

July 1, 2004

Mr. Christopher M. Crane
President and Chief Executive Officer
AmerGen Energy Company, LLC
4300 Winfield Road
5th Floor
Warrenville, IL 60555

SUBJECT: OYSTER CREEK GENERATING STATION - NRC PROBLEM IDENTIFICATION
AND RESOLUTION INSPECTION REPORT 05000219/2004006

Dear Mr. Crane:

On May 21, 2004, the US Nuclear Regulatory Commission (NRC) completed a team inspection at the Oyster Creek Generating Station. The enclosed report documents the inspection findings that were discussed on May 21, 2004, with Mr. C. N. Swenson and other members of your staff during an exit meeting.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observation of activities, and interviews with personnel.

On the basis of the samples selected for review, the team concluded that in general, problems were properly identified, evaluated, and corrected. The team identified one finding of very low safety significance (Green) associated with the corrective actions for a deficiency associated with operation of the reactor mode switch during a reactor trip on August 14, 2003. The finding was determined to be a violation of NRC requirements. However, because of its very low safety significance and because it was entered into your corrective action program, the NRC is treating this finding as a non-cited violation (NCV) consistent with Section VI.A of the NRC Enforcement Policy. If you deny this NCV, you should provide a response with the basis for your denial within 30 days of the date of this inspection report, to the U. S. Nuclear Regulator Commission, ATTN. Document Control Desk, Washington, D.C. 20555-0001, with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, U. S. Nuclear Regulator Commission, Washington, D.C. 20555-0001; and the NRC Resident Inspector at the Oyster Creek Generating Station. In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a

Mr. Christopher M. Crane

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Sincerely,

/RA/

Raymond K. Lorson, Chief
Performance Evaluation Branch
Division of Reactor Safety

Docket No: 50-219
License No: DPR-16

Enclosure: Inspection Report 05000219/2004006
w/Attachment: Supplemental Information

cc w/encl:

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Site Vice President, Oyster Creek Nuclear Generating Station, AmerGen
Plant Manager, Oyster Creek Generating Station, AmerGen
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-219

License No.: DPR-16

Report No.: 05000219/2004006

Licensee: AmerGen Energy Company, LLC (AmerGen)

Facility: Oyster Creek Generating Station

Location: Forked River, New Jersey

Dates: April 26-30 and May 17-21, 2004

Inspectors: L. Cline, DRP, Senior Resident Inspector (Team Leader)
B. Norris, DRS, Senior Reactor Inspector
J. Herrera, Resident Inspector
T. O'Hara, DRS, Reactor Inspector
J. Richmond, DRP, Resident Inspector
K. Diederich, Reactor Inspector (In-Training)

Approved By: Raymond K. Lorson, Chief
Performance Evaluation Branch
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000219/2004006; 04/26 - 04/30/04 and 05/17 - 05/21/04; Oyster Creek Generating Station; biennial baseline inspection of the identification and resolution of problems. One violation was identified in the area of corrective actions.

This inspection was conducted by two regional inspectors and three resident inspectors. The inspection identified one Green finding that was a non-cited violation of NRC requirements. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be "Green" or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Identification and Resolution of Problems

Based on the sample items selected for review, the team concluded the implementation of the corrective action program at Oyster Creek Generating Station was adequate. The team determined that AmerGen was generally effective at identifying discrepant conditions at an appropriate threshold and entering them into the corrective action program. Identified issues were typically prioritized appropriately and in a timely fashion and were properly evaluated commensurate with the potential safety significance. Overall, the evaluations reasonably identified the causes of the problem, the extent of the condition, and provided for corrective actions to address the causes. However, in some cases, the corrective action program was not effectively used to evaluate, resolve and prevent problems. There were also some examples where issue evaluations were not complete, and corrective actions were not effective at resolving problems. Audits and self-assessments identified adverse conditions and negative trends, and were generally self-critical and consistent with the team's findings. On the basis of interviews conducted, the team determined that plant staff personnel were familiar with and utilized the corrective action program to identify problems.

A. NRC Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. The team identified a non-cited violation of 10 CFR 50, Appendix B, Criterion XVI, "Corrective Actions," which requires that prompt corrective actions be implemented for conditions adverse to quality. Specifically, AmerGen did not implement a planned corrective action to address a deficiency associated with operation of the reactor mode switch during a reactor trip on August 14, 2003.

The finding was determined to be more than minor because it negatively affected the mitigating systems cornerstone attribute of human performance. Failure to place the reactor mode switch into the shutdown position following a reactor scram would be expected to result in a loss of the normal heat sink and complicate the

event response. The finding was of very low safety significance (Green), because it was not a design or qualification deficiency, and it did not result in an actual loss of safety function for risk-significant equipment with respect to internal or external events. Additionally, the team noted that the heat sink would be recoverable from an event of this type. (Section 4OA2.c.2.1)

REPORT DETAILS

4. OTHER ACTIVITIES (OA)

4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

(1) Inspection Scope

The team reviewed AmerGen's corrective action program and noted that problems were formally identified through the initiation of action requests (ARs) or corrective action program reports (CAPs). To understand the threshold for identifying problems and to assess management involvement with the corrective action process, team members attended daily work management meetings where ARs were reviewed for disposition and assignment, and daily screening and management review committee meetings where CAPs were screened for significance and assignment. The team also selected items from AmerGen's nuclear oversight (NOS) and focused area self-assessment (FASA) processes to verify that AmerGen appropriately considered problems identified through these processes for entry into the corrective action program. Specifically, the team reviewed a sample of control room deficiency and work-around lists, operability evaluations, system health reports, maintenance orders, and NOS audits and FASA reports.

The team reviewed selected ARs and CAPs initiated subsequent to the last problem identification and resolution (PI&R) inspection completed in June 2002 to determine whether AmerGen was appropriately identifying, characterizing, and entering problems into the corrective action process. The team selected ARs and CAPs to cover the seven cornerstones of safety identified in the NRC reactor oversight process (ROP). The team used the individual plant examination (IPE) report, site-specific SDP worksheets, and individual system performance indicators to focus system walkdowns and AR and CAP sample selection. The team focused its review of AmerGen's corrective actions on the following systems: emergency diesel generators (EDGs), containment spray/emergency service water (CS/ESW), reactor building component cooling water (RBCCW), instrument air (IA), and 1E 125 Vdc. The attachment lists the ARs and CAPs selected for review.

The team interviewed selected plant staff to determine whether personnel were familiar with and utilized the corrective action program to identify problems. The team also conducted walkdowns of the control room panels and the selected systems to verify that problems were identified and addressed at an appropriate level.

(2) Observations and Findings

No findings of significance were identified.

The team determined that, in general, AmerGen adequately identified discrepant conditions and initiated CAPS or ARs where appropriate. Audits and self-assessments

Enclosure

identified adverse conditions and negative trends, and were generally self-critical and consistent with the team's findings. However, the team noted several examples where AmerGen did not enter conditions adverse to quality into the corrective action system and/or did not identify and correct other minor deficiencies in a timely manner. In response to observations made during the team's plant walkdowns and documentation reviews, AmerGen generated 15 CAPs. Some of these issues included:

- The team identified that the simulator key-lock reactor mode switch allowed switch operation with the switch locked and the key removed. This was not consistent with the operation of the mode switch in the control room and could have provided negative training regarding reactor mode switch operations.
- An IA sample result indicated that the total hydrocarbon content was above the air quality specification used by AmerGen, however, no CAP was written to evaluate the issue.
- AmerGen previously issued CAP O2004-0909 to evaluate and correct excessive IA leakage. During a system walkdown the team identified two previously unidentified air leaks from a pipe union and pipe cap. AmerGen investigated the leaks, but failed to analyze the impact of the additional leaks on the operation of the system.
- RBCCW return flow from the drywell was required to be throttled to maintain RBCCW pressure in the drywell piping. The system operating procedure directed the use of a gate valve to throttle the return flow from the drywell. In interviews with the team, operators stated that flow control using this method was difficult and flow could take as long as 15 minutes to stabilize following valve adjustments; however, no CAP or AR was written to evaluate the issue.
- AmerGen did not initiate a CAP for an issue identified during a December 2001 FASA involving a fire protection drawing error in the 480 Vac switchgear room, and also did not initiate CAPs for deficient control room indications that were identified during a March 2004 corrective action program FASA.

AmerGen subsequently issued CAPs or ARs for each of the identified issues. The team independently evaluated the problem identification deficiencies noted above for potential significance. The team determined that none of the individual issues were findings of more than minor significance based upon the guidance in Inspection Manual Chapter (IMC) 0612, Appendix E, "Examples of Minor Issues."

b. Prioritization and Evaluation of Issues

(1) Inspection Scope

The team reviewed the ARs and CAPs listed in the attachment to determine whether AmerGen adequately evaluated and prioritized problems. The review included the appropriateness of the assigned significance, the timeliness of resolutions, and the scope and depth of the root cause analyses. The ARs and CAPs reviewed encompassed the full range of AmerGen evaluations, including root and apparent cause evaluations. The team selected the ARs and CAPs to cover the seven cornerstones of safety identified in the NRC ROP. A portion of the items chosen for review were those that were age dependent, and accordingly, the scope of review was expanded to five years. In this area, the team reviewed items associated with service water system piping degradation and cracking of vertical welds in the core shroud. The team used risk insights from AmerGen's IPE to focus the AR and CAP sample to the RBCCW, CS/ESW, EDGs, IA and 1E 125 Vdc systems. Additionally, the team attended the daily management meeting to observe the review process and to understand the basis for assigned significance levels.

The team also selected a sample of CAPs associated with previous NRC findings to determine whether AmerGen evaluated and resolved problems associated with compliance to applicable regulatory requirements and standards. The team reviewed AmerGen's assessment of equipment operability, reportability requirements, and extent of condition. The team reviewed AmerGen's evaluation of industry operating experience (OE) information for applicability to their facility. The team also reviewed AmerGen's response to NRC identified issues during the inspection.

(2) Observations and Findings

No findings of significance were identified.

The team determined that, in general, AmerGen adequately prioritized and evaluated the issues and concerns entered into the corrective action program. Personnel were generally effective at classifying and performing operability evaluations and reportability determinations for discrepant conditions. However, the team identified weaknesses with some of AmerGen's evaluations of conditions adverse to quality. Some examples included:

- CAP O2003-1681 documented that during surveillance testing one main steam isolation valve (MSIV) stroked faster than the surveillance test acceptance criterion. The team determined that during the testing, operators stroked the valve four times by repeating the procedure, and that three of the four times the valve stroked faster than the test acceptance criterion. AmerGen did not evaluate whether the repetitive fast stroking had any adverse impact on the valve. AmerGen issued CAP O2004-1230 for this NRC identified issue.
- During a tour of the 480 Vac switchgear room the team identified a loose floor plug. The fire protection engineers evaluated the condition of the plug and determined that the issue did not require entry into the corrective action program. However, the engineers did not formally evaluate the impact of the loose plug on the room's

halon suppression system until questioned by the team. AmerGen issued CAP O2004-1205 for this NRC identified issue.

The team noted that there were no significant adverse consequences or operability issues associated with these observations, and AmerGen initiated CAPs to address both conditions. The team also reviewed IMC 0612, Appendix E, "Examples of Minor Issues," and determined that these corrective action performance deficiencies were of minor significance and not subject to formal enforcement action.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed AmerGen's corrective actions for the selected ARs and CAPs listed in the report attachment to determine whether actions addressed the identified causes. The team reviewed AmerGen's timeliness in implementing corrective actions and their effectiveness in preventing recurrence of significant conditions adverse to quality. This review included CAPs associated with the NCVs and findings issued since the last PI&R inspection, to determine whether AmerGen properly evaluated and resolved these issues.

The team reviewed a sample of control room deficiency and work-around lists, operability evaluations, system health reports, maintenance orders, and NOS audits and FASA reports to confirm that the underlying problems associated with each issue were properly resolved.

In addition the team assessed AmerGen's backlog of corrective actions to determine, if any, individually or collectively, represented an increased plant risk due to the delay in implementation.

(2) Observations and Findings

One Green finding was identified involving the failure to implement a planned corrective action for a deficiency associated with operation of the reactor mode switch during a reactor trip on August 14, 2003. In addition, the team noted some examples where AmerGen's resolution of degraded conditions, documentation of actions, and completion of identified corrective actions were not fully effective. Specifically:

- The station was slow to address NOS identified issues associated with implementation of the corrective action program as discussed in CAP 2004-0148. The issues were identified in early 2003, but were not resolved prior to the end of 2003. In February 2004, NOS issued an elevation notice that required a formal response from the corrective action group for these issues.
- The team identified several weaknesses associated with the corrective actions for CAP O2002-1551 which documented a void condition below the 480 Vac

switchgear rooms. This condition affected the separation of redundant 4160 Vac safety-related cable trains. Amergen's corrective actions included drilling holes in the 480 Vac switchgear room floors and using these holes to backfill the void area with sand. The team noted that the 480 Vac switchgear room floor had been classified as a three hour barrier in the fire hazards analysis, but Amergen did not complete a formal evaluation prior to drilling these holes and did not produce any formal data to demonstrate that the "as left" condition was equivalent to a three hour barrier. Additionally, AmerGen performed an analysis per Generic Letter (GL) 86-10 to demonstrate that the "as left" condition met applicable Appendix R requirements. However, the analysis did not provide a rigorous technical basis that a postulated event would not affect multiple safe-shutdown trains.

- Another observation by the team related to AmerGen's evaluation and corrective actions for NCV 2002008-003, which dealt with an inadequate in-service test procedure for the 52B ESW pump. The team determined that the evaluation and corrective actions did not fully address the issue documented in the inspection report. As a result, the scope of the issue was not fully identified and accordingly, the appropriate corrective actions were not taken. The team noted no significant adverse consequences or operability issues associated with this observation, and AmerGen initiated CAP O2004-1111 to address the problem.

The team independently evaluated the corrective action program deficiencies noted above for potential significance. The team determined that none of the individual issues were findings of more than minor significance based upon the guidance in IMC 0612, Appendix E, "Examples of Minor Issues." However, these issues represented examples where the corrective actions for identified conditions were not fully effective.

.1 Failure to Implement Adequate Corrective Actions for a Reactor Mode Switch Operational Problem

Introduction. A Green NCV was identified for failure to implement adequate corrective actions for a reactor mode switch operational problem, as prescribed in 10 CFR 50, Appendix B, Criterion XVI.

Description. Following a reactor trip on August 14, 2003, two control room operators experienced difficulty in moving the reactor mode switch from the run position to the shutdown position. This allowed an automatic closure of the main steam isolation valves (MSIVs) to occur when the main steam line pressure fell below the low pressure setpoint. Closure of the MSIV's represented a loss of the normal heat sink and complicated the response to this event.

AmerGen's post-transient event review identified that the reactor mode switch locking mechanism had a history of "binding" when operated (CAP O2003-1621). Their causal analysis attributed the operators' inability to re-position the mode switch in a timely manner to either a mechanical problem or operator error. The planned corrective actions for this

event included: maintenance on the switch, development of a shift training brief, and enhanced training on mode switch operations in the licensed operator training programs. AmerGen completed the corrective actions associated with the maintenance checks on the switch and with the shift training brief, but did not implement the corrective action associated with enhancement of the licensed operator training programs.

The team noted that no mechanical problems were identified with the switch during the maintenance activities and concluded that operator error was the most likely cause for the delayed operation of the mode switch during the August 14, 2003 event. The team also interviewed operators and operator training personnel and learned that the switch was sometimes “tricky” or difficult to operate. The team concluded, based on the above, that the corrective actions taken for CAP O2003-1621 were not sufficiently thorough to ensure that operators could successfully operate the reactor mode switch during an event.

Analysis. Following an August 14, 2003 reactor trip, AmerGen did not implement adequate corrective actions to ensure that operators would be able to successfully operate the reactor mode switch during an event. This is a performance deficiency. Traditional enforcement does not apply because the issue did not have any actual safety consequences or potential for impacting the NRCs regulatory function and was not the result of any willful violation of NRC requirements or AmerGen procedures.

The finding was more than minor because it adversely affected the mitigating systems cornerstone attribute of human performance. Specifically, difficulty in placing the reactor mode switch to the shutdown position in a timely manner following a reactor scram could lead to a loss of the normal heat sink and complicate the event response. Therefore, this deficiency affected the availability of a system that responds to initiating events to prevent undesirable consequences. In accordance with IMC 0609, Appendix A, “Significance Determination of Reactor Inspection Findings for At-Power Situations,” the team determined that the finding was of very low safety significance, because it was not a design or qualification deficiency, and it did not result in an actual loss of safety function for risk-significant equipment with respect to internal or external events. Additionally, the team noted that the normal heat sink was recoverable from this type of event. AmerGen entered this finding into their corrective action program as CAP O2004-1253.

Enforcement. 10 CFR Part 50, Appendix B, Criterion XVI, Corrective Action, requires that measures shall be established to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected. Contrary to the above, following the August 14, 2003 reactor trip, AmerGen did not implement adequate corrective actions to ensure proper operation of the reactor mode switch. Because the failure to correct this condition adverse to quality is of very low significance and has been entered into AmerGen’s corrective action program (CAP O2004-1253), this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy, issued May 1, 2000 (65FR25368). **(NCV 05000219/2004003-01)**

4OA6 Meetings, including Exit

The team presented the inspection results to Mr. C. Swenson and other members of AmerGen management on May 21, 2004. AmerGen management acknowledged that no proprietary information was involved.

ATTACHMENT**SUPPLEMENTAL INFORMATION****Licensee Personnel**

J. Hackenberg, Manager - Operations Training
M. Godknecht, Maintenance Rule Coordinator
J. Magee, Director, Engineering
M. Massaro, Plant Manager
D. McMillan, Director, Training
L. Newton, Manager, Chemistry & Rad Protection

J. Renda, Manager - Radiation Protection
D. Slear, Manager, Regulatory Assurance
B. Stewart, Senior Licensing Engineer
C. Swenson, Vice President
C. Wilson, Director, Operations
P. Cervanka, Manager, Nuclear Oversight
M. Taylor, Employee Concerns Program
J. Freeman, Shift Operations Superintendent
D. Chernesky, Manager Mechanical/Electrical Maintenance

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000219/2004006-01 NCV Following the August 14 reactor scram AmerGen failed to take adequate corrective action to ensure operators can successfully operate the reactor mode switch during an event. (Section 4OA2.c.2.1)

LIST OF DOCUMENTS REVIEWED

Procedures:

101.2 Fire Protection Program, Revision 51
331.1 Control Room and Old Cable Spreading Room Heating, Ventilation, and Air Conditioning System, Revision 15
607.4.016 Containment Spray and Emergency Service Water System 1 Pump Operability and Quarterly Inservice Test, Revision 0
DD-11 Nuclear Oversight Department Description, Revision 5
LS-AA-105 Operability Determinations, Revision 1
LS-AA-105-1002 Detailed Operability Determination, Revision 0
LS-AA-125-1001 Root Cause Analysis Manual, Revision 4
LS-AA-125-1002 Common Cause Analysis Manual, Revision 3
LS-AA-125-1003 Apparent Cause Evaluation Manual, Revision 4
LS-AA-125-1004 Effectiveness Review Manual, Revision 2
LS-AA-125-1006 CAP Process Expectations Manual, Revision 5
LS-OC-125 Corrective Action Program (CAP) Procedure, Revision 3
NO-AA-40 Independent Safety Engineering Function Process Description, Revision 1
TQ-AA-112 Nuclear Oversight Training, Qualification, and Certification, Revision 5
OP-OC-100 Oyster Creek Conduct Of Operations, Revision 1
CC-OC-112-1001 Temporary Configuration Change Implementation, Revision 2
2400-GME-3780.52 Installation, Testing And Termination Of Wire And Cable, Revision 7
RP-AA-210 Dosimetry Issue, Usage, and Control, Revision 4

RP-OC-2001	Dosimetry Investigation Reports, Revision 0
607.4.015	Containment Spray & ESW System-2 Pump Operability Quarterly IST, Revision 0
607.4.016	Containment Spray & ESW System-1 Pump Operability Quarterly IST, Revision 0
607.4.004	Containment Spray & ESW System-1 Pump Operability Comprehensive, Pre-service, Post Maintenance In-service Test, Revision 52
312.10	Secondary Containment Control, Revision 8
636.4.016	Diesel Generator No. 2 Fast Start Test, Revision 1

Non-Cited Violations Reviewed:

2003-03-01	Failure to Adequately Maintain the ESW System as Required by technical specification 6.8.1
2002-07-03	Ineffective Corrective Actions for Preventing Over-Pressure in control rod drive system
2003-05-01	Failure to implement a surveillance test procedure required by technical specifications 6.8.1.B
2003-03-05	License violation due to security officer inattentive to duty
2001-13-02	Failure to take corrective actions to preclude repetition of a significant condition adverse to quality associated with safety related 480 volt electrical circuit breakers.
2002-03-01	Failure to promptly identify and correct a low air flow condition in A control room ventilation
2002-08-02	Failure to identify and correct a degraded condition with respect to the standby gas treatment system charcoal filters
2002-08-01	Failure to properly implement engineering instructions provided in an engineering change request document
2003-02-02	Standby gas treatment system inoperable due to wrong damper position in operating procedure
2003-02-01	Inadequate corrective action for the failure of standby gas treatment system fan EF-1-8
2002-08-03	Failure to maintain surveillance test procedure 607.4.004, Containment Spray/Emergency Service Water System Pump Operability
2002-08-06	Inadequate Procedural Guidance & Personnel Performance Resulting in a Plant Event
2003-03-03	Failure to implement procedure for relocation of primary whole-body dosimetry
2002-08-07	Ineffective Resolution of Identified Problems with Personnel Response to Alarming SRDs
2001-13-01	Band Clamps of Different Design Found on Several HCUs Without Engineering Evaluation

Audits and Self-Assessments:

Emergency Preparedness, 50.54T, Meteorology, June 2003
 FASA, Human Performance Baseline Assessment, February 2002
 FASA, Clearance and Tagging, March 2003
 FASA, Fire Protection, December 2001
 FASA, Plant Operations Review Committee Program, September 2003
 FASA, Problem Identification and Resolution, April 2004
 Regulatory Assurance Corrective Action Monthly Report, January 2004
 Regulatory Assurance Corrective Action Monthly Report, February 2004
 Regulatory Assurance Corrective Action Monthly Report, December 2003
 NOSA OC-03-03, April 7-11, 2003.
 Effectiveness review - CAP2003-0716
 Effectiveness review - CAP2003-0638
 Effectiveness review - CAP2001-0251
 FASA, Corrective action effectiveness - Engineering
 NOSA-OC-03-05, Design Engineering, 8/10/03
 Focused Area Self-Assessment Report, AR158759; Document Management and Administrative Control of Drawings, 5/14/03
 Regulatory Assurance Corrective Action Process Monthly Report, December 2003
 Regulatory Assurance Corrective Action Process Monthly Report, February 2004
 Regulatory Assurance Corrective Action Process Monthly Report, January 2004
 FASA, System Engineering Performance Monitoring, July 2003
 FASA, Human Error Prevention, March 2003
 NOSA-OC-03-06, Health Physics & Radiation Protection Audit
 NOSA-OYS-04-01, Maintenance Functional Area, March 2004
 2002-1424, Effectiveness Review - Electronic Dosimetry Usage
 2003-0204, Effectiveness Review - High Radiation Area Boundary Control

Condition Action Program Reports (* denotes a CAP generated as a result of this inspection):

DR 94-6-24	O2002-1186	O2003-0716	O2003-0337	O2003-1167
O2000-1212	O2002-1551	O2002-1656	O2003-0399	O2003-1168
O2001-1379	O2002-1589	O2004-0412	O2003-0435	O2003-1169
O2001-1843	O2003-1000	O2002-1616	O2003-0441	O2003-1170
O2002-0099	O2003-1814	O2002-1710	O2003-0473	O2003-1171
O2002-0108	O2003-0889	O2002-1891	O2003-0546	O2003-1173
O2002-0255	O2003-1962	O2002-1945	O2003-0652	O2003-1174
O2002-0447	O2003-2257	O2003-0017	O2003-0654	O2003-1176
O2002-0449	O2004-0311	O2003-0030	O2003-0670	O2003-1179
O2002-0459	O2004-0555	O2003-0055	O2003-0700	O2003-1203
O2002-0545	O2003-0011	O2003-0058	O2003-0773	O2003-1204
O2002-0565	O2003-0334	O2003-0059	O2003-1097	O2003-1323
O2002-0955	O2004-0040	O2003-0063	O2003-1157	O2003-1362
O2002-1089	O2002-0157	O2003-0175	O2003-1158	O2003-1381
O2002-1184	O2004-0618	O2003-0254	O2003-1166	O2003-1465

O2003-1579	O2003-1087	O2003-2496	O2003-0884	O2002-1798
O2003-1622	O2003-1131	O2003-2279	O2003-1161	O2003-1024
O2003-1674	O2003-1150	O2003-1843	O2003-2534	O2003-1021
O2003-1765	O2003-1189	O2003-2172	O2002-1505	O2002-1676
O2003-2015	O2003-1260	O2002-1689	O2002-1365	O2002-1680
O1998-0823	O2003-1270	O2003-0290	O2001-1155	O2004-1242*
O2000-0261	O2003-1282	O2002-1557	O2002-1626	O2004-1203*
O2000-0617	O2003-1592	O2003-2064	O2004-0858	O2004-1219*
O2000-0691	O2003-1593	O2003-1868	O2003-0970	O2004-1230*
O2001-0087	O2003-1595	O2003-1746	O2003-1052	O2004-1136*
O2001-0084	O2003-1603	O2003-1131	O2003-1172	O2004-1036*
O2001-1741	O2003-1604	O2003-0919	O2002-1662	O2004-1037*
O2001-1908	O2003-1606	O2003-0809	O2003-2577	O2004-1124*
O2002-0006	O2003-1607	O2003-0540	O2004-0508	O2004-1205*
O2002-0057	O2003-2050	O2003-0541	O2002-1367	O2003-0030
O2002-0059	O2003-2094	O2003-0393	O2003-0310	O2003-1552
O2002-0452	O2003-2101	O2003-1401	O2002-1951	
O2002-0542	O2003-2104	O2003-0202	O2002-1992	
O2002-0640	O2003-2212	O2003-0073	O2002-0249	
O2002-0711	O2003-2230	O2002-1678	O2002-1015	
O2002-0797	O2003-2370	O2002-1775	O2003-2557	
O2002-0801	O2003-2596	O2003-0518	O2003-1637	
O2002-0850	O2004-0122	O2003-0796	O2003-1923	
O2002-0980	O2004-0123	O2003-0796	O2003-1591	
O2002-1059	O2004-0162	O2002-0542	O2003-1414	
O2002-1343	O2004-0165	O2003-1209	O2003-2237	
O2002-1538	O2004-0477	O2003-0753	O2003-1715	
O2002-1579	O2004-0492	O2003-1308	O2003-0266	
O2002-1643	O2004-0616	O2003-1331	O2001-1447	
O2002-1709	O2004-0620	O2002-1424	O2002-1788	
O2002-1951	O2004-1023*	O2003-0204	O2004-0296	
O2002-1977	O2004-1231*	O2002-0711	O2003-0627	
O2002-1992	O2004-1240*	O2003-1581	O2001-0584	
O2002-2013	O1998-1541	O2003-1365	O2001-0524	
O2003-0184	O2000-1839	O2002-1059	O2002-0249	
O2003-0273	O2001-1773	O2003-1621	O2001-0556	
O2003-0413	O2001-0025	O2004-1253*	O2003-2577	
O2003-0469	O2001-1320	O2003-1616	O2003-0912	
O2003-0616	O2004-0356	O2003-1622	O2002-1578	
O2003-0664	O2004-0620	O2004-1111*	O2002-1451	
O2003-0686	O2004-0220	O2002-1808	O2003-1715	
O2003-0868	O2003-1573	O2002-0201	O2003-0566	
O2003-0776	O2003-1286	O2002-1919	O2002-1798	
O2003-0881	O2004-0023	O2002-1363	O2003-0566	
O2003-1056	O2003-2663	O2004-1247*	O2003-0483	

Action Requests:

A2073528	A2049913	A2034412	A2029911	A2046276
A2049122		A2042215		A2062455
A2031368		A2045531		A2045487
A2046137		A2057287		A2046161
A0706057		A2048084		A2034624
A2058772		A2034841		A2030146
A0156470		A2068100		A2046161
A2047330		A2045756		A2077258
A0775402		A2047330		A2036165
A0031808		A2051820		A2084438
A2014242		A2057830		A2069321
A2068349		A2059656		A2079459
A0703272		A2060261		A0707408
A2042874		A2062379		A2061943
A0700109		A2064992		A2057596
A2008192		A2044853		A2057874-E27
A2013213		A2079519		A2036044-E23
A2012559		A2038132		A2061522-E01
A2021781		A2061761		A2032586
A2022260		A2072346		A2021319
A2023446		A2070845		A2021452
A2030944		A2025957		A2030066
A2046024		A2031857		
A2071201		A2036807		
A2063490		A2036850		
A2064754		A2045092		
A2069334		A2050630		
A2069867		A2051865		
A2073413		A2055989		
A2076849		A2057186		
A2077924		A2061416		
A2078783		A2065866		
A2079850		A2077583		
A2084493		A2080377		
A2011234		A2086314		
A2084792		A2086927		
A2085472		A2078161		
A2086655		A2059150		
A2086657		A2011234		
A2045009		A2034841		
A2029380		A2038100		
A2031091		A2044413		
A2040692		A2035693		

OPERABILITY EVALUATIONS (for CAPs):

O2002-0233, Aging Agastat Time Delay Relays for the Isolation Condenser
O2002-0716, EDG-2 Fuel Oil Return Sight Glass Half-Full
O2002-1808, Emergency Service Water Flow Outside IST Action Limits
O2003-0317, Emergency Service Water Operability During Low Intake Levels
O2003-1865/2225, Water and Sediment in Main Fuel Oil Tank
O2003-2225, EDG Fuel Oil Tank
O2003-2399, Aggregate Review of Emergency Service Water CAPs
O2004-0110, Operability Determination of Emergency Service Water Pump 52B
O2002-0157, 480V undervoltage trip devices
O2003-2017, Battery charger C1
O2002-1059, Service Water Piping between RBCCW Hx and Seal Well
O2002-1808, Emergency Service Water Pump Performance
O2002-1551, Void between Reactor and Turbine Building walls below 23' floor affects Appendix R separation

DRAWINGS:

GU3C-733-11-010, 120V AC vital power system, Revision 5
913E911, RPS MG set control, Revision 0
NQZ-0001, Vacuum Breaker position indicating system, Revision 3
GE148F740, Containment Spray System, Revision 43
BR-2005, Emergency Service Water System (page 4 of 6), Revision 73
GU-3E-243-21-1000, Drywell and Torus vacuum relief system flow diagram, Revision 28
3E-862-21-1000, Emergency Diesel Generator Diesel Fuel Oil Storage and Transfer System Flow Diagram, Revision 21
3E-861-21-1001, Emergency Diesel Generator Water Cooling System Flow Diagram, Rev. 10
3E-861-21-1002, Emergency Diesel Generator Lube Oil System Flow Diagram, Revision 11
3E-861-21-1000, Emergency Diesel Generator Air Cooling System Flow Diagram, Revision 11
BR2013, Sheet 3, Instrument (Control) Air System Flow Diagram, Revision 61
BR2013, Sheet 4, Instrument (Control) Air System Flow Diagram, Revision 55
BR2013, Sheet 5, Instrument (Control) Air System Flow Diagram, Revision 59
BR2013, Sheet 6, Instrument (Control) Air System Flow Diagram, Revision 69
BR2013, Sheet 7, Instrument (Control) Air System Flow Diagram, Revision 59
BR2013, Sheet 8, Instrument (Control) Air System Flow Diagram, Revision 59
BR2013, Sheet 9, Instrument (Control) Air System Flow Diagram (Fluid Details New Radwaste), Revision 57
BR2013, Sheet 10, Instrument (Control) Air System Flow Diagram (Fluid Details New Radwaste), Revision 52
BR3000, Electrical Power System Key One Line Diagram, Revision 6
BR3001, Sheet 1, Revision 6, Plant Electrical Generation Main One Line Diagram Auxiliary Startup & Main Xfmrs, SBO Xfmr and Main Generator

BR3001, Sheet 2, Revision 4, Plant Electrical Generation Main One Line Diagram Auxiliary Startup & Main Xfmrs, SBO Xfmr and Main Generator
 BR3001A, Revision 3, 4160V System One Line Diagram, 4160 Swgr. Bus 1A
 BR3001B, Revision 8, 4160V System One Line Diagram, 4160 Swgr. Bus 1B & Dilution Plant
 BR3001C, Revision 0, 4160V System One Line Diagram, 4160 Emergency Swgr. Bus 1C & 1D
 BR3002, Sheet 1 of 4, Revision 8, 480V System One Line Diagram, 460V Unit Substation 1A1 & 1B1
 BR3002, Sheet 2 of 4, Revision 4, 480V System One Line Diagram, 480V Unit Substation 1A2 & 1B2
 BR3002, Sheet 3 of 4, Revision 4, 480V System One Line Diagram, 460V Unit Substation 1A3 & 1B3
 BR3002, Sheet 4 of 4, Revision 4, 480V (JCP&L) Non-Vital Power One Line Diagram, 480V Unit Substation 1C1
 4053, Sheet 13, Reactor Building First Floor At El. 23'6" Plan And Details
 4093-6, Sheet 2; Turbine Building Floor Plan @ El. 27'0" & 36'-0", Beam & Slab Schedules

TEMPORARY MODIFICATIONS:

2003-025	2002-041	2003-018	2003-020	2004-025
2003-020	2003-001	2003-019	2004-021	
2004-026	2002-012			

WORK ORDERS:

M2059656 02	C2003513	C0519083	C2006233	C2006134
M2059656 03	C2004238	C0000403	C2006368	C2006567
M2059656 04	C2002648	C2006219	C2006429	
M2059656 06	M2059656 07	A2082612	A2012559	

DOSIMETRY INVESTIGATION REPORTS:

DIR 03-017	DIR 03-049	DIR 03-033	DIR 03-052	DIR 03-100
DIR 03-027	DIR 03-098			

MISCELLANEOUS DOCUMENTS:

ECR No.OC-01-01193-001, Install New APRM Cards for Increased Core Flow
 Applicability to Oyster Creek of Generic Letter 97-17, Cracking of Vertical Welds in the Core Shroud and Degraded Repair
 Oyster Creek Nuclear Generating Station Core Shroud Repair - Design Report, Volume 1 of 2, Revision 1
 Fire Hazards Analysis Report, Revision 12

Health Report for System 811, Fire Protection Water System
Health Report for System 532, Emergency Service Water System
Health Report for System 241, Containment Spray System
Health Report for System 741, Emergency Diesel Generators (Electrical)
Training Lesson Plan for Containment Spray/Emergency Service Water Systems
Training Lesson Plan for Fire Protection System
Applicability to Oyster Creek of Generic Letter 91-06, Resolution of Generic issue A-30, Adequacy of safety related DC power supplies, pursuant to 10 CFR 50.54(f)
Fire Hazards Analysis Report, Revision 12
NEDC-33058P, DRF 0000-0000-7015, Class III, July 2002; Increased Core Flow Analysis For Oyster Creek Generating Station
Calculation C-1302-223-E170-043, Revision 0, 3/1/01
TDR-914, Revision 1, 10/13/89; Evaluation of Instrument Air Loss To System Air Operated Valves and Dampers At Oyster Creek
Calculation C-1302-826-5360-007, Revision 0, 12/5/89; OC Control Room/Cable Room Temperature
602.4.002, completed 8/22/03
602.4.002, completed 8/23/03
602.4.002, completed 8/22/03
603.3.004, completed 10/25/1998
603.3.004, completed 11/04/1998
603.3.004, completed 11/09/2000
603.3.004, completed 10/23/2002
607.4.004, completed 11/13/2002
Engineering Evaluation No.125, Install Encapsulation Device On Piping Upstream Of V-6-0024
Plant Health Committee System Presentation P851/852 Service & Instrument Air, March 04
Quarterly Ship System Report, P851/852 Service & Instrument Air; March 1, 04
Oyster Creek Nuclear Generating Station, Fire Hazards Analysis Report, Document 990-1746, Revision 12
System/Component Walkdown Checklist - Service & Instrument Air System; 5/7/03, 11:00 AM
50.59 Review for ECR 03-00028 and ECR 03-00155; Anti-Siphon Holes Added To The SFP Cooling System Return Lines, 2/25/03
ECR OC 03-00851
NRC Safety Evaluation Dated January 25, 1990; Exemption From Certain Technical Requirements Contained In Section III. G Of Appendix R to 10 CFR 50
LER 02-003; Insufficient Appendix R Separation Criteria Due to Sand Erosion; dated 12/6/02
LER 02-003-01; Insufficient Appendix R Separation Criteria Due to Sand Void; dated 9/19/03
LER 02-003-02; Insufficient Appendix R Separation Criteria Due to Sand Void; dated 4/2/04
50.59 Review for Modification ECR 03-00851
DCA Review for ECR 00851
SEN 242
Licensee Event Report 50-0219/2002-01
Licensee Event Report 50-0219/2002-02
Nuclear General Employee Training, Revision 28
OC Topical Report 140, "Emergency Service Water & Service Water Systems Piping Plan

Drawing 2005, sheet 2, "Service Water System - Reactor & Turbine Bldg"
 Drawing 2006, sheets 1-3, "Reactor Bldg Closed Cooling Water System (RBCCW)"
 Drawing GE 729E183, sheets 1-5, "Auto Depressurization System"
 RBCCW System Walkdown Checklists, dated 3/22/02, 6/19/02, 10/7/02, 3/28/03, 6/20/03,
 9/29/03, 10/22/03, 12/31/03, and 3/15/04
 System Health Reports for Service Water System and RBCCW
 Training Lesson Plans for Service Water System and RBCCW
 Maintenance Rule Performance Documents for Reactor Protection, Main Steam, Feedwater,
 Condensate-2, and Isolation Condenser, and Fire Protection Water Systems

LIST OF ACRONYMS USED

AmerGen	AmerGen Energy Company, LLC
AR	Action Request
CAP	Corrective Action Program Report
CFR	Code of Federal Regulations
CS	Containment Spray
EDG	Emergency Diesel Generator
ESW	Emergency Service Water
FASA	Focused Area Self Assessment
IA	Instrument Air
IMC	Inspection Manual Chapter
IPE	Individual Plant Examination
MSIV	Main Steam Isolation Valve
NCV	Non-Cited Violation
NOS	Nuclear Oversight
NRC	Nuclear Regulatory Commission
OE	Operating Experience
PI&R	Problem Identification and Resolution
RBCCW	Reactor Building Component Cooling Water
ROP	Revised Oversight Program
SDP	Significant Determination Process
Vac	Volts Alternating Current
Vdc	Volts Direct Current