limited number of self-assessments in 1999; radwaste and chemistry had not planned assessments in their area of activity; and management observations of shipping-related tasks were limited to a checklist verification of work control measures. In contrast, engineering and maintenance had an aggressive program in place that resulted in well planned, thorough and intrusive self-assessments. In addition, the program ensured that areas with poor previous self-assessments were monitored more closely in the future.

c. Conclusions

The schedule, type, and depth of self-assessments varied among departments. Generally, the self-assessments resulted in meaningful findings and recommendations. For areas identified as requiring improvement and specific action, entries had been made in the corrective action program for tracking. The team also concluded that the management observation program was effective in providing feedback regarding work performance and in reinforcing management expectations.

7.0 Oversight/Safety Review Committees

a. Scope of Inspection

The team reviewed selected reports and recommendations from the Independent Oversight Safety Review Group (IOSRG) and selected notes and action items from the General Office Review Board (GORB), the Nuclear Safety Assessment Safety Review Group and the Nuclear Safety and Compliance Committee to assess the effectiveness of the independent review organizations.

b. Observations and Findings

The team reviewed several Nuclear Safety Assessment (NSA) audits and its 1998 yearly report, "1998 Nuclear Safety Assessment and Division Director Trend of Nuclear Safety Assurance Reports." The audits addressed performance and compliance related issues. Significant findings were identified and appropriately entered into the Corrective Action Program system. NSA also identified areas needing continued management attention.

The onsite and offsite review groups demonstrated a questioning attitude and provided good insight and recommendations to the issues being reviewed. The GORB committees were aware of plant performance issues and routinely monitored corrective action effectiveness. The Operations, Maintenance, and Surveillance Committee of the GORB provided critical feedback to the respective departments. Significant issues, such as formal recommendations and action items, were placed in the CAP system for resolution and tracking. Less significant issues were tracked separately by the GORB.

c. Conclusions

Through programmatic audits and monitoring, the Nuclear Safety Assessment (NSA) Group provided effective oversight across all GPU departments. NSA findings resulted in various recommendations and the identification of issues needing management attention. Significant issues were tracked through the CAP

The independent onsite and offsite review organizations demonstrated a questioning attitude and provided additional insights and recommendations regarding the issues.

8.0 Operating Experience Review Program

a. Scope of Inspection

The team reviewed the licensee's efforts to identify and evaluate issues, previously identified by others, that could potentially affect the Oyster Creek operations. The goal of the team's review was to assess the effectiveness of those GPUN efforts. This review focused on problems identified to licensees through NRC and industry correspondence such as, information notices and bulletins, vendor correspondence including service information letters and Part 21 notices, and industry significant operating event reports.

b. Observations and Findings

The Operating Experience Program at Oyster Creek was governed by the Operating Experience Review (OER) Program procedure, 2000-ADM-1200.02. OER items were received at Oyster Creek and were screened by the operating experience coordinator (OEC) for distribution to the applicable departments. All OER items were reviewed by two knowledgeable individuals: the engineer responsible for the component, system, or process and the OEC, safety review manager or other OE reviewer. If the responder determined that the issue was applicable to Oyster Creek and required a corrective action, a CAP was initiated per procedure.

The team reviewed a sample of OER items and determined that the items were distributed, reviewed and dispositioned in accordance with the OER program. The sample review included items identified as "applicable," "not applicable," and for "information only". The team found that the reviews had been performed by the appropriate departments and that, when applicability to Oyster Creek was determined, a CAP was initiated. Final disposition of the CAP was in accordance with the corrective action program. The team also noted that operating experience events were discussed at the morning meetings.

c. Conclusions

The program for addressing operating experience was effectively implemented. The program coordinator ensured that OE items were distributed to appropriate technical and supervisory personnel and that the review of the issues was conducted in a timely manner. Items determined to be applicable to Oyster Creek were entered into the corrective action program for resolution of the issue and tracking of corrective action.

9.0 Use of Risk Insights

a. Scope of Inspection

The team reviewed the priority assigned to corrective actions as reflected in the CAP reports for problem resolution of engineering, maintenance, and operations issues to assess the GPUN use of risk insights.

b. Observations and Findings

The team did not observe the formal application of probabilistic risk analysis in the differentiation of the significance of corrective action problems. However, the Oyster Creek Independent Plant Evaluation Results provided core damage frequencies (CDFs) for important accident sequences. The licensee used these measured risk factors for determining the significance of a wide range of specific system and component issues.

To properly classify the importance of an issue, the licensee used a matrix of uncertainty and risk that was also used for determining the rigor of the root cause evaluation and the expertise and training of the individuals needed for the task. The Management Review Team, composed of individuals from each functional area and knowledgeable in risk evaluation, was responsible for assigning the significance level of an issue. Generally, the team found that for the resolution of safety significant issues the licensee applied the necessary resources.

The team's review also determined that the online maintenance/work process incorporated risk insights in the development and execution of the work schedule and that risk insights were also used for the evaluation of emergent equipment failures. Although, the team identified two CAP reports regarding improper use of risk insights (CAP Nos. 1999-0125 and 1999-0424), the team considered the licensee's use of risk insights acceptable. Also, the licensee implemented corrective actions to address these issues.

c. Conclusions

Risk evaluation results were used at Oyster Creek to provide comprehensive, technically sound, and timely identification of the significance of component and system issues, and to select the optimal resources for corrective action implementation. The use of risk insights for online maintenance was also acceptable.

10. Employee Concerns Program

a. Scope of Inspection

The team reviewed relevant records and interviewed individuals working in various capacities in the operations, maintenance, engineering, radiological controls, radwaste, security, and nuclear assessment departments to assess the workplace safety environment.

b. Observations and Findings

The various resources available for a worker to resolve concerns, including the use of the corrective action program and the ombudsman program, were adequately communicated through training, routine departmental meetings, and posted notices.

Personnel interviewed indicated that these resources provided an effective means for reporting and resolving concerns.

Site management had taken proactive measures to encourage workers to raise safety issues and use the corrective action program for its intended purpose. The expectations that employees raise concerns and that supervision promptly communicate the status of the resolution to the individual continued to be emphasized by site management.

Issues brought to the attention of the Ombudsman were found to be handled in an appropriate manner.

c. Conclusions

Site management has taken appropriate measures to encourage the identification and reporting of safety issues by workers. Personnel raised issues freely through the corrective action program and the ombudsman program. Employee concerns were being appropriately addressed on matters regarding plant safety.

X. MANAGEMENT MEETINGS

X1 Exit Meeting Summary

The team leader provided a verbal summary of preliminary findings to senior licensee management at a debrief meeting on December 17, 1999 and at the exit meeting on January 19, 2000. The team did not provide any written inspection material to the licensee. The licensee did not indicate that any of the information presented at the debrief and exit meetings was proprietary.

PARTIAL LIST OF PERSONS CONTACTED

Licensee (In Alphabetical Order)

S. Levin, Director, Operations and Maintenance
D. McMillan, Director, Equipment Reliability
K. Mulligan, Plant Operations Director
J. Rogers, Licensing Engineer

INSPECTION PROCEDURES USED

Procedure No.	Title
40500	Effectiveness of Licensee Controls in Identifying, Resolving, and Preventing Problems

ITEMS OPENED AND CLOSED

None

LIST OF ACRONYMS USED

CAP	Corrective Action Program
CDF	Core Damage Frequency
CRD	Control Rod Drive
CT	Combustion Turbine
GORB	General Office Review Board
GPUN	General Public Utilities (GPU) Nuclear
IOSRG	Independent Oversight Safety Review Group
MRT	Management Review Team
NRC	Nuclear Regulatory Commission
NCV	Non-Cited Violation
NSA	Nuclear Safety Assessment
OEC	Operating Experience Coordinator
OER	Operating Experience Review
PDR	Public Document Room